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COMMISSION STAFF WORKING DOCUMENT

National measures in support of ERA Member States of the European Union

Accompanying the document

REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

EUROPEAN RESEARCH AREA PROGRESS REPORT 2013

{COM(2013) 637 final}

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| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | The National Research, Technological Development and Innovation Strategy "Becoming an Innovation Leader: Realising Potentials, Increasing Dynamics, Creating the Future" | 2011 | The Austrian Research, Technological Development and Innovation Strategy "Becoming an Innovation Leader: Realising Potentials, Increasing Dynamics, Creating the Future" was published in March 2011. It introduces a coordinated vision and strategy across all ministries in charge of RTDI and identifies new challenges. Also in 2011 a Task Force of senior officials was put in place to coordinate activities from the strategic perspective and monitor the implementation of this strategy. Nine inter-ministerial working groups were established which are active from 2012 on. These working groups focus on "climate change & scarce resources", "quality of life and demographic change", human potential, research infrastructures, knowledge transfer and start-ups, business enterprise research, "internationalisation & external dimension" and "Action Plan: Austria and the European Knowledge Area 2020" and international rankings. This strategy builds on the exchanges of ideas among the most relevant stakeholders and an analysis of the innovation system as a whole: The Austrian "Research Dialogue" (2008), the "System Evaluation" of the R&D support and funding system (2009), and the Strategic Recommendations of the Austrian Research and Technological Development Council ("Rat für Forschung und Technologieentwicklung") (2010). In addition, the Austrian Council for RTD as an independent scientific and technological advisory body has the main task to monitor progress of the strategy's implementation and reports to the Parliament (National Council) on an annual basis. |

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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Revision of the Federal law on the organisation of universities and their studies (Austrian Universities Act) Revised university financing provisions | 2013 | §14d and §14e of the Universitätsgesetz 2002, last amended in 2013, regulates University funding for Austrian Universities. \$ 14f regulates the implementation plan. Universities receive their global budget (institutional funding) in a procedure which is determined every 2 years by performance contracts. The global budget consists of three parts: 1) Budget for teaching, 2) budget for research and advancements in arts, 3) budget for large scale research infrastructures. Universities are free to use any part of the budget as they deem it appropriate - the major aim is to fulfil the performance contract made between the ministry and the individual universities. The budget for (2) is based upon a) An amount depending upon the number of students per research area, applying a specific weighting, b) a competitive oriented research indicator, and c) a strategic budget depending on societal objectives to be pursued by universities. Full implementation of the institutional funding model is foreseen for the performance contract period 2019-2021, for period 2016-2018 up to 60% of university funding will be based upon this model. An additional EUR 1 billion especially for universities over the years 2013 to 2016 were injected in the science system, with part of those funds (€450m) allocated on the basis of efficiency criteria ("HEA structural funds"). |

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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Performance agreements of the Federal Ministry for Science and Research with the Austrian universities and the Austrian Academy of Science | 2006 | §13 of the University law defines performance contracts between individual universities and the Federal Ministry of Science and Research. Last changes made in 2013. Performance contracts exist since 2006 by law - concrete implementation since approximately 2009-2010. The negotiation of performance contracts is a basis for allocation of institutional budget for Austrian Universities. Performance contracts are being negotiated every two years. They comprise the following dimensions: 1) strategic orientation and personnel development of university; 2) Research projects and research programmes; 3) study programmes and advanced vocational training for university members; 4) Measures to reduce nr. of students quitting studies without degree; 5) Measures to improve student/teacher ratios; 6) Measures for part-time students; 7) societal objectives; 8) Increased internationalisation and mobility; 9) Inter-university cooperations; 10) definition of indicators for each performance area, on which degree of fulfilment of performance areas can be measured. The performance contracts and the funding system which has an implementation period of 2013-2020 comprises a set of indicators, upon which funding is based upon. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Quality Assurance Framework Law established the Agency for Quality Assurance and Accreditation Austria | 2012 | In March 2012 the "Quality Assurance Framework Law" established the Agency for Quality Assurance and Accreditation Austria. It is responsible for external quality assurance in the Higher Education sector. The mission of the Agency is to provide institutional and programme accreditation, audit, evaluations, studies and projects, information and supervision. |

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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Updated evaluation standard published by the semi-public Platform Research & Technology Policy Evaluation (FTEVAL) | 2012 | In late 2012, the Platform Research & Technology Policy Evaluation (FTEVAL) published its new standards for evaluations in the field of STI policy. Among other things, the standard provides support for formulating Terms of Reference (TOR), for drafting evaluation systems, support for outlining the design of a specific evaluation and comprehensive information about evaluation approaches and methodologies. These standards will impact on future institutional assessments and general evaluation practice in Austria on medium- and long-term. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Reform of the Austrian Academy of Sciences (OeAW) | | A multi-annual Performance Agreement, which features a concentration of the OeAW's research activities on six major thematic priority research areas. For a three-year period, a global budget of € 224 m has been agreed upon. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | The Austrian Research, Technological Development and Innovation Strategy "Becoming an Innovation Leader: Realising Potentials, Increasing Dynamics, Creating the Future" | 2013 | As part of the national RTI strategy, funds supporting R&D are allocated on a competitive basis using international peer review procedures. The specific potential of expanding these principles to additional areas of the national research system will be analysed. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core | International peer review in the Austrian Research Promotion Agency (FFG) and the Austrian Science Fund (FWF) programmes | | The majority of public funds aiming at scientific excellence and basic research and lately also knowledge transfer are based on international peer-review. In 2011, core principles of international peer review procedures |

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| | principles of | 9 | • | were in use. In particular peer review methods are applied |
| | international peer | | | in cooperative funding programmes (e.g. thematic |
| | review | | | competitive calls, COMET). The international peer review |
| | | | | procedures are being improved continuously. |
| | | | | Overall principles for selection procedures are detailed in |
| | | | | the FTE-Richtlinien (Richtlinien zur Förderung der |
| | | | | wirtschaftlich-technischen Forschung und |
| | | | | Technologieentwicklung) (2007) in paragraphs 2.2. |
| | | | | (evaluation) and paragraphs 5.2 |
| | | | | (Verfahrengsgrundsätze=procedures for application and |
| | | | | decision processes). Procedures concern processes and |
| | | | | documentation of project applications and funding |
| | | | | decisions that have to be applied. Major principles include: |
| | | | | Transparency about decision processes, i.e. evaluation |
| | | | | criteria have to be specified, evaluation processes have to |
| | | | | be specified; evaluation results and explanations thereof |
| | | | | have to be provided to the applicants. |
| | | | | The Austrian Science Fund, the main agency for funding |
| | | | | academic oriented research, has implemented a purely |
| | | | | international oriented peer review system, following |
| | | | | highest international standards. |
| | | | | Specific guidelines for the FFG are regulated in the legal |
| | | | | base FFG-Richtlinien (2008). For Austrian Research |
| | | | | Promotion Agency for each programme a set of specific |
| | | | | selection criteria are set up, which fit the objectives of the |
| | | | | programme. The FFG-law stipulates, that all FFG-funding |
| | | | | decisions have to be taken upon the principles of |
| | | | | Transparency, impartiality, and fairness. The FFG- |
| | | | | Directives of 2008 provide clear regulations on application |
| | | | | and funding decision procedures. Research quality, is usually a core selection criteria in all programming |
| | | | | |
| | | | | documents. |

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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Austria is leading the JPI Urban Europe and is participating in 6 more Joint Programming Initiatives | 2013 | Contribution to the activities of the JPIs like: Joint Calls, development of Joint Strategic Research Agendas (SRA). Alignment of research funding (national and European) is an element of the national strategy. Within the NRP 2013 there is commitment to consistently increase participation in JPIs. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | National financial commitment and lead in coordination and support action (CSA) "JPIs to Co-Work" | 2010 | In 2010, Austria committed to taking the lead in the coordination and support action (CSA) "JPIs to Co-Work", focusing on framework conditions for Joint Programming. The first results of this project suggest that: implementation activities are mostly not yet fully explored; funding modalities are not yet defined; in general, alignment of funding sources and rules is still low and the benefit of participation for programme owners seems to require further attention. |

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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation in Article 185, JTIs and Joint Undertakings, including funding of ENIAC and ARTEMIS Participation in SET-Plan Activities | 2013 | Austria participates to a large number of ERA-nets, INCO-nets, European Science Foundation programmes, JTIs, including funding of ARTEMIS and ENIAC, five Article 185 initiatives while leading one of them, and in seven Joint Programming Initiatives while also leading the JPI Urban Europe. Austria participates e.g. in the areas Smart Grids, Smart Cities, EERA (European Energy Research Alliance) as well as in der SET-Plan Steering and Sherpa Group. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Establlishment of a Climate Change Centre Austria (CCCA) | 2011 | The CCCA has been established as coordinating facility to promote and support climate research in Austria with particular focus on Strengthening the climate research landscape in Austria, facilitating the education of a new generation of researchers and supporting knowledge transfer and advising politics and society. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | D-A-CH Cross-border funding agreement, a cooperation activity between (basic) research funding agencies in Germany, Switzerland and Austria. Similar agreements exist with France, Slovenia, Hungary, UK (only for social sciences), Luxembourg, Belgium, Czech Republic. | 2008 | Within the D-A-CH agreement between Germany, Austria and Switzerland, namely the German Research Foundation (DFG), the Austrian Science Fund (FWF) and the Swiss National Science Foundation (SNSF) have agreed to follow a lead agency principle for research projects with participants of at least two of the three countries. Within the "Lead Agency Procedure" (since 2008) it is possible to submit a joint transnational application to a single funding organisation (the Lead Agency) in accordance with this |

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| | | | | organisation's guidelines. The Lead Agency will review the application and will reach a funding decision in accordance with its national procedures. The funding organisations of the remaining countries participating in the project will decide on the basis of the review documentation and the decision provided by the Lead Agency and if the application is approved they will fund the participant(s) in their countries according to their national guidelines. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Classical bilateral programmes (Memoranda of Understanding) | 2012 | This type of programme serves to fund bilateral collaborations in cases where the two national subprojects are so closely connected that they may only be performed in conjunction with one another. Examples: bilateral calls for applications with Russia (RFBR), China (NSFC), Japan (JSPS), Korea (KRF), Taiwan (NSC), etc. Intergovernmental bilateral S&T agreements with China, FYR of Macedonia, India, Croatia and Ukraine. New or reinforced bilateral cooperation in 2012 with Slovenia, Slovakia, France, China, Saudi Arabia, Albania, Singapore, Montenegro and Indonesia. Bilateral agreements are not only at federal government level, but also cooperation on university or public research organisations levels. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | The Austrian Research, Technological Development and Innovation Strategy "Becoming an Innovation Leader: Realising Potentials, Increasing Dynamics, Creating the Future" | 2013 | The improvement of national research infrastructures as well as Austria's integration and commitments to international infrastructures (e.g. ESFRI) are among the policy priority outlined in the national RTDI strategy. This is the focus of one of the inter-ministerial working groups of the Task Force established for the strategy's implementation. |

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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Participation in ten ESFRI Initiatives and eight additional research infrastructures of pan-European interest. | 2013 | Austria participates in international large-scale research programmes and infrastructures, ten of which are ESFRI initiatives, such as the European Laboratory for Particle Physics of the European Organisation for Nuclear Research (CERN), European Synchrotron Radiation Facility (ESRF), International Centre for Mechanical Sciences, Energy and Environment, Fluid Mechanics (CISM), Institut Laue-Langevin (ILL), Synchrotron Light Laboratory (ELETTRA), but does not host any such infrastructure. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Draft national roadmap for for the building of new infrastructures and link to ESFRI. | 2011 | The inter-ministerial working group (set up under the Task Force for the RTDI strategy) has suggested a research infrastructure roadmap to the government. |

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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Establishment of a repository of research infrastructures in Austria | 2011 | A national RI repository for all RI at publicy financed research institutions was established as an information source for further financial commitments. An Open for Collaboration tool was set up for its continuous improvement. Additionally, Austria participats to the MERIL portal. The existence of the repository and the participation to MERIL support cooperation and access to national RI. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Revision of the Federal law on the organisation of universities and their studies (Austrian Universities Act) (revision of/amendment to the original 2002 law, Bundesgesetz BGBl. I Nr. 81/2009) | 2009 | Since 2009, Austrian university laws (revision of/amendment to the original 2002 laws, Bundesgesetzes BGBl. I Nr. 81/2009) require public research institutions to advertise for research positions internationally. However, it is up to autonomous research institutions in Austria to publish job vacancies in English, systematically establish selection panels, establish clear and transparent rules for the composition of selection panels etc. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Implementation of the provision of the Scientific Visa Directive 2005/71/EC and recommendations 2005/762/EC and 2005/761/EC | | General immigration procedures for researchers from all over the world have been facilitated in 2008. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Recognition ("Nostrifizierung") of foreign diploma or training qualifications | 2011 | The faster recognition ("Nostrifizierung") of foreign diploma or training qualifications has been implemented. This does not comprise academic degrees. |

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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | The brainpower austria programme; the Career Grants Programme; various grants and scholarships | | Such programmes and grants aim at attracting expatriates and foreign researchers (for the former one) to pursue research in Austria. Although these measures are implemented by different organisations, information is accessible through a single web-based platform: http://www.grants.at. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | D-A-CH Cross-border funding agreement, a cooperation activity between (basic) research funding agencies in Germany, Switzerland and Austria | 2003 | The DACH-agreement between the main (basic) science funds from Austria, Germany and Switzerland allows grant portability between these 3 countries to a very high extent ("Money follows researcher"). |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Research fellowships and programmes administered by the Austrian Academy of Sciences (ÖAW) - APART, DOC and DOC-fFORTE Programmes; FWF programmes | 2009 | Research fellowships and programmes administered by the Austrian Academy of Sciences (ÖAW) may be used either domestically or abroad. In general, Austrian researchers are allowed to move their grant to another ERA country and this is decided mostly on case-by-case basis. Applicants applying to the FWF for individual grants must have been living in Austria for at least three of the last ten years at the time the application is submitted (principle of territoriality). (Deloitte) The following programmes administered by the Austrian Academy of Sciences are open to non-residents: APART, a programme for post-docs from any discipline, is open to Austrian citizens and anyone else planning to carry out their research project at a research institution in Austria; DOC, DOC-fFORTE or DOC-team, programmes for doctoral candidates, are open to Austrian citizens or anyone enrolled in a PhD programme at an Austrian university. (Deloitte) |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Austrian Science Fund (FWF) projects | | Grants have been largely made portable as part of Austrian Science Fund (FWF) projects carried out through the EUROHORCS (European Heads of Research Councils) initiative called "Money follows researcher". |

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| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan-European EURAXESS network | National EURAXESS portal | | Austria participates in the EURAXESS initiative with a national portal. The Austrian Ministry of Science and Research actively promotes the EURAXESS Jobs portal via brochures, flyers, and newspaper advertisements in order to raise awareness of the European job database among universities and public research organisations. The EURAXESS Jobs portal offers a cost-free platform for posting jobs internationally. In 2010, over 525 jobs were published on the portal which is an increase of more than 50% in comparison to 2009. More than 250 Austrian research institutions registered by the end of 2011 (Deloitte 2012, Austria country report), including more than 25 universities and universities of applied sciences. The Austrian Bridgehead Organisation and all EURAXESS Services Centres and 14 out of 32 Austrian Local Contact Points have signed the Declaration of Commitment by mid 2010. Through EURAXESS web information is provided for incoming researchers concerning residence and employment and a respective guidebook as well as information for taxation of income of researchers in Austria. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | FWF structured doctoral programmes | 1998 | A very well established funding programme to develop Human Resources is the Doctoral Programme of the Austrian Science Fund (FWF). It forms centres of education for highly qualified young scientists/scholars from the Austrian and international scientific community. |

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| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Marietta Blau grant scheme | 2010 | Since 2010, the Marietta Blau grant aims at generating internationally competitive PhD diplomas in Austria. It offers financial support to highly-qualified doctoral candidates at Austrian universities for carrying out the abroad part of their doctoral programme (6-12 months). Monthly grant volume is up to €1,200. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | sub auspiciis Praesidentis grants | 2012 | This is a small-scale grant scheme for excellent post-docs, €9,000 for 2 years. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Performance agreements with HEIs for 2010-2012 and 2013-2015 - Application of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers | 2013 | The principles of the Charter & Code have been integrated in the performance agreements with HEIs for 2010-2012 and 2013-2015. 31 Austrian research institutions, including all major Austrian Universities, the Austrian Science Fund and a number of relevant public research organisations have undersigned the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. The implementation of the 'Charter & Code is part of the National Action Plan for Researchers. The Medical University of Graz, as the first institution in Austria, has been recently acknowledged as "human resources excellence in research" following the EC's five stage certification process under the human resource strategy 4 researchers. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Federal Constitutional Act (BV-G) and Federal Budget Act (BHG) Federal Equal Treatment Act and equivalents at regional level | 2013 | In the course of the new reform of budget laws, gender budgeting and gender equality were laid down in the Federal Constitutional Act (BV-G) and Federal Budget Act (BHG). On this basis, a gender equality objective was developed by all ministries. Federal finance law 2013 (Bundesfinanzgesetz für das Jahr 2013) stipulates the following objectives in respect to gender equality in Science and Technology: a balanced representation of women and men in academic leadership positions and boards as well as in young scientist positions; better usage of skilled labour in Austria especially through raising the share of women employed in science, technology and innovation. It also provides for the promotion of Women in corporations with special focus on raising the share of women in state owned businesses in management, executive and board positions and enhancing their leadership competencies. The Federal Equal Treatment Act and its equivalents at regional level also address gender equality. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | The Charter on the Compatibility of Family and Career, The National Action Plan (NAP) for Gender Equality in the Labour Market, The Care Allowance Reform Act 2012 and The Care Allowance Act National policy on gender equality | | Laws require equal treatment for women and several provisions are included to ensure this: maternity leave must not be a discriminating factor; long grace period for maternity leave; pregnancy automatically freezes temporary contracts; women have the right to return to an equal position to the one held before their maternity leave; women are entitled to have a part-time position when they end their maternity leave. Women researchers with employment contracts enjoy the same maternity benefits as any other employee: - Researchers are protected by Austrian employment law in the event of interruption of a contract during maternity leave; - Career development programmes offer project leaders the possibility of interrupting and extending a project at no additional cost in the event of a maternity. In the NRP 2013 measure are envisaged for the closure of the income gap between women and men and work-life-balance. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Revision of the Federal law on the organisation of universities and their studies (Austrian Universities Act) (revision of/amendment to the original 2002 law, Bundesgesetz BGBl. I Nr. 81/2009) Regulation on formula based budgets for Austrian Universities (FBV) Regulation on intellectual capital reports for Austrian universities | 2009 | In the research field the objective is to attain gender balance in leadership positions and decision-making bodies and new measures were put in place in 2009 for public research organisations and higher education institutions, including implementation of gender monitoring with respect to recruitment as well as in governance entities, and targeted recruitment. The Regulation on formula based budgets for Austrian Universities (FBV) formulates the following indicators for social objectives related to promotion of women: Indicator 8 measures the share of women in grade A (full professors) positions and indicator 9 measures the number of women PhD graduates weighted by discipline of PhD study. The regulation on intellectual capital reports for Austrian universities (Wissensbilanz-Verordnung 2010 – WBV 2010) stipulates that universities have to provide indicators on share of women, gender pay gap, share of women and men in appointment procedures and budget for work-life balance measures. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: - remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality - address gender | Performance agreements with HEIs Performance agreements with Austrian Academy of Sciences (ÖAW) | | The Performance Agreements aim to improve the position of women at all career stages and in responsible positions in universities. In addition, they support work-life balance by offering child-care facilities, parental leave and flexible working hours. Universities receive funding against concrete statements announced in their Performance Agreements, including on 'Gender' budget and how they progress on gender equality. The Federal Ministry of Science and Research (BMWF) evaluates those performance contracts on an yearly basis against a set of indicators including on gender (career progress, 40% target etc.). In the first performance agreement (2012 to 2014) between the ÖAW and the Federal Ministry of Science and Research the affirmative action plan for women is in preparation and will be implemented 2014. Universities Act 2002 contains regulations concerning performance agreements between universities and the federal government: "The universities shall formulate their contribution to social progress. This includes measures to improve social permeability, to increase the proportion of women in leadership positions at universities, the promotion of female junior researchers in a targeted manner, the advancement of socially relevant areas of art, culture and research, and knowledge and technology transfers. "It also stipulates the establishment of Working Groups on Equal Opportunities in all Austrian Universities: "§ 42. (1) The senate of each university shall establish a working group on equal opportunities responsible for combating gender discrimination as well as discrimination on the basis of ethnicity, religion or conviction, age, or sexual orientation by university governing bodies and for advising and supporting the university's members and governing bodies in connection with these issues." |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | FWF structured doctoral programmes Hertha Finberg Programme and Elise Richter Programme | | A quote of 30% female scientists/scholars is targeted and achieved within the ongoing programmes of the FWF. Guiding principles for Doctoral Programs (DKs) by FWF Austrian Science Fund demand a gender-equal focus/orientation of applications: - gender relevant aspects in respect to research topics as well as in respect to working conditions and environment have to be taken into account. Gendergerechte Ausrichtung. The share of female doctoral students should at least be as high as the share of women graduating on Master level. Likewise should the share of women scientists involved in a Doctoral Program at least be as high as in the respective scientific discipline. The implementation of gender equality measures is an important criterion for the assessment of the quality of applications. The Hertha Firnberg Programme exists since 1998. It supports women at the start of their scientific careers (two-stage funding for a maximum of six years). The Elise Richter Programme is aimed for senior post-docs and helps them acquire the necessary qualifications to apply for professorial positions within Austria or abroad. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | inter-ministerial action umbrella programme fForte (Women in Research and Technology), industry and PROs branch (FEMtech) | 2002 | FemTech is a line of fForte-programmes, and since 2011 a line of Talents Programme, mainly managed by the Ministry of Transport, Innovation and Technology (BMVIT, http://www.femtech.at/en/femtech.html). It seeks to increase female participation in industry innovation and applied sciences at PROs in the medium and long-run. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Gender dimension in fellowship programmes | | Women researchers enjoy a set of rights to interrupt or extend a contract in the event of maternity leave: - Fellowship programmes administered by the Austrian Academy of Sciences (APART, DOC, DOC-fFORTE, and DOC-team) allow women researchers to interrupt and extend their contract for a maximum of 12 months during maternity leave. Women researchers receive payments covered by the Austrian social security system Fellows (mothers or fathers) providing proof of care for at least one child under the age of seven are eligible for a part-time fellowship. The duration of the fellowship can be extended; - Persons receiving grants from the FWF are financed by means of employment contracts. This applies to doctoral students and incoming scholars as well. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | FWF general principles in decision-making procedures | | General Principles of the Decision-Making Procedure in the FWF: The share of women among reviewers should average at least 30% per year. In addition, efforts must be made to ensure that the panel at SFB and DK hearings includes at least two women as reviewers. At least one third of the members of these bodies should be women, and every effort should be made to ensure a maximum of diversity in terms of regions and institutions. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Working Group on Gender and Diversity Management | 2013 | Working Group within the Ministry of Science and Research, consists of members in top management positions within the Ministry of Science and Research and aims to implement diversity measures as cultural and institutional change initiatives in the ministry and in future also in public universities and research organizations. Diversity and gender measures increase equal opportunities, more innovation in decision-making, an open working climate and include minority groups. Diversity activities support a more flexible European labour market for researchers and an increase in the innovation potential throughout the research area. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Inter-ministerial action umbrella programme fForte (Women in Research and Technology), industry and PROs branch (FEMtech) | 2002 | Some fForte activities, i.e. specifically FEMtech ones, aim to increase female participation in industry innovation and applied sciences at PROs in the medium and long-run. These support activities include, among others, the FEMtech internships or FEMtech PhD grants, i.e. directly supporting internships or scholarships in applied sciences for female MINT (mathematics, informatics, natural sciences, engineering) students, or support PRO institutions implementing e.g. fair recruitment strategies etc Similarly, certain FEMtech R&D grants target gender-specific innovation since 2010, e.g. accounts for gender differences and its implications for product design. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | The Laura Bassi Centres of Excellence | | The Laura Bassi Centres of Excellence encourage cooperation between highly-skilled male and female researchers from academia and the private sector. More specifically, women scientists are encouraged to apply for top positions within the 'Laura Bassi Centres of Excellence' to address the shortage of women in scientific roles. These Centres have been evaluated recently. Evaluation results suggest that not only the female researchers' scientific achievements to date should be taken into account in the candidate selection process, but also capacity and potential in the areas of management, team leadership and career planning of the candidate. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | inter-ministerial action umbrella programme fForte (Women in Research and Technology), schooling branch Educational gender initiatives by BMWF | | fForte-programme activities support activities on school level encourage e.g. gender specific teaching schemes for MINT (mathematics, informatics, natural sciences, engineering) subjects at school, mainly driven by the Austrian Federal Ministry for Education, the Arts and Culture (BMUKK). Recent educational gender initiatives include additional funding by the BMWF for 2011 and 2012 aimed to strengthen general and female participation in MINT subjects, with a total extra budget of €40m. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Revision of the Federal law on the organisation of universities and their studies (Austrian Universities Act) (revision of/amendment to the original 2002 law) | 2011 | Sets 40% quota for underrepresented sex at Committees (management board, selection procedure, recruitment etc). Amendment of the Universities Act 2002 in order to increase female participation: a women quota in university committees of 40% is stipulated: "(6a) Both the senate and the Federal Government shall apply § 11 para. 2 subpara. 3 of the Federal Act on Equal Treatment in the Public Service by analogy when electing or appointing the members of the university council. The university council shall therefore consist of at least 40% women. If the required women's quota is not met, the working group on equal opportunities may raise an objection against the incorrect composition by 31 March of the respective year." "(3a) Both the rector and the university council shall apply § 11 para. 2 subpara. 3 of the Federal Act on Equal Treatment in the Public Service by analogy when suggesting or electing vice-rectors. The rectorate shall therefore consist of at least 40% women. If the required women's quota is not met, the working group on equal opportunities can raise an objection against the incorrect composition." "(7a) When appointing members of the collegial bodies established by the senate, § 11 para. 2 subpara. 3 of the Federal Act on Equal Treatment in the Public Service shall apply by analogy. The collegial bodies established by the senate therefore shall consist of at least 40% women. If the required women's quota is not met, the working group on equal opportunities may raise an objection against the incorrect composition." |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Performance agreements with HEIs | 2009 | Performance agreements aim for a 40% share of women in leadership positions and gender mainstreaming in university careers and studies. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Performance agreements with HEIs | 2012 | Austria supports open access in the frame of the performance agreements with universities. Activities concerning open access policies are up to individual research performing institutions and research funding institutions. Open access is granted to diploma thesis and PhD theses. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access Network Austria | 2012 | In 2012 the "Open Access Network Austria" (http://www.oana.at/en/home/) was established as a joint activity under the organisational umbrella of the Austrian Science Fund (FWF) and The Austrian Rectors' Conference (UNIKO). The network comprises of representatives of all public universities, many private universities, universities of applied sciences, non-university research institutions, and funding agencies. Its main tasks include the coordination of and recommendations for the Austrian OA-task/ activities of the research institutions, funding organisations and research policies (incl. taking into account international developments) as well as positioning towards the information providers (mainly publishing houses). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Overarching laws on the research system Inter-ministerial working group "knowledge transfer and start-ups" | | Research funders and public research organisations are obliged by law to play a full role in supporting national innovation and competitiveness by fostering knowledge transfer. Knowledge transfer remains high on the political agenda, with the establishment in 2011 of an interministerial working group "knowledge transfer and startups" and introduction of new measures. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Performance agreements with HEIs Performance agreements with Austrian Academy of Sciences (ÖAW) | | In the ongoing performance agreements of BMWF with the Austrian universities and the Austrian Academy of Science, assurances were given that reliable and sustainable intellectual property and utilisation strategies would be developed that enable partners from the economy to formulate long-term research targets. At the universities and at the Austrian Academy of Sciences knowledge transfer and IPR Management are widely recognised as important objectives. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | General Programme of the Austrian Research Promotion Agency (FFG) | 2011 | The General Programme of the FFG has remained Austria's most important source of public funding for R&D carried out by industry in terms of funding budget, efforts to promote R&D in all economic sectors and industries, areas of technology, and sizes of companies. Various measures established during the last decade aim at academia-industry transfer of knowledge and technology: COMET, COIN, BRIDGE, Laura Bassi Centres of Expertise, uni:invent or most recently the thematic programme "Leuchttürme eMobilität" (Lighthouses of Emobility) and the Laura Bassi Centres of Expertise, which are applied industrial research facilities featuring a new research culture. Eight such centres have been approved so far. |

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| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Establishment of a national contact point (NCP) for IP management | 2010 | In 2010, a national contact point (NCP) was designated at the Federal Ministry of Science and Research to tackle IP management. The NCP's tasks include the coordination of measures regarding knowledge transfer between public research organisations and the private sector, including tackling trans-national issues, in liaison with similar contact points in other Member States. The NCP is assisted by the Federal Ministry of Economy, Family and Youth, the Federal Ministry of Transport, Innovation and Technology, and the Austria Wirtschaftsservice (AWS). More specifically, in order to follow up the IP Recommendation, the Austrian National Contact Point concentrates on the following tasks: Reviewing and reporting on measures taken in Austria to implement the Recommendation and Code of Practice; analysing IP data; inspecting, cleaning and modelling data with the goal of highlighting useful information; conferences and workshops to enhance collaboration between universities and industry; and it settles legal issues (consolidation of model contracts, development of guidelines). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Christian Doppler Research Association | | The Christian Doppler Research Association promotes the cooperation between science and business. Specifically, this takes place in specially established research units with fixed terms, in which application-orientated basic research is pursued: Christian Doppler Laboratories at universities and non-university research institutions, Josef Ressel Centres at universities of applied sciences. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Tax incentives for research | 2012 | In 2012 the research premium for companies has been increased from 8% to 10% |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | ACOnet "Österreichisches akademisches Computernetz" - member of GÉANT | | ACOnet is the Austrian Academic Computer Network (NREN) for science, research, education and culture. ACOnet offers its members high-performance access via the GÉANT pan-European data network to international academic networks. It is run by the Universitaet Wien and almost 80% of Austria's HEI are taking part to it. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | 2013 | ACOnet has also signed the partnership for eduGAIN in March 2013. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Research Strategy 2011-2015 | 2011 | Remains the main policy document: allows for PPP funding and the support of several calls for projects connected to its priority themes (GREENTIC, competiveness poles, RELIABLE programme, Employment-Environment Alliance etc.) |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Fundamental Strategic Research Fund | 2012 | Additional funds were made available for fundamental strategic research, hosting the virtual research institutes for life sciences (continuation, Euro 6 million per year) - which already funds research through competitive callsand sustainable development (creation, Euro 5 million per year). The fund will also accommodate the Walloon Institute for Sustainable Development. |

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|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Wallonia's Marshall Plan 2.Green | 2012 | Funding is allocated to competitiveness clusters, with additional support for public/private partnerships and to R&D programmes on subjects linked to the Research Strategy for, in particular, ICT, the environment and sustainable development, ageing and health. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Belgian Research Action through Interdisciplinary Networks (BRAIN_be) | 2012 | The Council of Ministers approved on October 2012 the launch of the first phase (2012-2017) of the recurrent Research Framework Programme BRAIN-be. The programme, which mobilises EUR 18 million/ year, is organised around six themes, is open to the participation of researchers and institutions form other countries on a cofunding basis and supports two types of research projects: network projects and pioneer projects. |

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|---|--|--------------------------------------|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | WAL-TECH | 2012 | Simplification of the institutional structure: the Walloon Government asked for 22 approved research centres to be brought together into 7 institutes, in order to simplify the landscape of these research centres and to guarantee cohesion among the subjects handled within them. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Flemish Parliament Act | 2012 | The Flemish Parliament Act on innovation was modified, whereby 3 elements were added: conditions for the support of the higher education sector (good governance, strategic planning, gender balance, reporting and science communication), the legal basis for subsidies for the special research funds, the legal anchoring of the programme for the support of young researchers. |

Belgium

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Monitoring and quality control of research performance of HEIs/PROs | | In Flanders, a Dutch-Flemish accreditation body carries out systematic review, primarily focused on education. Educational quality is monitored proactively, in consultation with all parties involved, and with increasing attention to the results of various external analyses and audits. The AEQES is the independent QA agency, full member of ENQA and registered on EQAR, which autonomously develops its procedures used for assessing the quality of teaching in bachelor and masters programmes in the HEIs recognized by the Wallonia-Brussels Federation. Although the 3rd cycle programmes are presently excluded from the scope of external evaluation of the AEQES, the current reference list of indicators used by the international experts' pools includes somehow the research dimension. A new reference list has been adopted in May 2012, which includes additional dimensions related to research including the articulation between research, training and learning. Furthermore, in a position paper adopted in June 2012 by the Steering Committee of the AEQES for further improving the QA system of the Wallonia-Brussels Federation, it is stated that the scope of QA should be formally extended to the 3rd cycle (doctoral training). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Universities funding in Flanders | | Additional funding for universities distributed based on an allocation key, which is partially based on scientific output indicators |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Block funding for HEIs in Wallonia-Brussels Federation | | Allocation on the basis of the number of students and full-time equivalent researchers and not on the basis of scientific performance indicators such as bibliometrics. Nonetheless some additional public funding tools for the HEIS, such as the ARC (Actions de recherche concertées) and the FSR (Fonds spéciaux de la recherche) are based on competitive peer reviewing procedures and take the excellence of the research production into account. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Peer Assessment of the Walloon regional innovation system (OECD) | 2012 | The principles of international peer review have been applied. The analysis has guided the Government in several areas of reform (with particular focus on the reorganisation of the innovation landscape in Wallonia). The peer review has supported the Government in its efforts to consolidate different policies (including competitiveness poles, integrated Research Strategy and the Creative Wallonia plan) |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Calls on international experts for the evaluation of fellowships and projects applications | | In Flanders, the Research Foundation – Flanders (FWO) calls on international experts for the evaluation of all applications, both fellowships and projects. These procedures are based on ESF's European Peer Review Guide. Furthermore, BELSPO procedures are ISO 9001 accredited |
| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | Brussels-Capital Region strategy for Research, Development and Innovation (RDI) - up-date | 2012 | The strategy focuses on the strategic sectors for regional investment within the framework of a strategy of smart specialization in line with the EU 2020 Strategy, the future HORIZON 2020 and the ERDF 2014- 2020, the strengthening of interregional cooperation and the long-term evaluation of research and innovation policy of the Region. |

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| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | Flanders : Smart Specialisation strategy concept paper | 2013 | Innovation policy is considered critical for a smart specialisation strategy and there are strong links with the various "innovatieknooppunten" (innovation hubs) and the work of the "innovatieregiegrpoepen" (IRG) (innovation steering groups) on the one hand and the VRWI foresight study on the other hand. |
| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | Indicators' database of BELSPO | 2012 | Creation of a database with indicators, based on the concept of Smart specialisation, as demanded by the federal government in Its "Plan de relance" of 2012 |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Adoption of a joint action plan shared by the governments of Flanders, Wallonia and the Wallonia-Brussels Federation for boosting economic activity through R&D | 2012 | The action plan provides for the launch of joint calls for submission of projects, strengthening collaboration between regional and community actions and definition of common positions, particularly at European and international level. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Grants to regional R&D performers in consortia | | The various Belgian governments are committed to support the participation of R&D performers in international networks, namely JPI's, ERA-NETs and EUROSTARS initiatives. In Flanders, project for participating in the EUROSTARS programme can be obtained from IWT (Flanders' innovation agency). In 2009-2012 the Flemish Government (IWT) supported 35 EUREKA projects for in total 31.5 million euro which is 48% of the total project amount. On average, 7.9 million euro is awarded annually to Eureka projects (including the EUROSTARS initiatives). The IWT launched a call for support to technology-driven roadmaps for the 6 Key Enabling Technologies initiated by a consortium of Flemish companies. Wallonia co-funds projects by giving grants to regional R&D performers in consortia (€6.8m in 2010 and €5.9m in 2011) and takes also part in the Eurostars initiative (art.185 initiative) (€3.2m in 2010 and 1.4m in 2011), where up to €1.5m is exclusively directed towards Walloon SMEs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint call Belgium/India | 2011 | Within the framework of the agreement between Belgium and India on cooperation in the field of R&D, the second 'Joint Commission' meeting, held in Delhi on April 13th, 2011, decided to organise joint calls for proposals for networking activities. In August 2012 the first call was launched. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Lead agency agreements | | The Research Foundation Flanders (FWO) has concluded Lead Agency agreements with Luxembourg and Slovenia as a model of cross border collaboration. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Joint call for micro awareness-raising projects in 2011 called 'Later, I will be Einstein or Marie Curie' Regions Wallonia/ Brussels and French speaking community | 2011 | Acknowledge the need to promote scientific studies among young people and the added value of conducting a joint action on this topic. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Joint call for RDI projects- WB GREEN (Brussels Region and Wallonia) | 2012 | Organisation of joint call for proposals between RBC and Wallonia Region (projects in sustainable development). |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Wallonia Creative District | | Wallonia is one of the 2 winners of the "European Creative Districts" call for proposals, launched by the DG Enterprise and Industry of the European Commission in the context of the CIP (Competitiveness and Innovation Framework Programme). |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Flanders: Interreg programme participation | | Flanders is active in several EU Interreg projects in future- oriented domains. Examples are BioBase Europe (bioeconomy), NanoSensEU (nanotechnology) or Waterstofregio (Hydrogen Region, a finalist of the EUROSTARS AWARD 2012. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | International research collaborations | | In Belgium transnational cooperation is being executed via various channels: participation in supranational / international programmes or initiatives (EU, UN, OECD), structural or ad hoc policy initiatives with (priority) partners; bilateral research cooperation; funding of cooperation exchange projects; lead agency agreements; public support to initiatives of / access for STI-actors in international initiatives or programmes, etc. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Bilateral agreements for economic, industrial, scientific and technological cooperation with third countries | | The Federal Science Policy Office is responsible for coordinating the preparation and follow-up of the scientific part of the bilateral agreements for economic, industrial, scientific and technological cooperation that Belgium concluded with a number of third countries (China, India, and Vietnam) |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | International cooperation agreement between Brussels and foreign actors | | The cooperation agreements allow Brussels's universities to perform students' exchanges, to organise post-doctoral schools and programmes, to exchange staff and to build EU and international projects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--------------------------------------|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Participation in the ESFRI roadmap | | Belgium participates in the following ESFRI infrastructures: INSTRUCT, PRACE, SHARE-ERIC BBMRI (already operational agreements). The Federal authority will cover the national contributions to those infrastructures. Still in preparation is the participation of Belgium in ESSurvey, CESSDA, ICOS, LIFEWATCH and ELIXIR. For CESSDA, ICOS and LIFEWATCH, an in kind participation of federal scientific institutes is planned. There is also a common interest of the various entities (Federal State and Regions/Communities) for ECRIN, EATRIS, DARIAH. The Belgian federal project MYRRHA is in its preparation phase (2010-2014) with a total budget of ca 100 MEUR, of which 60 M EUR paid by the Federal Government (Science Policy and Economy). The creation of an international consortium is actively pursued. The ERIC legal framework would be the preferred status. |

Belgium

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Financing of research infrastructure investments | | At regional level, there are specific measures that finance research infrastructure investments (such as, for instance, the Hercules Foundation and the FWO's Big Science programme in Flanders and the Athena Budgets managed jointly by Wallonia and Wallonia-Brussels Federation since 2011). In particular, the regional Flemish investments in research infrastructures are significant: the Hercules Foundation for large infrastructures received €5m additional funding for 2012-2016. The FWO's Big Science programme funds Flemish research groups' research programmes in large European research infrastructures, such as CERN-CMS, CERN-ISOLDE, the Mercator telescope, ESRF Dubble, Spiral2 and IceCUbe. Moreover, the Finance Fund for Paying off Debts and Investments (FFEU) also aims at research infrastructures, it invested for instance €45m in the marine (VLIZ), energy and environment (VITO), ICT (Flemish Supercomputer Centre), medical and educational infrastructure. In line with the new Research Strategy 2011-2015, Wallonia and the Wallonia-Brussels Federation have set up the Athena fund in 2011 with a joint budget of €6m for research infrastructures. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Debate on participation in the ESFRI roadmap | | Ongoing national debate on the approach regarding the participation in the ESFRI roadmap with a clear division of responsibilities and guiding rules. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | 'Wallonia-Brussels Partnership for Researchers' | 2012 | The partnership promotes the open and merit based recruitment of researchers |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Opening up recruitment of researchers | | Contributes to the simplification of procedures and better use of EURAXESS by opening job offers and improving the Belgian site. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Measures to attract Belgian researchers who settled abroad | | Several measures exist to attract Belgian researchers who settled abroad: return mandates form BELSPO, scientific impulse mandates - ULYSSE from the Wallonia-Brussels Federation's F.R.S-FNRS ("Fonds de la Recherche scientifique" and Fund for Scientific Research) and the FWO's programmes for the Flemish Community (Odysseus, visiting postdoctoral fellowship and Pegasus Marie Curie), as well as measures in the Brussels-Capital region ('Brains Back to Brussels', 'Research in Brussels'). |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Reform of F.R.S-FNRS | 2010 | The research funding agency of the Wallonia-Brussels Federation F.R.S-FNRS reformed its recruitment system in 2010 throughout the selection process. The reform: - eliminates the age criterion formerly applied to applicants for F.R.SFNRS mandates; - provides pre-defined evaluation criteria that are communicated to the candidates in advance; - provides candidates with feedback; - develops an evaluation procedure for the selection of projects that involves more external experts from outside the Wallonia-Brussels Federation; - advertises the calls for candidates and the mechanisms for obtaining a mandate in FRS-FNRS/Associated Funds more widely on different internet portals (FRS-FNRS, EURAXESS, etc); - provides a renewed internet portal containing information of better quality on the F.R.SFNRS procedures of the (mechanisms, calls, results, etc). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Scheme FIRST International | | In Wallonia, the scheme FIRST International allows Walloon companies and research centres to collaborate with foreign research organisations, which will host a researcher for a minimum of six months. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Initiative EUROHORCs | | The F.R.SFNRS are amongst the participating organisations of the initiative EUROHORCs. In order to remove mobility barriers for European researchers, EUROHORCs partners agreed on authorising researchers moving into partnering countries to take with them the remainder of a current grant. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Flanders implementation of Science Europe roadmap | | In Flanders, the FWO has underwritten the Science Europe roadmap, which is the result of an update of the former EUROHORCS roadmap. FWO fellowships are open to all nationalities, except for the pre-doctoral grants where a Master's degree from a university of a European member state is required. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess Belgium | | Several actions are planned to simplfy procedures and facilitate the use of EURAXESS for job vacancies. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Reinforced Joint Action Plan between Wallonia, the Wallonia-Brussels Federation and the Brussels-Capital Region | 2012 | The Joint Action Plan focuses on: - Development of collaboration in the area of researcher training and access to the job market for those with the title of Doctor. - Comparison, evaluation and possible harmonisation of different tools allowing doctorates to be carried out in business-university partnerships. - Bringing closer together the two interfaces connected to Industrial Higher Institutes. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Plan Creative Wallonia | | Under the Plan Creative Wallonia, new approaches are developed in the field of awareness and in particular the implementation of multidisciplinary research initiatives and creative and innovative training. In particular, international PhD students and young researchers from abroad will be invited in Wallonia in order to benchmark the Plan Creative Wallonia with similar initiatives that exist in their country, and write a collective report about it. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Training young researchers and opening up career prospects | 2011 | Since 2011, the Flemish minister for innovation has provided a yearly sum of EUR 4 million to reach the following objectives: train young researchers (doctoral schools); develop careers and open up career prospects; reinforce the international orientation of researchers' careers; cooperate within Flanders. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Improve objectivity and transparency of decision making on recruitment and researchers career paths, including equal opportunities | | Belgium has recognised the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers as a good basis for improving researchers' career prospects - ten institutions signed the Charter, including BELSPO, F.R.S-FNRS and the Rector's Conference of the French Community, the Flemish universities and FWO. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Research strategy 2011-2015 of Wallonia and the Brussels-Wallonia federation | 2012 | The strategy has introduced the Partnership Wallonia-Brussels for Researchers aimed at implementing the European Charter for Researchers. A sound monitoring of the Partnership implementation has been put in place i.e. via a dedicated steering group. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Brussels Capital region - DOCTRIS | | This programme aims to finance the PhDs' projects carried out in collaboration with a private company. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Flanders – Baekeland mandates nnovation mandates | | Backeland mandates support inter-sectoral mobility by offering support to projects at the interface of companies and knowledge institutes. The "innovation mandates" (previously known as "research mandates") from the IWT (Flanders' innovation agency) provide support to postdoctoral researchers who wish to transfer, exploit and utilise their research findings, either through a collaboration with an existing company, or a new spin-off company to be established. |
| A more open labour market for researchers | Develop and implement structured programmes to increase mobility between industry and academia | Wallonia - Second "Public Private Partnership" (PPP) call | | The PPP allows for the financial resources of Wallonia to be put together with those of a company or research institution to meet the requirements of a technological breakthrough in a determined activity sector. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Collaboration agreement with the Flanders Scientific Research Fund (FSR) 2012-2016 | 2012 | The agreement specifically mentions the need for more (female) researchers, more international researchers and better research conditions in Flanders |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Gender at Universities high-level action group | 2013 | To ensure that gender policy at universities is developed bottom-up, the Flemish Interuniversity Council (Vlaamse Interuniversitaire Raad/VLIR) set up the Gender at Universities high- level action group. The group aims to improve the gender balance among professors, researchers and students by a gender action plan at the level of the universities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Maternity leave/Wallonia-Brussels Partnership | | In addition to social security provisions (including maternity leave provisions), the Walloon Government ensures that all researchers enjoy the same rights to grant extension and alternative incomes during maternity leave. The provisions are applicable to researchers with fixed-term contracts as well as grant beneficiaries. The F.R.SFNRS allows for an extension of a mandate or a grant when a fixed-term mandate or a grant is suspended due to maternity, paternal or adoption leave, for a period equal to that of the suspension. A replacement income is then provided by the health care mutual (as is also the case for open-ended mandates) and a complement is provided by the F.R.SFNRS to compensate for the loss of income. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Wallonia-Brussels Partnership for researchers | 2011 | The Wallonia-Brussels Partnership promotes gender equality and provides for the insertion of a "genre" approach in scientific careers and the perpetuation of 10 researchers in the FRS-FNRS. (Scientific Research Fund – National Scientific Research Fund) |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Flanders : Gender Action Plan | 2012 | End May 2012 the VLIR (Flemish' inter-university Council) submitted the Actieplan Gender Hoger Onderwijs (Action Plan Gender Higher education that increases the efforts of the universities of the Flemish Community to deal with the gender inequality. Also, regulation for the support to universities in the framework of the BOF (Special Research Fund) has been modified whereby universities must become more gender-friendly. The headmasters are required to submit (by early 2014) a proposal thereto. A partnership between the universities and the responsible ministers will be setup through a Charter. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Women and Science committee Wallonia-Brussels Federation | | The Wallonia-Brussels Federation has established a 'Women and Science' standing working group aimed at enforcing equality between men and women. The group's mandate is to implement the Wallonia-Brussels Partnership's actions on gender equality as well as the Walloon Government's Roadmap on equal opportunities. The "Women and Science" committee has recently approved the nomination of three gender contact person for each Wallonia-Brussels Academy. These gender contact person will be in charge of all matters relating to gender in their Academy. |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Minimum % of experts of the same sex in scientific evaluation panels | | In Flanders, the FWO makes sure that in its scientific evaluation panels no more than two thirds of the experts are of the same sex. Moreover, Flemish Minister for Innovation Ms. Ingrid Lieten has strongly encouraged the universities to increase their efforts in getting more women in university management. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Brussels Declaration on Open Access | 2012 | In October 2012, the three responsible ministers (federal government, Flemish and French Community) signed the "Brussels Declaration on Open Access" which promotes the OA as the default infrastructure for the dissemination of Belgian scientific research results. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access scheme | | All universities of the Wallonia-Brussels Federation as well as the F.R.SFNRS have adopted an Open Access Scheme (OA Green Repositories). The deposit of the papers is in most cases mandatory even if the access remains restricted by copyrights, where required. OA Green Repositories are generally used in the evaluation process of the researchers and follow the so-called "Liège Model" (Immediate Deposit / Optional Access). The University of Ghent (Flemish Community) adopted an Open Access scheme (a repository). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access awareness across the Belgian scientific community | | Ghent University Library is the Belgian partner in the DRIVER projects and created a Belgian repository community, DRIVER Belgium which is instrumental for developing Open Access awareness across the Belgian scientific community. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | "Innovation centre Flanders" - Concept Note | 2012 | The concept note boosts Flemish innovation policy by connecting it to the key economic and social challenges of the future. It defines 6 innovation hubs which were the subject of various initiatives in 2012. A call for social inclusion has been launched and a new innovation platform, "Sociale Innovatiefabriek" ("Social Innovation Factory") is being supported. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Excellence centres - Flanders | 2012 | Since 2012, a new structure has been adopted to integrate these centres into the framework of the thematic innovatieknooppunten ("innovation hubs") to allow raising sufficient levels of funding from industry by way of innovatieplatformen (innovation platforms). Also, the support contracts with several excellence centres were renewed (Flanders' Synergy, Flanders' Drive, VIM (mobility), VIL (logistics), FIS (design)), and also a new platform has been setup, on sustainable chemistry (FISCH). Upstream to the supply of knowledge, Flanders also supports its four strategic research centres In December 2011 three of them have been granted a renewed and extended Management Agreement for the period 2012-2016. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Public-Private Partnership (PPP 2012) Programme | 2012 | Contributes to ERA by supporting PPP to address grand challenges such as: Industry-science schemes like the FIRST schemes, consisting in the transfer of personnel between academia and industry, are also an important instrument of the regional policy-mix. In the Brussels-Capital Region, the Spin-Off in Brussels programme also supports the launch of spin-offs and the programme DOCTORIS was set up in 2011 to facilitate doctoral studies in enterprises and universities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Fostering the valorisation of research results in industry | | Since 1998, the Walloon government supports the reinforcement of the university-industry interfaces with specialised personnel in charge of fostering the valorisation of research results in industry. The DGO6 provides financial support to a total of 11 persons in charge of valorisation at the universities and university colleges. For Flanders, the Baekeland mandates support intersectorial mobility by offering support to projects at the interface of companies and knowledge institutes. Since 2012, Flanders has setup the SOFI fund (10 million euro budget) to support spin-off companies setup from research from the 4 Flemish strategic research centres. In 2013 the resources and the scope of SOFI increase: an extra 10 million is available to support spin-off companies setup from research conducted at universities and university colleges of the Flemish Community. Another initiative is Vinnof, to provide seed capital to innovative starters (preferably in future-oriented domains). Since many years, the Flemish Government supports the IOF (Industrial Research fund) and the Interfacediensten (Technology transfer offices) to manage and facilitate technology transfer. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Support of interface technology transfer offices | | The Brussels-Capital region supports the interface technology transfer offices of three universities as well as the Indutec interface that gathers together the four university colleges of the region. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Strategy for Scientific Research 2020 | 2011 | Remains the main policy document. The tendency is to increase the competitive public funding for R&D projects. The strategy sets five priority areas for development of research in Bulgaria: energy, energy efficiency and transport; development of green and eco -technologies; biotechnologies and bio-foods; new materials and technologies; cultural and historical heritage. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Fund Scientific Research | 2012 | Offers competitive grants for fundamental and applied research in priority areas 2012. Proposals were submitted only in Bulgarian, which prevents organising an international peer review. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Innovation Fund - competitive grants 2012 | 2012 | First new open call for proposals since 2008. The allocation of funding is based on evaluations following international peer review standards. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | OP Competitiveness | 2007 | Allocation of funding is based on international peer review evaluation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on Scientific Research Promotion | 2003 | Allocation of funding is based on evaluations following international peer review standards, introduced also by the Bulgarian Academy of Sciences |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on Higher Education | 1995 | The Law puts a focus on the quality of education and academic scientific research. In 2004 the National Evaluation and Accreditation Agency at the Council of Ministers was appointed "statutory body for evaluation, accreditation and monitoring of the quality of higher education institutions and scientific organizations". |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Draft regulation for monitoring and evaluation of scientific research activities | 2011 | Introduces the principle for international peer review |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Joint ESF and ALLEA International evaluation "Research at the Bulgarian Academy of Sciences" | 2009 | The evaluation mechanisms apply the best practices for international peer review. The evaluation has led to the restructuring and re-focusing of BAS research |
| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | Innovation Strategy for Smart Specialisation (draft) | 2013 | It will define the national and regional priorities in the area of innovation, in line with the Partnership Agreement concerning the use of the Structural Funds and the Cohesion Fund, where Bulgaria will propose two mutually complementing operational programmes in the R&D area in the period 2014-2020: "Innovations and Competitiveness" and "Science and Education for Smart Growth". |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Support to transnational cooperation | | Bulgaria takes part in FP7 where for the period 2007-2012, BGN 158.4 million was absorbed. Bulgaria is well positioned in some of the other on-going ERA initiatives i.e. COST actions, schemes under JRC, and schemes for coordination of national research programmes. As of the end of 2012, Bulgaria has taken part in 140 actions and 251 projects under the COST initiative, it has signed cooperation agreements with 14 countries, and agreements with another 3 countries will be signed. Under the FP7, 580 contracts were signed at a total value of BGN 158.4 million where Bulgaria's success rate is 16.6%, compared to an EU27 average of 21.8%. Financing has been provided to 130 bilateral cooperation projects for the period 2007-2012. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National research infrastructure roadmap | | Published in 2010 |

Bulgaria

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Roadmap for Scientic Infrastructure | 2010 | National support to investment in scientific infrastructure which defines the priority areas for development of scientific infrastructure. The Roadmap has allowed Bulgaria to be included in several European research infrastructure projects. Still, Bulgaria lacks financial, industrial and human potential for the construction and maintenance of big research infrastructures |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Bulgarian Rectors Conference | 2008 | The Bulgarian Rectors' Conference (as a collective body of the largest national university network) has signed the European Charter for Researchers and Code of Conduct. Still, there are no specific regulations or schemes for increasing the researchers' salaries. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Ordonance in accordance with European Council Directive 2005/71/EC of 12 October 2005 on a specific procedure for admitting third country nationals for the purposes of scientific research | 2008 | The ordonance includes a provision on the obligation for HEI and BAS to apply policies to remove barriers which hamper cross-border access to and portability of national grants |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS BULGARIA portal | | Bulgaria is part of the EURAXESS network for mobility of researchers. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Operational programme "Human resource development" (OP HRD) | | Supports the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training providing funds for mentoring, research training, etc |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Sofia Techno Park | 2012 | The project plans for an entrepreneurship training for young enterprising talents, scientists and R&D units with ideas with high innovative potential. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Support to doctoral training | 2012 | To foster the interest of young people who are completing their doctoral studies, and hence improve the age profile of people engaged in R&D, funding has been made available for one-month internships of doctoral candidates in high-tech R&D centres and infrastructure. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Harmonisation of strategic documents according to Council Directive 2000/78/EC of 27 November 2000 | 2000 | Provides for equal treatment of women and men in research. The restoration of the same position after maternity leave is guaranteed by law (until the child reaches 3 years of age). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Support to Open Access | 2014 | Support for building and maintaining high-performing computing infrastructure, Access to different network infrastructures like GRID networks, European digital data bases |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open access infrastructure for research in Europe (OPEN AIRE) | 2010 | Setting up of data repository of Open Access to research outputs, journal articles, conference papers and datasets of various kinds; six depositories are set-up in Bulgaria and linked to European repositories. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National digital library | 2006 | The specialized system DocuWare allows free access to digitalized originals. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Central library of the BAS | | Provides for free on-line access to on-line resources. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | The world's largest bibliographic database, providing the foundation of cooperative library services in metadata management, discovery, resource sharing and collection management (OCLC WorldCat® | 2008 | Support work together to improve access to the information held in libraries around the globe; reduction of the costs for libraries through collaboration. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Draft Law on Innovations | 2013 | It will adopt a modern organisation of innovation processes and eliminate the existing imbalances in the methods of financing research and innovation in enterprises |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | "Science-Business" project | 2011 | The project assists the participants in the scientific- innovative system in maintaining sound and flexible dialogue on issues and problems of common interest with view to overcome imperfect information and the lack of adequate environment, including a digital one |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Technology Transfer Offices | 2011 | Grant procedure to establishing New and Strengthening the existing Technology Transfer Offices in the amount of 5 M EUR |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | The amendments to the Act on Science and Higher Education | 2013 | Provides legal basis for reforming R&D system, including, among others, implementation of multiyear performance based institutional funding. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on Quality Assurance in Science and Higher Education | 2009 | The quality assurance of Croatian scientific and higher education sectors, coordinated via the activities of the Croatian Agency for Science and Higher Education (ASHE) (member of the ENQA – European Association for Quality Assurance in Higher Education and EQAR – European Quality Assurance Register) through its evaluations procedures ensures a favourable ratio of input/intake and output/outcome. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on Amendments and Supplements to the Law on the Croatian Science Foundation | 2012 | The amendments to the Act on the CSF were adopted in July 2012 by the Croatian Parliament and they place CSF as a central, independent seat for the concentration of the national financial instruments of supporting scientific project activities. An increase in size and relevance of scientific projects, support to excellent researchers and projects, set-up of national user labs, establishment of a matching funds scheme for EU framework programs, installation grants for young scientists and synergies with the Unity through Knowledge Fund (UKF – see below) are only some of the provisions implied in the new Act. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Strategy for smart, sustainable and inclusive growth (World Bank) | 2012 | The World Bank's analyses strongly supports the transition from the current mode of "per head" institutional funding towards the new performance-based institutional funding based on the "program contracts" between the MSES and PROI/HEI |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Second Science and Technology Project | 2013 | Carried out in collaboration with the International Bank for Reconstruction and Development. Funds are aimed at boosting the knowledge-based technological and innovation sectors in Croatia as well as at increasing the absorption capacities for EU funds. Part of the funds will also be dedicated to the programs of the Unity Through Knowledge fund (UKF) and programs of the Croatian Business Innovation Agency (BICRO). |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Unit through Knowledge Fund - Guidelines and Procedures Croatian Science Foundation - Evaluation Procedure Manual | 2007 | Provide definition of the evaluation procedures of research projects to allocate research grants and include respect of international peer review standards. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | IPA Programme | | Represents one of the main instruments of the cross border cooperation in Croatia. Its 2nd component devoted to the cross border cooperation which can be classified into the three categories: /1/ cooperation with the EU member states (Hungary, Slovenia) including transnational programme – ADRIATIC, /2/ cooperation with the EU non-member states (Serbia, Bosnia and Herzegovina and Montenegro) and /3 /transnational programmes - South East Europe (SEE) and Mediterranean (MED). However, IPA projects are not strongly focused on R&D. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation to intergovernmental organisations | | The Republic of Croatia participates in a number of intergovernmental organizations, including EUREKA, COST, EMBL/EMBO CERN, ERIC. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Regional Research and Development Strategy for Innovation for the Western Balkans | 2010 | Definition of the general strategy, common priorities and the working programme for promoting regional cooperation in South East Europe including research and innovation |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Establishment of the Committee for Scientific Infrastructure and preparation of the National Roadmap for Science Infrastructure | 2013 | Provide transparency and guidelines on existing and new national research infrastructures. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Participation in ESFRI | 2010 | Croatia is a member of ESFRI since October 2010 and participates in the four related projects: CLARIN, DARIAH, ESS and SERSIDA. The drafting of the National Roadmap is also currently underway. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Preparation of project pipeline for infrastructure projects for the European Regional Development Fund 2014-2020 | 2012 | Aims at preparing the project pipeline for infrastructural projects eligible for funding from the ERDF in the period of 2014-2020, with efforts to achieve smart, sustainable and inclusive growth and to be oriented towards the investments in development of scientific excellence and innovation and through development of infrastructure. These goals will be fulfilled by improving conditions for the transfer of technology and knowledge, by supporting research cooperation between industry and public research institutions and through sound development of scientific research and technological infrastructure which can contribute to ESFRI goals. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Action Plan for Mobility of Researchers 2011-2012 | 2010 | The Action plan further simplifies the participation of foreign scientists in research activities in Croatia and assists their job placement in Croatia. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Unity through Knowledge Fund programme Cross-border grants | 2013 | Aims at attracting promising research projects to Croatian companies and institutions |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Marie Sklodowska Curie COFUND_ NEWFELPRO | 2013 | Aims at fostering the mobility of young outgoing and incoming scientists as well as the repatriation of Croatian scientists. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS portal | 2007 | |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Implementation of the Charter & Code principles in Croatia | 2009 | 37 institutions included in Croatia's research and higher education system had signed the Declaration of Commitment to the Principles of the Charter and the Code. 14 institutions have conducted internal analysis on its implementation such as institute of Physics, Institute of Public Finance, Institute of Social Research. Eleven public and one private research organisation have completed the self-evaluation studies of existing human resources practices with the aim to carry out the action plans for human resources strategy for researchers. The University of Rijeka, which was the first research organisation to complete the implementation procedure and earned the EC HR logo. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | National Policy for Gender Equality 2011-2015 | 2011 | Obliges Croatia to the inclusion of the gender dimension in all policy areas |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | National scholarship programme "For Women in Science" of the L'Oreal Adria and Croatian Commission for UNESCO | 2012 | Promotes women scientists through scholarships for women researchers in the last phase of their doctoral dissertations in natural sciences and younger than 35. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Ordinance on the Office for Gender Equality | 2012 | Prescribes the scope of work of the Office for Gender Equality by calling the latter to conduct research and analysis in cooperation with NGOs and research performing organisations. |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | The Gender Equality Act | 2008 | Croatia is obliged to promote gender equality as specified by the law including the rule of "40% of participation" |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Action plan Science and Society | 2012 | Includes activities aimed at neutralizing the gender underrepresentation and inequality (particularly of women) in the research community, especially on high-level managing positions (The activity sets the goal to secure that at least 1/3 of women are represented in national and regional councils, scientific and political bodies). In order to increase gender equality the Action plan also includes the stimulation programme for women scientists. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Croatian Declaration of Open Access to Scientific Information | 2012 | Scientific information created by Croatian citizens should have open access. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Croatian scientific bibliography - CROSBI | 1996 | Open access to the entire Croatian scientific bibliography (all works published by the Croatian researchers) |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Hamster - Croatian scientific journals portal | 2006 | Provides open access to the Croatian scientific and professional journals |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Science and Innovation Investment Fund | 2009 | Projects financed under the Science and Innovation Investment Fund are aiming to facilitate technology transfer, academic entrepreneurship and engage PROs and universities in the local and regional development. |

Croatia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Second Science and Technology Project (STP) II | 2013 | Provides, among other, funding for Technology Transfer Office Program in order to enable them to perform commercialization related services for researchers and create pipeline of projects in R&D sector, ready to apply for available EU funds. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Unit through Knowledge Fund programme "Research in industry and academia grant" | 2007 | Supports inter-sectoral mobility between private and public sectors |

Croatia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Intellectual property policy for universities and research institutions Biosciences Technology Commercialisation and Incubation Centre – BIOCentre | 2012 | BIOCentar is a project aimed at supporting the creation and development of spin-offs based on technology and knowledge and stemming from public research organizations and higher education institutions. Through the provision of necessary infrastructure and access to technology and business development services, all the necessary conditions for doing business will be provided to small and medium-sized enterprises in the field of bioscience and biotechnology. It is an incubation center area of about 4500 square meters, the first center of this kind in the Republic of Croatia and unique project in the region, of a total value of about HRK 140 million, which will be located within the campus of the University of Zagreb in Borongaj. Incubation Centre for Bioscience and Technology Commercialization (BIOCentar) is the first major infrastructural project and a greenfield investment financed through IPA programme, IIIC Component. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | BICRO's programmes | 2013 | Aimed at managing state-supported technological activities, including technology transfer from academia to industry, set-up of start-up, spin-off and spin-out companies and similar activities |

Croatia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | The Croatian Academic and Research Network - CARNet | 1991 | Provides public e-infrastructure for the Croatian scientific community |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Regulations on the organization of authentication and authorization infrastructure of science and higher education in Croatia-AAI@EduHr | 2008 | Provision of the legal framework for developing authentication and authorization infrastructure for the Croatian research community |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | The Croatian National Grid Infrastructure (CRO NGI) | 2007 | The Croatian National Grid Infrastructure (CRO NGI) is distributed computing environment, consisting primarily of computer (processing) and data (disc and tape) resources, located in geographically distributed sites within the Republic of Croatia. CRO NGI is a common resource of the scientific and academic community and represents the fundamental infrastructure for the scientific research, the application of new technologies and the integration of Croatia and Croatian scientists into the European Research (ERA) and European Higher Education (EHEA) Area. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Innovation Strategy (under review) | 2013 | Contains proposals for the creation of new support schemes. The aim is to give the opportunity to all the enterprises, research institutes and public organizations to benefit from special schemes promoted with financing from the structural funds. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | DESMI Programme | | Represents the main means of disbursing competitive research funding and is designed and managed by the Research Promotion Foundation (RPF). Additional competitive funding for innovation, entrepreneurship and investments is distributed by the Ministry of Commerce, Industry and Tourism. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Enhancement of Business Innovation in Cyprus | 2012 | Provides funding for SMEs in research and technology for the development of market oriented competitive innovative products and services. |
| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | Smart Specialisation Strategy for Research and Innovation (under preparation) | | Will cover three key dimensions: -Research / Technological infrastructure -Linkages with the rest of the world as well as the position of Cyprus in the European and in the global economy, -The dynamics of the business environment |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint Research Agendas | | There are no joint research agendas addressing Grand Challenges, except in the context of ERAnets and JTIs. The small size of the research budget and the lack of interest from the side of the business sector are the most probably explanations of this gap. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Participation in Joint European Programmes | 2014 | Cyprus allocates funds to Joint European Programmes (EUROSTARS, Ambient Assistant Living, MED ERANET programme for cooperation in the Mediterranean network and Joint Programming Initiatives in cooperation with other participating countries in the areas of Agriculture, Food Security and Climate Change, Urban Europe, Water Challenges and Cultural Heritage). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Roadmap - under preparation | | RPF started preparing a national ESFRI roadmap but progress is subject to the constraints of public finance. Cyprus participates as a coordinator in 4 FP7 projects related to Ris through 5 HEIs and research organizations. Cyprus also participates in the European portal of Research infrastructure services with 3 RI |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Law N.29(I)/2009 Aliens and Immigration (Amending) Law of 2009 | 2009 | The Scientific Visa package helps researchers to obtain a permission to enter, stay and work in the European Union Member States for the purpose of carrying out scientific research for a short-term (up to 3 months) or long-term (more than 3 months). |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Programme for the Support of Young Researchers | 2000 | The programme offers funding and training opportunities and also encompasses the involvement of corporates in innovative activities. Areas of interest include Biotechnology, Energy, Environment, ICT, Nanosciences and nanotechnologies, Socio-economic sciences |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess Cyprus | | Contributes to the implementation of Euraxess services |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | HR Logo award - Action Plan of the Cyprus Institute of Neurology and Genetics & University of Cyprus for Charter and Code | 2010 | The initiative is developed in the context of the implementation of the European Charter for Researchers. The University of Cyprus and Cyprus Institute of Neurology and Genetics have been acknowledged for their progress in HR Strategy for Researchers and have been awarded HR Excellence in Research logo |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Law 205/2002 for equal treatment of men and women in the workplace (as amended) | 2007 | The law ensures equal treatment and opporunities of men and women in the workplace and in professional training |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Law 100/1997 for the protection of mothers (as amended) | 2011 | The law includes provisions for the protection of the employment rights of pregnant women, regulates maternity leave issues and working hours after they give birth. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Gender in EU-funded Research (Toolkit and Training) in cooperation with Yellow Window | 2009 | The training covered theoretical aspects of gender and research and provided practical guidance on how the gender dimension could be integrated in Health and Social Sciences. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Participation in COST Programme:"Gender, Society, Technology and Environment" Initiative | 2012 | Promotion of gender equality in research and technology. Operation of 3 working groups (WG1: Promoting Structural and institutional change, WG2: Promoting Gendered Innovations, WG3: Mapping Gender in environment-related Horizon2020 Grand Challenges). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open access repositories | 2013 | In April 2013, there were 3 open access repositories in Cyprus, all in Universities (Cyprus University of Technology, Open University of Cyprus, Cyprus University). 2 of the repositories provide access to digital collections and one repository (Cyprus University of Technology) provides access to research data |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Development and Operation of Enterprise Liaison Offices at the Universities Operating in the Republic of Cyprus | 2011 | Establishment (in process) and operation of the network of model offices for liaison between the academic and business worlds in the six Cypriot universities (University of Cyprus, Cyprus University of Technology, Open University of Cyprus, European University, Frederick University, University of Nicosia). The two pilot offices (University of Cyprus, Cyprus University of Technology) are more advanced. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | "Manufuture-CY" | 2012 | Represents a technology platform initiative for future industrial technologies, launched by the Ministry of Commerce, Industry and Tourism. Activities include information exchange, thematic training workshops, the production of position papers and other contributions of industrial policy, as well as new initiatives for the enhancement of cooperation between its members. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Digital Strategy | 2012 | Represents a comprehensive plan for the period 2012-2020 and adopts a holistic approach for the development of information society in Cyprus. It focuses on six strategic objectives, (i) Connect Cyprus, (ii) Modernize public administration and provide public electronic services, (iii) Inclusion of all into digital Cyprus, (iv) Education and learning, (v) Digital entrepreneurship, (vi) ICT for the environment. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Act No. 211/2009 Coll, amending Act No.130/2002 Coll. on the support for research and development from public funds | 2009 | In 2008 a comprehensive reform of the research, development and innovation system was launched and approved by Act No. 211/2009 Coll, amending Act No.130/2002 Coll. The reform: - defines new long-term national priorities for R&D&I (up to 2013); - establishes a singl advisory body responsible for the innovation policy (in a boarder sense) and for the coordination of public support in RDI; - increases the share of public funding allocated on competitive basis; - simplifies and decreases the number of providers of R&D funds: create the Technology Agency of the Czech Republic (TACR), which together with the already existing Grant Agency of the Czech Republic (GACR) should administer competitive funding instead of the ministries; -introduced a new national methodology for research evaluation based on quantitative indicators to allocate institutional funding on the basis of performance – and annual evaluation performed by CRDI; - links better research in the academia to industr; - ensures open access to the Research and Development Information System of the Czech Republic. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Council for Research, Development and Innovation (CRDI) | 2009 | As a result of the reform the Council for Research, Development and Innovation (CRDI) has been set in place as an advisory body of the government. It statue is defined by the Government Resolution No. 1457/2009 (Statute of the RDI Council of the Czech Republic). CRDI defines research priorities (through different committees); proposes the research budget and is also ultimately responsible for the evaluation of research institutions. It should also target funding of potentially strong and highly, globally competitive research fields and fields with strong potential for applications. Since the reform there has been a constant decrease in institutional funding from 56% in 2009 to 51% in 2012 and it is further planned to decrease to 47% in 2014 and 2015 (CRDI outlook for 2014). |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | GACR funding for excellence in basic research | 2011 | The Grant Agency of the Czech Republic - GACR - provides competitive grant funding for basic research using international peer review to guide the allocation of funds. The main funding instrument is a standard grant project, the call for which announced annually and can have duration of 1-3 years. GACR has an annual budget of CZK 3.3b (€132m) in 2013. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | TCAR programmes for applied research and development ALFA, BETA, GAMA, DELTA, OMEGA programmes, Competence Centers | 2013 | The Technology Agency of the Czech Republic - TACR - was established under Act No. 211/2009 Coll and provides competitive project-based funding for applied research and development. Currently there is a transition period where TACR takes over competitive funding administration form MEYS and especially MIT. The budget of TACR has grown significantly in recent years from CZK 0.9b (€34m) in 2011, to CZK 2.8b (€113m) in 2013. Among programmes funded by TACR are the ALFA, BETA, GAMA, DELTA (expected to start in 2014) and OMEGA programmes. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Other programmes providing competitive funding TIP programme | 2008 | Five ministries administer their own (small) competitive research funds in their domain: Ministries of Agriculture, Health, Defence, Interior, Culture, which seem to be mostly dedicated to immediate policy needs. A major part of competitive project funding for applied research is still administered by the MIT, primarily through the TIP research programme with a budget of CZK 3.0b (€121m) in 2012, which however has been significantly reduced in the medium-term budget plans and is going to expire in the coming years. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | GACR Postdoc grants | 1998 | GACR awards postdoc grants with limited funding on open, merit, competitive basis. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Act No. 211/2009 Coll, amending Act No.130/2002 Coll. on the support for research and development from public funds | 2009 | According to the reform amendment of Act. No 211/2009 Coll of the Act No. 130/2002 Coll, institutional funding is based on evaluation of research performance: the share of an institution on the total amount of institutional funding of research organisations in the given year corresponds to its share on the sum of research results of all research institutions/organisations in previous five years which is in turn based on annual evaluation performed by the CRDI. Between 2010-2013 block funding was almost entirely based on institutional assessment. The evaluation methodology was based on quantitative indicators. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Partial revision of the formula for allocation of institutional funding | 2012 | Over the period 2010-2013 the performance of research institutions was systematically evaluated on an annual basis using the current methodoloy ('methodika') and used by the CRDI as a starting base for the allocation of funding. However, 'methodika' in its enterity has been criticised by some stakeholders and by the independent international audit of the Czech research system (Arnold, E. 2011) due to the fact that it is based strictly on quantitative inicators which do not sufficiently reflect the quality of the S&T outputs nor the specificities of different scientific fields. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Future evaluation methodology and allocation of institutional funding | 2009 | A new methodology which will serve to allocate institutional funding is under development and should be finalised by 2014 to be implemented for the period 2014-1016. This new methodology should be a combination of new evaluation criteria and international peer review to better take into account the quality and relevance of the research performed. Its development is part of the government priorities to develop conditions for excellent research and responds to the Council Recommendation No 6 (from the specific Council recommendation for the Czech Republic dated 10 July 2012) asking for an effective system for evaluation and funding of R&D projects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation in Joint Programming EUREKA, COST | 2009 | The Czech Republic is participating in five Joint Programming Initiatives (Neurodegenerative Disease Research; Agriculture, Food Security and Climate Change; Cultural Heritage and Global Change; Healthy Diet for a Healthy Life; The Microbial Challenge – An Emerging Threat to Human Health) and there are programmes at national level which support research on topics relevant to the Strategic Research Agendas. Funding of common actions and alignment of national programmes to the SRAs are still under development. The Czech Republic also participates in in EUREKA and COST. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation in Joint Technology Initiatives | 2007 | The Czech Republic is also formally engaged in all five Joint Technology Initiatives (JTIs). Under two of them, ARTEMIS and ENIAC, MEYS also finances calls for proposals. The NRP 2013 states that the Czech Republic is interested in participating in the Cross-Thematic Contractual Public Private Partnerships and/or Joint Technology Initiatives (JTI), |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | National Research, Development and Innovation Policy of the Czech Republic 2009-2015 National priorities of oriented research, experimental development and innovations | 2012 | In the context of the National Policy of RDI 2009-2015 implementation, new long-term national priorities of oriented RDI were identified (period until 2030) in view of better targeting the six major societal challenges identified (competitive knowledge economy, sustainable energy and material resources, environment for quality life, social and cultural challenges, healthy people and secure societies). These are largely in line with the grand challenges. They were prepared by panels of experts at the end of 2011 and approved by the government in mid- 2012 (CRDI 2012). |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Member of intergovernmental organisations in ERA | | The Czech Republic is a member of most intergovernmental organisations in ERA as well as of projects of large European infrastructures (ESFRI). The Czech Republic participates European Space Agency, European Southern Observatory, European Molecular Biology Conference, the European Laboratory for Particle Physics of the European Organisation for Nuclear Research (CERN), European Fusion Development Agreement (EFDA) and others. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--------------------------------------|---------------|--|
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | GACR and TACR programmes | | In the frame of bilateral agreements, GACR and TACR (for the future DELTA programme with non-EU countries) recognise evaluations made by partner agencies as basis for national funding; however, it is not mandatory that the evaluation conforms to international peer-review standards, although this is typically the case. Regular funding is attributed through the GACR bilateral grants and comprises about 2% of GACR budget (based on agreements with the Deutsche Forschungsgemeinschaft, National Science Foundation of Korea and National Science Council of Taiwan). |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | International bilateral agreements | 2006 | The Czech Republic has bilateral agreements, either at inter-governmental or inter-institutional level, with India, Israel, South Korea, Russia, Argentina, China, and the United States. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | The Visegrad Fund | 2000 | The Visegrad fund promotes research cooperation with the Czech Republic, Hungary, the Republic of Poland, and the Slovak Republic. It provides research grants from a common pot contribution of all countries involved. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | National Information Centre for European Research (NICER) Czech Liaison Office for Research and Development in Brussels (CZELO) | 2005 | The National Information Centre for European Research (NICER) operated under the Technology Centre of the ASCR, It provides comprehensive support for the participation of national teams in international research cooperation, especially in the EU Framework Programmes. Czech Liaison Office for Research, Development and Innovation (CZELO) in Brussels supports the successful integration of the Czech research into the European research cooperation, particularly through the EU Framework Programmes for Research and Development. The office provides free services to researchers from all fields and all research bodies in the Czech Republic. CZELO is a project managed by the Technology Centre of the ASCR and financially supported by the MEYS. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Draft version of the Amendment of the Act No. 130/2002 Coll. On the support for research and development from public funds; 281th meeting of the CRDI on 29th March 2013 | 2013 | A draft Amendment of the principal law governing research and development Act No. 130/2002 Coll has been approved for releasing to the government at the 281th meeting of the CRDI on 29th March 2013. This draft amendment should allow to provide institutional funding for support of international cooperation in research on the basis of international evaluation (in order to conform to the Council Regulation 2009/723/EC from 25th June 2009 on ERIC). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Update of the Roadmap for Large Research, Development and Innovation Infrastructures | 2011 | In 2011 an update of the Roadmap for Large Research, Development and Innovation Infrastructures in the Czech Republic was released. It updates the roadmap approved by the Government in March 2010 as a strategic document for development of large infrastructures for research, development and innovation (RIs). |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Large Ris linked with ESFRI | 2010 | All the six large RI projects financed so far for a total amount of €835m (85% funded by the ERDF) had to have a partnership with ESFRI: ELI - Extreme Light Infrastructure (€271m); BIOCEV - Biotechnology and Biomedicine Research Centre (€92m); CEITEC - Central European Institute of Technology (€209m); Centre for excellence IT4Innovations (€72)m (e-infrastructure) ICRC - International Clinical Research Centre (€94m); and Udrzitelna energetika (€97m). Some other e-infrastructures were also funded: Czech Education and Scientific NETwork (CESNET) and CERIT Scientific Cloud. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Sustainability Programmes I and II | 2013 | Their future financing of RI projects was secured by launching the National program sustainability I and II financed from Structural Funds via MEYS, allowing also private funding to contribute to their operation. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | The Higher Education Act (Act No. 111/1998 Coll.) | 1998 | Higher education establishments and public research institutes are allowed to pursue fairly autonomous approach to recruitment of academic staff, including the appointment of professors and docents, which are decentralised even to faculty and department level. The Higher Education Act gives the task of appointing professors and obtaining venium docendi (habilitation) to the Scientific Board of the higher education institution. Foreign researchers, especially EU citizens, can be employed in academic positions. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Reform of Tertiary Education programme | 2013 | A draft amendment of the Higher Education Act (Act No. 111/1998 Coll.) was recently sent to universities, in line with the White Paper on Tertiary Education adopted by the Government in 2009. The draft amendment is not expected to alter the current system of recruitment but to simplify the recognition of university diplomas acquired abroad. |

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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Scientific Visa Package - transposed through Act No. 379/2007 | | The adopted Scientific Visa Package simplifies inward mobility of researchers from the non-EU countries. The act enables specific residence permits to be issued to third country researchers through a hosting agreement with a research organisation. Variuos research bodies can provide these (including public research institutions and HEIs), although they must first be accredited to do so. The hosting agreements allow researchers to bypass the need for a work permit and gain recognition as resident employees, with all the rights and benefits this entails, including cross-border mobility, within the EU, and certain guarantees on working conditions and social security. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | NAVRAT programme | 2011 | A new programme called NÁVRAT, i.e. "return in English", aims to improve conditions for re-integration of top researchers coming back from abroad. It was launched under the MEYS in 2011 and the first projects have been supported in 2012. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Fellowship J. E. Purkyně | 2003 | Fellowship J. E. Purkyně awarded at the ASCR aims to attract talented doctoral students from abroad. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | MOBILITY programme | | The MOBILITY programme supports short-term outward internships and bilateral agreements allow for exchange or university teachers and students (financed from Structural Funds). |

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| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Act. no 211/2009 Coll. that is the reform amendment of the Act No. 130/2002 Coll. | 2009 | According to Act No. 130/2002 Coll. on the Support of Research and Development from Public Funds and on the Amendment to Some Related Acts (the Act on the Support of Research and Development) - complete amendment announced as Act. no 211/2009 Coll.), namely Section 18 and paragraph 9, a legal person having its seat in a Member State of the European Union or any other country forming the European Economic Area or a citizen of such state may participate in the public tender in research and development provided that such participant does not apply for support from public funds of the Czech Republic. All research projects funded by national research programmes must be performed in the Czech Republic. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | GACR programmes | | GACR require applications exclusively in English, with background documentation (i.e. Programme Operators' Manual, etc.) being in Czech. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Project "EURAXESS Czech Republic 2012 - 2015" | 2012 | The EURAXESS Centre is funded by the MEYS through the EUPRO programme: Project "EURAXESS Czech Republic 2012 - 2015". EURAXESS supports foreign incoming researchers with information about job opportunities, advice and assistance on visa procedure, social security, taxes, translation services, language courses and help with other practical aspects of everyday life; the project includes the operation of www.euraxess.cz on-line portal. The network created by the project includes contact points in ten cities. Project "EURAXESS Czech Republic 2012 - 2015" finances the EURAXESS Centre and website. It has to be noted that is not formally required to advertise new positions nationally and internationally via the media, on EURAXESS or other international portals. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | The Common Rules for Human Resources Management of CEITEC Code of Ethics for Researchers of the ASCR | 2011 | Two institutions, namely the ASCR and Central European Institute of Technology (CEITEC), have endorsed the Charter & Code. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Act No. 262/2006, Coll. on labour code Act No. 435/2004 Coll. On employment Act No. 198/2009, Coll. On antidiscrimination General provisions in the NRP 2013 | | General legislation on non-discrimination and equal opportunities applies also to the research field. Labour law guarantees a maternity leave of two years with return to the same position (not for fixed contracts). Recently the government has set a national target for increasing the employment rate for women to 65% and decided to increase the availability and affordability of quality pre-school facilities for children after six months of age. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Government proceedings ("Jednací řád vlády") | 1998 | In government proceedings (or law), the so-called "Jednací řád vlády", there is requirement to assess gender impact of every government resolution, i.e. there must be an appendix evaluating gender impact. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Governmental Resolution No. 1033 of 2001 | 2010 | The Governmental Resolution No. 1033 of 2001 establishes measures on equal opportunities and (among others) the Council for Equal Opportunities for Women and Men as an advisory body of the government. The Council for Equal Opportunities for Women and Men addressed for the first time the problem of gender equality in science, and drafted a suggestion to the government regarding fair representation in expert and advisory bodies and grant competitions. However, while acknowledging this suggestion, the government has not initiated any action in this respect. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | ERA Working Group on Human Resources Development and Equal Approach to Women and Men in Research, Development and Innovation. | 2001 | Since 2011 at the Ministry of Education, Youth and Sports (MEYS) the ERA Working Group on Human Resources Development and Equal Approach to Women and Men in Research, Development and Innovation replaced the Working Group for women in science (set up in 2001). This is an advisory body with experts on mobility, gender equality and human resources, employees of the Ministry of Education, Ministry of Industry and national expertsmembers in programme committees. The coordinator of the National Contact Centre for Women and Science is a member of the Working Group. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Ministerial gender focal points Working Groups for Equal Opportunities for Women and Men | 2001 | There are ministerial gender focal points. Since 2001 ministries are required to create a systemic job (one-half of full-time equivalent, 4 hours per day) to take care of the equal opportunities agenda. The position has been established within various departments and units at various ministries. Additionally, there are Working Groups for Equal Opportunities for Women and Men to assist the gender focal points. They are advisory bodies and should meet twice a year and report on their activities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | GACR grants | 2010 | GACR grants restrictively allow female researchers to interrupt of postpone research due to maternity. For more information please see http://en.zenyaveda.cz/changing-science/parenthood-grants/ |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | National Contact Centre for Women and Science | 2001 | The main agent promoting cultural change in women in science is National Contact Centre for Women and Science (en.zenyaveda.cz). Established in 2001, the centre carries out analysis and raises awareness about gender issues. It contributes to building gender equality in science and research by stimulating debates and petition for measures and steps to eliminate discrimination and gender inequalities. The most recent initiative is "Grant interruption/postponement" in order to address career progression and retention of female researchers. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Milada Paulova Award | 2009 | Milada Paulová Award is organized jointly by MEYS and National Contact Centre for Women and Science for lifelong achievement of female researchers to Czech science since 2009. The Award is named after the first Czech woman to lecture at a university (1925) and to receive a professorship (1939), historian Milada Paulova. The award aims to publicly and financially appreciate research achievements of prominent Czech women researchers, who provide role models and inspires women researchers and students at the beginning of their research careers. The award is conferred in a different field of science each year and the winner receives a donation of 150,000 CZK. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | L'ORÉAL Scholarship Czech Republic for Women in Science | 2007 | L'ORÉAL Scholarship Czech Republic for Women in Science is awarded by L'ORÉAL in cooperation with ASCR and UNESCO for young female scientists in the field of natural sciences (no more than 35 years old) since 2007. The winner receives a donation of 250,000 CZK. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| EKA Friority | EKA ACUOII | National Measure contributing to EKA | Tear Adoption | |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Central Register of R&D projects Register of public R&D tenders Information Register of R&D results Central Register of Institutional Research Plans | 1993 | The CRDI administers the Research and Development and Innovation Information System of the Czech Republic, an information system of the public administration for a collection, processing, publication and utilisation of data about publicly funded research activities, projects and their outputs. The system consists of the following parts: 1) Central register of R&D projects (CEP); 2) Central register of Institutional Research Plans (CEZ); 3) Information register on R&D results (RIV); 4) Central register of R&D Activities (CEA); and 5) Register of public R&D tenders (RES). Web pages of the R&D Information System have two language versions – Czech and English – which allows foreign users to use the system as well. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Statistical Data for Scientific Research Purposes | | The Czech Statistical Offices (CZSO) – pursuant to the Section 17 "Provision of confidential statistical data" of the Act No. 89/1995, on the State Statistical Service - provides confidential statistical data for scientific research purposes. Micro data can be provided only on the basis of a special contract for provision of confidential statistical data. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Research Data Repositories | | OpenAIRE gives a list of 4 research data repositories: 1) CKAN Czech Republic; 2) Czech Social Science Data Archive, Institute of Sociology of the Academy of Sciences of the Czech Republic; 3) LINDAT-Clarin Repository, Centre for Language Research Infrastructure in the Czech Republic; Institute of Formal and Applied Linguistics, Faculty of Mathematics and Physics, Charles University in Prague; and 4) opendata.cz, Transparent data infrastructure, Initiative for transparent data infrastructure. For more information see www.openaire.eu/en/open- access/country-information/czech-republic. |

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| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open access repositories | | OpenAIRE gives a list of 10 open access repositories in various research organizations and universities: 1) CERGE-EI Library; 2) Digital Library of the Czech Technical University in Prague; 3) Digital Library of the University of Pardubice (registered with DRIVER); 4) Brno University of Technology Digital Library; 5) Digital Library of ASCR (registered with DRIVER); 6) Czech Digital Mathematics Library; 7) Digital repository od VŠB-Technical University of Ostrava (registered with DRIVER); 7) LINDAT-Clarin Repository, Centre for Language Research Infrastructure in the Czech Republic; 8) Institute of Formal and Applied Linguistics, Faculty of Mathematics and Physics, Charles University in Prague; 9) Tomas Bata University in Zlin: UTB Research Repository; and 10) University of West Bohemia Digital Library. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | www.openaccess.cz www.dspace.cz | 2010 | Portals to raise the awareness on open access |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | NRP 2013 - Strategy | 2013 | Improving the links between industry and academia is one of the main points within the National Reform Programme 2013 and at the top priorities of the on-going reform of the research, development and innovation system. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National Innovation Strategy of the Czech Republic | 2011 | National Innovation Strategy of the Czech Republic published in October 2011 (coproduced by MIT and MEYS) lists "Cooperation and knowledge transfer between academia and industry" as one of the four priority areas. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Priority Axis 3 "Commercialisation and popularisation of R&D" of the OP Research and Development for Innovation | 2006 | Beginning with 2012 the set-up of the first Technology Transfer Offices (TTOs) at universities or intermediary organisations is supported from this programme. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | ALFA Programme Centres of competence DELTA programme EF-TRANS TIP programme | 2009 | All programmes support public-private R&D co-operation. TACR funds the ALFA programme which was launched in March 2010 and the first projects started at the beginning of 2011; the Centres of competence programme has been launched during 2011-2012 and the DELTA programme is expected to start in 2014. MIT funds the TIP programme to support industrial research. MEYS supported the EF-TRANS project on "Efficient Transfer of Research and Development Outputs in Production and their Subsequent Utilisation" with the goal to set up and bring into effect knowledge transfer between R&D institutions and industry. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Action plan to promote growth, entrepreneurship and employment | 2013 | On 20 December 2012, the government approved an action plan for to promote growth, entrepreneurship and employment, of which one of the proposed measures is to extend the existing R&D tax credits to purchase of external R&D services from research organizations. The R&D tax credit scheme which enables enterprises to deduct in-house expenditures on R&D from their tax base has been launched in 2005. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Czech Education and Scientific NETwork (CESNET) | 2010 | The keystone of the Czech e-infrastructure for research is CESNET (Czech Education and Scientific NETwork); national partner of GÉANT and EGI.eu and the coordinator of NGI (National Grid Infrastructure). CESNET develops with support from public budget two major Ris projects: CESNET Large Infrastructure and Extension of the National R&D Information Infrastructure in Regions (eIGeR). The reconstruction of the CESNET2 backbone network started in 2011; it forms the necessary foundation for the other components of the national information e-infrastructure. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | CERIT Scientific Cloud | 2010 | CERIT Scientific Cloud offers storage and computing resources and related services, including support for their experimental use. The centre complements the other parts of the approved national e-Infrastructure – CESNET and the supercomputing center IT4Innovations. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | IT4Innovations | 2010 | IT4Innovations aims to build a national Centre of Excellence in the field of information technologies. The centre, which is integrated in the ESFRI Roadmap, enables concentrating a wide range of scientific disciplines relating to information technologies. Part of the project is acquisition of a high-performance supercomputer that is planned to be put into operation in 2014, in which time it is supposed to rank among the top 100 most powerful supercomputers in the world. IT4Innovations is the national partner of PRACE (Partnership for Advanced Computing in Europe). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Czech academic identity federation (eduID.cz) - member of eduGAIN | 2009 | The purpose of the eduID.cz federation is to provide means for inter-organizational identity management and access control to network services, while respecting the privacy of the users. The federation infrastructure implements easy, standards-compliant and secure methods for exchange of user information. Every organization, which complies with the Access Policy, may become a member without restrictions. The eduID.cz federation is based on the Shibboleth project developed by Internet2 and is a member of eduGAIN since April 2013 and participates in REFEDS. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Project eduroam.cz | 2004 | CESNET is the national operator of EDUROAM infrastructure in the Czech Republic. The purpose of the eduroam.cz project is to support and spread IP mobility and roaming within the Czech NREN. The idea to enable users of interconnected networks easy and transparent usage of any network connected to the roaming space. User has one account (at his home site) and this account grands him permission to use any wireless network connected into eduroam. |

Denmark

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Finance Act Agreement | 2013 | Strengthens funding for basic research from 2012 and introduces 3-years budget security. It also strengthens and expansion of the knowledge pilot scheme |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | New university funding model | 2013 | Modifies the funding system towards a higher share of competitive funding. The funding distribution for 2012 is: 45% based on education appropriations, 20% based on external funding of R&D activities, 25% based on bibliometric indicators, and 10% based on PhD graduates. |

Denmark

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Forks2020 process | | Identifies areas of effort that form the basis for the political prioritisation of funds for strategic research. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | RESEARCH2020 catalogue | 2013 | Publication of the catalogue functions as a basis of knowledge and decision-making for political prioritisation of funds for strategic research |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Peer Review College of the Danish Council for Strategic Research | 2012 | Research funds are allocated based on the principles of international peer review. The Council for Strategic Research, for example, has established a peer review panel that is intended to strengthen the quality of the project reviews. Assessments made by the peer review panel are complemented with assessments provided by other, internationally recognized academics. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Funding provided by the Nordic Innovation Centre (NICE) | 2012 | Boosts innovation and competitiveness in the Nordic business sector that leads to commercial and sustainable development. Specific recent initiatives issued in 2012 are oriented towards following topics: Green business model innovation, development of cost-efficient solar cells, fostering entrepreneurship and entrepreneurial activity, sustainable renovation and construction. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Top-level Research Initiative | 2008 | In 2008 the Nordic Prime Ministers initiated the Top-level Research Initiative (TRI) and it is to date the largest joint Nordic research and innovation initiative that has a research focus within climate, environment and energy. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Openness of national research council funding | | The research council law allows the national research councils to allocate up to 20 % of their funds to international initiatives. These initiatives are allowed to administer the funds on behalf of the Danish research councils on a real common pot model as long as it benefits Danish research and fulfils the other general principles. Furthermore, the council funds are generally available to international researchers. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Funding schemes open to researchers abroad | | Danish funding schemes are open to researchers based abroad, regardless of their nationality, provided that their research is judged to be of benefit to Danish research. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Collaboration agreements | | Denmark has developed specific strategies for the BRIC-countries (Brazil, Russia, India and China) in fields such as climate and energy, welfare, architecture, research, education and food. Moreover, Denmark has innovation centres in hotspots around the world; in Silicon Valley, Munich and Shanghai. During 2013 and as part of the national Innovation Strategy, Denmark will open three new innovation centres in Bangalore, Seoul and Sao Paulo. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Strategic Research Alliance Strategic Network Project scheme | | All the strategic research programmes with recent calls promote this openness to researchers based abroad, regardless of their nationality, provided that their research is judged to be of benefit to Danish research. They include strategic research alliances as an instrument. The rationale for this openness is to strengthen Danish research groups through cooperation with excellent researchers from third countries. |
| Optimal levels of transnational co-operation and competition | Further develop and deploy the Lead- Agency, Money- Follows-Cooperation Line, Money-Follows- Researcher and other models for cross-border cooperation | Money follows researcher (MFR) initiative in Denmark | 2009 | The Danish Councils for Independent Research participate in the EUROHORCS initiative and its follow-up Science Europe, authorizing researchers moving to other countries to take the remainder of any awarded grant with them, while the DCSR has not signed the letter of intent 'Money follows researchers' |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National research infrastructure roadmap | | Published in 2011 |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--------------------------------------|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Denmark participation in ESFRI | | ESFRI projects which are of Danish interest are the following: CESSDA - Council of European Social Science Data Archives, CLARIN - Common Language Resources, DARIAH – Digital Research Infrastructure, ESS - European Social Survey Upgrade, SHARE - Upgrade of the Survey of Health, Ageing and Retirement in Europe, EPOS - European Plate Observing System, ICOS - Integrated Carbon Observation System, LifeWatch - e-Science and Technology Infrastructure for Biodiversity and Research infrastructure for biodiversity and Observatories, WindScanner.eu, BBMRI - Biobanking and Biomolecular Resources Research Infrastructure, EATRIS - European Advanced Translational Research Infrastructure in Medicine, ELIXIR - European Life Sciences Infrastructure for Biological Information, INSTRUCT - An Integrated Structural Biology Infrastructure for Europe, ESRF-upgrade, ESS - European Spallation Source, European XFEL, ILL20/20 Upgrade, E-ELT - European Extremely Large Telescope, PRACE - Partnership for Advancing Computing in Europe. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Globalisation Fund | 2006 | The Globalisation Fund includes funds earmarked to a comprehensive modernization of research infrastructure, including a green stimulus package and other measures. A 'road map' for the development of research infrastructure was to be developed, based on a mapping of the short-term and long-term infrastructure needs in the following six areas: material and nanotechnologies, biotechnology, health and life sciences, physics and astronomy, energy, climate and environment, humanities and social sciences, e-science. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | START-scheme | | The EuroCenter under DASTI is specialised in information and consulting services regarding the FP7; and other measures from DASTI include the START-scheme and Pre-project grants for SMEs. In most programmes under the DCSR and the DCTI foreign participation and cooperation is encouraged, through higher rankings in the evaluation process and through the inclusion of foreign research institutes in project consortia. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Ministerial order on the appointment of academic staff at universities | 2012 | Sets the overall framework for the appointment of academic staff. Positions at professor and associate professor levels have to be posted internationally. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess in Denmark | | Research job vacancies are published on the EURAXESS portal. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Industrial PhD Program | 2002 | Increases the absorptive capacity in the private sector and strengthen innovativeness. Since 2002, it has been part of the Danish Council for Technology and Innovation's umbrella of innovation promotion initiatives, and has been run on behalf of the council by the Danish Agency for Science, Technology and Innovation. The programme has been evaluated several times and in 2011 an impact assessment was conducted. It was found that the programme has contributed to an increased absorptive capacity in the private sector that can be expected to facilitate knowledge and technology transfer from academia to industry and hence to foster innovation in firms. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Implementation of "Charter for Researchers" and "Code of Conduct for the Recruitment of Researchers" | 2009 | All Danish universities have joined the 'Charter for Researchers' and the 'Code of Conduct for the Recruitment of Researchers'. Recognising academic and professional qualifications from other countries is a prerequisite for foreign researchers to be able to apply for researcher positions in Denmark. The Danish Agency for International Education provides assessments of non-Danish degrees, diplomas and certificates as well as information about international recognition of Danish qualifications. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | The Charter and Code were debated by the Human Resources group, the Danish Committee of University Directors and the Danish Rectors' Conference. | 2009 | Universities Denmark and the Danish Agency for Universities and Internationalisation (UI) both argued that, overall, Danish universities met the European Commission's standards with regard to the Charter and the Code of Conduct. However, to date only one of the eight Danish universities, Copenhagen Business School (CBS), has been added to the list of "HRS4R Acknowledged Institutions". The recognition was awarded in 2012. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Gender Equality Act (revision) | 2013 | The GEA stipulates that boards, assemblies of representatives or similar collective management bodies within the public administration should have an equal gender balance. In order to achieve such gender balance the collective management body in question is obliged to formulate gender equality targets. The legislative goal is to achieve a gender composition of 60/40 of the underrepresented gender in such collective management bodies. In addition to gender equality targets, institutions and companies in the public administration are obliged to formulate gender equality policies concerning the underrepresented gender on a managerial level. This is only a requirement for institutions and companies with 50 employees or more |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Council of Independent Research Conference on the role of gender in research and excellence | 2013 | The objective of the conference was to stimulate the debate about the role of gender and how to achieve equality between the genders in all research contexts. In this context, the minister of science, innovation and higher education and the minister of gender equality discussed the introduction of special initiatives to enhance the chances of female researchers to access leading positions in research institutions. Moreover, in 2013, the Council of Independent Research commissioned a study on the role of gender in research and excellence (Det Frie Forskningsråd, 2013). The report maps gender aspects and differences in the Danish R&I system. Moreover, the role of gender is analysed in the context of funding decisions. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Joint Open Access Policy | 2012 | Public research councils and foundations implemented a joint Open Access-policy in June 2012. Moreover, Danish universities are in the process of implementing institutional Open Access policies. To date, five of eight universities in Denmark have introduced Open Access policies, which their researchers have to comply with. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access Committee | 2011 | The measure contributes to Improving open access to scientific information in the digital age. The Danish Government has approved the Council of the European Union's conclusions about scientific information in the digital age. An Open Access Committee was appointed under the steering committee for Denmark's Electronic Research Library (DEFF). In March 2011 the Open Access Committee published the recommendations for the implementation of Open Access in Denmark (Danish Agency for Libraries and Media, 2011). This report can be seen as an implementation plan for a 4-years period with indication of process, players and finances. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Innovation strategy | | Develops new model for partnership that will ensure that investments in research and development are translated to concrete solutions, growth and new jobs. It is composed of 27 concrete initiatives which also focus on enhanced exchange of knowledge between knowledge institutions and enterprises. Initiatives include a review of the council structure, establishing a fund for maturing markets, strengthened knowledge collaboration and innovation by means of recognition and attractive career paths for researchers and initiation of social partnerships concerning innovation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Act on Inventions at Public Research Institutions | 1999 | Supports the transfer of knowledge between public research institutions and industry, the establishment of research-based enterprises; and cooperation between public research institutions, foundations and associations. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Act on Technology Transfer at Public Research Institutions | 2004 | Since 2004, the commercialisation of public research results has been assessed annually. In 2004, DASTI established an inventor service counselling office. An external evaluation of this office has shown that it has acted effectively and will be continued, in a strengthened form, until 2013. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National Network for Technology Transfer | | Organises the TTOs from the universities, research institutes, hospitals and regional TTOs and supports the sharing of competences, knowledge and methods involved in technology transfer. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | SPIR - Strategic Platforms for Innovation and Research | 2010 | This policy measure targets inter-sectoral R&D cooperation and improved linkages between research and innovation. The platforms will be funded for 5-7 years. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Small and medium-sized businesses initiative for interaction between SMEs and knowledge institutions | 2011 | Supports the transfer of knowledge between public research institutions and industry, the establishment of research-based enterprises; and cooperation between public research institutions, foundations and associations. The initiative doubles the funding amount available for knowledge coupons |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Globalisation Fund | 2010 | Globalisation fund allocates funding for improvement of a number of innovation and knowledge transfer initiatives. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Danish e-Infrastructure Cooperation (DeIC) | 2012 | The objective of DeIC is to support Danish science by making e-infrastructure such as computing, data storage and networks available to research and research-based teaching. DeIC provides a platform for initiatives like a research data platform that is planned to be established in cooperation with Denmark's Electronic Research Library (DEFF) in 2013. The platform is planned to provide the service infrastructure research institutions, other public institutions and companies, and here especially SMEs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | | New strategy for R&I (in preparation) | 2013 | One priority will be to integrate ERA initiatives (integrated ERA and H2020). |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Detailed conditions and procedure for applying for, conducting and approving the result of regular evaluation of research and development | 2012 | Assess the level of research and development in a corresponding field of research and development at a research and development institution compared to internationally recognized criteria. The Minister of Education and Research shall form an evaluation committee with foreign experts and approve its working procedures |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Organisation of Research and Development Act (last amendment in 2012) | 1997 | The purpose of the Act is to provide the bases for the organisation of research and development and to ensure legal means for the preservation and further development of scientific and technological creation as a component of Estonian culture and the Estonian economy. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Organisation of Research and Development Act - amendment 1997 and 2009 | 1995 | Introduction of the evaluation of research institutions by international standards. Positive evaluation is a precondition to apply for institutional funding and for targeted funding of research topics. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Conditions and procedure for applying for, awarding and amending the amount of institutional research funding | 2011 | System reformed in 2011. Framework for the conditions and procedures for applying for, granting and amending the amount of the institutional research funding for research and development institutions. Evaluations follow international peer review standards. The funding conditions were also updated in the view of current view to role of RDI in solving global and local socio-economic problems. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Conditions and Procedure for Evaluation of Research and Development Institutions | 2009 | Regulates the evaluation of the research performance of Higher Education and Public Research Organisations, which applies the core principles of international peer review (revised in 2012). Allocation of competitive funds follows an international peer review of proposals. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Personal Research Funding | 2012 | Enhance funding of high-level research and development activities carried out by researchers or small research groups who are employed by a research and development institution. The core principles of international peer review are applied. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Research and Innovation Policy Monitoring Programme 2011-2015 (TIPS Programme) | | To analyse the impact of current policy measures and give policy recommendations for implementation of the current RDI Strategy "Knowledge-based Estonia 2007-2013" and to design the new Estonian RDI strategy (2014-2020). |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Measure: Improving the competitiveness of Estonian R&D through the research programmes and modernisation of higher education and R&D institutions | 2007 | Strategic programme which includes among others 16 programmes or grants for modernisation of HEI and R&D institutions. Competitive grants. Evaluations following international peer review standards. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Implementation Plan for achieving the objectives of Estonian Research and Development and Innovation Strategy 2007-2013 "Knowledgebased Estonia" in 2012-2013 | 2011 | Supports participation of Estonian researchers, R&D institutions and enterprises in international cooperation networks and in the EU Framework Programmes. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Intergovernmental and inter-ministerial agreements | | The Ministry of Education and Research of the Republic of Estonia and Archimedes Foundation annually offer scholarships to foreign nationals, pursuant to bilateral intergovernmental or inter-ministerial agreements. To promote academic mobility. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | The Programme for the Internationalisation of Science | 2011 | Broaden the possibilities for Estonian scientists and doctoral students to conduct research abroad, by supporting Estonian participation in implementing EU research policy initiatives. Competitive grants. Evaluations following international peer review standards. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Centres of Excellence Programme | 2012 | Support Estonian top-level research to strengthen the position of Estonian research co-operation and competitiveness in the European research field. Competitive grants. Evaluations following international peer review standards. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Nordplus Programme | 2012 | To strengthen and develop Nordic educational cooperation and contribute to the establishment of a Nordic-Baltic educational region. Competitive grants (Postdoctoral Research Grant). Evaluations following international peer review standards. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Norwegian-Estonian Research Cooperation Programme for 2009-2014 | 2009 | Enhance research-based knowledge development in Estonia through research cooperation between Norway and Estonia. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Swiss-Estonian Research Cooperation Programme for 2009-2014 | 2009 | Assess Enhance research-based knowledge development in Estonia through research cooperation between Norway and Estonia. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Estonian Research Infrastructures Roadmap 2010 (to be updated in 2013) | 2010 | The Roadmap lists research infrastructures of national importance which are new or need to be modernised. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Implementation Plan for achieving the objectives of Estonian RDI Strategy 2007-2013 | 2007 | Describes the allocation of funds for developing infrastructures. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | The research and Development Organisation Act - amended in 1997 and 2009 | 1995 | Basic rules for open, transparent and merit-based recruitment of researchers are set. In 1997 and 2009 the regulation was complemented but without changing the basic principles. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | The conditions of and procedure for the election of academic research professors | 2002 | Establishes the conditions and procedures for filling in the vacancies of research professors by public competition. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Aliens Act (amended 2013) | 1996 | Procedures have been revised for giving work permits with the objective of facilitating potential top-level specialists and highly qualified employees to enter the Estonian labour market. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | The Research and Development Organization Act-amended in 2012 | 1997 | To offer Ph.D. students an employment contract with the same social guarantees as any other employment. This will contribute to more attractive doctoral studies. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Estonian Research Council adhesion to EUROHORC Money Follows Researchers letter of Intent | 2005 | Agreement to finance research carried out in a foreign institute after it has been initiated in an Estonian R&D institution, provided the host country institution has also signed a Letter of Intent. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Personal Research Funding | 2012 | Enhance funding of high-level research and development activities carried out by researchers or small research groups who are employed by a research and development institution. Grant competitions are open to all permanent residents and citizens of a foreign country. Grants should be applied through an Estonian Institution. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Programme ERMOS | 2010 | To develop and diversify Estonian research potential through the mobility of researchers and exchange of experience, and support the development of careers of young researchers. Competitive grants (Postdoctoral Research Grant). Evaluations following international peer review standards. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Programme Mobilitas | 2008 | To activate international exchange of researchers and knowledge. Competitive grants. Evaluations following international peer review standards. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS Service Centres - Agreement of good practice | | All public universities hosting a Centre have signed the Agreement on Good Practice supporting the internationalisation of Estonia's Higher Education Institutions. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Quality Agreement of Estonian Universities | 2011 | Signed by Rectors' Conference, it specifies quality standards for doctoral studies. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Standard of Higher Education (amendment in 2012) | 2008 | Doctoral study usually includes training on transferable skills. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Programme DoRa | 2008 | Doctoral Studies and Internationalisation Programme provides support to students of Master's and Doctoral studies in Estonia as well as to visiting foreign students and faculty staff and supports co-operation of R&D institutions and Enterprises. Targeted grants to universities and R&D institutions. Evaluations following international peer review standards. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Programme for Co-operation and Innovation between Higher Education Establishments | 2012 | Support doctoral schools; co-operation between higher education establishments and enterprises; innovation in higher education establishments. Competitive grants. Evaluations following international peer review standards. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Agreement on Good Practice in the Internationalisation of Estonia's Higher Education Institutions | 2007 | To attract to Estonia students and researchers and teachers who hold high academic qualifications |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Universities Act | 2012 | To provide the procedure for the establishment, merger, division, and termination of the activities of universities, the bases for the activities, limits of autonomy and principles of management of universities. Regulates establishment and activities and principles of financing of universities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Quality Agreement of Estonian Universities | 2011 | Agreement between universities to follow some principles for co-operation, openness, focus on target group interests, focus on students, quality of PhD studies, intellectual property rights, life-long learning, and implementing of the Charter & Code and HR Strategy for Researchers. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Gender Equality Act - amended in 2012 | 2004 | The Act provides for the prohibition of discrimination on the grounds of sex in the private and public sectors; the obligation of state and local government authorities, educational and research institutions and employers to promote equality between men and women; the right to claim compensation for damage. To ensure equal treatment of men and women as provided for in the Constitution of the Republic of Estonia in 1992 and to promote equality of men and women as a fundamental human right and for the public good in all areas of social life. The Republic of Estonia Employment Contracts Act § 3 obliges employer to guarantee the employees the environment of non-discrimination and promote the principles of equal treatment according to the Gender Equality and Equal Treatment Acts. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Programme "Advancing Gender Equality" | 2011 | Support initiatives on gender equality. Competitive grants. Evaluations following international peer review standards. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Organisation of Research and Development Act | 2012 | Legal framework for the organisation of research and development To provide the grounds for the organisation of research and development and to ensure legal means for the preservation and further development of scientific and technological creation as a component of Estonian culture and the Estonian economy |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Reform of national funding schemes | | Compulsory green or gold access to results publications. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Innovation voucher grant | 2009 | Increasing competitiveness of Estonian SMEs through transfer of knowledge and technology, expansion of cooperation with R&D institutions and increase of capability of protection of intellectual property. Competitive grants. Evaluations following international peer review standards. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Principles for the preparation of a uniform collection plan for research libraries and the procedure for application for financing the acquisition of research information for research libraries, for the review of applications and for making financing | 2012 | Specifies the principles for the preparation of a uniform collection plan for research libraries and principles of financing. Block funding from the state budget and other sources. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Estonian e-repository programme | 2011 | An integrated e-environment created for long-term preservation and availability of digitized resources of the Estonian cultural heritage institutions: libraries, archives and museums. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Estonian Research Information System | 2006 | Concentrates information on research- and development institutions, researchers, research projects and various research results. The Estonian Research Information System is also an information channel for submitting and processing grant applications. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | The Programme of Electronic Scientific Information | 2009 | The aim is to supply Estonian R&D institutions with scientific information and to acquire access to scientific information and electronic publications for Estonian research libraries and organisations Grant to the Consortium of Estonian Libraries Network |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Cluster development | 2009 | To promote cooperation between companies and between companies and research establishments. Competitive grants. Evaluations following international peer review standards. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Knowledge and technology transfer baseline funding (SPINNO Programme) | 2008 | To improve the quality and volume of application of the intellectual property developed in the Estonian research and development establishments and institutions of applied higher education for commercial purposes. Baseline funding. Evaluations following international peer review standards. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Programme "Start-up Eesti" | 2011 | Start-Up Estonia is a development plan that will speed up the development of innovative start-up companies by covering aspects such as awareness, knowledge, skills, and financing and co-operation with R&D institutions. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Information Technology Foundation for Education | 2013 | Provides high quality network infrastructure for research, educational and cultural communities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | State Program 2011-2015 on higher education information and communication technology and research and development activities | 2011 | Cooperation programme between universities, ICT sector and the state to raise the quality of ICT and develop cooperation between the partners. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Consortium of Estonian Libraries Network (statute renewed in 2011) | 1996 | Have created good access to scientific journals and electronic bases for researchers. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | E-teadusinfo | 2009 | Access to digital research services in other organisations and in other countries is possible via E-teadusinfo |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | While a national policy for e-identity has not been identified, for Estonia the Estonian Education and Research Network of Information Technology Foundation for Education is in the process of joining the federation. |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | | Research and Innovation Policy Guidelines for 2011–2015 | 2011 | The document set out at national level the policy guidelines on the required measures and funding for research policy |
| More effective national research systems | | Growth through expertise, Action plan for research and innovation policy | 2012 | Key policy document by the Ministry of Education and Culture and Ministry of Employment and the Economy. The action plan details out the actions required for the implementation of the government's research and innovation policy |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Universities Act 558/2009 and related decrees on the reform of university funding model | 2010 | Institutional funding is allocated based on - inter alia - the research performance of the institution |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Reform of public research institutes (incl. their funding model) | | Reform aims at increasing the effectiveness of PROs through a more competitive funding allocation |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Competitive funding by Academy of Finland | | Competitive allocation of funding based on excellence to research projects |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Competitive funding by TEKES | | Research and innovation funding allocated on a competitive basis (calls for proposals) by TEKES |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | International evaluation of the Academy of Finland | 2013 | This evaluation will address the overall issue of institutional funding vs. project-based funding for the Finnish research system and what would constitute an 'adequate balance' |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | International evaluation of TEKES | 2012 | The evaluation of TEKES will provide an assessment of the extent to which TEKES has supported efficient, high quality and impact R&D |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Peer review process by the Academy of Finland | | Implements the peer review principles for funding allocated by the Academy of Finland |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Research and Innovation Policy Guidelines | 2010 | The 'independence' and 'international' components in the research evaluation mechanism are strengthened |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Research and Innovation Policy Guidelines for 2011–2015 | 2010 | Supports the opening up of programmes for voluntary joint pilot projects of member states |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint programmes and bilateral agreements | | TEKES has established cooperation agreements with funding agencies in the USA, Japan, China, Canada, Israel, Singapore and Korea. The Academy of Finland also provides funding for international joint projects often as part of research programmes or bilateral or multilateral agreements with China (Cas Fellowship to China), Estonia, Germany, India, Japan (JSPS Fellowship to Japan) and Russia. Finland is especially active in the Nordic research co-operation, NordFosk. |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Research and Innovation Policy Guidelines for 2011–2015 | 2010 | Supports the opening up of programmes, effective principles, procedures and criteria are sought and legislation is harmonised |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Update of the FIRI Committee (Finnish Research Infrastructure Committee) national roadmap for infrastructures in 2013 | 2013 | Updates the Finnish research infrastructures roadmap |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Growth through expertise: Action plan for research and innovation policy | 2012 | Allocation of annual funding for research infrastructures |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Research and Innovation Policy Guidelines for 2011–2015 | 2010 | Setting up of a research infrastructure body in charge of preparing and implementing a national and international infrastructure policy |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Strategy for the Internationalisation of Higher Education Institutions in Finland 2009–2015 | 2009 | Contributes to the implementation by HEIs of the principles for the recruitment of researchers as defined in the Charter and Code |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Research and Innovation Policy Guidelines for 2011–2015 | 2010 | Changes to the recruitment practices of higher education institutions and research institutes in order to attract international researchers and thus contributes to open recruitment |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Finland Distinguished Professor Programme (FiDiPro) | | Contributes to the opening up of recruitment of foreign researchers |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | The Money Follows Researcher (MFR) agreement signed by the Academy of Finland | | Supports portability of grants |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Academy of Finland grants and fellowships | | These grants are portable to other EU countries. However, administrative barriers to their portability persist |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Academy of Finland grants and fellowships | | These grants are open to foreign/non-domestic researchers subject to the research being conducted in the interest of the country |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS Finland | | Contributes to the implementation of the Euraxess services |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Reform of the doctoral training system in line with the principles of innovative doctoral training | | Supports the implementation of doctoral training system in line with the principles of innovative doctoral training |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | National Guidelines for the Development of Doctoral Training | 2011 | Supports the implementation of the principles for innovative doctoral training |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Signature of the European Charter for Researchers' & the 'Code of Conduct for the Recruitment of Researchers by the Rectors' Council of the Finnish universities and the Academy of Finland | 2009 | Implements the principles of the Charter and Code amongst HEI. Most universities participate in the human resources strategy process. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Steering of HEIs | 2012 | Agreement between national authorities and HEIs that highlights the key priorities to be implemented by HEIs. The latest agreement (2012) focuses on improving research careers |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Take initiatives to address social security barriers for researchers in the EU and further facilitate the entry and stay of third country national researchers by: - 1)Clarifying in a Communication EU rules on coordination of social security schemes for gr | Strategy for the Internationalisation of Higher Education Institutions in Finland 2009–2015 | 2009 | Facilitates the entry of foreign researchers and their access to research positions |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | The Equality Act | | HEIs and PROs are required by law to draw up and implement equality plans |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Government Action Plan for Gender Equality 2012-2015 | 2012 | Supports gender equality efforts in HEIs, incl. monitoring of gender equality plans |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Academy of Finland 'Criteria for research funding decision' | | Supports female researchers' career and gender equality in science |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Academy of Finland Equality Plan | | Gender equality is taken into consideration when decisions regarding research positions and research funding are made |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Steering of HEIs | 2012 | HEIs are required to report on how they implement gender equality strategies |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Data Programme | 2013 | Supports open access to scientific information, incl. open metadata service and related support services |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National Digital Library | | Supports the availability and use of electronic material of libraries, archives and museums (incl. scientific data) |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Working group on open access to publications and research data as part of the National Research Data Project (TTA) | | Supports research data storage and preservation and use of data |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Strategic Centres for Science, Technology and Innovation (SHOKs) - International evaluation | 2007 | Supports cooperation between academia, research institutes, private sector and funding organisations. Further to the results of the evaluation, the model will be amended |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Growth through expertise: Action plan for research and innovation policy | 2012 | Support to infrastructure for storing amd managing digital research and innovation data |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | 'Putting data into use', Roadmap for the utilisation of electronic data in research | 2011 | Supports the development of digital research services |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | CSC - IT Centre For Science Ltd | | Provides wide selection of digital research services (scientific software, databases) to academia, research institutes and businesses |

Finland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Member of Edugain | | Finland is member of Edugain through HAKA |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | | Act on higher education and research | 2013 | The new Law aims to: a) act to ensure success of all students (success in 1st cycle, professional insertion, training of teachers) b) give a new ambition for research (role in society, economy and worldwide) c) simplify the landscape of higher education and research (visibility and governance) |
| More effective national research systems | | Research programme Law | 2006 | Legal part of the governmental programme entitled "Pact for Research". It increased the research budget. It provides a public entity status to the National Funding Agency (ANR) and establish an Evaluation Agency (AERES). It also creates the PRES ("Pôle de recherche et d'enseignement supérieur") statute. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on freedoms and responsibilities of universities (LRU) | 2007 | Reform towards Universities' autonomy. |

France

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Research Agency | 2005 | Research funding organisation to fund research projects, based on competitive schemes, and with a peer review process. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | AERES - Evaluation Agency for Research and Higher education (in 2013 replaced by the new "Haut Conseil de l'évaluation de la Recherche et de l'Enseignement supérieur") | 2006 | Contributes to improving the quality of the French research and higher education system in accordance with the European recommendations and decisions of European ministers in the context of the Bologna Process. The Agency is an independent administrative authority set up in 2007, the AERES is tasked with evaluating research and higher education institutions, research organisations, research units, higher education programmes and degrees and with approving their staff evaluation procedures. |

France

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| More effective national research systems | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | National strategy for research and innovation | 2009 | National prospective exercise gathering all national stakeholders to define research domain to support according to societal grand challenges for the period 2009-2012. |
| More effective national research systems | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | New National strategy for research and innovation and strategic Agenda "France-Europe 2020" | 2013 | The Strategy will complete the new Law on Higher Education and Research by providing research orientations based on a Strategic Agenda by the Ministry of Higher Education and Research. It will enable the French research system to better address scientific technological economic and societal grand challenges in the coming years. 1. Affirm the role of state in the national strategy, setting priorities for national programming 2. Optimise the coupling and coordination with European programs through greater consistency and greater involvement 3. Deal with societal, scientific and technological challenges and the challenges of competitiveness 4. Sustainably guide public policy to support research 5. Collectively set the priorities for the advancement of knowledge and technology and bring elements of their implementation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--------------------------------------|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Investment for the Future | 2009 | The aim is to facilitate research partnerships between research performing Organisations and firms. Supervised by the Ministry of Higher Education and research, managed by ANR. National loan for 5 priorities. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Alliances | 2009 | Contributes to improve coordination between Research Performing Organisations and Higher Education Institutes in given fields. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | PRES clusters for research and innovation | 2006 | Contributes to a more coherent research and education offer adapted to the territorial needs. Allows universities, High Schools and Research Performing Organisations to work together, share their activities and means. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | French-German Agenda 2020 | 2010 | The Agenda 2020 was adopted at the 12th Franco-German Council of Ministers in February 2010. The bilateral work programme lists more than 80 joint projects in various political spheres, including in education, research and innovation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | DEUFRAKO - French German research programme on surface transport | 1978 | Encourage and promote French-German cooperation through collaborative research projects in the field of surface transport. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | National funding agency- ISO 9001 certification for calls programming, selection and funding, monitoring | 2008 | ANR processes are based on competitive schemes and a two-stage peer review process which received ISO 9001 certification in 2008. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | ANR Lead Agency | 2011 | The ANR acted as Lead Agency in 2011 for the first time. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Bilateral agreements between ANR and BMF/DFG (DE), ESRC (UK), NWO (NL), MICINN (ES), FWF(AT) and ANCS (RO) | 2011 | Contribute to facilatate cross-border research projects. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Research infrastructure roadmap 2012-2020 | 2012 | Establishes a long term strategy concerning National research infrastructure. Confirm the French commitment to international infrastructures. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Establishment of new bodies to supervise and coordinate research infrastructures (Directing Committee and High-level Council) | 2012 | Supervise and decide on the strategy of the research infrastructures on a national and international basis. The High Council is a consultative body grouping pluridiciplinary organizations. The Directing Committee advises the Ministry of Higher Education and Research on the strategy and coordinates the various national infrastructures. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Careers plan 2009-2011 | 2008 | Working contract for Doctoral student, Improving the remuneration for young university teachers and researchers, Attracting French researchers working abroad with a dedicated programme run by ANR, Improving the process recruitment of researchers-teachers, Implementation of new national software to make more transparent recruitments (GALAXIE). |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Recognition of PhD in the public sector (ongoing) | | Measures will be taken to improve recognition of PhDs in the public sector beyond higher education and research. Discussion undertaken to negociate how to embedd phDs in the professional sectoral collective agreements. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Support coordinated personalised information and services to researchers through EURAXESS; EURAXESS France portal | 2012 | To facilitate entry of foreign researchers. The French EURAXESS Services network provides information to researchers an their families for their mobility in France. Within it, the Association Bernard Grégory (ABG) provides a data base on employment, while FNAK (the National Foundation Alfred Kastler) provides the French Network with legal expertise and coordination tools to welcome foreign researchers in France. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Act on higher education and research. Art 37, 50, 53 | | Contributes to gender equality in higher education organisations. Art. 37 Promotion of education on gender equality in all streams of higher education, Art. 50 Preventive actions against violence against women and sexual harassment, Art 53 Support of gender research in priority areas of research programming. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Charter for gender equality between Ministry of Research and Conference of rectors and head of schools of engineers | 2013 | Enhances equality. Nomination of a contact point in each organisation, Production of statistics taking into account the gender dimension, Action encouraging gender-mix and professional equality. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Act on higher education and research. Art 13 | | Introduces Gender equality in governance bodies of universities and other higher education organisation. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Action Plan on equality | 2012 | Contributes to gender equality and mainstreaming in Higher Education and Research Institutes. Equality is embedded in contracts between the Ministry and Higher Education and Research Institutes. Parity is ensured in university committees. Support to research on gender. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Office for promotion of gender equality and fight against discrimination-Ministry of research | | To provide indicators and analysis about gender equality. To coordinate and support policies to fight against discrimination. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Law of 12 March 2012 on employment in public sector and fight against discrimination | 2012 | The law provides that as of 1st January 2015 at least 40% persons of the same sex in the recruiting and promoting jurys in the public sector. Likewise at least 40% of persons of the same sex should be designed as qualified for elections in the Councils of research organisations as of the second mandate renewal of those organisations. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Action Plan on open access (announced in January 2013) | 2012 | Contributes to the development of open access to publications and open archives: development of green open access, support to gold open access, development of Platinium Road, optimisation of the HAL Platform with institutional archives, national contract model for publication, role of scientific publications in evaluation of research performance, support to publishers at international level. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Memorandum of Understanding for a coordinated approach on a national level to open archiving of scientific output | 2006 | Partnership between Research Institutions, Universities and Grandes Ecoles for the joint development and management of a shared platform for scientific outputs (a shared platform for posting preprints and postprints). Interinstitutional agreement to use the HAL portal. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | HAL - Online Hyper Articles Platform | 2007 | ANR-funded projects will have to be integrated in the HAL open archive platform. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | New policy on technology transfer (presented in November 2012) | | New policy for research knowledge transfer including 15 measures presented at the Ministers' Council in November 2012. Some measures are planned for implementation by end 2013: 'Code de la recherche', training, common public/SMEs labs, 'CIFRE' for SMEs. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Competitiveness Clusters - Third phase 2013-2018 | 2013 | Strategy and activities of the Competitiveness poles will be refocused towards market objectives and dissemination of innovative products or services. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Carnot Institutes | 2006 | The aim is to facilitate research partnerships between Research Performing Organisations and firms. A network of 34 Carnot institutes to develop technology transfer, initiated by the Ministry of higher education and research. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | SATT | 2009 | Structures contributing to the professionalisation of knowledge transfer and reinforcement of university competencies. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | OSEO | 2005 | Facilitates the access of SMEs to research investments, financing by banking partners and equity capital investors. Shares financial risks through partnership conventions signed with regional authorities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Creation of the Public Investment Bank (BPI) | 2012 | Fusion of OSEO and CdC. Support to SMEs. Improvement of coordination at national level. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | France Brevets | 2010 | First investment and valorisation Fund of patents in Europe. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | While a national policy for e-identity has not been identified, for France GIP RENATER is member of the federation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--------------------------------------|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | R&I funding system: project funding | 2006 | The project funding – in particular by the Federal Ministry of Education and Research (BMBF), the Federal Ministry of Economics and Technology (BMWi), the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) and by the Federal Ministry of Health (BMG) – is distributed via funding and special programmes based on applications for fixed-term projects mainly in competitive procedures. Since 2006, the research and innovation policy of the government has been aligned to the principles of the High –Tech Strategy for Germany (HTS). This represents the first comprehensive national innovation strategy with which the existing scientific-technical competences are summarised and specifically expanded. In 2010, the success of this new approach logically led to the development of the follow-on High-Tech Strategy 2020 which focuses on current and future challenges in Germany and cross the world and identifies five demand fields: climate/energy, health/nutrition, mobility, security and communication. Supporting initiatives and programmes for funding key technologies and optimising framework conditions for research, development and innovation are just as important as the consistent consideration of cross-cutting issues (e.g. funding junior scientists). Via the HTS, new value creation potential for the economy is developed and qualified, future-proof jobs are created in Germany. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | R&U Funding system: institutional funding | | Institutional funding not only refers to individual research projects but also to the overall operation of and investments in research institutes that are funded for longer periods by the federal government or jointly by the federal government and the Länder. This secures the research infrastructure, competence and strategic direction of the German research landscape. Important examples of this are the payments made by the federal government and the Länder as part of the joint research funding pursuant to Art. 91 b of the constitution, e.g. to the research organisations Helmholtz Association, Leibniz Association, Max Planck Society and Fraunhofer-Gesellschaft. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Project funding (programmes) | 2006 | The funding of important key technologies is targeted toward progress in the five demand fields relating to the High Tech Strategy because key technologies such as biotechnology and nanotechnology, microelectronics and nano-electronics, optical technologies, microsystem technology, materials and production technology, energy technologies, efficient drive technologies, aerospace technology and information and communication technology are prime drivers of innovation and form the basis for new products, procedures and services. They also make a decisive contribution to solving global challenges and their usefulness depends on the success of endeavours to transfer them into commercial applications. Therefore, the focus of the funding of key technologies is placed on application fields. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Institutional funding (non-university research institutes) - Helmholtz Association (HFG) | | The Helmholtz Association (HGF), the biggest German research organisation, introduced programme-oriented funding in 2001. It no longer invests resources in individual institutions, but rather funds six centre-embracing research areas that compete with each other for funding. In accordance with the core objectives of the Pact for Research and Innovation, activities now concentrate primarily on achieving top-flight results through cooperation and competition. The scientists and researchers working in the Helmholtz Centres have developed a total of 28 research programmes whose scientific excellence and strategic relevance are evaluated by internationally-renowned experts once every five years. Their reports determine the decision on how much funding will be provided and what the ratio of Federal and Länder funding for programmes will be. In 2011 the Helmholtz Association and the funding authorities developed the procedure of programme-oriented funding further on the basis of a performance review and an analysis of the previous procedure. The aims pursued include streamlining the procedure, consideration of links between centres/programmes and external partners, and a stronger contribution by the Helmholtz Association towards modernising the German research land-scape. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Institutional funding (non-university research institutes) - Fraunhofer Gesellschaft | | By allocating basic institutional funding, the Fraunhofer Gesellschaft (FhG) primarily strengthens the research institutes' cooperation with industry as well as collaborations with other partners in the German and European research communities. Successful cooperation and the successful acquisition of external research funds in competition with other partners are special criteria in the allocation process. Approximately 60% of basic funding is distributed among the Fraunhofer institutes using a formula based on the individual institutes' success in raising private sector funds; 40% of basic Fraunhofer funding is awarded under internal programmes in a competitive procedure or using other evaluation-based processes. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Institutional funding (non-university research institutes) - Max Planck Society (MPG) | 2005 | The Max Planck Society (MPG) has developed diverse funding options under its Strategic Innovation Fund. The Max Planck institutes can apply for such funding in an internal competition which is supported by external experts. The MPG attaches great importance to this internal competition; the amount of funds allocated has almost doubled since 2005. |

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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Institutional funding (non-university research institutes) - Leibniz Assocation (WGL) | 2011 | The institutes of the Leibniz Association (WGL) are evaluated by national and international experts once every seven years in a two-step procedure. The criteria include not only scientific excellence but also networking, knowledge transfer, support for young researchers, and equal opportunities. The provision of basic institutional funding depends on this evaluation; institutions may be closed should the evaluation lead to a negative result. The Federal Government and the Länder restructured the Leibniz Association's basic institutional funding in 2011. A core budget was defined for each individual institution which matches the institution's basic funding requirement for the research it is expected to carry out. These core budgets will be increased annually during the period of the Pact for Research and Innovation. On top of this, individual institutions may receive funding for additional special measures whose implementation was recommended in the process of an evaluation and which were selected in a competitive procedure when drawing up the budget. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Funding procedures of the Deutsche Forschungsgemeinschaft (DFG) | | The funding procedures of the Deutsche Forschungsgemeinschaft (DFG) are a major element of competition between organisations in the German research system both in quantitative and in qualitative terms. Successful university participation in the funding procedures of the DFG is generally seen as an important indicator of the individual university's position in the overall competition; the coordinated funding programmes (collaborative research centres, research centres, research training groups, priority programmes and research units), which involve participation by universities and the research organisations' cooperating with them in projects, are of special importance in this context. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Initiative for Excellence (Excellenzinitiative) | 2012 | With their Initiative for Excellence in higher education, the Federal Government and the Länder want to strengthen academic research in Germany on a lasting basis, enhance its international competitiveness and increase the visibility of cutting-edge research at German universities. The Initiative for Excellence was launched in 2005/2006, its second phase covers the period 2012 to 2017. The Initiative includes the following funding lines: graduate schools (structured training for young researchers in an excellent research environment), clusters of excellence (internationally visible centres with a thematic research focus) and institutional strategies (innovative overall development strategies of universities). Total funds of €2.7 billion are being provided in the second phase to support 45 graduate schools, 43 clusters of excellence and 11 institutional strategies at 39 universities. International networking plays a major role in all these efforts as a cross-cutting, high-level task. Universities are cooperating with regional, national and international partners from academia and industry in all of the three funding lines. More than 6,000 researchers, 25% of them from abroad, were recruited in the first two rounds (first phase). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Innovation Alliances | 2006 | New competitive instrument for research and innovation policy within the framework of the High- Tech Strategy initiated by the Federal Ministry of Education and Research (BMBF). Alliances are arranged with respect to specific application areas or future markets. They exercise a particular economic leverage effect. These strategic collaborations between science and industry focus on specific application areas or future markets. The private and academic sectors established a total of eleven innovation alliances in cooperation with the BMBF. Innovation Alliances exercise a particular economic leverage effect. The Federal Government aims to provide one euro for every five euros paid by industry. It is important that the right priorities are set in this process, for example in the area of climate protection and energy: The Innovation Alliances make a substantial contribution to energy-efficient lighting (OLED initiative), to the use of renewable energy (organic photovoltaics) and to energy storage (lithium-ion battery). Innovation Alliances are the first instrument which involves an executive-level commitment by industry regarding additional investments. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Leading-Edge Cluster Top Cluster Competition | 2007 | Competitive scheme as part of the Federal Government's High-Tech Strategy. Excellent clusters are funded in Germany's innovation policy to take a leading position in international competition. The regional clusters are to integrate their ideas faster in products, processes and services in order to sustainably improve their added value. The funding of clusters is to secure and create growth and jobs in order to make Germany more attractive. Under the motto of "Strengthening strengths!", the competition is not bound to a certain sector or research direction, but is intended to support the most efficient clusters from science and industry in increasing their international attraction and establishing themselves at the top in international competition. An independent high-level panel selected up to five clusters at intervals of one or two years in each of the competitions' three rounds. The winning clusters are receiving support of up to €40 million each over a maximum period of five years. Overall funding for the 15 leading-edge clusters amounts to up to €600 million. No thematic requirements have been defined: The applicants with the best strategies for future markets in their sectors were selected. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Higher Education Pact (Hochschulpakt) - reform initiative | 2011 | The federal government and the Länder create a needs based range of study programmes thereby ensuring the quantitative expansion of the academic training. Between 2007 and 2010, 185,000 new college places were created, twice as many as originally agreed. In total, around 320,000 to 335,000 additional college places will be created in the second phase of the programme. The federal government alone will provide at least 4.7 billion euros for this purpose between 2011 and 2015. Record student numbers were reached in Germany in 2011, with almost 516,000 new students and a grand total of 2.4 million. Academic training is gaining in popularity, a fact that the MINT subjects have also profited from. The federal government and the Länder have also decided to participate in the overhead financing as part of the research funding programme by the German Research Foundation (DFG). Universities that are very active in the research field can further strengthen their strategic manoeuvring capability thanks to the introduction of the DFG programme lump sum, which totals 20 % of the direct project funds. Until 2015, the federal government will continue to bear these costs alone, which total around 1.7 billion euros. The Teaching Quality Pact, which forms the third pillar of the Higher Education Pact, supports 186 universities from all 16 Länder, helping them to improve their study conditions. The federal government will invest a sum of around 2 billion euros for this purpose by the year 2020. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | ZIM - Zentrales Innovationsprogramm Mittelstand | 2008 | The Central Innovation Programme for SMEs (ZIM) is a nationwide, technologically and sectorally unrestricted funding programme for SMEs, including the industry-related research institutions with which they cooperate. In particular it funds cooperative projects between companies and research institutes, but also innovation projects by individual companies. The funding for research and development projects allows companies to directly implement innovative ideas for new products, production procedures or services, thereby realising innovation profits quickly. ZIM managed by the Federal Ministry of Economics and Technology (BMWi) funds individual projects (corporate R&D projects of individual companies), cooperation projects (involving cooperation between companies and between companies and research institutions) and cooperation networks (combining network management and R&D projects). More than 16,000 notifications of award of funding of over two billion euros have been issued since mid-2008, which triggered R&D investments of €5.8 billion. The programme reached 9,000 companies, cooperation with research institutions has trebled, and 2,000 companies are active in networks. The 2012 federal budget included roughly €500 million for ZIM. This funding triggers additional business expenditure on R&D and produces a positive impact on employment and the market in the medium or long term. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | The Joint Initiative for Research and Innovation - Pakt fuer Forschung und Innovation | 2006 | The Federal Government and the Länder concluded a Pact for Research and Innovation with the science and research organisations (DFG; FhG, HGF, WGL and MPG) in 2005. The Pact was renewed in 2009 to cover the period up to 2015. It is an agreed objective of this joint initiative to launch suitable measures to ensure and optimize the quality, efficiency and performance of science and research institutions which receive institutional funding. The initiative enables scientific and research organisations to pursue strategic goals and investigate new fields. To this end, the Federal Government and the Länder have increased the annual aid provided to the following large scientific and research organisations by 5% from 2011 to 2015: Helmholtz Association (HGF); Max Planck Society (MPG), Fraunhofer Society (FhG), Leibniz Association (WGL) and the German Research Association (DFG). The non-university research institutes (incl. DFG as the funding organisation of university research) can secure their position among the best in the world in the long term. The pact is linked to mutually agreed research policy goals that are laid down in an annual monitoring report by the pact partners and evaluated by the Federal Government and the Länder at the Joint Science Conference. In addition to the early and systematic identification of future-orientated research fields, the promotion of junior scientists and the inter-organisational network and internationalisation (incl. ERA), the main goals of the pact are the transfer of knowledge and technology and the formation of sustainable partnerships with commercial partners. The pact partners have collected a lot of reference data for this field that is included in the monitoring reports as part of a qualitative general overview. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | SME Innovative | 2007 | Special initiative within the thematic R&D programmes to facilitate access to these complex programmes for SMEs, particularly for first-time applications. The BMBF has set up the KMU-innovative funding initiative which offers specific, need-dependent access to the technology fields. The funding triggers additional investment in R&D in companies, which subsequently has a positive effect on the market and jobs in the medium to long-term. By the end of 2011, eight thematic R&D programmes participate in the initiative. Yearly budget of 80 million €. The aim is to support excellence in R&D and innovation in SMEs. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Academic Freedom Act | 2012 | The German Bundestag has adopted the Academic Freedom Act ("Law to increase the flexibility of budgetary provisions governing non-university academic institutions") on 12 December 2012. As a result, non-university research institutions will have more freedom in matters of finance and staffing decisions, the acquisition of shares in companies and in construction projects. Bureaucracy will be minimized, competences will be pooled and authorization procedures will be accelerated. The new legislation grants research institutions more flexibility when allocating their funds, which will lead to greater effectiveness, efficiency, and increased target orientation. Since innovative research seldom adheres to a strict routine, its success hinges on unhindered scope for action. The institutions will therefore dispose of a lump sum budget with which to finance the costs of staffing, physical resources and investment expenditure. The Academic Freedom Act also makes provisions for more autonomy in staffing decisions. Institutions will be allowed to make greater use of third-party private funds in order to attract or keep highly qualified researchers. As |

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| EKA Priority | EKA Action | National Measure contributing to EKA | Year Adoption | concerns the acquisition of shares in companies, the law provides that research institutions will benefit from a simplified authorization procedure which is accelerated by clearly defined deadlines. The process for approving the construction of research buildings will also be accelerated in future. In this context, the research institutions have been granted more autonomy and individual responsibility in so far as they dispose of the necessary expertise for the building project and exercise adequate controlling powers. The Academic Freedom Act is founded on the positive experience gained in the pilot phase of the Academic Freedom Initiative. The greater scope for action in non-university research will go hand in hand with the institutions' assumption of increased individual responsibility. The law stipulates that the institutions' business management system must continue to be transparent and complemented by adequate auditing procedures. The Act applies to non-university science and research institutions that are publicly funded. These include the Max Planck Society, the Fraunhofer Society, the Helmholtz centres, the Leibniz institutions and the |
| | | | | German Research Association (DFG). In addition to the Academic Freedom Act, the Federal Government has |
| | | | | undertaken measures to create more flexibility for other federal institutions involved in research work, starting with the 2013 budget |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | R&I funding system: general application of international peer review principles | | For science and research funding to be successful, international peer review principles like excellence, objectivity, transparency, confidentiality and ethics of science must not only be applied in the evaluation of project proposals but also in the evaluation of articles in scientific journals, of researchers in appointment procedures and of institutions. These principles are an integral part of the German science and research system. It is an agreed objective of our national Pact for Research and Innovation to launch suitable measures to ensure and optimize the quality, efficiency and performance of science and research institutions which receive institutional funding. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | DFG - German Research Council (Förderverfahren der DFG) | | The core principles of international peer review are firmly established in the German science system. This applies to public research funding and to a large number of financially strong private funders/foundations. Competitive, peer review-based allocation of funds is the main procedure applied at DFG. DFG project funding is best practice in Europe and served as the model for the European Research Council (ERC). In 2012, 26% of DFG expert opinions were prepared by experts abroad. |

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| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Non-university research institutes (Außeruniversitäre Forschungseinrichtungen) - HGF, FHG, MPG, WGL | | The evaluation of the German science system has become increasingly international since 2008. Participation by foreign researchers in the evaluation of German scientific performance and research strategies contributes to stronger links with the global scientific community – as does participation by German researchers in the evaluation of the performance of institutes abroad. International science is represented on the permanent advisory boards of the institutes of research organisations as well as on the commissions for institutional and programme evaluation. About 25% of the reviewers involved in the evaluation and competitive procedures at the Leibniz Association (WGL) are of non-German origin. The scientific excellence and strategic relevance of the research programmes of the Helmholtz Association (HGF) are evaluated by internationally renowned experts at intervals of five years. 80% of the members of the advisory boards of the institutes of the Max Planck Society (MPG) are experts from abroad. 40% of the basic institutional funding of the Fraunhofer Gesellschaft (FhG) is allocated in a competitive procedure under internal programmes or though other evaluation-based procedures. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Initiative for excellence (Excellenz Initiative) | 2012 | A majority of European and non-European experts are engaged in the Initiative of Excellence of the Federal Government and the Länder. |

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| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Institute for Research Information and Quality Assurance | 2005 | The Institute for Research Information and Quality Assurance (iFQ – Institut für Forschungsinformation und Qualitätssicherung) is a scientific institute, which is funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) as "central research facility". The institute is designed as a scientific institution that will initially concentrate on the evaluation of DFG's funding programs. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Internationalisation Strategy | 2008 | The federal government's research and innovation policy objectives, in conjunction with Europe's declared intention to become the world's most competitive science-based economy, calls for better exploitation of the opportunities presented by increasing internationalism. The federal government has responded to these challenges in its strategy to internationalise science and research. The combination of the High-Tech Strategy, the Joint Initiative for Research and Innovation and the Initiative for Excellence makes this Strategy of the Federal Government for the Internationalization of Science and Research a core element of German research policy. The Strategy of the Federal Government for the Internationalization of Science and Research has four designated priority fields that form the central theme of the international activities of German science and research: Strengthen cooperation with the world's best, Developing innovation potential at an international level, Strengthening the cooperation with developing countries in education and research in the long term, Assuming international responsibility and coping with global challenges. EU level instruments are being used for national goals, and there are attempts to influence the European level policy with core ideas as set out in the German "Internationalisation Strategy" and the "High Tech- |

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| | | | | Strategy". Triggered by a broadening of R&D policy and innovation policy at EU level, there have been steps towards a more functional "horizontalisation" at national level, i.e. European involvement is becoming part of the strategic thinking and there is a stronger awareness of European issues across all ministries (e.g. visible in ERA-Net participations and a generally strong participation in all new multilateral joint initiatives at the European level). Examples for this commitment can also be seen in the adoption / implementation of Germany's first Internationalisation Strategy in 2008 and the establishment of the "Initiative on Multilateral Research Funding" under the leadership of the DFG in 2010. Thus, the general importance of international cooperation – especially with regard to solving the "grand challenges" – has been highlighted and reinforced in the High-Tech-Strategy 2020 |
| | | | | (revised strategy released in 2010). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | High-Tech Strategy 2020 | 2010 | To boost Germany's innovation power, that is the aim of the High-Tech Strategy. Since 2006, the federal government has bundled its research and innovation activities into this national innovation strategy across all political fields, themes and departments. In the High-Tech Strategy, all process steps from basic research through invention to innovation are seen in context. This will strengthen Germany's position as one of the most attractive and dynamic research and innovation locations in the world. The integrative approach of the High-Tech Strategy has found widespread support from science and business and has also been well received internationally. The High-Tech Strategy has been further developed during this legislation period. It concentrates on global challenges that are highly relevant for human well-being and Germany as an innovation location. Between 2010 and 2013, the federal government intends to invest almost 27 million euros in the five demand fields/grand challenges: climate/energy, health/nutrition, communication, mobility and security, and in the promotion of key technologies. The High-Tech Strategy also aims to create underlying conditions favourable for funding innovation, allowing ideas to become innovations more quickly. This will, for example, facilitate the funding of innovations – in particular for small and medium-sized enterprises (SME) – and improve the conditions for setting up innovation-orientated companies. In the forward-looking projects of the High-Tech Strategy, this integrated approach is based on specific goals and is designed based on a cooperation by various specialist departments with the help of representatives from science and business. |

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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint Programming (JP), Joint Programming Initiatives (JPIs) | 2008 | Major progress has been made overall since Joint Programming was introduced five years ago. The Member States have launched ten Joint Programming Initiatives (JPI) in various subject areas. Germany is actively involved in eight of them and is the leading coordinator of the JPI Climate. Bringing together the various national research approaches and objectives pursued by the Member States in a thematic area is a process which takes years due to different national goals and interests. Six JPIs had adopted their Strategic Research Agendas (SRAs) by the end of 2012. Five JPIs launched initial pilot activities in the form of joint trans-border calls for proposals. The Secretariat of the JPI Climate has been set up in Germany and is mainly financed by the German side. In addition, a total of about € 90 million were spent on initial joint activities (calls, fast track activities, knowledge hubs, etc.) under the JPI JPND, FACCE and JPI Climate; approx. € 14 million of this funding was provided by the BMBF. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | ERA-NET ERA-NET+ | 2006 | ERA-Nets and ERA-Nets Plus are a proven instrument for cooperation between countries. Germany has played a major role in 116 of the 140 existing ERA-Nets and ERA-Nets Plus as well as in cross-cutting initiatives such as ERA-Watch and Net-Watch since 2006. Implementing trans-border calls and coordinating national funding at European level has meanwhile become a routine procedure for many research stakeholders in numerous ERA-NETs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint international level research organisations | | Joint international-level research programmes have been part of jointly financed large projects and research facilities such as EMBL, CERN, ESA and telescopes for decades. Germany contributes a substantial share to the required funding. A comparison of the sums spent in 2008 and 2011 shows an increase in most cases. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation in Article 185 measures | | E.g. Eurostars programme: The participating Member States inter alia Germany have agreed to coordinate and implement jointly activities aimed at contributing to the Eurostars Joint Programme. Important issue are the central evaluation of proposals by independent experts and the central approvement of the ranking list which is binding for the allocation of funding from the Community contribution and from the national budgets earmarked for Eurostars projects. |

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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Promote Innovation and Research in Germany | 2006 | The initiative launched by the Federal Ministry of Education and Research (BMBF) to "Promote Innovation and Research in Germany" has been presenting Germany's research achievements and opportunities to the international community since November 2006 under the brand "Research in Germany - Land of Ideas". Promotional measures and events aimed at positioning German innovation and research in key international markets have been organised on behalf of BMBF. The initiative additionally sets thematic and regional priorities which each run for a period of 1.5 years, also to strengthen and expand R&D collaboration between Germany and selected target countries. The thematic priorities are in line with the thematic fields of the High-Tech Strategy (so far, the initiative focused on two key thematic fields: Nanotechnologies and Environmental Technologies, the current focus is on Production Technologies).Regional priorities have been South Korea and India. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | FET Flagship "Human Brain Project" | 2012 | The FET Flagship "Human Brain Project", which involves more than 100 European and international institutions working in different disciplines, for example neuroscience, genetics and computer science, shows the complex principles of brain function and simulates the mechanisms involved using novel computer architectures. The Jülich Research Centre and Munich Technical University play a coordinating role on the German side along with Heidelberg University. |

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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Upper Rhine Bi-national Metropolitan Region science programme | 2011 | The German Länder of Baden-Württemberg and Rhineland-Palatinate and the French Alsace region initiated the proactive Upper Rhine Trinational Metropolitan Region science programme in November 2011. This joint campaign to promote excellent research helps trans-border beacon projects in the Upper Rhine area to draft and implement research and innovation proposals under the INTERREG initiative by providing technical and financial support. Following the evaluation of 36 project proposals by a transnational expert panel, total funding of €9.75 million (including €1.6 million in regional funds) was made available to support seven beacon projects from July 2012 to June 2015. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Initiative on Multilateral Research Funding (G8 Research Councils) | 2010 | The programme's medium-term goal is to establish a large pool of multilateral projects which can be supported by the national programmes of the German Research Foundation (DFG) and its partner organisations at any time. This first call for proposals encourages scientists from Germany, France, Japan, Canada, Russia, the United Kingdom and the United States to not only collaborate with existing scientific research groups on a bilateral or trilateral basis, but also create entirely new and productive multilateral research constellations. The first call for proposals focuses on the high-performance computing power expected from the world's fastest supercomputers in the coming decade. In the pilot phase, the participating organisations will jointly announce a call for proposals with a different thematic focus each year to encourage widespread multilateral collaboration. After submitting a brief preliminary proposal, the review committee may request a full application, which is then peer- reviewed by the organisation in whose country the scientific project coordinator is based. |

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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | French-German Agenda 2020 | 2010 | Agenda 2020 was adopted at the 12th Franco-German Council of Ministers in February 2010. The bilateral work programme lists more than 80 joint projects in various political spheres, including in education, research and innovation. Some specific research fields have been identified for further collaboration. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Guidelines for the participation of the BMBF in the preparation and implementation of transnational calls for proposals (Leitfaden des BMBF zur transnationalen Zusammenarbeit) | | The transnational networking of funding programmes is an issue of increasing importance for the Directorates-General of the BMBF. The range of joint calls issued or planned covers the European as well as the bilateral and multilateral level. The central goal of the guidelines is to provide the programme owners and administrators (BMBF and project management organizations) with a basis for the implementation of transnational calls for proposals within existing funding schemes, based on best practice and experience gained in bilateral and joint ERA-Net calls. Experience with previous joint calls for proposals had shown that major differences in the prerequisites for funding due to differing national funding laws and procedures of the participating countries present a central problem in the implementation of such calls. The development of a joint procedure for the publication of a call and the evaluation and funding of proposals within the framework of a joint call is usually a very complex and lengthy process which leads to individual solutions for specific projects in most cases. For the participants in a |

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| | | | | joint call this usually means that they must define and implement the administrative requirements of the joint call in addition to familiarizing themselves with the national and FP specific funding procedures. The guidelines were developed to simplify and standardize the process as far as possible. When transnational project funding initiatives (e.g. ERANETS, Art. 185 measures) include joint evaluation procedures, the scientific and technical results of such evaluations are usually recognised in Germany. This is based on the BMBF guidelines for transnational cooperation and on procedural rules agreed in individual initiatives. At the same time, formal admissibility of an application for funding must still be reviewed on the basis of the budgetary and funding rules of national or regional funding organisations, ideally before an international peer review is performed. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | D-A-CH' agreement (simplification of evaluation) | 2009 | The D-A-CH scheme contributes to simplifying of cross-border funding, especially in terms of evaluation (2003) and Joint Proposal Submission with Austria and Switzerland (D-A-CH) since 2009. Under this scheme, an agreement was concluded between the DFG and its partner organisations FWF (Austrian Science Fund) and SNSF (Swiss National Science Fund) concerning the mutual recognition of evaluation results (Lead Agency procedure) and trans-border funding (Money Follows Cooperation Line) to facilitate researcher mobility and the implementation of trans-border research projects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | The G8 Research Councils Initiative on Multilateral Research Funding | 2010 | The programme's medium-term goal is to establish a large pool of multilateral projects which can be supported by the national programmes of the German Research Foundation (DFG) and its partner organisations at any time. Evaluation of proposals is done in one country but funding of the participating researchers is provided by their respective national funding organisation according to their normal terms and conditions for project funding (i.e. mutual recognition of evaluations). First projects have started in March 2011. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Participation in Article 185 measures | 2008 | e.g. Eurostars programme: The participating Member States inter alia Germany have agreed to coordinate and implement jointly activities aimed at contributing to the Eurostars Joint Programme. The programme is managed by the dedicated implementation structure. Proposals are submitted centrally to the dedicated implementation structure by applicants (single entry point), following a central and common yearly call for proposals, with several cut-off dates. Project proposals are evaluated and selected centrally on the basis of transparent and common eligibility and evaluation criteria following a two-step procedure. In the first step, proposals are assessed by at least two independent experts, who review both technical and market aspects of the proposal. The ranking of proposals is performed in the second step, by an international evaluation panel, composed of independent experts. The ranking list, approved centrally, is binding for the allocation of funding from the Community contribution and from the national budgets earmarked for Eurostars projects. The dedicated implementation structure is responsible for monitoring projects and common operational procedures to manage the full project cycle shall be in place. Project participants in selected Eurostars projects are handled administratively by their respective national programmes. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | D-A-CH' agreement ("Lead Agency" process) - DACH Abkommen | 2009 | Within the scope of D-A-CH collaboration since 2009, an agreement has been signed between the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) and its partner organisations, the FWF (Austrian Science Fund, Austria) and the SNSF (Swiss National Science Foundation, Switzerland), regarding the mutual opening of the respective funding programmes ("Lead Agency" process) and cross-border funding ("Money Follows Cooperation Line") to simplify the mobility of researchers and the execution of cross-border research projects. The aim is to apply the arrangements on a broader scale and test new approaches. The D-A-CH collaboration contributes to the interoperability of national research programmes as envisaged by the ERA Communication. German research stakeholders have gained valuable experience with the Lead Agency principle under the D-A-CH agreement for basic research signed with Austria and Switzerland. This experience can be used in a European learning process. Building confidence between the research stake-holders over time is by no means a matter of course but it is of central importance for success. |

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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | The Joint Initiative for Research and Innovation II: Internationalisation strategies of the science organisations | 2009 | The Joint Initiative for Research and Innovation II calls upon the research organisations to continuously review and develop their internationalisation strategies in terms of their contribution to increasing institutional performance. The internationalisation strategies of the science organisations are expected to increase the international competitiveness of the German science system and generate an added value for both the German research community and the cooperating partner countries. For this purpose, the organisations establish and expand research collaborations on important topics with excellent international partners and strategic countries, gain access to research objects including those abroad and open up their own research infrastructures to foreign researchers, become involved in global knowledge flows and play an active part in shaping the European Research Area. The science organisations thave developed their own internationalisation strategies in recent years in keeping with their organisational mission while taking account of the goals and priorities defined in Germany's strategy for the internationalisation of science and research. They described major aspects of this effort in their 2011 Pact Monitoring Report and presented a joint position paper on internationalisation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Participation in Article 185 measures | | .g. Eurostars programme: The Eurostars Joint Programme is aimed at aligning and synchronising the relevant national research and innovation programmes to establish a joint programme, featuring scientific, management and financial integration, marking an important contribution towards the realisation of the ERA. Scientific integration is achieved through the common definition and implementation of activities under the Eurostars Joint Programme. Management integration is achieved via the use of the Eureka Secretariat as the dedicated implementation structure. Financial integration implies that the participating Member States and the other participating countries effectively contribute to the financing of the Eurostars Joint Programme, involving in particular the commitment to fund the participants in selected Eurostars projects from the national budgets earmarked for the Eurostars Joint Programme. In the longer term, this initiative should strive to develop tighter forms of scientific, management and financial integration. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Internationalisation Strategy | | Germany has signed a number of bilateral agreements with EU and non-EU countries in order to launch and/or further intensify cooperations in research and education, thus removing barriers for and/or explicitly permitting joint financing of projects and programmes. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | German contribution to ESFRI | | Germany participates in many of the 48 projects of the ESFRI Roadmap. It hosts the European XFEL in Hamburg and FAIR in Darmstadt as well as INFRAFRONTIER in Munich. SHARE-ERIC, the first ERIC founded in the Netherlands and coordinated by Germany, will soon move its headquarters to Munich. Furthermore, ESFRI has had a German Chair since December 2010: Dr Beatrix-Vierkorn-Rudolph, Director for Large Facilities and Basic Research at the BMBF. Under her leadership, ESFRI has been focusing on implementation tasks necessary to achieve the goal of the Innovation Union, namely to realise 60% of the ESFRI projects by 2015. Germany's partnership agreement with the EU provides for the possibility of spending structural funds on ESFRI projects. The Federal Government called upon the Länder to include ESFRI projects in their operational programmes at Länder level. |

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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National research infrastructure roadmap 2013 (Roadmap für Forschungsinfrastrukturen – Pilotprojekt des BMBF) | 2013 | The Roadmap of Research Infrastructures – a BMBF pilot project – was presented to the public by Minister Wanka on 29 April 2013. It is the first German overview of priority research infrastructure projects which the BMBF is planning to realise in the coming 10-15 years. In addition to previously prioritised projects on which work has already started, the Roadmap includes three new ESFRI projects: the Cherenkov-Telescope Array, IAGOS and EU-Openscreen. Inclusion in the Roadmap requires a German financial commitment to the project in question. The ESFRI projects which have already been given priority by Germany include: CESSDA, CLARIN, DARIAH, ECRIN, E-ELT, ELI ESS social, ESS spallation and ICOS. Priorities outside of ESFRI are for example: several research vessels, the Gauss Centre for Supercomputing, and W 7-X. An update of the Roadmap is planned so that further projects can be added, including areas for which other government departments are responsible (health, environment, energy). |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Internationalisation Strategy | 2008 | While the main goal is promoting innovation and research in Germany by internationalising its R&D and innovation landscape. Adopting bi-/multilateral cooperation agreements also contributes to "removing legal and other barriers" to R&D and innovation. The overall idea is joining the forces and resources, using infrastructures more efficiently and to the mutual benefit. |

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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | MERIL project | | The research organisations HGF, MPG, WGL and DFG and the German Council of Science and Humanities contributed to the FP7-funded project "MERIL, Mapping of the European Research Infrastructure Landscape". The MERIL database, which is under construction, currently lists 34 national research infrastructures in Germany which offer transnational access and are therefore relevant for the ERA. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Implementation EC Regulation on ERIC | 2013 | The legal basis for implementing a European Research Infrastructure Consortium (ERIC) was adopted in Germany on 7 June 2013. This law provides the basis for future efforts to establish a Germany-based ERIC in accordance with Council Regulation (EC) No 723/2009 of 25 June 2009 on the Community legal framework for a European Research Infrastructure Consortium (ERIC). |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | General Equal Treatment Act (Allgemeines Gleichbehandlungs-gesetz) | 2006 | The legal framework for what is nearly uniform protection against discrimination was created by the General Equal Treatment Act which came into force in 2006. (Guide to the General Equal Treatment Act) |

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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Principles for appointing research staff by non-university institutions (HGF, FhG, MPG, WGL) | | The principles that apply for the Fraunhofer Society, the Helmholtz Association and the Max Planck Society regarding the appointment of research staff in positions that correspond to the W-salary scale for professors are intended to enable them to recruit top-class staff in the face of international competition – particularly by appointing staff from the private sector, from abroad or from international organisations. Among other things, it is now possible to recognise previous research periods abroad for pension purposes, grant appropriate incentive pay and thus generally ensure competitive salaries. The Helmholtz Association, the Fraunhofer Society and the Max Planck Society are no longer bound by the framework for awarding payment, that is to say the overall sum available for salaries at an institution, when drafting the conditions of employment for senior researchers and recruiting staff from abroad, from international organisations or the private sector or preventing staff from switching to one of the latter. The Federal Government and Länder also allow the Leibniz institutions to appoint top scientists from abroad, from international organisations or the private sector and grant individual salary terms in the face of an increasingly competitive science system. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | International announcements of temporary and permanent positions for researchers | | As indicated in the 2009 and 2010 EU Reports on the Researcher's Partnership state that the Basic Law and the Länder Higher Education Laws stipulate the public and increasingly also international announcement of professorships. Public announcements of vacancies are also the norm for junior academic staff positions. Certain exceptions are possible and advisable, for example in the case of short-term employment periods or where candidates must satisfy special requirements. |

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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Foreign Skills Approval and Recognition Law | 2012 | Since 1 April 2012, opportunities to have foreign professional qualifications recognized in Germany have improved significantly. The Federal Government's Recognition Act introduces the legal right to have qualifications gained abroad assessed in comparison to the equivalent profession in Germany. The process and criteria for occupational recognition have been standardised, expanded and improved. This makes a sustainable contribution to securing a skilled labour force and facilitates the integration of persons with good foreign qualifications on the job market. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | D-A-CH' agreement ("Lead Agency Process") | 2009 | Within the scope of D-A-CH collaboration, an agreement has been signed between the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) and its partner organisations, the FWF (Austrian Science Fund, Austria) and the SNSF (Swiss National Science Foundation, Switzerland), regarding the mutual opening of the respective funding programmes ("Lead Agency" process), which contributes to cross-border access to research funds. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | EURAXESS Deutschland website | | The EURAXESS Deutschland website(www.euraxess.de) contains updated information concerning entry regulations, social insurance, administrative support, etc. The higher education institutions and non-university research institutions are endeavouring to recruit foreign researchers at all career levels and offer their research staff opportunities to spend research periods abroad. |

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| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Alexander von Humboldt Foundation actions to recruit and welcome foreign students and researchers | | Over the last decade, the Alexander von Humboldt Foundation has launched several ideas competitions, some of them in association with partners. These competitions follow the principle of "encouraging others to follow suit". Examples include: 1. The "Prize for the friendliest Foreigners Office", in association with the Donors' Association for German Science, which involves Foreigners Offices as stakeholders in recruiting foreign students and researchers; 2. The "Welcome Centres", together with the Donors' Association for German Science and the Deutsche Telekom Foundation, where three rounds of a competition have provided universities with funding to establish structures to support mobile researchers. In the meantime, the name of the competition has become a generic term that is used independently of its original meaning. 3. The "Researcher-Alumni" competition to support alumni work at universities in Germany. The majority of institutions have set up Dual Career Offices und Welcome Centres. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Programmes encouraging excellent foreign scientists to spend research periods in Germany | | Germany considers cross-border access to and portability of grants mainly as a stakeholder responsibility. In general, scholarships are increasingly being advertised internationally. Scholarship-holders in Germany are commonly selected in a procedure involving experts (peerreview process) and the applicant's nationality is thus generally considered irrelevant. There are a number of programmes that encourage excellent foreign scientists to spend research periods in Germany, for example: • Fraunhofer Attract Program (FhG) • German Academic International Network GAIN (DAAD) • Research Scholarships (MPG/ Georg Forster Research Fellowships (AvH) |

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| | | | | Humboldt Research Prizes / Bessel Research Prizes |
| | | | | (AvH) |
| | | | | Alexander von Humboldt Professorship (AvH) |
| | | | | Sofja Kovalevskaja Prize (AvH) |
| | | | | Helmholtz International Fellow Award for excellent |
| | | | | researchers and science managers from abroad |
| | | | | Postdoc positions in all coordinated DFG programmes |
| | | | | Mercator Guest Researchers Module (until 2012 |
| | | | | Mercator Programme) |
| | | | | • Emmy Noether Programme (DFG) |
| | | | | International Max Planck Research Schools |
| | | | | • The Leibniz Association and the German Academic |
| | | | | Exchange Service (DAAD) offer excellent postdocs from |
| | | | | all over the world the opportunity to conduct research for a |
| | | | | year at the currently 81 institutions of the Leibniz |
| | | | | Association within the framework of Leibniz-DAAD |
| | | | | Research Fellowships. In 2011 and 2012, 17 and 15 |
| | | | | postdocs respectively (10 and 6 from Europe) had the |
| | | | | opportunity to conduct research for one year at a Leibniz |
| | | | | institute of their choice. In almost all cases cooperation |
| | | | | between the researchers and the institutions continued after |
| | | | | the end of the scholarship. The programme makes a |
| | | | | noticeable contribution towards strengthening the |
| | | | | international visibility of the Leibniz institutions. A |
| | | | | Leibniz Alumni Network of former fellows is currently |
| | | | | being established. |

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| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Programmes offering financial support to German researchers to spend periods abroad | | It is becoming increasingly the norm in the German science system for German researchers to spend periods abroad. There are a number of programmes offering financial support: • DAAD Postdoctoral Programme (DAAD) • Feodor Lynen Research Fellowships (AvH) • DFG Programmes (DFG) • Otto Hahn Award (MPG) • Helmholtz Young Investigators Groups (HGF) • Prof.x2 Programme (FhG) • Sabbatical Programme (FhG) |

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| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS Germany portal | | The EURAXESS Deutschland website (www.euraxess.de) contains updated information concerning entry regulations, social insurance, administrative support, etc. EURAXESS Germany is run by the Alexander von Humboldt Foundation, which encourages the individual service centres to implement the declaration of commitment. There is no legal obligation to use EURAXESS. Evidence suggests that - relative to its size as a science location - Germany tends to make little use of the EURAXESS Jobs Portal portal compared with its European partners (in terms number of vacancies entered into the data bank). Reason may be that the homepage of the German Rectors' Conference provides links to the job exchanges of the individual Member States and in addition, the BMBF-funded "Information and Communication Platform for Young Researchers" (KISSWIN) has been operating since 2008. KISSWIN is an online communication and information platform for young researchers. The project aims at making the German research funding system and career opportunities transparent. However, Germany is seeing more recently a strong increase in participation in the EURAXESS network: twenty-one of the 70 EURAXESS service centres in Germany have already signed the declaration of commitment, 15 of them in the course of 2012 and 2013. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Information and Communication Platform for Young Researchers" (KISSWIN) | 2007 | KISSWIN is an online communication and information platform for young researchers. The project aims at making the German research funding system and career opportunities transparent. The service provides free information, promotion and advice for young researchers (e.g. experts answering questions concerning a scientific career, workshops dealing with career topics; job databases as well as databases providing information on funding opportunities and funding organisations; current news and announcements; community and forum). |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | DFG Research Schools (DFG Graduierten-kollegs) | | The Deutsche Forschungsgemeinschaft introduced the concept of "postgraduate research groups" as far back as in 1990. This remains an important programme to encourage institutions to provide structured post-graduate training and was complemented by the "Graduate Schools" programme under the Initiative for Excellence in 2006. The German higher education institutions – often in partnership with non-university research institutions – already began reforming the doctoral phase of training around 20 years ago in order to ensure the critical mass of research environment and variety of research methods which a doctoral candidate needs. This has led to the development of programmes for additional qualifications and skills and more structured doctoral training programmes across the board at all universities and at a number of non-university research institutions. At European level, this process was encouraged by the Salzburg II Recommendations of the European University Association (EUA) and its Council of Doctoral Education (EUA-CDE), which serve as a model throughout Europe. |

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| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Initiative for Excellence | 2005 | Under the scheme funding is provided for graduate schools, clusters for excellence, forward-looking concepts for universities. On 15 June 2012, the Grants Committee selected a total of 39 universities from 13 Länder including 45 graduate schools. The initiative's budget is administered by DFG. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Cooperative Doctoral Programme (Baden-Württemberg) | 2010 | Following a competitive procedure, Baden-Württemberg launched eight "Cooperative Doctoral Programmes" at the end of 2010 in which universities and universities of applied sciences conduct doctoral courses together and on an equal footing. Baden-Württemberg is also funding two new doctoral programmes on education research which link teacher training colleges and universities. The funding programmes have the effect of strengthening the structures of all the higher education institutions involved. Other Länder are also offering special programmes. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | BuWin / "Family-Friendly University Audit" / Total E-Quality | | The principles of the Charter & Code are already applied in Germany under observation of national peculiarities and taking into account the reservations expressed by the respective science organisations when the agreements were signed. The self-commitment of the science institutions and organisations and the statutory provisions governing wage agreements of the social partners, the equality standards of the science organisations and quality assurance measures such as the National Report on Junior Scholars (BuWin), the "Family-Friendly University Audit" or the "Total E-Quality" award play an important role in this context. Germany has decided in favour of such voluntary advisory services to improve the quality of human resource management in the science institutions. |

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| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Report on the Promotion of Young Researchers (BuWin) | 2008 | The National Report on Junior Scholars (BuWiN), which was published for the second time in 2013, provides sound data and the latest findings on qualifications and career pathways as well as on career prospects for doctoral candidates and postdocs in Germany. The report's sound scientific monitoring is an important basis for the empirically-based steering of political processes, and has thus contributed significantly to improving the situation of young researchers in Germany. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Plan to improve the social security and pension situation of mobile researchers | 2010 | his plan should improving the provision of information in cooperation with insurance carriers, HE and other research organisations and EURAXESS Germany, by (1) organising training events to improve the ability of science institutions to provide counselling; (2) strengthening cooperation with national supplementary insurance funds responsible for researchers with the aim of improving the dissemination of information to mobile scientists, (3) considering private pension insurance for scholarship holders in the post doc phase through research organisations and (4) Extending bilateral social security insurance agreements to include further states where politically and economically feasible. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | General Anti-Discrimination Act - Allgemeines Gleichbehandlungsgesetz (AGG) | 2006 | Since 2006 the General Equal Treatment Act (Allgemeines Gleichbehandlungsgesetz, AGG) has provided the legal framework for gender issues in the labour and civil law sectors. It transposes four European anti-discrimination directives into German law. The purpose of this Act is to prevent or to stop discrimination on the grounds of race or ethnic origin, gender, religion or belief, disability, age or sexual orientation (Section 1 AGG). |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Federal Bodies Law (Bundesgremienbesetzungsgesetz) | 1994 | Germany's Federal Bodies Law (Bundesgremienbesetzungsgesetz) of June 1994 (BGremBG) provides a suitable framework for ensuring equal participation by men and women. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Woman at the Top (Frauen an die Spitze) | 2008 | The BMBF programme Frauen an die Spitze (Women at the Top) was launched in 2007 with funding from the European Social Fund (ESF). It studies gender issues and tests new action schemes in Germany as a basis for new approaches towards increasing equal opportunities. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | DFG Funding and "Forschungsorientierte Gleichstellungsstandards" | 2008 | Since 2008, it has been possible to apply for funds for equal opportunities measures in all collaborative projects of the German Research Association (DFG). This ringfenced funding can be used to increase the number of women researchers at project manager level, support young women researchers involved in the research collaboration in pursuing their research careers, or making researchers' workplaces more family-friendly. In addition, funds to compensate for the loss of working hours resulting from maternity leave, parental leave or nursing care leave can be applied for in all DFG research projects. The DFG together with its member institutions adopted "Research-oriented standards on gender equality" in 2008. With this self-commitment, the institutions define personnel and structural standards for a sustainable gender equality policy in research and higher education. A working group set up by the DFG General Assembly supports the member institutions in the implementation of the gender equality standards and assesses their gender equality strategies and the progress they have made in |

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| | | | | increasing female representation. The joint goal is to markedly increase the proportion of women at all scientific career levels in science by 2013 following the "cascade model". This means that the target percentage of women at each career level follows on from the proportion of women at the level immediately below. In this process, the DFG developed a toolbox which contains a collection of equal opportunities measures. This freely accessible, quality-assured information system provides selected practical examples particularly for universities and research institutions. The standards on gender equality have given a clear signal in recent years. As a result, gender equality is now increasingly understood as a horizontal and managerial task, gender mainstreaming activities are being professionalised and concrete measures in member institutions consolidated. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Female professors' programme | 2007 | The Federal Government and the Länder are providing funding of approx. €150 million under the Female Professors Programme (2007-2012, decision on second phase in 2012) to increase the participation of women at all levels of academic training. On the basis of a positive appraisal of their equality policies, higher education institutions have the opportunity to receive funding for up to three professorships for women. Gender equality has thus soon become an important competitive factor in higher education. The Female Professors Programme has met with great acceptance: 77% of all universities, almost 40% of the universities of applied sciences and more than 25% of the colleges of art and music are participating. The percentage of women professors almost doubled between 2002 and 2010 from 8% to 15% (She figures 2012). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Higher Education Laws in the German Länder (Hochschulgesetze der Länder) | | The goal of realising equal opportunities for men and women and removing existing disadvantages at universities is firmly established in the Higher Education Laws of the Länder. Germany is planning to actively remedy the underrepresentation of women in academia by means of various recruitment efforts and target quotas. Special attention is given to the problem of balancing research and family life. For example, Section 2 para 5 of the Academic Fixed-Term Contract Law (Wissenschaftszeitvertragsgesetz) of April 2007 provides that fixed-term contracts may be extended where leave is granted for the purpose of caring for one or several children under the age of 18 or other relatives in need of long-term care or where there is an entitlement to statutory parental leave. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Targets for gender balance set by Joint Science Conference (GWK) | 2011 | A decision of the Joint Science Conference (GWK) of 7 November 2011 calls upon all research institutions and universities to introduce flexible target quotas for the recruitment of young female researchers and managerial staff. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Target quota set for gender balance by independent science organisations (HGF, FhG, MPG, WGL) | 2012 | The Federal Government and the Länder expect the research organisations to implement the GWK decision by establishing flexible target quotas in keeping with the "cascade model" of the DFG's research-oriented standards on gender equality. The organisations are expected to agree targets at management level to ensure that the quotas are achieved. The four research organisations HGF, FhG, MPG and WGL developed their own specific procedures for the application of the "cascade model" and established target quotas in 2012. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Programmes at Länder level to enhance equal opportunities at universities | | The Länder have their own programmes to enhance equal opportunities at universities. North Rhine-Westphalia (NRW) launched a programme for equal opportunities at universities in 2012. This programme is provided with annual funding of up to €5.4 million and includes three strands: Under the equal opportunities strand, universities in NRW receive a basic sum of approx. €3 million. The young researchers strand provides annual funding of €1.5 million for 25 posts for young academics on their way to a professorship. The gender research strand supports 14 research projects on the big social challenges with annual funding of €900,000. In addition, equal opportunities at NRW universities are also promoted by close relations with the Women's & Gender Research Network NRW and the Conference of Equal Opportunities Officers at Universities and Teaching Hospitals in NRW (Landeskonferenz der Gleichstellungsbeauftragten der Hochschulen und Universitätsklinika des Landes Nordrhein-Westfalen). Bavaria (BY) supports professorial careers for women |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| | | | | with funds from a special budget for the promotion of equal opportunities for women in research and teaching. The aim is to encourage even more women to choose a professorial career so that female candidates are available for professorial vacancies. Funding is provided for example in the form of fellowships for post-docs and professorial candidates at universities, advanced training grants and a special teaching assignment programme at universities of applied sciences as well as grants for advanced training at colleges of art. Funding of approximately €3 million has been made available for this purpose in 2013. Baden-Württemberg (BW) has been supporting crossmentoring at universities and teaching hospitals under the COMENT programme since 2011. The aim is to increase the proportion of women in leadership positions in academia and industry, for example by means of coaching programmes which provide career-related support to female students, doctoral candidates and post-docs. Between 2007 and 2012, the Margarete von Wrangell programme supported 64 female professorial candidates in Baden-Württemberg by financing their employment by a university. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Center of Excellence Women and Science (CEWS) | 2000 | Center of Excellence Women and Science (CEWS) aims to increase the number of women in leading positions at universities and research institutions, to raise the efficiency of political measures aimed at equality and to introduce gender mainstreaming in all areas of science and research. The FemConsult database, which contains current profiles of several thousand women academics, is a central instrument for increasing the number of women in leading positions. Moreover, for instance with regard to HEI, the CEWS has issued rankings of institutions of higher education based on equality aspects every two years since 2003, and this has become an established instrument of equal opportunities quality control within the higher education system. Since 2009, the rankings have also been offered in relation to other equal opportunity evaluations, such as those of the Federal and State Programme for Women Professors, the Total-E-Quality Advisory Service (established in 2001), and the Family Friendly University Audit (established in 1998). |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Nationalen Pakt für Forschung und Innovation | 2007 | The 2007 German Pact for Research and Innovation firmly established the requirement that research organisations should develop strategies to ensure that women's research potential is fully used. The organisations are expected to effect significant changes in the quantitative representation of women in the research system, particularly in leading positions. The research organisations report on the progress made at the individual levels in clear terms and explaining their actions as part of the annual monitoring exercise under the Pact. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Excellenz initiative evaluation criteria | 2006 | Gender equity is also an integral part of the Initiative for Excellence of the Federal Government and the Länder. The experts evaluating the proposals also consider whether the proposed measures can promote equal opportunities for men and women in research. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Campaign to promote equal opportunities for men and women in research (Offensive für Chancengleichheit von Wissenschaftlerinnen und Wissenschaftlern) | 2006 | In 2006 the organisations of the Research Alliance (DFG, HRK, HGF, FhG, MPG, WGL, AvH, DAAD, Leopoldina, Wissenschaftsrat) launched a campaign to promote equal opportunities for men and women in research (Offensive für Chancengleichheit von Wissenschaftlerinnen und Wissenschaftlern) (reviewed in May 2012) with the aim of markedly increasing the proportion of women in leading academic positions within the following five years. In 2010 women accounted for 21% of the members of university bodies and 12% of senior management positions at universities were held by women (She figures 2012 |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | National Pact for Woman in MINT careers | 2008 | Numerous partners from academia, research, industry, politics, associations, labour and management and the media concluded the National Pact for Women in MINT Careers in 2008 in order to increase the percentage of women in mathematics, informatics, natural science and technology. Efforts are being made to attract young women to studies and careers in science and technology, to encourage female university graduates to opt for careers in industry, and to increase the number of study places offered in natural science and technology disciplines. The project map currently contains some 750 projects and provides a nationwide overview of activities, introduction days grants, mentorships and competitions for schoolgirls, female students and those working in MINT careers. With the success of the project map, a total of 90,000 girls and young women have participated in the activities offered to date. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Leitlinien für die Ausgestaltung befristeter Beschäftigungsverhältnisse | 2012 | Die Hochschulen haben sich in ihren "Leitlinien für die Ausgestaltung befristeter Beschäftigungsverhältnisse" von April 2012 zum Ziel gesetzt, eine höhere Beteiligung von Frauen an der wissenschaftlichen, karriererelevanten Qualifizierung auch bei befristeten Arbeitsverträgen zu gewährleisten und familienbezogene Fördermöglichkeiten in jedem Einzelfall zu nutzen. Außerdem wird die Gleichstellungspolitik zur Leitungsaufgabe erklärt. An vielen Hochschulen ist das Ziel der gleichberechtigten Teilhabe von Männern und Frauen Gegenstand des institutionellen Leitbildes. In den letzten Jahren haben z.B. viele technische Universitäten in Kooperation mit Forschungseinrichtungen und Unternehmen der Privatwirtschaft landesgeförderte Coaching- und Mentoring-Programme zur Förderung hochqualifizierter Nachwuchswissenschaftlerinnen entwickelt. Flexible Arbeitszeiten und Maßnahmen zur Kinderbetreuung werden von fast allen Hochschulen angeboten. Sie bauen ihre Angebote an eigenen Kindergärten und –tagesstätten aus, um Frauen das Verfolgen einer Karriere in der Wissenschaft zu erleichtern. Daneben existieren weitere Initiativen, wie z.B. das Audit "familiengerechte Hochschule" der Gemeinnützigen Hertie Stiftung, in dessen Rahmen Universitäten und Fachhochschulen für die familienfreundliche Gestaltung ihrer Arbeits- und Studienbedingungen ausgezeichnet werden. Bis zum 14. März 2013 wurden bereits über 134 Hochschulen zertifiziert. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities | 2003 | Im Oktober 2003 veröffentlichten die deutschen Wissenschaftsorganisationen sowie zwölf weitere nationale und internationale Unterzeichner die "Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities", die Anfang 2013 fast 400 institutionelle Unterzeichner hatte. Zu den Erstunterzeichnern gehörten unter anderem der Deutsche Wissenschaftsrat, HRK, DFG, MPG, FhG, WGL und HGF. Ziel der Deklaration ist es, die Verbreitung von Wissen (wissenschaftliche Forschungs¬ergebnisse, Ursprungsdaten, Quellenmaterial, digitales Bild- und Grafikmaterial, wissenschaftliches Material in multimedialer Form) über das Internet nach den Prinzipien des offenen Zugangs zu fördern. Die Unterzeichner der Berliner Erklärung verpflichten sich, den Übergang zum Open Access-Paradigma mit Hilfe verschiedener Aktivitäten zu unterstützen. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Clause on open access to the auxiliary terms and conditions governing its project funding [to check witch German authorities] | | The Federal Government has initiated a number of activities to promote open access such as a dialogue between science organizations and scientific publishing companies. The Federal Ministry of Education and Research also plans to add a clause on open access to the auxiliary terms and conditions governing its project funding. The players in German research organizations are actively promoting open access, for example through the Priority Initiative "Digital Information". |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Dialogue between German government and German science organisations on Open Access / repositories and Open Access journals | | Die Bundesregierung hat verschiedene Maßnahmen zur Förderung eines offenen Zugangs initiiert, und u.a. einen Dialog zwischen Wissenschaftsorganisationen und Wissenschaftsverlagen durchgeführt. In Deutschland hat das Thema des offenen Zugangs zu wissenschaftlichen Informationen einen hohen Stellenwert. Die Akteure der deutschen Forschungsorganisationen sind im Bereich Open Access zu Publikationen und Forschungsdaten äußerst aktiv, z.B. in der "Schwerpunktinitiative Digitale Information". Deutschland verfügt über eine gut aufgestellte Landschaft von Repositorien und Open Access Journals. Als zentrale Informationsplattform zum Themenfeld Open Access hat sich in Deutschland www.open-access.net etabliert. Darüber hinaus existieren in Deutschland derzeit insgesamt 220 Repositorien, 52 sind Volltextrepositorien im Europäischen Repositoriennetzwerk DRIVER (Digital Repository Infrastructure Vision for European Research, http://www.driver-repository.eu/), 5 Repositorien sind in OpenAIRE (Open Access Infrastructure for Research in Europe, http://www.openaire.eu) vernetzt. 259 Open-Access-Zeitschriften werden derzeit in Deutschland verlegt (vgl. Directory of Open Access Journals (DOAJ), http://www.doaj.org). Die Bundesregierung hat verschiedene Maßnahmen zur Förderung eines offenen Zugangs initiiert, und u.a. einen Dialog zwischen Wissenschaftsorganisationen und Wissenschaftsverlagen durchgeführt. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Clause on open access to the auxiliary terms and conditions governing its project funding (planned) | | Weiterhin beabsichtigt das Bundesministerium für Bildung und Forschung, in die Nebenbestimmungen zu seiner Projektförderung eine Open Access-Klausel aufzunehmen. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | TechnologieAllianz network | 2001 | 2001 startete die Deutschland die Verwertungsoffensive, um Forschungsergebnisse aus den Hochschulen verstärkt wirtschaftlich zu nutzen. Den Notwendigkeiten regionaler Innovationsstrategien folgend, haben Bund und Länder mehr als 20 Patent- und Verwertungsagenturen (PVA) eingerichtet. Die PVA arbeiten in unterschiedlichen Rechtsformen. Zum Teil sind die Hochschulen Gesellschafter. Mit ihren etwa 100 Innovationsmanagern betreuen sie mit ausgewiesener Fach- und Branchenexpertise nahezu alle deutschen Hochschulen sowie diverse außeruniversitäre Forschungseinrichtungen. Die PVAs sind zusammen mit weiteren Technologietransferstellen in der TechnologieAllianz, einem bundesweiten Netzwerk, vereinigt (http://www.technologieallianz.de/home.php). Die TechnologieAllianz ist damit auch eine der zentralen Ansprechstellen für Unternehmen, die auf der Suche nach innovativen, bereits schutzrechtlich gesicherten Forschungsergebnissen aus Deutschland sind. Darüber hinaus verfügen viele Hochschulen und Forschungseinrichtungen über eigene Wissens- oder Technologietransferbüros. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Fostering the innovation dimension of research: SIGNO, EXIST | | Mit der Maßnahme "Innovationsorientierung der Forschung" (2011-2014) werden gezielt neue Methoden und Instrumente entwickelt, um den Wissenstransfer der außeruniversitären Forschungseinrichtungen zu stärken. Seitens des BMWi wird dies unterstützt über Programme wie beispielsweise "EXIST- Existenzgründer aus Hochschulen" (2007) und die Förderinitiative "SIGNO – Schutz von Idee für die gewerbliche Nutzung" (2008) für Hochschulen, Unternehmer und Erfinder. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National strategy to implement the Commission Recommendation on management of intellectual property in knowledge transfer activities and on a Code of practice for universities and other public research organisations (IP Charter) by the Joint Science Conference (GWK) | 2010 | Im Jahr 2010 hat die Gemeinsame Wissenschaftskonferenz (GWK) in Deutschland die Umsetzung der Empfehlung der Kommission zum Umgang mit geistigem Eigentum bei Wissenstransfertätigkeiten und für einen Praxiskodex für Hochschulen und andere öffentliche Forschungsorganisationen ("IP-Charta"), dessen Implementierung der WBF-Rat am 30.05.2008 beschlossen hat, als Priorität in die strategische Agenda aufgenommen. Damit ist die Umsetzung der IP-Charta in Deutschland bereits nationale Strategie, die das föderale Prinzip und die regionalen und institutionellen Bedürfnisse angemessen berücksichtigt, weil sie den Bundesländern und Institutionen den notwendigen Freiraum in der Frage des "Wie" der Umsetzung überlässt. So haben z.B. die Länder Hessen, Niedersachsen, Nordrhein-Westfalen und Thüringen die Entwicklung einer Strategie zu geistigem Eigentum in die Ziel- und Leistungsvereinbarungen mit den Hochschulen aufgenommen. Nordrhein-Westfalen hat die Fördermaßnahme "PatentScouts der NRW Hochschulen" gestartet, die unter anderem die Beratung zu IPR vorsieht. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Networks of Competence | 1999 | Stimulating the establishment of sectoral networks to promote cluster building and international awareness of industrial networks in Germany. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Regional laws on knowledge and technology transfer as a task for German institutions of Higher Education | | Die Hochschulgesetze aller 16 Länder in Deutschland nennen inzwischen den Wissens- und Technologietransfer als eine Aufgabe der Hochschulen. Zudem haben Länder wie Hessen, Niedersachsen, Nordrhein-Westfalen (NRW) und Thüringen die Entwicklung einer Strategie zu geistigem Eigentum in die Ziel- und Leistungsvereinbarungen mit den Hochschulen aufgenommen. Nordrhein-Westfalen hat darüber hinaus in einem eigenen Kapitel zum "Wissens- und Technologietransfer" in den Ziel- und Leistungsvereinbarungen konkrete Vorgaben zur "intensiveren Kooperation mit Unternehmen", zur "Steigerungen der Patent- und Verwertungsaktivitäten" und zu einer "Kultur der Selbstständigkeit an Hochschulen" mit ihren Hochschulen vereinbart. The Higher Education Laws in all of Germany's 16 Länder have now identified knowledge and technology transfer as a task for institutions of higher education. Moreover, the Länder Hesse, Lower Saxony, North-Rhine Westphalia (NRW) and Thuringia have taken up the development of an intellectual property strategy in the target and performance agreements between the Länder and the universities. |

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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | IGF -Promotion of Joint Industrial Research and Initiative Programme Future Technologies for SMEs (ZUTECH) | 1954 | Support to R&D projects which are jointly and precompetitively organised by research associations that represent companies of a sector or a technology field. Orientation knowledge is to be compiled and technological platforms are to be developed for whole sectors or for interindustrial use through joint industrial research and development. In this way, sustainable research cooperations are to be supported in sector-wide and/or inter-sector networks and, in particular, SMEs are to be provided with access to practically oriented research results. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Research Campus: public-private Partnership for Innovation | 2011 | The Research Campus programme contributes to Knowledge Circulation by enhancing partnerships which are aiming to develop new technologies in areas with high technological complexity and a great potential for radical innovation. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | EXIST - Start-ups from Science (also: EXIST - University-based business Start-ups) | 1999 | Improving the entrepreneurial environment at universities and research institutions and increasing the number of technology and knowledge based business start-ups. The EXIST program is part of the German government's "Hightech Strategy for Germany". |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | ERP Start-up Fund | 1995 | The objective is to leveraging access to finance for start ups via venture capital. The focus is on technology-based company foundations. The structures for funding advisory services have been streamlined: the Federal States alone are now responsible for funding advisory services in the pre-founding stage. The Federal Government is in charge of funding advisory services for up to five years after the company foundation. These services are offered by KfW Mittelstandsbank. A number of Internet portals offer company founders advice and decision-making aids. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Validation of Innovation Potentials - VIP | 2010 | Part of High-Tech Strategy 2020: Stimulating Knowledge Transfer (contract research, licences, research and IPR issues in public/academic/non-profit institutes). The programme, with a last call in 2012, was targeted at public research organisations to improve their knowledge transfer abilities. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | go-innovativ' -Vouchers for Innovation Consulting and Management | 2010 | This programme (with a budget of 15 million € yearly) provides vouchers to companies for consultancy services on innovation management in order to enhance learning from successful innovators. |

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| Gender equality and gender mainstreaming in research | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National Agency for Women Start-ups Activities and Services | 2004 | While this scheme aims to mobilise the potential of women start-ups in industry and on the market, it can also be considered as an action within the ERA action towards knowledge transfer. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | High-tech Start-up Fund | 2005 | Joint initiative of the federal government, the industrial companies BASF, Deutsche Telekom and Siemens as well as KfW Mittelstandsbank within the framework of "Partners for Innovation". In total, € 262 million will be provided over the next five years. € 240 million alone comes from the federal budget. The initiative invests equity capital in newly established technological companies, whose core is a research and development project. With the aid of a "seed investment", the start-ups should lead the R&D project until a prototype or a "proof of concept" is developed or the product is introduced onto the market. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Research at Universities of Applied Sciences | 2005 | Im Rahmen des Programms "Forschung an Fachhochschulen" fördert das Bundesministerium für Bildung und Forschung in mehreren Förderlinien die anwendungsorientierte Forschung an Fachhochschulen in den Ingenieur-, Natur- und Wirtschaftswissenschaften sowie im Bereich der Sozialen Arbeit, Pflege- und Gesundheitswissenschaften. Im Mittelpunkt des Programms stehen die anwendungsorientierte Forschung und die forschungsnahe Qualifizierung des Ingenieurnachwuchses. Die Förderlinie "FHprofUnt" fördert speziell FuE-Kooperationen zwischen Fachhochschulen und Unternehmen. Der Haushaltsansatz für dieses Programm wurde seit 2005 von 10,5 Millionen auf 40,7 Millionen im Jahr 2012 nahezu vervierfacht. Von 2006 bis 2011 haben 110 Fachhochschulen mit weit über 800 Forschungsvorhaben und insgesamt 175 Millionen Euro davon profitiert |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Innovation Alliances | 2007 | Innovation Alliances represent a new instrument for research and innovation policy within the framework of the High- Tech Strategy initiated by the Federal Ministry of Education and Research (BMBF). Alliances are arranged with respect to specific application areas or future markets. They exercise a particular economic leverage effect. Currently, there are nine Innovation Alliances and a large number of "strategic partnerships" created by the BMBF, the scientific community and industry. |
| Optimal circulation and transfer of scientific knowledge, including | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital | Digital Germany 2015 | 2010 | With the implementation of the ICT strategy, Digital Germany 2015, the Federal Government is seeking to contribute to promoting sustainable economic growth, help create new jobs and bring about social benefits. The ICT strategy, which also deals with R&D and Education aspects, will be carried out in close interaction among |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| through digital | research services | | | policymakers, industry and scientists. The Federal |
| ERA | enabling consortia of | | | Ministry of Economics and Technology, BMWi, is in |
| | different types of | | | charge of coordinating the implementation under the |
| | public and private | | | specific purviews of the various ministries. A major role |
| | partners | | | here is played by the National IT Summit, which has already provided a key impetus and will continue to |
| | | | | perform a function in future strategy implementation. |
| | | | | Die Bundesregierung hat 2010 unter Federführung des |
| | | | | BMWi eine IKT-Strategie für die digitale Zukunft |
| | | | | Deutschlands mit dem Titel "Deutschland Digital 2015" |
| | | | | verabschiedet. Vorrangiges Ziel ist es, die großen |
| | | | | Potenziale der IKT für Wachstum und Beschäftigung in |
| | | | | Deutschland besser zu erschließen. Die Umsetzung der |
| | | | | IKT-Strategie soll im engen Zusammenwirken von Politik, |
| | | | | Wirtschaft und Wissenschaft erfolgen. Die IKT-Strategie |
| | | | | der Bundesregierung orientiert sich an den Zielstellungen |
| | | | | der "Digitalen Agenda für Europa". Schwerpunkte der |
| | | | | nationalen IKT-Strategie sind u.a.: Ausbau der |
| | | | | Infrastrukturen, Gewährleistung der Schutz- und |
| | | | | Individualrechte der Nutzer, Ausbau von Forschung und |
| | | | | Entwicklung im IKT-Bereich und schnellere Umsetzung |
| | | | | von F&E-Ergebnissen in Innovationen, Stärkung von Aus- |
| | | | | und Weiterbildung für die Nutzung von IKT und Nutzung |
| | | | | der IKT bei der Lösung gesellschaftlicher |
| | | | | Herausforderungen wie Klimaschutz, Gesundheit, |
| | | | | Mobilität. Eine Maßnahme der Strategie ist der Aufbau der |
| | | | | Deutschen Digitalen Bibliothek (DDB) ist eine digitale |
| | | | | Bibliothek, die 30.000 deutsche Kultur- und |
| | | | | Wissenschaftseinrichtungen vernetzen und über eine |
| | | | | gemeinsame Plattform öffentlich zugänglich machen soll. |
| | | | | Eine Beta-Version des Portals ging am 28. November 2012 online. Derzeit sind 1.990 Einrichtungen bei der |
| | | | | DBB registriert, langfristig sollen alle deutschen Kultur- |
| | | | | DDD registriert, langifistig sollen alle deutschen Kultur- |

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| | | | | und Wissenschaftseinrichtungen ihre Inhalte einbringen. Die DDB soll auf europäischer Ebene in die Europeana integriert werden. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Advice and federal working group with the German Länder on scientific information infrastructures (on-going) | 2012 | Der deutsche Wissenschaftsrat (WR) hat im Juli 2012 Empfehlungen zur Weiterentwicklung der wissenschaftlichen Informationsinfrastrukturen abgegeben. Bund und Länder haben eine Arbeitsgruppe zur Ausgestaltung der Umsetzung der Wissenschaftsratsempfehlungen eingerichtet. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Initiatives towards e-identity (DFN-AAI, eduGAIN, ORCID) | | Es gibt verschiedene Aktivitäten von Seiten der Wissenschaft, Verlage und der Forschungsorganisationen auf dem Gebiet der elektronischen Identität (z.B. eduGAIN, Teilnahme über DFN-AAI, ORCID). In der Max Planck Digital Library (MPG) werden in Zusammenarbeit mit den Max-Planck-Instituten Konzepte und Lösungen für die Anforderungen netzbasierten wissenschaftlichen Arbeitens in den verschiedenen Disziplinen erarbeitet. Das Helmholtz Open Access Koordinationsbüro (HGF) hat enge Kontakte zu ORCID. 2012 hat das Helmholtz Open Access Koordinationsbüro den ersten Workshop in Deutschland zu ORCID organisiert. Das Netzwerk Knowledge Exchange, an dem die DFG beteiligt ist, hat Empfehlungen zur digitalen Autorenidentifikation erarbeitet, die über die Deutsche Initiative für Netzwerkinformation (DINI e.V.) auch in der einschlägigen deutschen Diskussion bekannt sind. While a national policy for e-identity has not been identified, for Germany the organisation DFN is member of the eduGAIN federation, which works towards the trustworthy exchange of information related to identity, authentication and authorisation between the GÉANT (GN3plus) Partners' federations. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | | A legislative act on the elaboration of the restructuring of the research system and creation of a flexible organization structure for research and technology organizations (ongoing) | | The federated scheme envisaged will lead to synergies and economies of scale, structural networking and increased mobility of researchers as well a better utilization of public infrastructure and resources (through a bottom up approach). Act being drafted by the General Secretariat for Research and Technology (GSRT). |
| More effective national research systems | | Strategic Development Plan for Research, Technology and Innovation under the 2007-2013 National Strategic Reference Programme | 2007 | It presents the objectives, priorities and strategy of the research and innovation policy of Greece. Furthermore, it provides the axis and actions that this policy will be based on, that will be included in all Regional Operational Programmes and the Operational Programme 'Entrepreneurship and Innovation' of the Ministry of Development of the following programming period. |
| More effective national research systems | | New administrative management system on RDI for the new programming period 2014-2020 (in preparation) Structural Funds | | Simplification of the management system (reduction of the number of the administrative units with clear allocation of jurisdictions) GSRT proposes the formulation of a single National Multi-Fund Operational Program on RDI. Coordination will be ensured with other Operational Programs (sectoral or regional) with RDI dimensions. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Presidential Decree 274/2000 on "Terms, conditions and process of funding (subsidy or aid) of projects and programs submitted by industrial or other production units", as amended by Law 3777/2009, Article 18 "Amendment of Presidential Decree 274/2000" (title of Presidential Decree 274/2000: "Terms, conditions and process of funding of projects, programs and activities submitted by companies, research and other organizations for conducting research, technological development and innovation"). | 2009 | The law sets the principles for competitive funding acknowledging the right of both national and foreign research institutions to participate in calls for proposals. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | New bilateral R&D agreements (on-going) | | Reinforcement of the cooperation of Greek research teams through bilateral and multilateral country agreements on R&D. In this context new agreements are being implemented or expected to be launched with Israel and Cyprus. Agreements have already been launched with China and Germany. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National strategy for research infrastructures (on-going) | 2013 | The Strategy aims to support the decision making process and to enhance the effectiveness of investment in RIs at national and regional level, as well as to support the development of an evidence-based national strategy in the framework of international negotiations linked to EU priorities and, where appropriate, ESFRI. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Roadmap of Research Infrastructures | 2013 | Creation of a National Roadmap of Research Infrastructures (Multi-Annual Action Plan 2014-2020). The roadmap aims to upgrade the existing medium-scale Ris to infrastructures of national importance, to identify the need for international cooperation in Ris and direct or indirect participation in projects related to ESFRI and cope with the strategic R&I priorities in relation to R&I Strategies for Smart Specialisation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | New measures within the new programming period 2014-2020 | | Aim to secure new recruitments of research staff and to facilitate the mobility of researchers between research centres and universities. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Presidential Degree 128/2008 Adaptation of Greek Legislation to Council Directive 2005/71/EC of 12 October 2005 on a specific procedure for admitting third-country nationals for the purposes of conducting scientific research. | 2008 | National framework to encourage foreign researchers to come and work in Greece. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Support of Postdoctoral Researchers | 2010 | Provides research grants for Greeks or non-nationals that have acquired their PhD from a non-Greek university in order to conduct research in Greece. It also supports Greeks with a PhD from a Greek university to conduct research in another (not the university where they obtained their degree) Greek or a foreign research organisation. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Call for Request for Proposals for participation in the Pilot Programme for the mobility of young researchers of the Mediterranean Office for Youth (MOY). | 2012 | Contributes to enhancing inward mobility. Aims to develop joint higher educational programmes, with the participation of at least two higher educational institutions from participating countries, at a postgraduate or at doctorate level. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess in Greece | | The EURAXESS services are increasingly used by the authorities and the education institutions. There are 12 EURAXESS Services Centres in 8 different cities in Greece. In 2011, the number of researcher posts advertised through the EURAXESS Jobs portal per thousands of researchers in the public sector was 32 in Greece. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Law 4009/2011 -Structure, operation, quality assurance of academic studies and internationalisation of HEIs | 2011 | The Law prescribes the rules for the recruitment, promotion of academic staff and non academic staff of HEIs, the operation of various regulating bodies and regulated salaries. The Law also promotes the 'Charter & Code' principles on excellence and innovation. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Specific Actions in the framework of the NSRF (2007-2013) | 2007 | ARISTEIA (Excellence) I&II, Supporting post doctoral researchers-(POSTDOCs), Financing research proposals which were positively evaluated in Calls of ERC Grants Schemes, Heraclitus II, Archimedes III, Thales (ongoing) aiming at fostering the human R&D potential. Excellence II- emphasis is given to supporting new researchers being at the beginning of their research career so as to produce high quality research and gain autonomy in their work. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | National Programme for Gender Equality 2010-2013 | 2010 | Enhances gender equality. The programme aims to create a legal framework for the provision of equal opportunities to women in the workplace and in everyday life. The programme acknowledges amendments to legislation, specific project actions undertaken by the General Secretariat of Gender Equality and interventions in other Ministries and public authorities (gender mainstreaming) |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Law 3488/2006, Implementation of the principle of equal treatment of men and women in their access to employment, professional training and promotion, in employment terms and conditions and other related provisions | 2006 | Safeguard of employment conditions of pregnant women and new mothers. The Law stipulates that pregnant women must return in the same position after their pregnancy, taking also advantage of any salary increases that might have occurred since they left. The same law allows working mothers to work one hour less for 30 months following the end of their pregnancy leave or two hours less for the first 12 months and 1 hour less for another 6 months, while maintaining the same salary. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Law 2839/2000, Provisions related to issues of the Ministry of Internal Affairs, Public Administration and Decentralisation and other provisions | 2000 | Addresses gender imbalances in the decision making process. The Law introduced provisions for the balanced participation of men and women in the Public Sector, Public and Private Law entities, as well as in municipalities. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Law 3996/2011, Reform of the labor inspectorate, arrangements for social security and other provisions | 2011 | Safeguards of employment of pregnant women and new mothers. The Law forbids employers to dismiss a woman while pregnant and 18 months after she gives birth, as well as if she is away for a longer period of time due to illness attributed to birth or pregnancy. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | PD176/1997, Measures for the enhancement of security and health of pregnant women and new mothers in the workplace, in accordance with 92/85/EC | 1997 | Enhancement of working conditions of women while pregnant. The decree provides for the transfer of pregnant women to day positions during their pregnancy and one year after they give birth (if they work nightshifts), forbids their exposure to risk |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Law 3653/2008 (article 57) | 2008 | Establishment of minimum 1/3 quota for each sex for scientists' recruitment to national agencies and committees for Research and Technology on the "Institutional framework for research and other provisions". A requirement for the implementation of this quota is that the candidates must have all necessary qualifications for the respective posts. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National policy framework for open access to scientific publications and research data, on preservation and re-use of scientific information, and their implementation and monitoring on related e-infrastructures (on-going) | 2013 | GSRT has been established as the National Point of Reference for Open access in January 2013 and elaborates the national policy framework. GRST will make open access mandatory – under conditions which might exclude "close to market" IPR rights – for scientific publications resulting from publicly funded research. Relevant changes to the legislative framework of funding terms are under progress. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | New measures to support enterprises in the new programming period 2014-2020 | 2013 | Contributes to - Stimulating R&D investments of the private sector in sectors where the country has a comparative advantage (according to national/regional Smart Specialisation Strategies) Creating new enterprises with research orientation Drafting new financial instruments for R&D and innovation. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | New measures to support research and innovation activities | 2014 | Based on the results of the study financed by the GSRT «Proposals to remove obstacles to the commercial exploitation of firm's innovation" (completed in 2012) simplification of procedures taking additional legal or administrative measures to remove obstacles for research and innovation activities. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Action "Supporting enterprises for recruiting high level scientific personnel" | | Aims at improving the access of researchers to the labour market and boosting demand for high-level skills in enterprises. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | PAVET 2013 in the framework of NSRF (2007-2013) | 2013 | Aims to support R&D activities conducted by dynamic enterprises that will lead to added-value products and services. The Action puts emphasis on R&D activities on specific thematic priorities where the country has a competitive advantage such as Agriculture, Food, ICT, Pharmaceuticals, Environment Collaboration between enterprises and research organizations is also promoted. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Clusters Programme (Competitiveness and Entrepreneurship Operational Programme- 2007-2013) | | The Clusters Programme is designed to create public-private partnerships amongst companies, universities, research organisations, associations, chambers of commerce and crafts in order to boost competitiveness, entrepreneurship and innovation. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | COOPERATION 2011 – Partnerships between businesses and research bodies in specific research and technological sectors (on-going) | | The objectives of the Cooperation 2011 Programme are to: - enhance collaboration between businesses and research bodies through common implementation of research and technological projects; - foster green development, competitiveness and outward orientation of Greek businesses; - improve Greek citizens' quality of life; - strengthen and upgrade the skills of the research workforce; - establish international cooperation through networking and collaboration with entities from European and other countries. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Innovation Vouchers for SMEs (2009-2015) | 2009 | The scheme fosters exchange of expertise and consultant services between 'innovation agents' (i.e. universities, research centres) and companies. It targets SMEs active in the manufacturing sector, software industry and research and development firms; public laboratories of universities, technological colleges, research centres and institutes, and sectoral companies as suppliers of services of high added value and knowledge intensity. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | CREATION – Support to new innovative (notably highly knowledge-intensive) enterprises (spin-offs and spin-outs) (2007-2013) | 2007 | The CREATION initiative supports companies established (for no more than six years) or in the course of being established by researchers from Greece and abroad, or established by companies with technological innovation activities, as well as small innovative firms. Applications have to contain an agreement on the Intellectual Property Rights (IPRs) between the organisation producing the knowledge and the organisation exploiting it. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Operational Program for Research and Innovation in the new programming period 2014-2020 (Structural Funds) | | Inclusion of new measures with an emphasis on promoting investments on RDI from the private sector |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Greek Open Knowledge Foundation Network (OKFN) | 2013 | Promotion of open access and sustainable e-infrastructure models, including public data availability. OKFN was created, following an initiative from the Aristotle University of Thessaloniki. The Greek OKFN will focus on open linked data and aims to enhance governance of local research procedures, improve transparency and access to research, cultural and financial data. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | While a national policy for e-identity has not been identified, for Greece GRNET is member of the federation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| General | | Action Plan of the Innovation Strategy | | A first two years Action Plan of the innovation strategy is under preparation. It envisages the setting up of new policy coordination mechanism, consisting of an advisory board for forward planning and inter-ministerial coordination, an S&T Observatory in charge with data collection for monitoring the implementation of the strategy and preparing regular reports, and a new chief scientist position for integrating S&T topics more often into ministerial work. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | "National Research and Development and Innovation Strategy 2020" | 2013 | The National Research and Development and Innovation Strategy 2020 is expected to be approved in the first half of 2013. The strategy has three pillars: globally competitive knowledge bases, intensive flows of knowledge and an efficient knowledge utilisation. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Research and development and innovation support scheme | | A research and development and innovation support scheme is expected to be approved in 2014. The objective of the scheme is to provide solutions for achieving the objectives laid down in the RDI Strategy, evaluating the R&D qualification system, drawing up tax proposals for promoting R&D and setting up the related regulatory environment, as well as drawing up the details of the direct support system. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Science Policy Strategy | 2013 | A Science Policy Strategy is expected to be approved by the first half of 2013 and will be in line with the Research-development and Innovation Strategy. The strategy will provide a general framework for research and for the financing of the academic sector. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Support to RTDI umbrella projects | 2012 | 153,2 million euro are provided as financial support to RTDI umbrella projects, the recipients being business with RTDI activities in Hungary. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Support to innovation and technology parks | 2007 | 21,4 million euro are dedicated to financial support to the establishment of innovation and technology parks (research and innovation service centres). |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Competitive funding: Hungarian Scientific Research Fund (OTKA) Research and Technological Innovation Fund (KTIA) | 1990 | The largest funds are the Research and Technological Innovation Fund (KTIA), and the various Operational Programmes of the New Hungary Development Plan, while for bottom-up funding is provided by a smaller one, called Hungarian Scientific Research Fund (OTKA). OTKA objective is to improve the public research base and to facilitate the international transfer of knowledge by providing independent support to scientific research and research infrastructure, financial assistance for young researchers and promoting the achievement of scientific results that meet international standards. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | EEA Financial Mechanism 2009-2014, Norway Grants | 2009 | The EEA Financial Mechanism 2009-2014, Norway Grants provides competitive funding to joint research activities and to young researchers, with an allocation of 24.3 million euro between 2013-2014. |
| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | Hungarian smart specialization strategy | | The Hungarian smart specialization strategy, expected to be adopted in 2013, will be in line with the national research and development and innovation strategy. The strategy will focus on key national/regional priorities, challenges and needs; building on the strengths, competitive advantages and potential for excellence of the individual regions; promoting innovation based on technology and practice, and making efforts to stimulate investments by private capital; and providing reliable monitoring and assessment systems. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Support for fundamental and applied research projects to be implemented in international collaboration | 2007 | Financial support for fundamental and applied research projects to be implemented in international collaboration is provided with a financial allocation of 96.4 million euro between 2012-2015. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Hungarian Academy of Sciences joined the initiative of Teaming for Excellence | 2013 | The Hungarian Academy of Sciences has joined the initiative "Teaming for Excellence" elaborated by the Max Planck Society (MPG) and eight other leading Western-European scientific organisations, an initiative meant to enhance and even out the development of the European Research Area. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Visiting scholars programme | | The Visiting scholars programme aims at attracting outstanding foreign researchers. It consists of invitations to prominent foreign scientists to join activities of the Hungarian Academy of Sciences (MTA). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | "Invitation 13" competition | 2013 | In 2013 four internationally recognised scientists will take part in the Hungarian Academy of Science's workshops as part of the "Invitation 13" competition and they will spend 3 to 10 months in Hungary. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Research Infrastructure Survey and Roadmap | 2008 | The National Research Infrastructure Survey and Roadmap of 2012 provides an assessment of the Hungarian research infrastructures, and a unified national report and programme for the development of research infrastructures. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Participation in ELI (Extreme Light Infrastructure) laser research centre | 2009 | The Extreme Light Infrastructure (ELI) project is an integral part of the European plan to build the next generation of large research facilities identified and selected by the European Strategy Forum on Research Infrastructures (ESFRI). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | National Research Infrastructure register | 2012 | A National Research Infrastructure register is a searchable database providing information on major RI's in Hungary. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Momentum programme | 2009 | The Momentum program aims to halt the emigration of young researchers, provides a new supply of talented researchers, extends career possibilities, and increases the competitiveness of the Hungarian Academy of Sciences' research institutes and participating universities. Currently 28 young scientists conduct internationally competitive research projects with a total funding of HUF 1.1 bn. And a new call is open, with a financial allocation of HUF 600 million, and will allow for approximately 12-15 new Lendület or Momentum research teams. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | "National Excellence Programme - establishment and operation of a domestic system providing support to students and researchers" | 2012 | The National Excellence Programme, with a budget of one billion HUF, has the objective of ensuring the establishment of a domestic system providing support to students and researchers, in the belief that in order to have a talented pool of scientists it is necessary to reward students for outstanding research or academic performance. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | "Bolyai Janos" Research Scholarship | 1997 | "Bolyai Janos" will provide 180 research scholarships to young (under the age of 45 years) researchers for the duration of one, two or three years. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS Hungary - Hungarian Mobility Centre | 2008 | EURAXESS Hungary or the Hungarian Mobility Centre facilitates the entry of foreign researchers, but Hungarian research institutes advertise very few vacancies for researcher positions on the Euraxess website. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Hungarian Rectors Conference | | The Hungarian Rectors Conference called the attention of the rectors by mail in January 2013 to join to the Code of Conduct for the Recruitment of Researchers that aims to improve recruitment, to make selection procedures fairer and more transparent and proposes different means of judging merit. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | New Labour Code | 2012 | The new Labour Code in effect from 1 July 2012 changed significantly the rules of employment. The restoration of the same position after maternity leave is no longer safeguarded by the general provisions of the Labour Code. The employer can quit the employee in case the previous position terminated, the employer cannot offer similar position to the person coming back from maternity leave and the person rejects the offered new position. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Framework programme for equal opportunities from the Hungarian Academy of Sciences (MTA) | 2012 | The MTA has a framework programme for equal opportunities that allow for female researchers with children under 10 years old to apply for grants over two years of age limit compared to male researchers. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Economic Development Operational Programme | 2013 | The Economic Development Operational Programme aims at creating work place environments that ensure equal opportunities for efficient work for female employees or employees who return to the labour market after a period of receiving child care fees (GYED) or child care benefits (GYES), and help integrate these groups into the labour market. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | L'ORÉAL-UNESCO Hungarian Grant for Women and Science | 2003 | The L'ORÉAL-UNESCO Hungarian Grant for Women and Science provides financial support to young female scientists in the field of natural sciences. The financial allocation is 11,000 euro per year. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Prize from the Hungarian Academy of Sciences (MTA) for female researchers | | The Hungarian Academy of Sciences (MTA) has a special prize for female researchers that is handed over at the main event of the annually celebrated "Week of Hungarian Science". |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access Mandate | 2012 | The President of the Hungarian Academy of Sciences (MTA) issued an Open Access Mandate with its decree 26/2012 (IX. 24). The researchers and employees of the MTA - including researchers of the subsidized research units and Momentum research groups - should make their scientific publications Open Access. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access Mandate | 2013 | The Open Access Mandate is obligatory for all scientific publications submitted for publication after 1st January 2013. The researchers and employees of the MTA - including researchers of the subsidized research units and Momentum research groups - should make their scientific publications Open Access. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National Programme for Electronic Information Provision | | 5.1 million euro in 2013 will be dedicated to the purchase a national licence for access to electronic information content for HEIs and research centres in Hungary. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Hungarian National Scientific Bibliography | 2010 | The Hungarian National Scientific Bibliography is an online portal that provides bibliography information about Hungarian researchers. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | REAL - Repository of the Hungarian Academy of Science's Library | | The REAL or Repository of the Hungarian Academy of Science's Library is an online portal that provides open access to full-text publications of research projects funded by MTA and/or OTKA. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Hungarian Open Access Journals | | The Hungarian Open Access Journals is an online portal that promotes open access to scientific journals. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Regulation on protecting and managing intellectual property | 2012 | The regulation on protecting and managing intellectual property ensures that the patent rights of institutional and employee inventions created in the research centres (or research institutes) belong to the given institutions' sphere of competence. The new patents and types can be registered on behalf of the research centre (or research institute), which can decide about the sale of property rights. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National Research and Development and Innovation Strategy 2020 (RDI Strategy) | 2013 | One of the three priority axes of the National Research and Development and Innovation Strategy 2020 (RDI Strategy) addresses supporting of efficient knowledge and technology transfer collaborations. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Discussions with key stakeholders in order to formulate a national policy to promote knowledge transfer | 2013 | Initiated by the National Innovation Office in early 2013, discussions started with key stakeholders in order to formulate a national policy to promote knowledge transfer, although currently no specific funding is available for technology transfer offices that are operated at major Hungarian universities. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | University technology transfer offices | 2013 | University technology transfer offices work with intellectual property regulations approved by their Senates that were based on model contracts provided by the forerunner of the National Innovation Office. These units work closely with the Hungarian Intellectual Property Office (SZTNH) and regularly exchange their experiences with each other. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | National Information Infrastructure Development (NIIF) | 1990 | The National Information Infrastructure Development (NIIF) provides the framework for the development and operation of the research network in Hungary. |

Hungary

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | Hungary is member of eduGAIN through EduId.hu. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Science Foundation Ireland Act | 2003 | Science Foundation Ireland (SFI) acts as funding agency for academic researchers and research teams. It fosters the generation of new knowledge, of leading edge technologies and of competitive enterprises in the fields of science and engineering. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Research Prioritisation Strategy Actions Plans for 14 priority areas | 2012 | It prioritises the allocation of competitive government funding in 14 priority areas that will become the focus of future State investment in research and innovation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Strategy for Higher Education to 2030 | 2012 | Establishes a new performance framework within which publicly funded higher education institutions will be held accountable to the Government for their performance against defined national priorities. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | New Landscape for Higher Education | 2013 | In May 2013, the Minister for Education and Skills announced the "New Landscape for Higher Education", setting out a new configuration for the higher education system. This provides for a major programme of structural reform including institutional mergers and much greater levels of institutional collaboration, with the creation of a series of regional clusters of institutions. The Minister has also announced his approval for three groups of institutes of technology to proceed towards detailed planning for a formal application for designation as technological universities. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | National Research Prioritisation Strategy | 2012 | The allocation of competitive government funding is based on the outcome of peer review. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Industrial Development (Science Foundation Ireland) (Amendment) Bill 2012 | 2013 | The Bill will provide SFI with the legal power to fund on a wider geographical basis, including supporting research teams and institutions in Northern Ireland, and participate in collaborative funding programmes with countries of the European Economic Area or other countries. It will ensure that the strategic focus of SFI is aligned with the 14 areas of priority identified in the report of the National Research Prioritisation Steering Group. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National research infrastructure roadmap | 2007 | The strategy was published in 2007. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Programme for Research in Third Level Institutions (fifth cycle) Research Infrastructure Call 2012 programme | 2010 | One specific aim of the Programme is to build the physical research infrastructure. The 2012 Call supports the research community in building and sustaining the required infrastructural capacity to accomplish high quality, high impact and innovative research. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Draft Consultation Paper on Access by Researchers to Large-Scale Research Infrastructures and Facilities in Ireland | 2012 | The consultation for a set of national guidelines for Access to Large Items of Research Equipment and Research Infrastructures/Facilities (RIs/facilities) which are exclusively or predominantly funded by Exchequer within the Irish Higher Education system. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Employment equality legislative framework | | It ensures that job opportunities are open to all researchers, nationals and from abroad, and prohibits discrimination on nine grounds, including gender and race. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | National research and innovation programmes | | Individual foreign researchers can participate in the majority of national research and innovation programmes. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Irish EURAXESS Office | 2004 | The Irish EURAXESS Office provides free advice and guidance to researchers moving to or from Ireland to develop their research career. Since 2013 EURAXESS includes a portal for business, detailing R&D funding opportunities and jobs, including for the industrial sector. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | National strategy for higher education to 2030 | 2011 | The strategy seeks to ensure that higher education connects more effectively with wider social, economic and enterprise needs. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Programme for Research in Third Level Institutions (fifth cycle) | 2010 | The Programme funds initiatives aimed at developing the entrepreneurial and management skills of doctoral training programmes. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Take initiatives to address social security barriers for researchers in the EU and further facilitate the entry and stay of third country national researchers by: - 1)Clarifying in a Communication EU rules on coordination of social security schemes for gr | Researcher hosting agreement scheme | 2007 | The scheme enables approved research active organisations to recruit researchers from outside the European Economic Area (EEA) to carry out research in Ireland without the need for a Green Card or Work Permit. However, an employment contract must be in place before a Hosting Agreement can be obtained. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Employment equality legislative framework | | It ensures that job opportunities are open to all researchers, nationals and from abroad, and prohibits discrimination on nine grounds, including gender and race. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | SFI principal investigator career advancement (PICA) SFI Investigator career advancement (ICA) | 2005 | The pilot programme encouraged the entry of women into science and technology and to resume their careers after family care breaks. The ICA supports outstanding researchers returning to active research after either a prolonged absence or those within early consolidating stages of their indepenent research careeer. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Institute Planning Grant Institute Development Award | | The grants provided higher education institutions with the opportunity to conduct a self-assessment of women's participation in science and engineering research activities and research management and to enhance the participation of women in science and engineering research activities and research management. These support measures are no longer provided by SFI. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Government decision S21590E | 1995 | Government decision S21590E introduced a requirement for a minimum of 40% of women and men appointed to all State boards. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National Principles for Open Access Policy Statement | 2012 | Adopted by the National Digital Learning Resources, it provides the basis for an overarching policy framework for individual research organisations policies on open access. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Intellectual Property Protocol | 2012 | A key recommendation of the Protocol focuses on the development of a central Technology Transfer Office (cTTO), that would act as a 'one-stop shop' for industry engagement with the research system to find all research opportunities and IP that have been generated across the entire publicly funded research system. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | DARIAH consortium | | The DARIAH consortium conceptualises and builds up infrastructure in support of ICT-based research practices in the arts and humanities and also to support researchers in the creation and use of research data and tools. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Programme for Research in Third Level Institutions (PRTLI) | 2006 | It focuses on the development of data infrastructures, particularly in the humanities and social sciences. One PRTLI-funded project, e-INIS, the Irish National e-Infrastructure, provides the Irish research community with access to computational, networking and support infrastructure. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Eduroam | 2009 | Eduroam seeks to facilitates roaming educational users to gain Internet access at other member sites by authenticating against a server hosted at their own institution. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | EDUGAIN | | Ireland is candidate to join eduGAIN through EduGate. |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | | Horizon Italia 2020 (HIT2020) | | Horizon Italia 2020 (HIT2020) published by the Ministry of Education, Universities and Research (MUIR) is the key document outlining Italy's research and innovation strategy between 2014 and 2020 in line with Europe2020 goals |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on the organisation of the university, on the academic personnel and on recruitment. Government delegation to promote quality and efficiency of the university system (Law 240/2010 and enacting Legislative decree 19/2012) | 2010 | A share of institutional funding for universities is allocated based on assessments (research outputs and international attractiveness) |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Legislative decree 31 December 2009, no. 213, Reorganisation of public research organisations | 2010 | Reorganisation of public research organisations; a share of institutional funding is allocated based on the performance of the RPOs |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Law on urgent measures for growth of the country (Law 7 August 2012 n. 134) - Art. 63 peer review | 2012 | Sets up the legal basis for the introduction of 'peer review' as a standard method of evaluation. It is not clear however whether the peer review standards are in line with the principles of international peer review |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Horizon 2020 Italy HIT2020 Research & Innovation | 2013 | Fosters peer review as an evaluation standard. However, it is not clear whether this measure details out the peer review process and its specific content |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Ministry of Education, University and Research competitive calls (FIRB, PRIN, CLUSTER, SMART CITIES) | 2012 | Project-based funding for these competitive calls is based on peer review with increased participation of foreign experts |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint programmes and bilateral agreements | | Italy has several bilateral agreements and takes part to several multilateral agreements. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Law on urgent measures for simplification and growth (Law 4 April 2012 n. 35) | 2012 | Creates the legal basis for the domestic recognition of evaluation of international research projects selected by EU programmes |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Law on urgent measures for growth of the country (Law 7 August 2012 n. 134) | 2012 | Creates the legal basis for the domestic recognition of evaluation of international research projects selected by EU programmes |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Operational procedures for evaluation and financing of projects selected in international programmes and initiatives Prot. 556 28/03/2013 | 2013 | Changes to the ex-ante and interim evaluation of projects selected in international programmes. However, it is not clear whether this allows the mutual recognition of evaluations based on international peer review |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Law on urgent measures for simplification and growth (Law 4 April 2012 n. 35); Art 30 & 39: cost eligibility | 2012 | Supports the simplification of rules of research projects; changes eligibility definitions and eligibility of costs in line with EU legislation |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Italian roadmap of Research Infrastructures of Pan European interest | 2010 | Updates the national roadmap for research infrastructures |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Horizon 2020 Italy HIT2020 Research & Innovation | 2012 | Provides guidelines to select strategic research infrastructures in line with ESFRI criteria; announces the definition of a national plan for research infrastructures |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Horizon 2020 Italy HIT2020 Research & Innovation | 2012 | Foresees the setting up of a specific fund for financing research infrastructures. However, it is not clear whether a timeframe and budget have been identified |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Measures to strengthen research infrastructures in the convergence regions - Cohesion Action Plan | 2013 | Supports digital infrastructures for the dissemination of research results |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Law 1/2009 | 2009 | Changes the recruitment rules for permanent academic staff in order to promote open recruitment |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Law on the organisation of the university, on the academic personnel and on recruitment. Government delegation to incentivise quality and efficiency of the university system (Law 240/2010) | 2010 | Changes to the recruitment rules for researchers in order to make them open, transparent and merit-based |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Law on urgent measures for simplification and growth (Law 4 April 2012 n. 35) | 2012 | Removes legal barriers to grant portability. Researchers holding a grant can leave their employer to spend a maximum period of five years abroad in a public, private or international organisation |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Programme' Rita Levi Montalcini' | | Aims at attracting foreign researchers to Italy by providing them with access to grants |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess Italy website | 2004 | Provides Euraxess services to researchers |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Law on urgent measures for simplification and growth (Law 4 April 2012 n. 35) - Doctoral courses Gran Sasso Science Institute | 2012 | Supports the development of attractive doctoral training |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Regulation on modalities of acknowledgment of doctoral schools and criteria for the establishment of courses by acknowledged schools D.M. 8 February 2013 n.94 | 2013 | The reform is based on the principles of innovative doctoral training |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Law on the organisation of the university, on the academic personnel and on recruitment. Government delegation to incentivate quality and efficiency of the university system (Law 240/2010) | | Supports the development of an attractive doctoral training system. This measure meets some of the principles of innovative doctoral training |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Horizon 2020 Italy HIT2020 Research & Innovation | 2013 | Supports the reform of the doctoral training system |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Regional Programmes – envelope dedicated to human resources | | Supports the development of research doctoral schools |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Law on the organization of the university, on the academic personnel and on recruitment. Government delegation to incentivise quality and efficiency of the university system (Law 240/2010) | 2010 | Supports the inclusion of the principles of the Charter and Code into statutory regulations |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Government Decree D.lgs 2013/2009 | 2009 | Acknowledgment of the Charter and Code principles at national level |
| A more open labour market for researchers | Develop and implement structured programmes to increase mobility between industry and academia | Project 'Messengers' | | Supports mobility of researchers |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Horizon 2020 Italy HIT2020 Research & Innovation & Law 215/2012 | 2013 | Peer review selection panels should be gender balanced |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Measures to strengthen research infrastructures in the convergence regions - Cohesion Action Plan | 2013 | Supports the setting up of infrastructures and open access system for dissemination of research results |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | CRUI WG Open Access | 2006 | Provides guidelines for the implementation of the Berlin declaration principles |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Measures to support public-private cooperation as part of the Stability Law 2013 | 2013 | Supports cooperation between SMEs and PhD candidates from key universities |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Funding programme for start-ups in the convergence regions | 2013 | Supports cooperation between SMEs and universities/research organisations |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Ministerial decree for the exchange of professors and researchers between universities and public research organisations | | Supports professors' and researchers' mobility |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Agreement between Centro Nazionale delle Ricerche (CNR) e Confindustria | | Support to technology clusters and knowledge transfer instruments |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Decree Law 69/2013 on urgent measures to relaunch the economy | 2013 | Resources are dedicated to the support, among others, of research, the creation of innovative start-ups and university spin-off, crowdfunding and social innovation projects. |

Italy

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Measures to strengthen research infrastructures in the convergence regions - Cohesion Action Plan | 2013 | Supports digital infrastructures for the dissemination of research results |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Funding programme for start-ups in the convergence regions, 'Big Data' | 2013 | Support to digital technologies for universities and public research organisations |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Member of eduGAIN | | Italy is member of eduGAIN through IDEM |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Regulation on support for science and research | 2009 | It sets the conditions to provide support (grants) for applied research projects that would facilitate the integration of science and industry and industrial application of research results, in line with the national thematic research priorities. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Procedures for the allocation of Institutional funding to State Scientific Institutions, State Institutions of HE and the Scientific Institutes of State Institutions of HE | 2005 | Regulations related to the Law on Research Activity which first introduced institutional funding in 2005. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Procedure for evaluation, financing and management of fundamental and applied research projects | | This action contributes to fostering the use of peer review for competitive funding in the national research system. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Methodology and criteria for international assessment of public and private scientific institutions | 2013 | The methodology is being used by scientific institutions to prepare self-assessments which have been translated into English and included in the single information system. The Final Quality Assessment Report is expected to be prepared by September 30, 2013. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Rules of the Latvian Council of Science Competitive research grants | 2006 | It sets out the conditions for the organisation and operation of the Council of Science. The grants provide competitive funding for basic research to national top level researchers teams. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Establishment of national research centres | 2012 | The research centres have been established to ensure the promotion and strengthening of national scientific excellence and concentration of scientific resources. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Guidelines on Research, Technology Development and Innovation for 2014-2020 | 2013 | They identify the main challenges to scientific activity, defining government policy objectives, key principles and priorities for development of research, technology and innovation. The financing to be allocated for fundamental research through a tender procedure is granted within two programmes – state research programmes and fundamental and applied research (grant) projects through a tender procedure. Evaluations by independent international experts is expected. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Procedures for the Provision of State aid for participation in international collaborative programmes in research and technology | 2008 | Procedures by which state co-funding is made for participating in international programmes. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Bilateral cooperation programmes with Belarus and France Trilateral cooperation programmes with Lithuania and Taiwan | 2009 | The aim of these programmes is to support the cooperation of scientists and researchers in different fields of research and technology development, promoting research, development and introduction of innovative civil technology mainly in small and medium-sized enterprises. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Regulations on development of the research infrastructure | 2010 | The goal of this programme is the development of national research centres. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Science in Latvia | 2010 | This document presents the results of the assessment carried out by the Ministry of Education and Science in terms of spatial development strategy for scientific institutions and determined the research centres of national importance. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Development of the European level research infrastructure Baltic Infrastructure of Research, Technology and Innovation (BIRTI) platform | 2013 | The development of the proposal for the BIRTI platform is on-going. The Memorandum of understanding with Lithuania and Estonia has been signed. It is expected to be implemented from 2014 until 2020. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Regulation "Attraction of highly qualified workforce" of the OP Human Resources and Employment | 2008 | It determines the procedure for researchers' mobility from state research institutions to private business. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Procedure to be followed by scientific institutions at signing and ending employment contracts with foreign researchers | 2008 | This action clarifies the conditions for hiring foreign researchers. The aim is to enhance attractiveness of Latvian research organisations. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess Latvia | 2009 | Euraxess Latvia (the former Latvian Researchers Mobility Centre and Portal (2005-2008)) provides services for national and foreign researchers. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Regulation on support to the implementation of doctoral programmes and postdoctoral research | 2009 | The activity aims to provide support (grants) for applied research projects that would facilitate the integration of science and industry and industrial application of research results, in line with the national thematic research priorities. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Law on Research Activity | 2005 | The Law defines the status of researchers, their right to carry out research and to choose the fields and methods of research in accordance with their scientific interests and competence. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Regulations on Attraction of Human Resources to Science | 2008 | It promotes the attraction of additional human resources to science in the public sector. The programme provides funding from the European Social Fund for supporting the work of young researchers at public research organisations and promoting the return from abroad of Latvian researchers. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Labour Law | 2001 | The Labour Law includes provisions against discrimination of several grounds, including gender. The non-discriminatory principle is enshrined in the Constitution of the Republic of Latvia (Chapter VIII). |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Concept paper on Gender Equality implementation Plan for Gender Equality implementation in 2012-2014 | 2012 | The plan envisages four lines of action and implementation activities: 1. reduction of gender roles and stereotypes; 2. promotion of healthy and environmentally-friendly lifestyles for women and men; 3. promotion of economic independence of women and men and of their equal opportunities on the labour market and 4. supervision and assessment of the gender equality policy aimed at integrating the gender aspect in industry policy. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Competitive VEGA grants | 2012 | Projects must have a website with free access to project's scientific publications and/or submit them for publication in the national repository. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National open access archive of research information (MIDAS) | 2011 | It sets up a data repository at national level to provide infrastructure for preservation and open access to research data. |

Latvia

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Programme for Technology transfer contact points | 2009 | Support is provided for the purpose of ensuring activities of technology transfer units established in 8 higher education institutions of Latvia within the Programme for Technology transfer contact points. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | Latvia is member of eduGAIN through LAIFE. |

Lithuania

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on higher education and research | 2012 | The new Law on Higher Education and Research (adopted in 2009) and accompanying bylaws led to considerable increase in the share funds that are allocated through competitive procedures. The reforms had the largest impact on two streams of funding for public higher education institutions (HEIs) and research institutes: basic funding, grants for research projects (allocated through competitive procedure by Research Council of Lithuania (LMT)). |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Strategies relevant for research and innovation | 2012 | In 2012 a number of new strategic documents with relevance for research and innovations were published: the National Progress Programme for Lithuania for the period 2014-2020; the Concept of the Establishment and Development of Integrated Science, Studies and Business Centers (Valleys); the State Studies and R&D Programme for 2013-2020 which addresses the knowledge triangle, adding to existing strategies and programmes: the Lithuanian Innovation Strategy for 2010-2020 (adopted in 2010), the General National Research and Science and Business Cooperation Programme (adopted in 2008). |

Lithuania

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Support for Research Activities of Scientists and Other Researchers (Global Grant) | | In 2012, funding was allocated for 35 research projects of high international level (14 humanitarian and social sciences projects and 21 project of physical, biomedical, technological and agricultural science) amounting to LTL 41 million, the implementation thereof was started. Also, the third global grant tender was announced, for which the amount of LTL 30 million was allocated. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Government decision on the method for allocation of budgetary appropriations for R&D and artistic activities in public research and higher education institutions | 2012 | The 2009 Decision (as amended in 2010 and 2012) established that 40% in 2010 and 50% in 2011 and subsequent years of basic funding will be allocated to public HEIs and research institutions on the basis of results of assessment of R&D activities. The "competitive" half of basic funding from 2012 onwards will be reallocated every three years taking into consideration the results of assessment of R&D activities, based on four criteria: a) funding received from participation in international research projects; b) funding received from R&D contracts with private establishments; c) public funding from participation in joint R&D projects with private establishments; d) results of evaluation of research production, focussing on publications and patents and is annually carried out in accordance with the principles of international peer review. The remaining 50% as of 2011 are allocated on the basis of "normative number of staff". Evaluation of R&D activities and outputs should be in line with international peer review standards. |

Lithuania

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Promotion of High-Level International Scientific Research | 2012 | One of the goals of the measure is to promote the execution of high-level international research directed towards the priority areas of economy that will determine the future prosperity and competitiveness of Lithuania provided for in the Lithuanian Innovation Strategy for 2010–2020. Applications for the execution of 25 projects in the amount of LTL 41.41 million were received in 2012. Currently, there are 15 agreements signed for the total of LTL 25.71 million. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Decision of the Research Council of Lithuania on methods and procedures governing competitive funding of research. | 2011 | The peer-review process is organized and managed by Research Council of Lithuania (LMT). The peer review in 2012 was applied for a) Competitive calls for proposals for national and international research grants and b) Evaluation of research production. The results of evaluation have an impact on basic funding of research carried out in public HEIs and research institutions. The first evaluation was completed in 2010. In principle participation of international peers is not limited, but in practice a majority of grant proposals are submitted in Lithuanian language, which could pose linguistic barriers to participation of international reviewers. There are no publicly available data on the extent to which the peer review involves international scholars. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Lituathian contributions to the implementation of joint research agendas | 2010 | Overall, since 2010 Lithuania stepped up efforts to implement joint research agendas through Joint Programming Initiatives, international programmes, and bilateral programmes. Financial commitments to joint research agendas are rather limited and national research programmes are only implicitly aligned with research priorities pursued at ERA. Since 2010 Lithuania participates in the following two Joint Programming Initiatives: Cultural heritage & global change and Healthy & productive seas and oceans. Lithuania together with partner countries also contributes to six international programmes: Joint Baltic Sea Research and Development Programme (BON US); ERA-NET action "BiodivERsA2" (contribution since 2011; indicative budget for 2011-2012 call was €0.2m); ERA-NE T action "M-era.NE T" (contribution since 2012; indicative budget for 2012 call was €0.2m); HERA (Humanities in the European Research Area) Network Programme on Cultural Encounters (contribution to 2nd calls for proposals launched in 2012) LILAN: Nordic Baltic Programme on Living Labs (contribution since 2010; indicative budget is €0.1m); |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Bilateral and trilateral programmes for research cooperation | 2011 | Five bilateral or trilateral programmes (with Belarus, Latvia and Taiwan, France, Ukraine and Switzerland) in 2011 funded 39 collaborative research projects with the total budget of €0.2m. The objectives of these programmes are however not explicitly aligned with broader grand challenges and the funded projects covered a wide range of research areas. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | EU strategy for Baltic Sea Region / BONUS, BIRTI | | Lithuania was also involved in the drafting and adoption of the European Union Strategy for the Baltic Sea Region, which is the first macro-regional strategy in Europe, adopted by the European Council in 2009. It aims at reinforcing cooperation within the Baltic Sea region in order to face several challenges by working together as well as promoting a more balanced development in the area. Lithuania also participates in the Joint Baltic Sea Research and Development Programme (BONUS). The main aim of this article 185 programme is to generate and disseminate knowledge and provide necessary know-how in order to resolve successfully major challenges facing the Baltic Sea region in the coming decade and beyond on adapting to the climate change and its effects; restoring good environmental status of the Baltic Sea and its coasts; achieving sustainable and safe use of the exploited coastal and marine ecosystem goods and services; creating a cost-efficient environmental information system; evaluating and developing relevant policies and collective governance and adapting to a sustainable way of living. The country continues developing the proposal for the BIRTI platform, whose aim is to create favourable conditions for the innovation process, scientists, engineers, designers and contractors, working together on a competitive knowledge-based world-class product development and manufacturing. The Memorandum of Understanding between ministries of Education and Science of the Republic of Latvia, the Republic of Lithuania and the Republic of Estonia has been signed. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Evaluations in the context of European (joint) programmes | | Evaluations of research projects carried out within the framework of European (joint) programmes, bilateral and trilateral programmes are recognized in Lithuania. Recognition of evaluations typically results in funding of the projects within the limits of financial commitments made for the programmes. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Decree of the Minister of Education and Science on participation in international research infrastructures | 2012 | The decree established that Lithuanian research institutions can submit applications for joining international IRs on a continuous basis and the Roadmap should be subject to major revision every 5 years. The applications will be regularly assessed by the Research Council of Lithuania (LMT). The latter in December 2012 approved internal Guidelines regulating the assessment and selection procedures. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Roadmap for Research Infrastructures of Lithuania | | The Roadmap for Research Infrastructures of Lithuania was approved in 2011. An international group of experts reviewed 20 project proposals submitted by consortia of Lithuanian HEIs and research institutes and identified 15 mature or promising projects. The Roadmap also presented the selected list of the European Research Infrastructures to be considered attractive for some national Ris. No financial commitments for construction and operation of the global, national or regional Ris has been made yet (March 2013). On the basis of 'Lithuania 2030', on 28 November 2012 the Government approved the National Progress Programme for Lithuania for the period 2014-2020, providing a basis for the European Structural Funds support for the next programming period. It is projected that 14.23% of funds will be invested in education, culture and basic research (e.g. mobility, research infrastructures, competitive research funding, etc.). The operational programmes for 2014-2020 will be finalised by 2014. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Regulation on "Management of Open Access Centres" | 2011 | Research infrastructure in Lithuania operates on the principle of open access - research infrastructures are available either for business (SMEs included), students, researchers from other institutions or abroad. A regulation on "Open Access Centres" – R&D infrastructures in higher education and research institutions or in other public and private entities in the Republic of Lithuania - was approved by the Minister of Education and Science in 2011. The Open Access Centres are to be registered by MITA. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Decision of the Research Council of Lithuania on procedures for initiation of participation in international RIS | 2012 | The Guidelines approved by the Minister of Education and Science in 2012 and the Guidelines adopted by LMT stipulate the procedures that regulate Lithuanian research institutions' involvement in the international Ris. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Law on higher education and research | 2012 | Public Higher Education Institutions and research institutes are legally obliged to: publish information on vacancies, establish selection panel, publish selection criteria, provide adequate time period (three months) between vacancy publication and submission of applications, offer the right of appeal, etc. Furthermore, there is an internet portal that should include all vacancy publications. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Cross-border access to grants administered by LMT | | Researchers from EU and non-EU countries can apply for grants administered by LMT. However, the number of participating foreign researchers remains limited. There is a legal requirement that beneficiaries of grants have to be employed in a Lithuanian institution. This poses considerable barrier due to low level of salaries and careers (contractual agreements) elsewhere. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Lithuanian national EURAXESS centres | | The EURAXESS portal should provide accurate and relevant background information on Lithuanian higher education and research landscape, social insurance, work permits, etc. In 2011, LMT took over from the Centre of Quality Assessment in Higher Education the functions of the coordinator of the Lithuanian national EURAXESS centres. There seems to be scope for improvement in relevance and quality of its services, notably in terms of posting notices of recent job vacancies (situation in 2012). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Decree of the Minister of Education and Science on procedures for establishing the right to offer phd studies | 2011 | The decree stipulates that institutions willing to register new PhD programmes have to comply with considerably more stringent requirements in terms of excellence of research, relevance of proposed research programmes, human and physical resources, etc. As a result, an increasing number of Lithuanian institutions establish joint PhD programmes, with the view of pooling intellectual resources and research infrastructure. Furthermore, several universities have started Joint international PhD programmes, (some of them funded by Erasmus Mundus). The use of the principles for Innovative Doctoral Training has not been identified. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Lithuanian Strategy Ensuring Equal Opportunities for male and female in sciences | 2008 | The strategy provides legal foundations for introduction of "Gender equity and gender mainstreaming" as a horizontal principles in other strategies and programmes (for e.g., Researchers Career Programme). The Lithuanian Strategy Ensuring Equal Opportunities for male and female in sciences was approved by the Lithuanian Minister of Science and Education in 2008. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Promotion of gender equality in sciences | 2011 | With the view of tackling practical issues related to gender equality project the Lithuanian Academy of Sciences and its partners implement the national project "Promotion of gender equality in sciences" (LYMOS). The project started in 2011 and runs until beginning of 2013. It has issued several analytical reports, provided recommendations for updating the Strategy on Equal Opportunities, to research and higher education institutions of Lithuania on measures helping to ensure gender equality in science and its management and provided grants to researchers after maternity (paternity) leave (budget for 2011-2012 was €0.09m). |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | LYMOS project | | The LYMOS project, coordinated by the Lithuanian Academy of Sciences and partners that included: LMT, association, BASNET Forumas" and the National Union of Student Representations of Lithuania, is an example of a partnership related to gender issues. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National open access archive of research information (MIDAS) | 2011 | The allocation of €4.3m in 2011 to Vilnius University for implementation of the project "National open access archive of research information (MIDAS)" seeks to provide infrastructure for preservation and open access to research data. It is planned to integrate it with other databases. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | State Studies and R&D Programme for 2013-2020 | 2012 | Provides strategic framework (at the level of specific objectives) for science-business collaboration and the knowledge triangle at large. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Law on Higher Education and Research | 2009 | The Law on Higher Education and Research (adopted in 2009) stipulates that "the results of all research works carried out in State higher education and research institutions must be announced publicly (in the Internet or any other way) <> The results of research conducted in non-State higher education and research institutions with funds of the State budget shall be announced publicly (in the Internet or any other way) <>". |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National Progress Programme for Lithuania for the period 2014-2020 and other strategic documents | 2012 | The year 2012 witnessed proliferation of new strategic documents with relevance for innovation and knowledge transfer between public research and private enterprises: the National Progress Programme for Lithuania for the period 2014-2020; the Concept of the Establishment and Development of Integrated Science, Studies and Business Centers (Valleys); the State Studies and R&D Programme for 2013-2020, adding to existing strategies and programmes: the Lithuanian Innovation Strategy for 2010-2020 (adopted in 2010), the General National Research and Science and Business Cooperation Programme (adopted in 2008). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Measure for promoting the commercialization process of certain innovative products, technologies or services as well as its entry into the market. | 2012 | Agency for Science, Innovation and Technology (MITA) announced a call for applications for the funding of commercialization projects of scientific research and development results. 13 projects were financed (LTL 431.59 thousand), 13 companies established for commercialization of R&D results. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Concept of the Establishment and Development of Integrated Science, Studies and Business Centers (Valleys) | 2012 | Investments in five so called "integrated science, studies and business centres – valleys" constitute the most important instrument (worth around € 597 mln) for fostering open innovation and transfer of knowledge between public research and private enterprises. The initial idea behind the "valleys" projects was to establish state-of-art business-science collaboration centres/clusters with respective research infrastructure and supporting services (knowledge and IPR transfer services, commercialization units, etc.). However, systemic and legal obstacles prevented business from entering R&D collaboration with universities (and vice versa). The updated Concept of the Establishment and Development of Integrated Science, Studies and Business Centres − Valleys (adopted in October 2012) seeks to address some of the drawbacks. It provides the basis for continuation of investments into five science 'valleys', but also defines steps on setting the priorities for investments into research and innovation in the context of smart specialisation and should launch a specific programme for funding the 'joint projects' in defined priority areas. The Agency for Science, Innovation and Technology (MITA) receives a mandate to coordinate the implementation of 'joint projects' and a new coordinating body − the Strategic Council for Research, Development and Innovation under the Prime Minister's Office will be set up. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Promotion of High-Level International Scientific Research | 2012 | One of the goals of the measure is to promote the execution of high-level international research directed towards the priority areas of economy that will determine the future prosperity and competitiveness of Lithuania provided for in the Lithuanian Innovation Strategy for 2010–2020. Applications for the execution of 25 projects in the amount of LTL 41.41 million were received in 2012. Currently, there are 15 agreements signed for the total of LTL 25.71 million. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Intellect LT - Joint science and business projects aimed at commercialization of research results | 2013 | The Ministry of Economy has prepared and announced a draft description of conditions for financing under the measure "Intellect LT". In accordance with this description the activities of the commercialization of research results will be financed. Currently there are 15 applications for projects funded by the Ministry of Education and Science that have been assessed by the European Social Fund Agency; also, contracts on project funding and administration are being concluded. The implementation of the projects is scheduled to start in 2013. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | "Science and Technology for Innovative Businesses" | 2012 | In order to promote more active business-science cooperation and technology transfer processes, the implementation of the project "Science and Technology for Innovative Businesses" aimed at the provision of innovation-related services for small and medium-sized enterprises (SMEs) was started. The funding in the amount of LTL 6.2 million was allocated for the project. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Direct support measures for public-private cooperation | 2007 | Measures foreseen for 2007-2013 and aimed at direct support for fostering public-private cooperation are allocated around €100m and include: "PRO LT", "Inoklaster LT", "Inogeb LT-1", "Inogeb LT-2", "Inogeb LT-3", "Advanced technologies development programme", "Biotechnologies development programme", "Biotechnologies development programme", "Innovation vouchers", "Eurostars" and "Eureka". Funding for the implementation of the projects of innovative business clusters was allocated under the EU structural assistance measures "InoklasterLT" and "Inoklaster LT+". LTL 4.34 million was allocated for the projects under the measure "Inoklaster LT" and LTL 28.16 million under the measure "Inoklaster LT+". The implementation of the programme "BSR Stars" and the project "StarDust" aimed at the development of innovations, clusters and small and medium-sized enterprise networks was being continued in 2012. 11 new clusters, 3 of which were international, were created during the implementation of the "BSR Starts" programme and "Inoklaster" as well as other measures for the promotion of clusterization and 9 arts incubator development projects were launched. The country continues developing the proposal for the BIRTI platform, whose aim is to create favourable conditions for the innovation process, scientists, engineers, designers and contractors, working together on a competitive knowledge-based world-class product development and manufacturing. The Memorandum of Understanding between ministries of Education and Science of the Republic of Latvia, the Republic of Lithuania and the Republic of Estonia has been signed. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Programme for Development of Lithuanian Research and Studies Informational Infrastructure 2013-2016 | 2012 | With the view addressing the insufficient incentives for institutions and researchers to ensure open access to research results, and the fragmented public support, the Minister of Education and Science in 2012 this programme (total budget €18m). It seeks better integration of previously developed databases and increased accessibility of research outputs (publications, etc.) and data. The target is that 40% of publications and at least 10% of collected data should be publicly available free of charge by 2016 |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Implementation of the Lithuanian Virtual University Programme for 2007–2012 | 2012 | 47 Lithuanian research and higher education institutions were provided with a possibility to use the information system of the Lithuanian academic e-library in 2012. The Lithuanian e-learning infrastructure was created and ensured. The Lithuanian Distance Education Network (LieDM) supported distance learning (e-learning) in Lithuania in 2012. The implementation of the Lithuanian Virtual University Programme for 2007–2012 was completed; its continuation in 2013–2016 was approved. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Implementation of the project "Creation of Open Access Centres of Information Technologies", | 2012 | The open access centre provides services necessary for the performance of scientific research and (or) experiments. The following new open access centres were created: the Competence Centre of Food Science and Technology, Civil Engineering Centre of the Vilnius Gediminas Technical University, and the Centre of Animal Health and Quality of Raw Materials of Animal Origin. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Access to publicly funded e-infrastructures | | There is no national policy in this respect. However, as a general rule publicly funded e-infrastructures are accessible to researchers from public and private sectors without major restrictions. In late 2012 there have been discussions to set up a portal that could provide e-services to public research institutions and private enterprises. The overall objective of the initiative is to facilitate commercialisation of ideas generated in research institutions and foster cooperation between public and private sectors. [to update with concrete results] |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | | Revision of the Law of 9 March 1987 on the organisation of the public research centres and on the establishment of the public research centres LIST, Santé and CEPS (to be adopted). | | Contributes to the consolidation of the research funding system (autonomy of the PRO, enhancement of knowledge transfer and cooperation, governance 4-year pluriannual contract with the State, epersonel carreer management and recruitment). Grouping of the CRP-Henri Tudor and Gabriel Lippmann as well as integration of the IBBL in the CRP-Santé. |
| More effective national research systems | | Revision of the Law of the revised Law of 31 May 1999 on the establishment of the National Research Fund in the public sector (not yet adopted) | | Contributes to the consolidation of the research funding system (implementation of the government policy, enhancement of research exploitation, governance, support to doctoral school) |
| More effective national research systems | | Strategy Luxembourg 2020 | 2011 | National Reform Program for the Grand Duchy of Luxembourg under the Europe 2020 Strategy. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law of 12 August 2003 on the establishment of the University of Luxembourg | 2003 | The evaluation of research actors receiving public funding is mandatory. The evaluations are published. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | INTER Programme | 2006 | INTER funds Luxembourg researchers to participate in international projects under bi-lateral and multi-lateral agreements. Regular calls are organised. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Performance contracts 2011-2013 between the Ministry of Higher Education and Research and Public Research Organisations Santé, Gabriel Lippmann, Henri Tudor, CEPS, FNR and Luxinnovation Agency. Second contract 2010-2013 between the Ministry of Higher Education and Research and the Luxemburg University. | 2011 | Performance contracts support the Annual evaluations of the Public Research Centres and increased amount of competitive, project-based funding. They include research performance targets such as numbers of publications, patents, spin-offs and doctoral students trained, as well as financial benchmarks. Annual evaluations of PROs by international experts are required in performance contracts. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | CORE Programme | 2008 | It is the main competitive funding programme raised around five thematic domains. Annuals calls are organised. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Implementation of the pilot-Programme OPEN | | OPEN supports excellent quality research projects outside the CORE programme priorities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | PEARL Programme | 2008 | PEARL provides the institutions with a proactive means to attract internationally recognised senior researchers who will transfer and establish their research programme in Luxembourg. Calls open all year with international peer review. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | ATTRACT Programme | 2006 | ATTRACT aims to support the Luxembourgish research institutions to expand their competences in strategic research areas by attracting outstanding young researchers with high potential to Luxembourg. Annual calls with international peer review. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | National Research Fund programmes | | NRF programmes apply the core principles of international peer review. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Bi-lateral agreements (NRF) | | Contribute to the interoperability of programmes. Bilateral agreements have been signed with the German DFG, Swiss SNF, Polish NCBR, Belgium FWO, Austrian FWF and French CNRS. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Human resources policies for researchers of the Ministry of Higher Education and Research | | The Ministry's policies contribute to the implementation of the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | AFR doctoral and post-doctoral scheme | | The scheme can be awarded to both residents and non-residents. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS Portal | | EURAXESS portal contains extensive information about being a researcher in Luxembourg, including posting of all open positions |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | AFR Programme of PhDs and post-docs | 2008 | The programme applies the Principles for Innovative Doctoral Training. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | NRF | | The NRF encourages Public Research Organisations to support female candidates for ATTRACT and PEARL grants. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | AFR doctoral and post doctoral grant programme | | The programme is supportive of female candidates. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Open Access intitiative at the University of Luxembourg | 2013 | Contributes to open access "Green Road". It includes also a cooperation agreement with University of Liège. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Creation of the National Open Acess Desk (NOAD) | 2013 | The University Library, besides its own digital repository, will act as national help-desk to contribute to enhance open access. The National Library offers free digital access to all residents. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Law of 5 June 2009 relating to the promotion of research, development and innovation | 2009 | The Law foresees the secondment of researchers to SMEs to carry out research and provide support to project. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Linkage between NRF and Luxinnovation | 2013 | Each CORE funded project is assessed by NRF and Luxinnovation to assess its potential economic impact and invited to collaborate with Luxinnovation if appropriate. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Performance Contracts | 2011 | Performance Contracts contributes to the valorisation of research. They define targets such as revenues from private contracts, number of patent and spin offs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | City of sciences | 2008 | The City of science is the major reserach infrastructure. It will provide facilities for the University, PRCs Henri Tudor and Gabriel Lippmann, CEPS/INSTEAD, quarters for public-private partnerships and a business incubator. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | « Luxembourg cluster initiative » | 2012 | The initiative will contribute to bringing together ressources and means to reach critical mass and enhance knowledge transfer. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Creation of the new incubator Technoport S.A. | 2012 | Integrates existing incubators of Henri Tudor and ecostart |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | National Library digital resources access | | Residents can access online to the National Library's digital resources. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | National Library access | | While there is no national strategy for researcher e- identity, the National Library offers digital access for e- cardholders. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | | Draft National Research and Innovation Strategy (2011-2020) | 2013 | The draft strategy is due to be adopted by September 2013 |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Research and Innovation (R&I) Programme | 2004 | The National R&I Programme provides project-based funding for collaborative projects. The size of the programme has more than doubled since 2010 |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | National Research and Innovation Programme | | Acknowledges the concept of 'peer review' in the evaluation process. However, there are no specific provisions detailing the peer review process and its exact content |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Draft National R&I Strategy 2011 - 2020: Recommendation 42: the preparation of a national strategy on research infrastructures | | Constitutes the first steps towards the development of a national strategy on research infrastructures. However, there is no timeframe or financial target specified in the recommendation |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Draft National R&I Strategy 2011 - 2020: Recommendation 44: Ensure that Maltese researchers have the possibility to use research facilities open to European researchers | | Supports Maltese researchers' access to research infrastructures of interest outside Malta |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Public PhD scholarship schemes managed by the Ministry of Education and Employment | | Portability of these grants is allowed |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess Malta | | Contributes to the implementation of Euraxess services |

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|---|--|---|---------------|--|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | STEPS scheme | 2009 | Although not clearly linked to the principles of innovative doctoral training, this measure contributes to creating an attractive and competitive research environment for PhD candidates |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | The Malta Government Scholarship Scheme (MGSS) | 2006 | Although not clearly linked to the principles of innovative doctoral training, this measure contributes to shaping a competitive research environment for PhD candidates |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Setting up of a post-doctoral scheme and community at the University of Malta (part of Malta's 2011-2015 NRP) | | The government recognised the need to establish a community of post-doctoral researchers which is currently lacking at the university. It is envisaged that this will be addressed in the coming years through the setting up of a post-doctoral scheme at the University of Malta, as detailed in Malta's 2011-2015 NRP |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Endorsement of the Charter by the Office of the Prime Minister | 2005 | Acknowledges the importance of the Charter at national level, however it does not provide specific guidance on its implementation |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Draft National R&I Strategy 2011 - 2020: Recommendation 19: Encourage public employers of researchers to officially endorse the European Charter for Researchers & the Code of Conduct | | Encourages research organisations to apply the Charter and Code principles |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Post-doctorate Research Fellowship Scheme | | Although not clearly linked to the principles of the Charter and Code and the HR strategy, this measure contributes to creating a competitive research environment for researchers at the University of Malta |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Draft National R&I Strategy (2011-2020), Recommendation 47 | | Recommends that academic institutions adopt an open access policy and set up their own open access repository |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Rules for participation in the National Research and Innovation Programme | 2012 | Supports to some extent open access to publications |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National R&I Programme | 2012 | Promotes knowledge transfer by allocating project-based funding to industry-academia consortia |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Malta Enterprise R&D incentives schemes (e.g. Loan for Highly Qualified Personnel, Royalty Income from Patents, Support Scheme for Small and Medium Sized Enterprises) | | Support public-private cooperation, mainly in the field of industrial and experimental development |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Technology Transfer Office at the University of Malta and University Trust Fund | 2009 | Supports cooperation between industry and academia |

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|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Life Sciences Centre / BioMalta Campus | | Support to the development of a life sciences and biomedical cluster involving the University of Malta, Mater Dei Hospital and the life sciences industry |

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|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Strategies towards R&D target | 2012 | The Dutch government will pursue its ambitious target of achieving 2.5% of GDP by implementing its new policy for the business sector ("Naar de Top") in 2012 and the Quality in Diversity strategic agenda ("Kwaliteit in verscheidenheid"), which presents a long-term scenario for higher education, research and science. The Top Sectors should promote synergy and coherence of research and innovation activities on economic and social priorities, and foster public-private cooperation and leverage private investments. The reforms of the Dutch Higher Education institutions will also have impact on research, knowledge transfer and cooperation with industry, aligned with the Top Sectors, but the performance agreements under this strategy will mainly focus on setting more distinct profiles for the HEIs. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Competitive funding programs for research and innovation (N.W.O., KNAW and Agentschap NL) | | The main actors and institutions responsible for allocating competitive funds for research and innovation in the Netherlands are the responsible ministries (Ministry of Education, Culture and Science (OCW) and the Ministry of Economic Affairs (EZ)) and a group of main bodies the Netherlands Organisation for Scientific Research (N.W.O. with sub-organisations STW and ZonMW), the Royal Netherlands Academy of Arts and Sciences (KNAW), and NL Agency (an agency of EZ). The individual initiatives taken by the different bodies regarding R&D funding are revised by international independent experts (e.g. the Chinese-Dutch research cooperation grants). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | N.W.O. grants | | N.W.O. grants are intended for excellent research groups in the research domains under the different N.W.O.'s Divisions. There are four different types of N.W.O. research grants: Big facilities, Cooperation and Exchange, Individual Investments, Open Access, Programmatic. The N.W.O. research grants are broad in terms of applicants and topics. The calls have international peer review by default. Foreseen contributions of a structural nature in the 2013 new budget agreement are (1) N.W.O. research for major infrastructure facilities for the implementation of projects on the basis of the results of the national roadmap committee selected. (2) N.W.O. to carry out an integrated program for personal talent alongside the «Innovational scheme». (3) STW N.W.O. budget will be increased by € 10 million per year to improve the enhancement of technological and technical-scientific research. |

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|--|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Additional funds for fundamental research | 2013 | The CSR 2012 for the Netherlands was, inter alia, to preserve fundamental research. Of the increased budget for research announced by the new 2012 coalition agreement, the government will invest 100 million euro a year in research via N.W.O. to provide a boost for fundamental research, both independent research and the research carried out in the joint programmes with the Top Sectors. This increased spending will start at 25 million euro in 2014, rising to 75 million euro in 2015, 2016 and 2017 and reaching 100 million from 2018. In addition, the government will devote a lump sum of 50 million euro from the additional annual funds for the Top Consortiums for Knowledge and Innovation (TKIs) to further stimulate public-private partnerships in the area of fundamental research via N.W.O. The sum will be spent in instalments of 25 million euro in 2014, 15 million euro in 2015 and 10 million euro in 2016. The effect of the Top Sector policy on fundamental research will be closely monitored by the Dutch Royal Academy for Science (KNAW), which will issue by the of 2014 a second report. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Improving the quality and profiles of Higher Education institutions | 2012 | The main recent reform of Dutch Higher Education relevant for research is the implementation of the report by the Veerman Committee, which urged for better profiles of HE institutions, which impact on education as well as research. As the institutions are autonomous, performance agreements have been agreed in the autumn of The main recent reform of Dutch Higher Education relevant for research is the implementation of the report by the Veerman Committee, which urged for better profiles of HE institutions, which impact on education as well as research. As the institutions are autonomous, performance agreements have been agreed in the autumn of 2012, with a financial sanction mechanism. As of 2013, additional resources are available for quality and profile, representing about 7% of education funding. Of this 5% for quality (conditional funding) and 2% for profile (selective budget). The funds in the period 2013 - 2016 will be awarded on the basis of the performance agreements with individual universities and colleges. For education and academic achievement (quality) an amount of € 200 million will be available in 2013 rising to € 245 million in 2016. |

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|--|---|--|---------------|---|
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Standard Evaluation Protocol 2009-2015 | 2009 | The Dutch Science System has as a basis for its evaluation the national Standard Evaluation Protocol 2009-2015. This lays down four main assessment criteria: quality, productivity, feasibility/vitality and societal relevance. A separate committee is appointed to evaluate each institute, working on the basis of a self-evaluation report from the institute and a site visit. The most recent evaluations were conducted in 2011. Additionally, three panels of experts have elaborated three advisory reports on quality assessment in three different research areas: design and engineering disciplines; quality indicators in humanities research, and, quality assessment of social science research. ERiC, a joint project involving the Rathenau Institute, KNAW, VSNU, NWO and the HBO-raad resulted in 2010 in guidance for evaluating the societal relevance of research. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation in Joint Programming, article 185 initiative, ERA NET+ | | The Netherlands participates in Joint Programming. Netherlands participates as a member in 10 initiatives, and coordinates Healthy Diet for Healthy Life. The country also participates in 5 Article 185 initiative(s) and leads 1 of them. The Netherlands participated in 12 ERA net + projects. |

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|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Top Sectors: 2013 update of innovation contracts | 2013 | The top teams of representatives of the Top Sectors will update in 2013 the innovation contracts and will align these with the EU flagship initiatives which serve as catalysts for the Europe 2020 objectives: "Innovation Union", "A resource efficient Europe", a "Digital Agenda for Europe" and "An Industrial Policy for the Globalisation ERA". Also, alignment will be sought with Smart Specialisation strategies at regional level. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | N.W.O. cooperation in research themes | | N.W.O. research funds and actions cover broad research and action themes that relate to national and international agendas for the period 2011-14. The themes are agro-food and horticulture; healthy living; water and climate; high tech systems and materials, cultural and societal dynamics; sustainable energy and connecting sustainable cities. Via its own themes, N.W.O. is actively contributing to joint research agendas at global and European level. |

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|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Co-funding for participation in European research programmes | 2013 | The Dutch government has announced that 150 million euro will be provided to strengthen fundamental research. A substantial portion of this sum could be used to facilitate participation in European research programmes, such as 'Horizon 2020', EUREKA and Joint Programming Initiatives. Also, a TKI surcharge will be available as from 2013, which will be increased by 2014 to 200 million euro. These funds will partially become available for cofinancing of EU projects as well. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint Research Projects Bio-based Economy | | This call is to strengthen research cooperation between State of São Paulo, Brazil and the Netherlands by funding joint research projects in the field of bio-based economy. Brazil and the Netherlands have a strong history in this research field. While this bilateral programme is relatively small in size, it will contribute to the further enhancement of bilateral innovative research on the topic bio-based economy and sustainable solutions for societal challenges. |

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|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Max Planck Institute of Psycholinguistics | | Grant by Dutch government to this cross-border branch of the German Max Planck Foundation, that has as a goal to understand how our minds and brains process language, how language interacts with other aspects of mind, and how we can learn languages of quite different types. It could be considered as example of a cross-border initiative to address a joint research agenda. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | N.W.O. programmes involving mutual recognition of evaluations | | Regarding mutual recognition of evaluations that conform to international peer review, it can be noted that N.W.O. has several programmes supporting international collaboration, researchers mobility and international exchanges, which involve Memoranda of Understanding between N.W.O. with other research councils, and coordinated and joint evaluation procedures following international peer review standards. N.W.O. also experiments with the Lead Agency approach, for example in the ORA-Programme. N.W.O. has prioritised working with China (working closely together with KNAW), India and Brazil. In all of these countries the policy is regularly discussed in a joint committee with the main players both nationally and in the partner countries concerned. Also KNAW has two major international collaboration programmes, with China and Indonesia |

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|--|---|--------------------------------------|---------------|--|
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Cooperation China (NSFC) | 2009 | This is an example of the experience which The Netherlands Organisation for Scientific Research (N.W.O.) has in common selection with other research councils, in this case with third countries. N.W.O. and the National Natural Science Foundation of China (NSFC) are long-term partners in international research co-operation. In 2009, NOW and NSFC decided to expand their existing agreement focusing on exchange of researchers with an additional component focusing on funding joint research projects. This funding instrument (Dutch contribution 1.9 million euros; an equivalent by the Chinese counterpart) offers funding opportunities for bilateral research co-operation between Dutch and Chinese research groups. The programme is jointly facilitated by N.W.O.and NSFC. A Call for Proposals is published annually, calling for Sino-Dutch research proposals in thematic areas. The Call features a different thematic priority every year (2102: Urban Transport). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Dutch roadmap for large scale research facilities | 2012 | The Netherlands has a national roadmap for large scale research facilities. The Dutch national roadmap contains 28 facilities which are of interest for Dutch science. These are for a large part connected to the ESFRI roadmap. Based on the 2011 Strategic Agenda for Higher Education and Research, additional funds have become available for N.W.O. for universities to compete for support in national and European facilities. Each year, for the 28 facilities there will be 40 million euro available via N.W.O. In 2012, based on an advice by a Committee (Meijer), 5 projects received financing (in total 80 million euro) from this budget, relating to cancer research, proteins, nuclear magnetic resonance, space research, a High Field Magnet, Arts and Humanities, Bio-banking and a database for social science. The Dutch roadmap will be updated every 4 years to give new initiatives a change. The intention is to better align the Dutch roadmap with the research programming based on the innovation contracts of the Top Sectors, as prepared by government, knowledge institutes and industry. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Investment Grant N.W.O. Medium programme | | With this scheme, Investment Grant NWO Medium (total investment is € 6.5 million), the Netherlands Organisation for Scientific Research (N.W.O.) wants to encourage and support investments in the research infrastructure. N.W.O. pays a maximum of 75% of the investment costs. The institution where the research will be realised contributes at least 25% of the costs. |

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|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Investment Grant NWO Large programme | | The aim of the programme Investment Grant NWO Large is to stimulate investments in innovative scientific equipment or data collections of national or international importance. The National roadmap for large scale research facilities is designed to strengthen the promotion of development and construction of large-scale research facilities. There are 3 ESFRI initiatives currently being implemented with the Netherlands as hosting country. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | CLARIN-ERIC Common Language Resources and Technology Infrastructure | | Facilitates the access for researchers across Europe to multilingual and multicultural content, in all disciplines, in particular humanities and social sciences. It is one of the ESFRI initiatives currently in period of implementation that have the Netherlands as a hosting country. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | SHARE-ERIC Survey of Health, Ageing and Retirement in Europe | 2001 | In March 2011, the Survey of Health, Ageing and Retirement in Europe (SHARE) became the first European Research Infrastructure Consortium (ERIC). SHARE-ERIC is a data infrastructure for the socio-economic analysis of on-going changes due to population ageing. SHARE-ERIC is the upgrade into a long term research infrastructure of a multidisciplinary and cross-national database of micro-data of about 45,000 Europeans aged 50 or over. Although SHARE-ERIC is hosted by Tilburg University/Netspar in the Netherlands, SHARE is centrally coordinated at MEA (Munich Centre for the Economics of Aging), Max-Planck-Institute for Social Law and Social Policy, Germany. The project aims to help researchers understand the impact of population ageing on European societies and thus to help policy makers make decisions on health, social and economic policy. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | EATRIS - European Advanced Translational Research Infrastructure in Medicine | | EATRIS will allow a faster and more efficient translation of research discoveries into new products to prevent diagnose or treat diseases. It is one of the ESFRI initiatives currently in period of implementation that have the Netherlands as a hosting country. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Biomedical Primate Research Centre (BPRC) | | BPRC is a scientific biomedical research institute that exists to perform vital research that contributes to the identification and development of new medicines and vaccines for diseases such as AIDS, malaria, hepatitis, multiple sclerosis and tuberculosis. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Dutch center for bio-diversity (NCB) | | World's fifth largest specimen collection which can be considered as a research infrastructure. The NCB Naturalis mission is to be an open archive of Life's Diversity dedicated to reconstruct and understand the Tree of Life, to educate people about our natural world, and to raise awareness for the sustainable use of Earth's living resources. By further developing novel molecular and digital techniques, and by working intensively together with Dutch and foreign partners, including those from well-established European networks, NCB Naturalis aims |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Contribution to major research organisations (ESA, ESO, CERN, EMBL and EMBC) | | The Dutch government gives grants to a number of European intergovernmental organisations which are exploiting large research infrastructures, in order to provide researchers in the Netherlands with access to the large-scale facilities and related international networks of researchers. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Access to large research facilities for non- resident researchers based on excellence | | Access to large research facilities in the Netherlands is based on excellence only, as explained during the Country Visit European Semester on 30 January 2013 by the ministry of OCW. Normally, access conditions are however defined by the facilities themselves. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Measures to develop ERA in relation to HR Strategy for Researchers | | Given the autonomy of the research institutions in the Netherlands, notably in the area of human resource management, the Dutch government will take further steps to develop the ERA in consultation and collaboration with the institutions (and, where relevant, the private sector). 15 Dutch organisations are actively engaged in the Commission's Human Resources Strategy for Researchers of which 2 have received the "HR Excellence in Research" logo for their progress in implementing the Charter & Code. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | N.W.O. Talent Scheme (Vernieuwingsimpuls) and other individual grant schemes | | The Talent Scheme programme and other individual grant schemes are open for researchers from abroad but the research must be carried out at a research institute in the Netherlands. The Veni grant covers the salary costs of the PI and costs for research while the Vidi and Vici grant may cover the salary cost of the PI but is, for a large part, used for salary costs of additional personnel (PhD students and Postdoc) and research costs. In the case of mobility the remainder of the grant may be transferred to the new institute. The laureate however must seek approval of N.W.O. Transfer of the remainder of the grant is more applicable for Veni laureates as the grant always covers the salary costs of the PI and no other personnel is involved. PhD students and Postdocs that work on the project mostly stay in the Netherlands meaning that most of the grant is fixed. Usually an agreement is set-up in which the PI that leaves the Netherlands remains to be responsible for carrying out the research project and for guiding the PhD students and Postdocs that are involved. The project may then be finalized successfully while the PI's mobility is not hindered. Each situation is handled "case by case". N.W.O. is currently looking into the possibility of renewing its commitment towards the "Money Follows Researcher" scheme, in the context of Science Europe's work towards a Grant Union. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|--|
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | NWO mobility grants - Rubicon | 2011 | The Netherlands encourages international mobility of researchers via a range of grants and fellowships designed to promote international cooperation between Dutch researchers and researchers of different nationalities. These include NWO mobility grants. The Rubicon scheme, since 2010 co-funded by the 7th Framework Programme Marie Curie COFUND scheme, gives for example postdoctoral researchers the chance to gain experience at top research institutions in other countries. The scheme, like all N.W.O. grants including the Innovational Research Incentives Scheme (Vernieuwingsimpuls), is open to talented foreign applicants. The research funded by most schemes must however be carried out at a research institute in the Netherlands. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Academic Transfer / Euraxess | | All vacancies in the Dutch academic world are published on the international website Academic Transfer. The Netherlands provides support to take part in EURAXESS initiatives, which provides personalised information and services to researchers and Phd. students who want to study and/or work in the Netherlands or in another related country. The Dutch organisation NUFFIC delivers specific expertise to Euraxess on immigration procedures, health insurance, social security and taxation; the University of Tilburg on social security and taxation and the agency AgentschapNL on the FP7 Marie Curie programme and research funding opportunities in general. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | N.W.O. Graduate Programme | | The aim of the Graduate Programme is to create an excellent educational and research environment for highly talented young researchers. The programme intends to strengthen the PhD system by incorporating parts of the methods used at American Graduate Schools. Interuniversity and local research schools can apply for funding to appoint four PhD students. The research school must offer a coherent educational and research programme covering both the master's and PhD period. The educational and research environment must also be top level. The aim is: to give future PhD students more freedom: they can choose their own research topic and supervisor, and write their own research proposal to attract talented researchers from within the Netherlands and abroad; to offer PhD positions to the most talented students by means of selection; to provide undergraduate and PhD students with the best possible supervision. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | N.W.O. Doctoral Grant for Teachers | | The Doctoral Grant for Teachers aims to increase the number of teachers holding a doctorate. It is open to teachers in primary, secondary, vocational and special education. Increasing the number of teachers holding a doctorate who are employed in the classroom increases the quality of education and strengthens the ties between universities and schools. A separate aim of the programme is that the acquired expertise and research skills will be of benefit to the educational practice. Applicants can be qualified teachers from primary, secondary, vocational and special education who have a permanent contract. Female teachers are particularly encouraged to submit proposals. |

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| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Funding and accreditation of doctoral schools | | Doctoral education is under development in the Netherlands. The Dutch HE-system contains an accreditation system by the Dutch Higher Education and Research Act (WHW, since 1997). However, PhD programmes are the responsibility of the individual universities outside the scope of the overall accreditation process. The Dutch Royal Academy for Science (KNAW) has set up in 1992 a Research School Accreditation Committee (ECOS), which assesses teaching and research at Dutch research schools against specific quality criteria. Research school are accredited by the ECOS. Transferable skills are considered important, as 75% of researchers will not reach the level of excellence needed and should ultimately find a job outside research. Doctoral schools in the Netherlands are well aligned with the European principles for innovative doctoral training. The funding of Dutch research schools have been a sensitive issue over the years, given their unclear status in relation to the lump sums HEIs receive. In May 2013, the Minister of Education, Culture and Science promised to the Dutch parliament to look for a structural solution. TA next wave of top research schools may be funded in the near future. The NOW programme Zwaartekracht, aiming to select the best research Schools, with calls in 2013 and 2016. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Emancipation policy 2013-2016 | 2013 | The Dutch government wants to promote the emancipation: the empowerment of girls and women, and the emancipation of lesbians, gay men, bisexuals and transgender (LGBT). The Minister of Education, Culture and Science is responsible for this policy and has as instruments laws and regulations, subsidies to institutions for women's and LGBT emancipation and project grants to civil society and communication actions. On 10 May 2013, the Minister presented her policy for the period 2013-2016 to Dutch parliament. The participation of women in science was not addressed in this policy letter, but the need for gender balance in health care and health research was addressed, and a number of measures for this policy area announced. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | FOM bridging grants | | The Foundation for Fundamental Research on Matter (FOM) promotes, co-ordinates and finances fundamental physics research in the Netherlands. It is an autonomous foundation responsible to the physics division of the national research council NWO. Its annual budget is 99,2 million euros. FOM supports the appointment of a woman in permanent employment in physics, for example after having worked in an university abroad or to bridge the wage difference between a lector and professor position. FOM can subsidize up to five years. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Fom/v Network / Minerva Prize | | The Foundation for Fundamental Research on Matter (FOM) encourages with this scheme the visibility of women in physics in order to encourage more women physicists to remain in the scientific community. The Minerva-Prize is one of the activities under the Fom/v-stimuleringsprogramme to promote female scientists. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | N.W.O. Athena program for female researchers in chemistry | | The NWO programme Athena encourages the appointment of female researchers in chemistry at the university and research institutes (assistant professor, associate professors, professors). The target groups are female researchers who have received a Veni grant from NOW Chemical Sciences and a permanent position as during the term of the Veni project at a university, or equivalent permanent position at a research institute. |

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|---|--|--------------------------------------|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | N.W.O. Aspasia Programme | | Aspasia is linked to the Vidi and Vici competitions of the NWO Talent Scheme. Eligible candidates are female applicants who have received a Vidi or Vici grant; female applicants who were not granted a Vidi or Vici, but were assessed as very good or excellent. The grant is intended to encourage the promotion of female Vidi grant candidates to an associate professorship and female Vici grant candidates to a full professorship. The scheme was set up by the Ministry of Education, Culture and Science, the Association of Universities in the Netherlands and N.W.O. To note that several universities have their own chairs and fellowships exclusively for top female researchers (e.g. VU University: Fenna Diemer Lindeboom chairs, Groningen University: Rosalind Franklin Fellowships). |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Excellence Initiative | 2005 | Auch in der Exzellenzinitiative des Bundes und der Länder ist die Gleichstellung von Männern und Frauen in der Wissenschaft verankert. Bei der Begutachtung der eingereichten Konzepte ist beispielsweise die Eignung der Maßnahmen zur Förderung der Gleichstellung von Männern und Frauen in der Wissenschaft ein Kriterium. |

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| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | N.W.O. programme Plural (Meervoud) for female researchers in Earch and Life Sciences | 2013 | The N.W.O. programme Plural aims to move more women at Dutch universities to a position as a lecturer, in the area of Earth and Life Sciences (ALW). The applicant can apply for a temporary assistant professor position of a minimum of 0,8 FTE of which NWO will finance 0,6 FTE. This temporary position should be for a minimum of 2 years and a maximum of 4 years. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Charter 'Talent to the Top' Foundation | 2008 | The Charter was developed in 2008 under the leadership of former minister Sybilla Dekker in close consultation with the business sector, public bodies and the Ministries of Economic Affairs and Education, Culture & Science, with financing by the latter two. The aim is to achieve a higher intake, promotion and retention of female talent in top jobs, and thus to promote gender diversity in the senior ranks of companies, organisations and institutions. The Dutch government has recently announced to initiate a dialogue with those sectors which do not show improvements. Relevant in this context is that the signatories of the Charter must indicate their baseline, objectives and strategy regarding gender diversity, and will be subject to annual monitoring. Almost all Dutch universities and public research institutes have signed the Charter. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Dutch network of women professors | 2010 | The Dutch network of women professors aims to promote proportionate representation of women within the university community. It is supported by the Ministry of Education, Culture and Science in the period 2010-2014 and by the research council N.W.O. in order to professionalise itself and to adequately pursue its mission. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Girls' day | 2013 | Girls' day is an annual event since 2006 organised by VHTO, the Dutch National Expert Organisation on Girls/Women and Science/Technology, with indirect support by the government (Platform BètaTechniek). The Girls' day aims at awakening the interest of young girls aged 10-15 years in science and technology. The days have become more and more embedded in the curriculum of the school and is part of the career guidance activities. More and more companies are aware of the need to start at an early stage to awake and retain interest amongst girls' science, technology and ITC. |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | N.W.O. internal targets for gender balance | | N.W.O. has defined targets for the gender balance of its own board and committees. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Green open access | | The scientific community and libraries are very active at national (and international) level despite severe budget cuts. All Dutch universities have a green open access policy, although not all have the same policy and they do not make open access compulsory. The government supports the principles of access to and dissemination of scientific information, but does not have a clear policy on scientific informaton yet nor does it invest substantially in the furthering of open access and preservation. A strategy for Open Access to publications has been announced recently, to be publised before the summer 2013. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | DANS - Data Archiving and Networked Services | | DANS encourages researchers to archive and reuse data in a sustained manner, e.g. through the online archiving system EASY. DANS also provides access, via NARCIS.nl, to thousands of scientific datasets, epublications and other research information in the Netherlands. In addition, the institute provides training and advice, and performs research into sustained access to digital information. DANS ensures that access to digital research data keeps improving. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Scientific library of the TUD | | The library of the Technological University Delft (TUD) has a national, cross-institutional task with respect to technological-scientific literature, for students, companies and citizens. The TUD receives a special subsidy for this task. Together with the Royal Library and the e-Science research centre, TUD works on Open Access and digitalising of scientific literature and an electronic documentation system (e-depot). One of the national tasks concerns support on scientific information management to companies. In June 2013, the government announced to cut the budget for this national task, expressing the hope for continuity of the activities funded by the regular budget for universities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | NARCIS - National Academic Research and Collaborations Information System | | NARCIS provides access to scientific information, including (open access) publications from the repositories of all the Dutch universities, KNAW, NWO and a number of research institutes, datasets from some data archives as well as descriptions of research. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Incentive Funds Open Access / OAPEN project | | The national research council of the Netherlands (NWO) encourages that research results acquired with NWO funding are accessible to the public. The "Incentive Fund Open Access" is a pilot in the humanities for starting open access journals, and has launched a call for proposals for all disciplines served by NWO for starting open access journals. NWO also co-finances OAPEN (Open Access Publishing in European Networks) focusing on open access publishing of books. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | N.W.O. policy stimulating Open Access to data | 2013 | A new N.W.O. policy stimulating Open Access to data is currently being implemented, coordinated with N.W.O. own institutes, different disciplines and other organisations like Surf. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Top sector approach | | The country specific recommendation 2012 for the Netherlands was to promote innovation, private R&D investment and closer science-business links, as well as foster industrial renewal by providing suitable incentives in the context of the enterprise policy, while safeguarding accessibility beyond the strict definition of top sectors and preserving fundamental research. With its "Top sectors" strategy and related funding, the government is implementing the CSR 2012 recommendation in association with the business sector, knowledge institutes and regional and local authorities. The government will promote private spending on research and development (R&D) and fundamental research and the annual public funding for research and innovation will increase by more than 0.7 billion euro to around 6.4 billion euro in the period 2008-2016. In 2012, 19 Top Consortia for Knowledge and Innovation (TKIs) have been established, who started to implement the research agendas as agreed in innovation agreements. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | TKI surcharge | 2013 | TKI-surcharge should promote synergy and coherence of research and innovation activities on economic and social priorities, by fostering public-private cooperation. The surcharge should also enhance private investments. The government makes for 2014, \in 110 million free for Topconsortia for Knowledge and Innovation (TKIs). The previous government has \in 90 million for the TKI-charge (a contribution in addition to the contribution that businesses make to the study of the TKIs). In total the budget for 2014 will be raised with \in 200 million. The funds will partially be available for cofinancing of EU research projects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Valorisation and knowledge transfer by Higher Education institutions and N.W.O. | 2012 | A large scheme (budget around 65 million euro) has supported in recent years a wide range of knowledge transfer related activities, including education which encourages entrepreneurial attitudes, protection of knowledge, feasibility studies, spin-off companies, networking between companies and knowledge institutes. Last grants were awarded in 2012, the projects will run until end of 2018. Knowledge transfer - or more broadly valorisation - is considered after the ending of this programme as an integral part of the mission of Dutch Higher Education institutions as laid down in Dutch law ("third mission"). This is illustrated by the increased number of staff working in related activities, and knowledge transfer capacities which are increasingly acknowledged and rewarded in the human resources policies of the institutions. Furthermore, in the performance agreements between the government and the Higher Education institutions as agreed in autumn 2012, valorisation is one of the priorities. In each call for proposals, NWO asks researchers to state the contribution their research will make to society. This could be economic, social, administrative, cultural, technological, medical or democratic in nature. NWO facilitates the societal contribution of research in various ways. Examples are start-up funding for researchers who want to put their ideas into practice, the organisation of matchmaking events, and giving researchers who have completed their research the opportunity to still make the results suitable for knowledge utilisation by third parties. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | MKB Innovation Scheme for Top Sectors (MIT) | 2013 | The Dutch government will make additional funding available in 2013 (22 million euro) in order to increase the connection between SMEs and the Top Sectors. SMEs can fund feasibility studies, implement joint R&D projects or hire temporary staff. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | High Tech start up Fund | 2011 | Der High-tech-Gründerfond, an dem die Bundesregierung als Investorin beteiligt ist, finanziert seit 2005 junge Technologieunternehmen, die aufgrund ihrer frühen Entwicklungsphase noch mit hohen Risiken behaftet sind. 2011 startete der High-tech Gründerfonds II mit weiteren Investoren aus der Industrie an Bord. Das Fondsvolumen beträgt nun 301,5 Mio. Euro. Die Hightech-Strategie forciert damit konkret die Modernisierung und Stärkung des Wissenschaftssystems in ihrer Innovationsorientierung und Kooperation mit der Wirtschaft. Dies stärkt die langfristige strategische Zusammenarbeit zwischen Wirtschaft und Wissenschaft zu beiderseitigem Nutzen. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | "Technology Pact" to address skills shortages in technology | 2013 | Knowledge transfer and innovation in the Netherlands may benefit from this multi-annual strategy as agreed on 13 May 2013 between a large range of stakeholders from industry, education, employers, regional authorities supported by additional funding by the Dutch government, in order to guarantee the availability of sufficient number of technology skilled people. An investment fund will be established by contributions by the government, employers and regional authorities of each 100 million euro, for investments in technology education. Industry will make available 1000 scholarships yearly. Government will reserve 600 million euro for education and training of employees in technology and invest 100 million euro in additional teachers in secondary education. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | N.W.O. grants - evaluation on the basis of the use of the research results | | In the submission of grants for N.W.O., applicants need to indicate the use of the research results. Some of the N.W.O. branches (STW, ZonMw, WOTRO) evaluate the proposals on this basis. Broad application of this assessment is under preparation (foreseen per October 2013). This may lead to involvement of the potential users of the results in an early stage of the research projects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National Science and Technology Platform | | The National Platform Science & Technology has been commissioned by the Dutch government, the education and the business sectors to ensure sufficient availability of people who have a background in scientific or technical education to meet the expected demand. This approach has been formulated in the Deltaplan Science & Technology, a policy document on how to prevent shortages in the technology sector. The aims: (1) to achieve a structural increase of pupils and students in scientific and technical education, and (2) to use existing talent more effectively in businesses and research institutes. The goal is not only making careers in science more appealing, but also to introduce educational innovations that will inspire and challenge young people. Therefore, the National Platform facilitates mutual contact between schools, universities, businesses, ministries, municipalities, regions and sectors. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | MBO Centres for Innovative craftmanship, HBO Centers of Expertise, RAAK programme | 2011 | In MBO (Vocational education institutions) Centres for Innovative craftmanship and HBO (High Schools) Centres of expertise entepreneurs, scientists, lecturers and student cooperate to raise the quality of technology education. The first 4 Centres for Innovative craftmanship Centres and 3 Centres of expertise started in 2011. These public-private cooperation structures will liaise with the regional knowledge infrastructure, by alignment with the relevant Top Sector(s). Education, applied research and vocational training are framed in this context to develop an unique education and knowledge profile. People from industry and education institutions will give added value to education, research and human capital, based on investments by all parties involved via a public-private cooperation. The Centres should be independent after 5 years. The RAAK programme is a competitive funding scheme for applied research in HBO institutions. Recently, budget cuts on this programme were prevented, but the ministry of Education, Culture and Science agreed with employers, partners of the Innovation Alliance and with the research council N.W.O. that the latter would implement the RAAK scheme as from 2014. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | N.W.O. Added Value programme (Meerwaarde) | 2011 | With the Added Value programme, NWO encouraged in 2011-2012 researchers to make their scientific results suitable for and accessible to third parties outside of academia. The Added Value programme is a one-off initiative to encourage the utilisation of knowledge in the earth and life sciences, humanities and social and behavioural sciences. An Added Value grant gives teams of researchers, partners or potential users the opportunity to develop activities or products that encourage the use of knowledge from scientific research. Examples are workshops, documentaries, expositions or internships. Collaboration with knowledge intermediaries such as the Netherlands Bureau for Policy Analysis or trade organisations is also possible. NWO has made 500,000 euros available for each of its ten scientific divisions. The divisions are free to choose how they use this budget to support knowledge utilisation. The divisions Social Sciences, Earth and Life Sciences, and the Humanities have chosen to provide support through the Added Value grant. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | SURF | 2008 | SURF is a Foundation for groundbreaking innovations in ICT allowing researchers and higher education institutions to make optimal use of the potential of ICT and improve their quality. The Funds are made available in accordance with the government's response to the advice by ICTRegie on ICT research infrastructure in the Netherlands to strengthen the ICT research infrastructure such as computer networks (SURFnet, GigaPort), E-Science and High Performance Computing. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN membership status | | While a national policy for e-identity has not been identified, for the Netherlands SURFfederatie is member of of the eduGAIN network which works towards the trustworthy exchange of information related to identity, authentication and authorisation between the GÉANT (GN3plus) Partners' federations. |

Poland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 "Dynamic Poland" | 2013 | Poland has multi-annual RDI plan - The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 "Dynamic Poland" – coordinated by the Ministry of Economy. The strategy is the highest level policy document related to RDI in Poland and was officially adopted by the Council of Ministers in January 2013. It lists the target of 1.70% GERD to GDP in 2020 and is reflected in other policy documents, including plans for public support for enterprises and future allocations of the EU Structural Funds. It also set indicators to measure the fulfilment of objectives and delegates specific tasks to different governmental institutions. Among the R&D objectives listed: - adjust the structure and increase effectiveness of public research expenditure in RDI; - development of international scientific and educational co-operation; - development of infrastructure for research and knowledge transfer; - support researchers' mobility in science and economy sectors; - create a culture of innovative academic entrepreneurship; - strengthen links between business and academia; - effectively use intellectual property rights, patent and scientific information. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Research Program "Foundations for the science and technology policy and innovation policy of the state" | 2011 | The Council of Ministers issued in 2011 another major policy document, the National Research Program "Foundations for the science and technology policy and innovation policy of the state" (NRP), which has set allencompassing national R&D priorities, taking into account the long-term needs of the economy, existing scientific and technological competencies and business potential. Two foresights were carried out by MNiSW in 2008 - National Foresight Program Poland 2020 - and by Ministry of Economy in 2011 - Technological Foresight of Industry – InSight 2030 - www.fortech2030.pl - in order to determine future priorities for research, technological development and innovation. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Act on principles of science financing | 2010 | The Act on principles of science financing (2010): - delegated the responsibility for setting the National Research Program to the Council of Ministers; - established financing modalities for NCN and NCBiR, assuring gradual increases in the allocated funding; - strengthened the importance of open and formalised competitions for R&D funding; - established the legal framework for joint financing of R&D with international partners, including eligibility of costs and reporting requirements; - establishing open competitive calls for large R&D infrastructure investments; - stipulates that research funds are primarily awarded to organisations; - facilitates funding for joint initiatives between scientific organisations and business enterprises. Article 5 (Act on the Principles of Financing Science) states that Science funding shall be allocated to: 1) strategic research and development work programmes |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| | | | | and other tasks financed by the National Centre for Research and Development, hereinafter referred to as the "Development Centre"; 3) basic research and other tasks financed by the National Science Centre, hereinafter referred to as the "Science Centre"; 4) the activities set forth in scientific unit Charters; 5) activities of scientific units of higher education institutions, scientific units of the Polish Academy of Sciences, research institutes and international scientific institutes consisting of conducting research or development work and related tasks that serve the development of young researchers and doctoral programme participants and are financed by way of internal competitions; 7) scientific collaboration with other countries; 9) science dissemination activities; 10) programmes and undertakings established by the Minister; 11) awards for outstanding scientific or scientific and technological achievements and scholarships for outstanding young researchers; 12) financing the activities of the Scientific Unit Evaluation Committee and the Scientific Policy Committee, teams, reviewers, experts and audit activities; |
| | | | | 13) financing scientific libraries not included in the scientific units referred to in Article 2 Item 9 Letters a to c with respect to their scientific activities and science dissemination activities |

Poland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Act on National Science Centre (NCN) | 2010 | The Act on National Science Centre (NCN) (2010) established the funding agency for basic research. The agency is independent from any direct government influences, with a governing body consisting of scientists and stakeholders. Minister's ordinances regulate the operation of the Centre. The Council of NCN prepares the strategic research programs with medium-term objectives and assigns funds on the basis of the long-term objectives identified in the National Research Programme (NRP). The National Science Centre funds research projects carried out by scientists, academics, national and international research teams, as well as doctoral scholarships and post-doctoral internships. Competitions are announced by the Disciplines' Coordinators based on the Act on NCN and the specifications of call regulations provided by NCN Council. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Act on National Research & Development Centre (NCBiR) | 2010 | The Act on National Research & Development Centre (NCBiR) (2010) widened the scope of activities of the applied research agency. The agency is independent from any direct government influences, with a governing body consisting of scientists and stakeholders, with equal representation of experts from business, science and government. The Council of NCBiR prepares the strategic research programs with medium-term objectives and assigned funds on the basis of the long-term objectives identified in the National Research Programme (NRP). In 2011 NCBiR was also tasked with management of R&D-related programs financed from EU Structural Funds. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | NCN, NCBiR, Ministry of Science and Higher Education (MNiSW), the Foundation for Polish Science (FNP) and Polish Agency for Enterprise Development (PARP) programmes | | In 2012, the eight programmes managed by NCN and the 19 programmes managed by NCBiR were distributing 52.67% of the science budget through open competitive calls. Besides those agencies, the Ministry of Science and Higher Education (MNiSW), the Foundation for Polish Science (FNP) and the Polish Agency for Enterprise Development (PARP) run each of them four research programmes. Funds earmarked by the NCBiR for the implementation of programmes in the field of applied research on the basis of the National Research Programme in 2013–2014 amount to PLN 40 million and PLN 280 million, respectively. Some programmes have been evaluated, but the result of evaluation is not always publicly available. NCBiR published evaluation results on its website and announced further evaluations in 2013 and NCN conducted an extensive survey among the applicants of NCN's first grant and used the findings to improve the program. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Ordinance of the Minister of Regional Development concerning the award of financial support based on the Operating Program Innovative Economy, 2007-2013, by the Polish Agency of Enterprise Development (PARP) | 2012 | The Ordinance establishes the Polish Agency for Enterprise Development (PARP) as the agency of the Ministry of Economy (MG) which funds R&I in business enterprises. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Ordinance of the Minister of Science and Higher Education concerning the conditions and modes of applying for the status of KNOW (National Leading Scientific Institution) Communication of the Minister of Science and Higher Education concerning the call for submisions in competition for KNOWs | 2011 | The ordinance sets general criteria, application rules and procedures for institutional assessment of leading research institutions. The Communication is the annual call and sets rules for selecting the leading research institutions in each scientific discipline. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Ordinance of the Minister of Science and Higher Education concerning conditions of program assessment and institutional assessment | 2011 | The Ordinance defined criteria for institutional assessment. These criteria include research performance, teaching and research infrastructure, co-operation with business. In 2012, MNiSW amended the standards for the institutional assessment of public R&D organisations to improve assessment of public research institutions, promoting internationally significant research (based on bibliometric indicators) and successful commercialisation of research results (measured by values of technology transfer transactions) and providing that evaluation is carried out by independent committees based on transparent criteria and procedures. Evaluation is carried out by conducted by the Committee for Evaluation of Scientific Research Institutions (KEJN). A planned amendment of the ordinance of the MNiSW concerning the criteria and modes of awarding scientific ranks to scientific organizations (2013) enhances the use of bibliometric indicators in institutional assessments. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Institutional assessment by the Committee for Evaluation of Scientific Research Institutions (KEJN) | | Institutional funding is partly statutory (based on number of researchers) and partly the result of an evaluation. As such organisations are divided in different categories and funding is not available to organisations in the lowest ranks. Over 100 public higher education institutions (PHEIs) and over 200 public research organisations (PROs) undergo regular nation-wide performance evaluations. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Development of online system POL-ON | 2011 | The Ministry develops a nation-wide online system POL-ON, which will make the results of institutional assessments publicly available alongside specific bibliometric data, which were used as the basis of rankings. The first institutional evaluation using the new criteria was performed in 2013 and its results are due to be published. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Peer-review in national programmes | 2011 | National peer review is used by all funders NCN, NCBiR, MNiSW, FNP and PARP and peer-review rules are defined by publicly available procedures and compliant with international standards for peer-reviews. For NCN proposals have to be submitted both in Polish and English and foreign reviewers are involved in the evaluation of selected proposal. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Ordinance of the Director of NCBiR concerning the principles of selection and compensation of experts at NCBiR Resolution of the NCN Counil concerning establishment and modalities of work of the panel of experts | 2013 | The NCBiR Ordinance provides for the inclusion of foreign experts in peer-review processes and for individual negotiations of compensation with international experts. The NCN Resolution contains measure to forster international peer review for the allocation of funding. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Ordinance of the Minister of Science and Higher Education concerning the criteria and mode of award and settlement of funds for financing international scientific co-operation | 2011 | There are standard procedures for co-funding of Polish researchers to participate in international initiatives and using international peer review in national funding decisions. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Ordinance of the Minister of Science and Higher Education concerning the conditions and modes of awarding public support for financing international scientific co-operation | 2011 | The Ordinance defines standard procedures for co-funding of Polish researchers from business enterprises to participate in international initiatives and using international peer review in national funding decisions while ensuring the compliance with the European regulations concerning the public support for enterprises. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Amendment to Ordinance of the Minister of Economy amending the ordinance concerning financial support offered by the Polish Agency of Enterprise Development linked to operational programs | 2011 | Amendment of public support rules, enabling Polish Agency for Enterprise Development (PARP) to co-finance participation of Polish SMEs in international R&D programs. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Participation in JPIs, ESA, EUREKA, EUROSTARS, Artile 185, JTIs | | An annex of the Ordinance of the Minister of Science and Higher Education concerning the criteria and mode of award and settlement of funds for financing international scientific co-operation contains a detailed list of initiatives with corresponding budgets in which Poland participates through NCBiR and NCN, including ERA-nets, ERA-nets+, EUREKA, EUROSTARS, ESA but also in five JPIs. Poland also participates in BONUS as well as ENIAC and ARTEMIS. |

Poland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Draft Operational Program "Smart Growth" (POIR) | 2013 | The currently drafted Operational Program "Smart Growth" (POIR), which will define the rules for distribution of the EU Structural Funds in years 2014-2020, includes a measure Internationalisation of Polish science through support for creation of international research agendas and measure 3.3.10 Support for enterprises and scientific organisations in preparation to participate in international programs. It supports the internationalisation of Polish science through support for the creation of international research agendas, stimulating cross-border R&D by both enterprises and scientific organisations by helping them to prepare participation in international programs and co-funding Polish research teams participating in international R&D programs. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Resolution of the Council of NCN concerning priority areas for fundamental research The Strategic Research and Development Programs of NCBiR | 2012 | The Resolution of the Council of NCN concerning priority areas for fundamental research and the Strategic Research and Development Programs of NCBiR reflect the priorities set in the National Research Program contains and partially coincide with the grand challenges set at the European level. In 2013 a dedicated inter-disciplinary committee was set up to make recommendations concerning funds for international research co-operation distributed directly by the MNiSW, while R&D funding agencies NCN and NCBiR have corresponding institutional arrangements since 2010. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Polish participation in LIFE+ | 2008 | The European program LIFE+ is supported in Poland by the National Fund for Environmental Protection and Water Management (NFOŚiGW), and R&D programs for business enterprises, including CIP and ESA are managed locally by the Polish Agency for Enterprise Development (PARP). |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Communication of the Minister of Science and Higher Education concerning the establishment of Program "Ideas Plus" | 2010 | MNiSW established in 2010 the program "Ideas Plus", supporting the participants of the European Research Council competition "IDEAS", who did not qualify for funding from ERC. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | NCN's program "HARMONIA" | 2010 | NCN offers dedicated funding for international fundamental research projects. HARMONIA is a funding opportunity designed for scientists wanting to carry out research in the following forms: - in cooperation with foreign partners, - within the framework of international programmes or initiatives announced under bi- or multilateral cooperation, - utilising large-scale international research infrastructure. These projects are not co-financed from other sources. |
| Optimal levels of transnational | Remove legal and other barriers to the cross- | Act on principles of science financing | 2010 | The Act on principles of science financing (2010) established the legal framework for joint financing of |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| co-operation and competition | border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | | | R&D with international partners, including eligibility of costs and reporting requirements, compliant with regulations on public finance. Article 23. 1. The financing of scientific collaboration with foreign partners shall cover: 1) projects implemented in collaboration with foreign partners including research, development work or science dissemination activities undertaken within the framework of international programmes, initiatives or research undertakings, co-financed with non-repayable foreign funds; 2) activities supporting the participation of scientific units and other entities in the programmes, initiatives or research undertakings referred to in Item 1; 3) the payment of membership fees to international institutions or organisations under international agreements concluded, excluding membership fees from natural persons; 4) the making of the national contribution to a joint international programme or undertaking within the framework of which research or development work is financed. 2. The minister responsible for science shall determine, by way of a regulation, the criteria and procedure for the granting and settlement of funds for the purposes set forth in Section 1, including: 1) the manner of evaluating the applications concerning the tasks to be financed; 2) the manner of evaluating the performance of the tasks financed; 3) the manner of settlement of the funds granted, including the forgiveness or postponement of repayment and the payment of amounts due in instalments; 4) specimen applications for financing scientific collaboration with foreign partners, reports including information on the implementation of the tasks financed and financial settlements of the costs incurred as well as |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| | | | | other required documents – taking into account the significance of financing scientific collaboration with foreign partners for the pursuit of state scientific, scientific and technological and innovation policies, the need to increase the activity of scientific units in the international arena, the evaluation of activities of the scientific unit or another authorised entity in question to date and the correct utilisation of the science funding previously granted. 3. The minister responsible for science shall determine, by way of a regulation, the terms and procedure for granting public aid for the purposes set forth in Section 1, including: 1) the purpose of aid; 2) the types of costs eligible for aid; 3) the manner in which aid is cumulated; 4) maximum aid amounts – taking into account the objectives of state scientific policy. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Bilateral agreements | | Poland maintains also bilateral cooperation programs with Norway, Czech Republic, Israel, Luxemburg, Germany, Singapore and Taiwan (with co-funding managed by NCBiR). The Polish-German Foundation for Science, and the Polish-Norwegian Research Fund, Pollux (Polish-Luxembourg) programme function in the framework of the above mentioned bilateral agreements. The aim of the Polish-Norwegian Research Programme is to reduce economic and social differences and to promote bilateral cooperation through popularisation and support of scientific research. The Programme will prioritise funding for research and development in the following areas: environment, climate change including polar research, health, social sciences and bilateral relations, including the issues of migration, social cohesion, the role of minorities and the social dimension of sustainable development, gender equality and work-life balance. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| | | | | In the frame of the POLLUX programme aims to facilitate the collaboration between Polish and Luxembourgish researchers in the field of "Innovation in Services". The NCBiR and the FNR (Fonds National de la Recherche) launched joint pilot calls for project proposals in 2012 and 2013. Based on the results of these joint pilot calls, the NCBiR and the FNR will evaluate the potential of future joint calls, possibly extending to other research fields. The current collaboration will allow for: • joint pilot calls in the field of "Innovation in Services", • a joint evaluation process based on international best practice, • an increasing impact of Polish and Luxembourgish research activities. Polish German Foundation for Science was launched in 2011 with the first joint call for proposals by the BMBF and the Polish Ministry of Science and Higher Education in the field of sustainability. The following funding was proposed: Polish-Norwegian Research Fund: 2,294 million euros for Poland, Polish-German Foundation for Science: 10 million euros, POLLUX: 1 million in 2013. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | The Visegrad Fund | | The Visegrad fund promotes research cooperation with the Czech Republic, Hungary, the Republic of Poland, and the Slovak Republic. It provides research grants from a common pot contribution of all countries involved. Funding from the International Visegrad Fund has been 6 million euros in 2010. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Polish Roadmap of Research Infrastructure (PMDIB) | 2011 | In 2011, the Ministry published the Polish Roadmap of Research Infrastructure (PMDIB), compliant with ESFRI standards and including 33 investment projects, selected in a nation-wide competition, which are considered unique, key for specific R&D projects. PMDIB consolidates the scientific potential, stimulates rational decision making about investments, encouraging cooperation and joint use of the funded RI by multiple research organisations. Inclusion in PMDIB was set as a pre-condition for future funding from the EU Structural Funds for large infrastructure. The Ministry of Science and Higher Education supports the following participation to EFSRI projects: Euro Bio Imaging; ICOS; Partnership for Advanced Computing in Europe; European Synchrotron radiation facility; European Free Electron Laser; EPOS; CLARIN; SPIRAL2; EURO-ARGO; COPAL; ELIXIR; Cherenkov Telescope Array. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Update to the Polish Roadmap of Research Infrastructure (PMDIB) | 2013 | In 2013, a call for updates to the Roadmap was announced. |

Poland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Ordinances of the Minister of Science and Higher Education (MNiSW) (2010-2011) | 2010 | Several ordinances of the Minister of Science and Higher Education (2010-2011) earmarked parts of science budget for RI, defined investment criteria, selection modes involving peer-reviews, and opened up the competitions to business enterprises as well. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Draft Operational Program "Smart Growth" (POIR) measure 3.2.2 | 2013 | The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 (2013) listed as one of objectives the further development of RI based on the PMDIB. In the draft of the future Operational Program "Smart Growth" (POIR), which will structure the use of the EU Structural Funds for 2014-2020, several measures address infrastructure investments, including dedicated funding for projects from the PMDIB. Future focus on RI investments is gradually shifting towards optimal use of the existing infrastructure, and enhancing support for projects capitalising on the existing investments, often in cooperation with business enterprises. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Development of online system POL-ON | 2011 | The Ministry of Science and Higher Education continues the development of an online system POL-ON, which will publish detailed information about scientific organisations, including the availability of research infrastructures with dedicated registers of infrastructure, laboratories and research instruments. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Operational Program "Innovative Economy" (POIG), measure 3.2.2 | 2007 | The Ministry of Regional Development defined the principles of cost eligibility in Operational Program "Innovative Economy", 2007-2013, which is the main source of RI investments, based on the EU Structural Funds. It includes measures which help optimise the use of existing Ris for applied research and development, especially jointly with business enterprises and international partners. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Act on higher education (including amendments from 2011) Act on research institutes Act on the Polish Academy of Sciences | 2010 | The Act on higher education (including amendments from 2011) strengthened the autonomy of universities, with independent recruitment processes, eliminating direct influences from government bodies, but at the same time elaborating general principles, promoting the openness and competitiveness of recruitment. Job offers at the public higher education institutes have to be published online on websites of the university, the Ministry of Science and Higher Education and "websites maintained by European Commission - European portal for mobile researchers, dedicated for the publication of job offers for researchers". Recruitment procedures should be based on a formal procedure, adopted by the university in its statute, which is to be issued with the involvement of labor unions. The maximum length of each employment contract is 8 years, tenures are reserved only for the most experienced professors. The Act prohibited employment of relatives as direct subordinates and enforced the requirement of filling all positions in higher education institutions through open competitions. Corresponding regulations were included in the Act on the Polish Academy of Sciences (2010), and the Act on research institutes (2010) which aslo calls for job offers to be published online, and recruitment procedures to be based on a formal procedure, adopted in the statute of the institute. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Scientific Visa package | | Poland has implemented the measures of the EU Scientific Visa package. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Ordinance of the Minister of Science and Higher Education concerning recognition of foreign scientific degrees, and titles in the area of arts | 2011 | The Ordinance defined modalities for recognizing foreign academic degrees (Ph.D., habilitation, professor), and simplified procedures for degrees awarded by countriesmembers of the Lisbon Recognition Convention. It allows researchers with good careers records within foreign research systems to be promoted to professors without the need to satisfy the formal requirement of holding a Polish post-doctoral degree (habilitation). |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Act on principles of science financing | 2010 | The Act on principles of science financing (2010) stipulates the award of funds for science primarily to organisations (and thus, can also be used by foreign researchers working at the organisations). Most grants are also available to foreigners, providing that the beneficiary institution is in Poland. Natural persons can apply for projects at NCN and NCBiR without the need to be currently employed by a specific organisation. For grant programs, applicants can prepare "conditional" applications, including commitments of an organisation to offer future employment and access to its infrastructure, once the application is successful. Publicly funded R&D projects can be ported to institutions in other countries within dedicated funding programs supporting international cooperation. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Ideas for Poland | | The objective of the program aimed at foreign researchers is to encourage young, brilliant researchers from all over the world to choose Poland as the place to carry out their research projects submitted for the ERC competition. The program is designed for people whose previous scientific record demonstrates they are highly independent as researchers and warrants they will conduct world-class quality research. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Establishment of EURAXESS POLAND portal | 2009 | EURAXESS POLAND portal operates since 2009, with English-language online services, information portal, regular publication of job offers in Poland and calls for proposals for grants, scholarships and fellowships in Poland. Share of research posts advertised on the EURAXESS Jobs portal per thousand researchers in public sector in 2011 was 2.5% (Deloitte, 2012: 51). |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Operations of 10 EURAXESS Service Points in 10 different cities in Poland | 2011 | EURAXESS published in 2011 "Foreign Researchers' Guide to Poland" as printed and electronic documents, and currently maintains 10 EURAXESS Service Points in 10 different academic cities in Poland. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Act on higher education (including amendments from 2011) | 2011 | Modalities and procedures for doctoral studies in Poland went through significant changes in 2011, based on several new legal measures. The Act on higher education (including amendments from 2011) set general conditions for offering doctoral studies, with requirements similar to other study cycles. Doctoral candidates were defined as students not employees, thus acquiring certain rights and obligations. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Ordinance of the Minister of Science and Higher Education concerning doctoral studies and doctoral scholarships | 2011 | Based on the Ordinance of 2011, doctoral studies are required to have formal programs, with learning outcomes defined for specific study modules. Procedures for quality assurance and award of doctoral scholarships. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Act on scientific degrees and scientific title and titles in the area of arts (including amendments from 2011) | 2011 | The Act on scientific degrees and scientific title and titles in the area of arts (including amendments from 2011) implemented excellence, interdisciplinary and transparent procedures related to the award of PhDs, as well as internationalisation allowing doctoral theses to be prepared in English and/or prepared and defended jointly at two institutions, including foreign universities. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | The Ordinance of the Minister of Science and Higher Education concerning the documentation of studies (2011); Ordinance of the Minister of Science and Higher Education concerning conditions of program assessment and institutional assessment (2011) | 2011 | The Ordinances provided for documentation and quality assurance in doctoral awards and study programmes. The Polish Accreditation Committee conducts assessment of study programs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Act on higher education (including amendments from 2011) Act on the Polish Academy of Sciences (2010) Act on Research Institutes (2010) | 2010 | The Act on higher education (including amendments from 2011) introduced numerous regulations, which are consistent with the Charter & Code, strengthening the HR policies of higher education institutions and empowering their employees. Researchers working for public research institutes benefit from corresponding regulations, defined by the Act on the Polish Academy of Sciences (2010) and the Act on research institutes (2010). Career tracks in scientific organisations are defined by hard laws, with precisely defined criteria for promotion and award of scientific degrees and titles. There are regular performance reviews for all researchers. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Endorsement of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers by Polish Academy of Sciences | 2008 | The endorsement for the Charter & Code and acceptance for general directions related to the HR Strategy for Researchers are wide-spread in Poland. Declarations of endorsement of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers were issued among others by the Conference of Rectors of Academic Schools in Poland (KRASP). As of 2013 the Nencki Institute of Experimental Biology declared the implementation of the HRS4R. The Foundation for Polish Science (FNP) was awarded the HR Excellence in Research for the implementation of HRS4R. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Operational Programme "Human Capital " | | The Human Capital Operational Programme operated under the Structural Funds includes among the objectives of Priority 4: Improving staff qualifications in the R&D sector. |

Poland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Polish Labour Code Act on the implementation of some regulations of the European Union concerning equal treatment (2010) Act on financial benefits from social insurance in the case of sickness and maternity (2013) | 2010 | General legislative acts prohibit discrimination and protect women during the pregnancy and maternity leave period: the Polish Labour Code and Act on the implementation of some regulations of the European Union concerning equal treatment (2010). Recently, the government published a proposal to amend the Labour Code and the Act on financial benefits from social insurance in the case of sickness and maternity (2013). Also in 2013 it introduced measures on flexitime, paid parental leave, child care facilities and return to work after bringing-up a child and support and financially contributed to projects promoting equal opportunities for working men and women. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | The Act on Polish Academy of Sciences (2010) Act on higher education (including amendments from 2011) Ordinance of the Minister of Science and Higher Education concerning doctoral studies and doctoral scholarships | 2011 | The Act on Polish Academy of Sciences (2010) facilitates the upbringing of children by extending the duration of fixed term contracts by the periods of maternity leave and additional leaves to raise children. The Act on higher education specifies that employees who are pregnant or raising children up to 1 year of age cannot work overtime, unless they specifically agree to the offer. Based on the ordinance of the Minister of Science and Higher Education concerning doctoral studies and doctoral scholarships (2011), length of doctoral studies is also extended in a similar manner (doctoral candidates in Poland are not regarded as employees but students, so were not covered by the nation-wide employment regulations). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Ordinance of the Minister of Science and Higher Education concerning conditions for work remuneration and award of other work-related benefits for employees of public higher education institutes | 2011 | Maternity leave and an additional leave to raise children reduce the annual workloads of researchers employed at public higher education institutes. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Act on National Science Centre (NCN) NCBiR Programme LIDER | 2010 | The Act on National Science Centre (NCN) (2010) stipulates that periods of maternity leave and leave for taking care of children are not included in the calculation of maximum age for grants for young researchers. Corresponding regulations are introduced for NCBiR's program LIDER, dedicated for young researchers. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Program "BRIDGE" | 2010 | The Foundation for Polish Science runs a program "BRIDGE" ("POMOST"), with grants for researchersyoung parents, returning after maternity leaves and leaves for taking care of children, including mothers of children of up to 4 years of age. Grants are offered to establish new research teams and conduct own, original projects. In 2013, all 17 beneficiaries were women. The programme provides for two types of support: 1. Return grant – for projects carried out by researchers of either sex raising young children; 2. Support for women conducting research projects during pregnancy, where the nature of the work could affect their pregnancy, by funding a researcher to whom the work which would affect the pregnancy can be delegated. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Polish-Norwegian Research Programme | | Polish-Norwegian Research Programme: EUR 3 529 412 for research projects in the domain of mainstreaming gender equality and promoting work-life balance. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Program "Girls on technical universities" | 2008 | The Conference of Rectors of Polish Technical Universities manages a program "Girls on technical universities", compiling lists of "women-friendly" technical universities and establishing dedicated contact points for women. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Awards "Girls of the future" | 2009 | The Ministry of Science and Higher Education offers financial awards "Girls of the future" for outstanding female researchers, in a cooperation with the magazine "ELLE", with the intention to promote gender equality in research, based on the example of Marie Curie-Skłodowska, patron of the competition, |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | L`Oreal Polska Grants | | International company L'Oréal with the support of UNESCO offers scholarships for women-scientists. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Act on higher education (including amendments from 2011) The Act on scientific degrees and scientific title and titles in the area of arts (amendments from 2011) | 2011 | The 2011 amendment of the Act on Higher Education provides that: nominees from the science and higher education institutions to the Main Council of Science and Higher Education, which has advisory functions to the MNiSW should attempt " to balance the share of women and men in the work of the Council" and that 30% of the Polish Accreditation Committee appointed by the same MNiSW should be women. The Act on scientific degrees and scientific title and titles in the area of arts (amendments from 2011) stipulates that the Central Committee for Scientific Degrees and Titles is obliged to incorporate in its actions "attempts to balance the share of women and men in its work". |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Act on Industrial Property Rights | 2000 | The Act on Industrial Property Rights (2000) guarantees the rights to use patented inventions for scientific, non-commercial research without the need to license the invention or pay royalties. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Draft guidelines of the Act on open public resources | | In 2012, Ministry of Administration and Digitization published draft guidelines of the Act on open public resources. Contents generated by government institutions (including public R&D organisations) are supposed to be available through open access. In particular this concerns: scientific journals financed from the science budget and scientific publications from publicly funded projects. The guidelines outlined planned amendments concerning the Act on principles of science financing, the Act on public procurement, and the Act on access to public information. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Draft guidelines of the amendments to the Act on science financing (2012) | | MNiSW has put forward draft guidelines of the amendments to the Act on science financing (2012), to facilitate the integration of ICT systems, with the purpose of supporting open access to publicly funded research results, in line with the Commission Recommendation from 17 July 2012 on access to and preservation of scientific information (2012/417/UE). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Draft Operational Program "Smart Growth" (POIR) | | The draft Operational Program "Smart Growth" (POIR) includes support to adjustments of ICT infrastructure, necessary to enable open access to scientific publications in Poland. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Virtual Library of Science | 2010 | Since 2010 MNiSW licensed the Virtual Library of Science, which aggregates commercial publication databases into a common platform, so that researchers and students of all universities can use it. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Springer's open choice program | 2010 | Since 2010, the Ministry covers fees for open access publications in Springer's journals (gold open access model). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Ordinance of the Minister of Science and Higher Education establishing program "Index Plus" | 2011 | The Ministerial program "Index Plus" (2011) funds the digitisation of scientific journals and their electronic distribution. Examples of bottom-up initiatives, supporting open access in Poland, are: Federation of Digital Libraries (managed by Poznań Supercomputing and Networking Centre, digitising contents from Polish libraries, including scanned scientific publications) |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Model agreement for applied research project, funded by National Research & Development Centre (NCBiR) | 2011 | A model agreement for applied R&D projects, funded by National Research & Development Centre (NCBiR) contains provisions, concerning "information and promotion" (§14), requires beneficiaries to distribute the results of the project by means of scientific conferences, academic journals, widely available databases guaranteeing open access to publications, and free or open source software. |

Poland

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | SYNAT - Interdisciplinary System for Interactive Scientific and Scientific Technical Information | | The strategic programme entitled Interdisciplinary System for Interactive Scientific and Scientific Technical Information encompasses a research activity with the purpose of creating a universal, open and repository-like hosting platform which will provide access to web resources of knowledge to scientists, scholars and open knowledge society. This task has been carried out by a scientific network composed of 16 best research units specialising in this field, headed by the University of Warsaw's Interdisciplinary Centre for Mathematical and Computational Modelling. Its implementation is scheduled for 36 months (from August 2010 to August 2013). The National Centre for Research and Development (NCBiR) shall spend about PLN 60 MM on this activity. The research activity is expected to bring about the following results: • integrated IT system which enables knowledge acquisition from various dispersed and heterogeneous databases, • multifunctional repository of raw data dedicated to safe, long-term storage and distribution of digital initial objects, • universal, open, repository-like hosting and communication platform which enables the exploitation of individual application software and sharing of information and services available from the servers of hosting organisation |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Communication of the Minister of Science and Higher Education concerning the establishment of National Program for the Development of Humanities | 2010 | In 2010 the National Program for the Development of Humanities was established, and the grant program includes a dedicated funding stream for electronic publications in foreign languages, implemented through regular, open calls for proposals. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | DRIVER initiative | | Poland participates in DRIVER - Digital Repositories Infrastructure Vision for European Research – initiative. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Centre of Open Science CeON | 2012 | Centre of Open Science CeON is an examples of bottom- up initiatives, supporting open access in Poland, It is managed by University of Warsaw, aggregating free online publication databases and open access journals, offering legal advice, and maintaining open access repositories including CEON Repository and "Open the Book" repository of electronic books), |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Index Copernicus | 2006 | Examples of bottom-up initiatives, supporting open access in Poland, include the Index Copernicus, which is the Polish counterpart of commercial bibliographic databases such as Web of Science and Scopus, offering basic access to data free of charge as well as paid options, maintained by a stock-exchange listed company IDH S.A |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 | 2013 | The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 (2013) stresses the importance of knowledge transfer and co-operation between scientific institutions and industry, and includes the declaration of support for open innovations. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Act on higher education (including amendments from 2011) | 2011 | The Act on higher education (including amendments from 2011) encouraged public higher education institutes to cooperate with business enterprises and obliged universities to form special purpose companies, dealing with technology transfer, to start spin-offs and to define IPR management rules and possibilities to commercialise IPR. Universities are also expected to co-operate with external stakeholders, including business, when defining programs of study. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Act on research institutes | 2010 | The Act on research institutes (2010) set relevant IPR rules and obliged them to co-operate with business enterprises, sell products, services and technologies, and form R&D consortia. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Act on principles of science financing | 2010 | The Act on principles of science financing (2010) facilitated funding for joint initiatives between scientific organisations and business enterprises, especially the formation of research consortia. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The Ordinance of the Minister of Science and Higher Education concerning the criteria and modes of awarding scientific ranks to scientific organisations | 2012 | The Ordinance includes measurement of performance in commercial knowledge transfer (including licensing and sale of technologies, products and services) as part of institutional assessments of R&D organisations. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Enterprises Development Programme | 2013 | In January 2013, the Ministry of Economy published a draft of the Enterprise Development Program (PRP). This programme proposes measures to foster industry-academia partnership such as building of mixt consortia and internships/secondments from business to academia; centralising funds for enterprises in a single agency and changes in the application and evaluation procedure of grants. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Act on National Research & Development Centre (NCBiR) | 2010 | The Act on National Research & Development Centre (NCBiR) (2010) facilitated access to public funds for applied R&D granted to business enterprises, also based on consortium agreements with scientific organisations, and confirmed that IPRs to publicly funded inventions rest with the creators. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Draft Operational Program "Smart Growth" (POIR) | | The draft Operational Program "Smart Growth" (POIR) will guide the distribution of the EU Structural Funds in years 2014-2020. It includes under measure 3.2.4 funding instruments, intended to stimulate the cooperation between business and scientific organisations, as well as explicit requirements to form business-science consortia and support for open innovations. Specific funds will also be dedicated to launch awareness campaigns, promotion and training, focused on encouraging the cooperation between business enterprises and scientific institutions. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | INNOTECH programme IniTech programme | 2013 | The INNOTECH programme supports the transfer of R&D into the economy while supporting undertakings carried out in different fields of science and different branches of industry. The IniTech programme supports the co-operation between science and industry by funding joint applied R&D projects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The NCBiR Innovation Creator Programme | 2008 | The Innovation Creator Programme motivates financially researchers to raise their qualifications in the areas of enterprise, intellectual property management and commercialisation of research results. Its purpose is to stimulate actions taken by public research organisations and businesses in order to commercialise scientific knowledge and know-how through: intensifying information, educational and training activity related to the commercialisation of scientific knowledge and know-how, promoting and propagating entrepreneurship among students, graduates, university staff and researchers. It also encourages the establishment of a dialogue and improved standards of communication between the science and commercial sector. The Program is expected to contribute to the increase in number of commercialised technologies and solutions and to develop a network of units aimed at supporting entrepreneurship among scientists. It offers support for technology transfer efforts and creation of enabling environments. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The NCBiR Programme "SPIN-TECH" | 2012 | The "SPIN-TECH" programme supports the launch of special-purpose companies, established by universities to commercialise research results. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The NCBiR Programme "BRIdge VC" | 2013 | The BRIdge VC programme supports innovative technology ventures from public sources with co-funding from VC funds, including foreign VCs. Some of NCBiR programs are co-funded by technological platforms or business enterprises, and business are directly involved in an oversight of these initiatives. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The GRAF-TECH Programme The BLUE – GAS POLISH SHALE Gas Programme | 2011 | The GRAF-TECH programme is addressed to the scientific consortia (a consortium has to consist of at least one scientific unit and at least one entrepreneur) and industrial-scientific centres undertaking research activities and preparatory work connected with implementation and aimed at elaborating innovative graphene-based products. The main aim of the GRAF-TECH Programme is increasing the innovativeness of Polish economy through practical use of results of research on graphene aimed at elaboration and implementation of innovative solutions based on the use of this material. The BLUE—GAS POLISH SHALE GAS Programme is a joint undertaking of National Centre for Research and Development (NCBiR) and Industrial Development Agency. It is focused on supporting integrated large R&D projects, testing results in pilot scale and commercialization of innovative technologies in the area of shale gas extraction. Main aim of the programme: development of technologies related to shale gas extraction in Poland and their implementation by companies operating in Poland. Specific aim of programme: encouraging entrepreneurs to invest in R&D activity. Programme addressees: research-industrial consortia. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Program "Top 500 Innovators Science - Management - Commercialisation" | 2011 | The Ministry of Science and Higher Education manages the program "Top 500 Innovators Science - Management - Commercialisation", which involves 9-weeks training sessions for 500 young researchers and employees of technology transfer centers of universities, helping acquire competences that support commercialisation of research results, and the program covers the period of 2011-2015. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Program "Innovation Brokers" | 2013 | The programme "Innovation Brokers" relies on an innovative use of public funds to cover costs of hiring technology brokers by public universities in order to help them commercialise selected research results. Part of the funding is conditional on the outcomes of commercialisation processes, additionally increasing motivation to close the sales or licensing deals. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | The NCBiR Programmes: LIDER Programme; KadTech Programme; DEMONSTRATOR+ Programme | | The purpose of the LIDER Programme is to help young scientists learn how to plan research on their own, manage and lead their own research team while carrying out projects likely to be implemented on the market. The LIDER Programme is also aimed at encouraging scientists to cooperate with businesses while performing economically valuable and implementable studies and research and enhancing mobility and exchange between research sectors, universities and research units. The KadTech Programme supports the secondments of scientists in business enterprises The DEMONSTRATOR+ Programme supports demonstration of R&D results to support effective transfer from science to industry. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Draft Operational Program "Smart Growth" (POIR), measure 3.3.5 | 2013 | In the next programming period of the EU Structural Funds, the Operational Program "Smart Growth" (POIR) intends to fund the development of ICT infrastructure, needed for open access to scientific publications as well as measures to allow better use of Ris. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Poznan Supercomputing and Networking Center (PSNC) affiliated with the Institute of Bioorganic Chemistry at the Polish Academy of Sciences | 1993 | The Centre's mission is to integrate and develop the information infrastructure for science. PSNC is the leader in implementing innovative technologies for the national scientific network POL-34/155/622, at present in the network PIONIER – Polish Optical Internet. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Virtual Library of Science | 2010 | The electronic identity of researchers is implemented by Virtual Library of Science, which is available to all universities in Poland and helps log into multiple publication databases by means of institutional or individual authentication. The Virtual Library of Science (VLS) has over 10 thousand full text articles downloaded daily. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Planned reform of the System of Fiscal Incentives to R&I in the Industry | 2013 | A planned reform of the System of Fiscal Incentives to R&I in the Industry in 2013 intends to make public funding to the industry's R&D more rigorous, positively discriminating projects that imply cooperation with other entities and international cooperation, and open access to the results. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | R&D Units | 2007 | R&D Units is a system of incentives for the creation of R&D units in business firms. It gives support to projects aimed at enhancing the productivity, competitiveness and integration into the global market through the creation of R&D units in firms. A call for the evaluation and competitive funding for research units will be launched soon, after a public consultation to the scientific community. It aims ultimately at promoting more effective models of organization of the national science and technology system, a more rational use of resources and of infrastructures and improved synergies between the production and use of knowledge. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | R&D projects - Projects of Scientic and Technological Development Research | | The R&D Projects of Scientic and Technological Development Research provide funding to reasearch by HEI (high education institutions), public labs and the research non-profit sector. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | R&D projects - Projects of Scientic and Technological Development Research | | The allocation of funding of the R&D projects is based on evaluations following international peer review standards. The evaluation of applications for research projects is carried out by panels of independent evaluators, involving national and foreign experts. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Creation of the International Iberian Nanotechnology Laboratory (INL) | 2005 | The International Iberian Nanotechnology Laboratory (INL) is the first fully international research organisation in Europe in the field of nanoscience and nanotechnology. Several countries are interested in cooperating (China and Brazil, for instance). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Design of the National Roadmap for Research Infrastructures | 2013 | Portugal is analysing the possible alignment of national research infrastructures with ESFRI's Roadmap, and a national consultation was launched recently. Ris of strategic interest will be identified in the first semester of 2013 through a public competition and it is foreseen to have the roadmap ready in the second semester of 2013. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Statute of University Teaching Career | 1979 | The Statute of University Teaching Career, adopted in 1979 and amended in 2009, regulates the academic career at the universities. According to its Article 37, the competitions for the recruitment of full professors, associate professors and assistant professors should be open to foreigners. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Programme 'FCT Researcher' | 2013 | The Programme 'FCT Researcher' provides funding to a pool of researchers selected annually by means of competitions open to researchers internationally. The aim of this programme is to invest in human capital, ensure that the best researchers in Portugal remain in the country and attract researchers from abroad. In 2012, 155 researchers were selected and it is foreseen that around 1600 researchers will benefit from this programme by 2016. However, there is no open call in 2013 yet. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Regulation for Grants awarded by the Foundation for Science and Technology | 2012 | The Regulation for Grants awarded by the Foundation for Science and Technology, amended in 2012, regulates the selection, hiring and legal regime applicable to all research fellows, funded directly or indirectly by the Science and Technology Foundation (FCT). Article 14 foresees that candidates applying for the grants awarded by the Science and Technology Foundation can be nationals, EU citizens or non-EU citizens but holders of permanent residence or beneficiaries of the status of long-term residents in Portugal. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess in Portugal | | EURAXESS Portugal, operated by the Foundation for Science and Technology (FCT), provides information and support to researchers moving to and from Portugal and publishes research job vacancies. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Programme of Applied Research and Technology Transfer to the Industry | 2012 | The Programme of Applied Research and Technology Transfer to the Industry provides support to doctoral training, funding for post-docs in the industry and foresees national competitions to provide scholarships for PhD's in the areas defined in the R&D Strategy for Smart Specialisation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | FCT PhD Programmes | 2012 | FCT PhD Programs provide funding to PhD programs, including courses, laboratory rotations or other types of field work that may be necessary to achieve the scientific aims of the PhD programs in question. The funding of the selected PhD programmes is limited to four years. FCT's current call for Doctoral Programs, which corresponds to the creation of structured doctoral training programs, is in line to the Principles for Innovative Doctoral Training. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | New typology and diversity of doctoral programs | 2012 | Regarding doctoral education, a new typology and diversity of doctoral programs is applicable since 2012, with an increased scope of grants' typologies. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Fourth National Plan for Equality, Gender, Citizenship and Non-discrimination (2011-2013) | 2011 | The Fourth National Plan for Equality, Gender, Citizenship and Non-discrimination (2011-2013) aims at promoting equality as a trigger for competitiveness and development. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | L'Oréal Portugal Medals of Honor for Women in Science | | Portugal hosts annually the L'Oréal Portugal Medals of Honor for Women in Science, intended for the study of advanced scientific research at post-doctoral level, in Portuguese universities or other institutions of recognised merit in the field of Health Sciences and Environmental Sciences. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Strategy for Intellectual Property in R&D projects | | The Foundation for Science and Technology (FCT) is developing in coordination with the main Intellectual Property stakeholder an intellectual property policy for R&D projects financed through the main science funding agency. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Repositório Científico de Acesso Aberto de Portugal (RCAAP) | 2008 | The Scientific Open Access Repository of Portugal (RCAAP) is an online portal that gives access to thousands of scientific and scholarly publications, namely journal articles, conference papers, thesis and dissertations, which are provided by several Portuguese repositories. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | DeGóis Curricula Platform | 2008 | The DeGóis Curricula Platform is a portal where researchers can upload information on their profile, academic activities, prizes and awards, scientific productions and projects. |

Portugal

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | b-on - Online Knowledge Library | 2005 | b-on or the Online Knowledge Library allows for unlimited access of researchers and research organisations to over 16,750 scientific international publications through subscriptions initially negotiated by the Portuguese government with 16 publishers. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | GAIN - Global Innovation Acceleration Network | 2013 | GAIN - Global Innovation Acceleration Network is a national structure for innovation acceleration and technology transfer. It results from a partnership between the Ministry of the Economy and the Ministry of Education and Science. The programme will extend the work and scope of the existing UTEN (University Technology Enterprise Network, a network of professional Technology Transfer Offices focused on the commercialization and internationalization of Portuguese S&T). |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | Portugal has signed the policy to join eduGAIN through RCTSaai. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | | Draft National Strategy for Research, Technological Development and Innovation (2014-2020) | | Romanian authorities are currently in the process of elaborating the National Strategy. The finalisation is due for October 2013. |
| More effective national research systems | | Draft National Plan for Research, Development and Innovation 2014-2020 | | Romanian authorities are currently in the process of elaborating the national plan. The finalisation is due for October 2013. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Education Law no. 1/5 January 2011 | 2011 | Allocation of institutional funding to universities should be based on the results of institutional classification and ranking. However, the current reform has not be finalised and changes to institutional funding for universities have not been enacted yet. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Governmental Decision no. 789/2011, Methodology for classification of universities and ranking of programme studies, according to the provision of the Law on National Education no. 1/5 January 2011 | 2011 | Sets up the methodology for the classification of universities and ranking of programme studies which determines allocation of institutional funding. However, the changes to institutional funding have not been enacted yet. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Governmental Decision no. 1062/19 October 2011 regarding the methodology for the evaluation in view of classification of the units and organisations of the national R&D system | 2011 | Evaluation and classification of national R&D institutes and changes to institutional funding. The evaluators should include at least 50% foreign experts selected from EU/OECD countries. Only certified RDI units can benefit of a new system of basic institutional financing. However, this reform has not resulted in the reduction of the number of R&D units which qualify for funding. It is not clear to how extent this reform will introduce competitive allocation of institutional funding. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | National Plan for Research Development and Innovation (2007-2013) | 2007 | Project-based funding is allocated based on evaluation in line with the principle of international peer review. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Government Decision no. 133/2011 | 2007 | Projects within the National Plan for Research Development and Innovation (2007-2013) are funded based on evaluation following the core principle of international peer review. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint programmes and bilateral agreements | | Romania has research programmes and bilateral agreements inter alia with France, Switzerland, Norway, Island and Liechtenstein and actively participates to the International Centre for Advanced Studies Danube-Danube Delta-Black Sea. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Joint programmes and bilateral agreements | | Romania routinely implements this mechanism as part of its joint programmes or bilateral agreements. By way of example, projects financed under the Swiss-Romanian cooperation programme are entirely evaluated in Switzerland. |
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | ERA-like projects | | The ERA-like grant scheme provides grants to researchers who have obtained excellent results in the ERC competition but have not secured ERC funding. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Roadmap for Research Infrastructures | 2007 | Defines a national roadmap for research infrastructures |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess Romania | | Contributes to the implementation of Euraxess services |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Education Law no. 1/5 January 2011 | 2011 | Introduces changes to the organisation of doctoral research programmes with the creation of doctoral schools and supports researchers' mobility. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Governmental Decision 681/2011 regarding the Code for university doctoral studies | 2011 | Provide a reference framework for the organisation of doctoral schools and common principles for ensuring proper quality of doctoral studies. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Government Ordinance 92/ 18.12.2012 regarding some measures in higher education and research | 2012 | Changes to the doctoral training system. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Provision of the Law of National Education (Law 1/2011) regarding the post-doctoral research studies | 2011 | Reform of postdoctoral advanced studies. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Measures supporting doctoral and post-doctoral schools of excellence | | Supports the development of an attractive doctoral training system. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Sectoral Operational Programme "Development of Human Resources", Doctoral and post-doctoral schools | 2009 | Supports the development of an attractive doctoral training system. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Governmental Ordinance 111/2010 regarding the leave and monthly financial support for child raising | 2011 | Supports career breaks for PhD candidates. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | ANCS Decision no. 9039/01 March 2012 and no. 9038/01 March 2012 (information package and minimis aid scheme for innovation vouchers) | | Supports knowledge transfer between research institutes and SMEs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Funding for research universities/institutes – enterprises partnerships through the National RDI Plan 2007-2013 & SOP Increase of Economic Competitiveness | | Supports public-private linkages. Financing of partnerships between research universities/institutes and enterprises. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | National RDI Plan (2007-2013) and the SOP Increase of Economic Competitiveness: support to public-private partnerships | | Support to companies involved in public private partnerships with universities and research institutes. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | The Fenix Strategy: Update of the Long-Term Objective of the State Science and Technology Policy up to 2015 (adopted by Government Resolution 461/2011) Minerva 2.0 for the knowledge-based economy | 2011 | Between 2010-2011 MESRS drafted the "The Fenix Strategy: Update of the Long-Term Objective of the State Science and Technology Policy up to 2015" and the Ministry of Finance "Minerva 2.0 for the knowledge-based economy". The documents tried to integrate research and innovation policies, and suggest a range of institutional reforms for increasing quality of higher education and research, notably: reforming some key research performer institutions (the Research and Development Agency – RDA -and the SAS); implementing more efficient and transparent evaluation techniques; internationalisation of the Slovak R&D system; defining national priorities in building large-scale R&D infrastructures compatible with the ESFRI roadmap; creating a national system for technology transfers; introducing new programmes supporting new technology-based firms and innovation-oriented research and re-allocating finance provided by the Operational Programme Research and Development towards large-scale projects with strategic importance and removing administrative hurdles related to calls and projects supported by the Structural Funds. The MESRS and the ME started preparatory works on the respective R&D and Innovation Strategies for planning period 2014-2020. The strategies should be ready in 2013. The |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | New Model of Financing Science and Technology in the Slovak Republic | 2010 | The support is primarily channelled to infrastructure building, applied research, and international scientific-technical cooperation. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Strategy for excellent science, research and development | 2013 | The Slovak Republic will focus on the development of excellent science, research and development to resolve society-wide problems, and address problems of the industry sector, and industry-initiated research and development. Via amendments to different legislative acts (among others the Act on Research and Development Incentives and the Act on the Organisation of State Support for Research and Development) Slovakia envisages to provide long-term, effective, predictable and stable funding; increase private funding in research and innovation; set in place clear and transparent criteria for the funding of projects; link institutional assessment to cooperation with the private sector and quality recruitment; foster mobility between the public and the private research sector; focus on excellence and prioritise the societal challenges fields and applied research for industry needs. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Competitive grants | 2000 | There are two types of national research grants, managed by the Scientific Grant Agency (VEGA) and the Research and Development Agency (RDA) with money from the Ministry of Education, Science, Research and Sports (MESRS) and the Slovak Academy of Sciences (SAS). The VEGA grants support basic research in HEIs and the Slovak Academy of Sciences (SAS). The RDA grants are allocated for basic and applied research in all HEIs, SAS and private research bodies. Competitive funding accounted for 17.5% in 2011. (The 2005-2011 annual reports on R&D, the 2006-2012 VEGA reports and the 2005-2013 State Budget Laws.) |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Institutional funding | | Institutional funding supports basic research in HEIs and is provided directly (via block grants) from the state budget divisions. Block transfers acconted for 82.5% of the total HEIs funding in 2011. Total volume of institutional funding from state budget was €145.02m in 2012. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Evaluation procedures and criteria for the 2010-2012 general call | 2010 | All national public competitive funding is subject to peer review. The rules for the VEGA and RDA grants require that one peer should be a foreign researcher. The Structural Funds' projects are evaluated by domestic evaluators only. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Rules of evaluation by the Accreditation Commission for the HEIs and the Slovak Academy of Sciences Act 131/2002 on Higher Education Institutions (HEIs) | 2007 | The higher education institutions (HEIs) are evaluated every six years by the Accreditation Commission of MESRS. The composition and responsibilities of the Commission are set by the 131/2002 Law on Higher Education. The Accreditation Commission evaluated 20 public, four private and three state HEIs in 2009-2010. MESRS plans to have new criteria for HEI accreditation including excellence starting with 2014. The institutes of the Slovak Academy of Sciences have been evaluated regularly by their own Accreditation Commission from 1992 onwards. The latest evaluation has been taking place in 2012 based on indicators prepared by the independent Academic Ranking and Rating Agency which were used for the first time. The SAS may redistribute only 5% of total wage budget based on the evaluation result. Foreign experts sit in both Accreditation Commissions. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint Programming Initiatives, Article 185 COST, EUREKA | 2010 | Slovakia participates as a member in three JPIs, among those the Joint Programming on Combating Neurodegenerative Diseases, in particular Alzheimer's. The challenge is mentioned in the 2010 New Model of Financing Science and Technology in the Slovak Republic. The 'New Model' sets the MESRS responsible for participation in this cross-border initiative and budget €1m. Slovakia also participates in two Article 185 initiatives and continues supporting a limited number of projects within COST and EUREKA programmes. Total cost of multilateral co-operation was €11.16, of which membership fees €9.90m and project costs €1.26m in 2011. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Information on International Co-operation in Science and Technology in 2011 (MESRS 2012) | 2012 | The document contains some policy recommendations on multilateral co-operation in S&T: (a) Slovakia should maintain its membership in multilateral S&T joint research agendas despite high membership cost; (b) Slovakia should consider joining the European Space Agency; c) Slovakia must increase intensity of co-operation under EUREKA, European Molecular Biology Conference (EMBC) and ESFRI |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Bilateral co-operation in science and technology | 1980 | The Information on International Co-operation in Science and Technology in 2011 (MESRS 2012) summarises bilateral and multilateral schemes in S&T co-operation managed by the Research and Development Agency. The bilateral schemes supported 159 projects (€0.31m) with eight ERA countries (Austria, Romania, the Czech Republic, France, Poland, Italy, Portugal and Slovenia) and 43 projects (€0.12m) with three other countries (China, Ukraine, Serbia) in 2011. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | The Visegrad fund | 2000 | The Visegrad fund promotes research cooperation with the Czech Republic, Hungary, the Republic of Poland, and the Slovak Republic. It provides research grants from a common pot contribution of all countries involved. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Participation in ESFRI Activities Participation in infrastructures of European interest | | By 2012 Slovakia participated through MESRS and its agencies in nine ESFRI projects (CLARIN, ESS Survey, EPOS, Erinha, INSTRUCT, ESRF Upgrade, European XFEL, ILL 20/20). It also participates in six out of eight largest inter-governmental scientific research organisations that are responsible for infrastructures and laboratories (CERN, EFDA-JET, EMBL, ESA, ESO, ESRF, European XFEL and ILL). The most important initiatives related to the European Organization for Nuclear Research (CERN, €5.53m) and the European X-Ray Laser Project (XFEL, €3.18). The most important agreements outside the ERA referred to Slovakia's participation in the Joint Institute for Nuclear Research in Dubna (Russia). Infrastructure projects are funded from the Structural Funds. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Infrastructure of Research and Development - strategy and draft roadmap | 2011 | "The Fenix Strategy: Update of the Long-Term Objective of the State Science and Technology Policy up to 2015" lists RI among the main priorities. In 2010 MESRS drafted the 'National Research Infrastructures Roadmap'. The Structural Funds provide over 95% of total support to R&D infrastructure in Slovakia till 2015. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Centre of Excellence Programme | 2007 | RDA launched the Centre of Excellence Programme in science and engineering in 2007. The programme supported investments to R&D infrastructure up to 70% of total costs. Seven Centres of Excellence received total support €4.3m, of which capital expenditure €1.3m. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | The Cyclotron Centre | 1999 | The Cyclotron Centre probably is the largest national research infrastructure project. The Centre was established by the Slovak Government Resolution No. 659/99 of 4 April 1999. The Slovak Office of Standards, Metrology and Testing (SOSMT) has been building the centre and cooperating with the Ministries of Education, Economy and Defence. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Bilateral and multilateral co-operation in science and technology | | Access to Slovak research infrastructure is provided for foreign researchers under bilateral and multilateral schemes in S&T co-operation. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Act 131/2002 on Higher Education Institutions (HEIs) Act 133/2002 on the Slovak Acedemy of Sciences (SAS) | 2002 | The law entails that Slovak HEIs are self-governing institutions and can recruit researchers according to their needs, regardless of their nationality. Foreign researchers may apply for permanent jobs (including managerial) with SAS, HEIs and public research institutions. Candidates for directors of the SAS institutes are elected by the academic staff and appointed by the SAS presidium. Many institutions require candidate to be fluent in Slovak. HEI teachers and research workers are considered civil servants, therefore civil servant laws apply. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Amendment of Act 131/2002 on Higher Education Institutions (HEIs) | 2012 | Candidate and assistant professors should meet more stringent (bibliometric-based) criteria. Excellent scholars who comply with the said criteria should encounter as little obstacles as possible when applying for positions of a professor or assistant professor. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | General labour market measures The 404/2001 Law on Residence by Foreigners The Decree of the Government of the Slovak Republic No. 391/2004 Draft amendment of Law on Qualification Degree Documents | 2011 | The Slovak Republic already adopted a number of initiatives promoting an open labour market for researchers. The Decree of the Government of the Slovak Republic No. 391/2004 enables access to Slovak labour market to citizens of all EU member states without any restrictions. The 404/2001 Law on Residence by Foreigners entered into force on 1st January 2012 and replaced the outdated 48/2002 Law on Residence by Foreigners. The law incorporated regulations of two Council Directives: the 2009/50/EC Directive of 25 May 2009 'The Blue Card Directive' enabling for easier access by highly skilled third-country nationals to Slovak labour market and the 2009/52/EC Directive of 18 June 2009 sanctioning illegal employment by the third country nationals. It included the 'research and development permit'. The MESRS drafted in October 2012 an amendment of Law on Qualification Degree Documents which makes mutual recognition of degrees easier for citizens of Slovakia, and European and third country nationals. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Fenix Strategy, Update of the Long-term Objective of the State S&T Policy up to 2015 | 2011 | The Fenix strategy (update of The 2007 Long-term Objective of the State S&T Policy up to 2015 (Phoenix Strategy) includes Measure 3.8: 'Internationalisation in the area of R&D'. The measure supports attracting prominent foreign scientists and foreign research institutions to Slovakia. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Human Resources in Research and Development and Popularisation (2006-2010) | 2006 | The programme aimed at increasing the R&D job opportunities and improving researchers' working conditions at a post-doc level while promoting the international collaborations between the national and foreign R&D institutions. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | The 172/2005 Law on Organisation of State support to R&D | 2005 | The 172/2005 Law on Organisation of State support to R&D enables the participation by foreign researchers in Slovak research programmes. National funding for R&D is reserved for the Slovak nationals and/or HEIs and research bodies established in the Slovak Republic, except for the bilateral and multilateral co-operation programmes. |
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan-European EURAXESS network | EURAXESS Slovakia | 2004 | The Slovak Academic and Information Agency manages the Slovak version of the EURAXESS webpage. The EURAXESS offers its services in Bratislava and four other regional capitals. All services of the EURAXESS Network are free of charge. Job vacancies in HEIs and the SAS have been published only in Slovakia so far. The Slovak public authorities plan to publish job vacancies in Slovakia and other countries on relevant Europe-wide online platforms (including EURAXESS) and use the English language (Deloitte 2012). EURAXESS already published job vacancies outside Slovakia in 2012. For Slovak nationals wishing to work abroad, EURAXESS organised a number of seminars and workshops on mobility by the PhD students and research workers. For foreign nationals wishing to work in Slovakia EURAXESS published practical information on entry conditions and legal stay, health insurance, social security, taxation, recognition of diplomas and qualifications, and daily life |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | The European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers | 2011 | Two national research organisations signed the Charter for Researchers in Slovakia, the Rectors of the Slovak Higher Education Institutions and the Slovak Academy of Sciences. These two bodies represent about 80% of the total researchers in Slovakia. The Slovak Republic participated in the ERA-SGHRM Working Group on "Human Resources issues, including the HRS4R' (European Commission). |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | The Slovak Constitution (2001) The Labour Code Law (Law No. 311/2001) The 365/2004 Antidiscrimination Law | 2004 | The Slovak Republic adopted a number of legislative measures to ensure gender equality. Gender equality is mentioned in the Slovak Constitution (2001), the Labour Code Law (2001) and the 365/2004 Antidiscrimination Law. All women in Slovakia are entitled up to the 3 years maternity leave and the law guarantees return to the same type of work after that. The only exception from this rule is the fixed-term contract, which does not guarantee right for returning to the same type of work after the maternity leave. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Central Information Portal for Science and Technology | 2004 | The Central Information Portal for Science and Technology publishes information of Slovak female scientists: success stories, interviews and profiles of excellent Slovak female researchers. The information is part of the Popularisation of Science Strategy. The portal encompasses information on (i) Slovak R&D funding agencies (RDA, VEGA, KEGA), (ii) European finance for R&D (Operational Programme Research and Development, FP7, COST, EUREKA, European Science Foundation), (iii) European Institute of Technology and Innovation, (iv) EURAXESS, (v) international co- operation in science and technology. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Operational Programme Research and Development projects: National information system supporting research and development in Slovakia Infrastructure for research and development - Data centre for research and development | 2009 | The Slovak Centre of Scientific and Technical Information (SCST) is the national information centre and specialised scientific library of the Slovak Republic. It implements two projects financed from Structural Funds through the Operational Programme Research and Development. The first one is the 'National information system supporting research and development in Slovakia' invests €19.9m in the period 2009-2014. It collects, stores and maintains data on research projects funded from public sources, data on research project outputs and a register of R&D organisations and database of research personnel. Since 2010 theses and dissertations are included and those submitted after 1.9.2011 are publicly accessible (according to amendment of Act on Higher Education). A new research information system SK CRIS (CRIS = Current Research Information System) will become operational shortly and contain a publications repository. The second one is the Data Centre for Research and Development a €33m project for period 2008-2014. It will store and process the complex information essential for R&D in Slovakia and provide auxiliary services. An infrastructure for electronic communications on R&D will also be included in these services and most probably also an infrastructure for instant access to these services and safety of the operation. These projects provide access to the scientific community, university students and businesses |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Establishment conditions to foster cooperation between academy and industry Reassessment of IP rules | 2013 | IP rules are set by Act 435/2001 about patents and supplementary protection certificates and Act 618/2003 on copyright and acts related to copyright. Institutional arrangements and legislative conditions will be created to improve public private sector research cooperation (financial and organisational arrangements and human capital) by means of partnerships, joint ventures and long-term contracts. Moreover, IPR rules and procedures will be reassessed to increase their effectiveness and predictability, drawing on the conditions created by a single EU patent. A stable system environment will be provided to encourage the transfer of knowledge to practice. Workplaces must manage administrative contacts and exchange of information between R&D facilities and businesses. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Strategy to create a national technology transfer system | 2013 | There is a strategy to create a national technology transfer system, by creating a National Technology Transfer Centre at SCST, with technology transfer centres at universities, research institutes and the SAS as well as locally and a National Patent Fund to finance IPR protection. This strategy should be financed via Structural Funds and the State Budget. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Operational Programme Research and Development project: Transfer of knowledge and technology from research and development into practice | 2008 | The Slovak Government implemented two national projects promoting knowledge transfer: The 'Transfer of knowledge and technology from research and development into practice' project invests €226.9m in period 2008-2013 and supports (i) building University science parks and research centres with Slovak HEIs and the Slovak Academy of Sciences; (ii) applied research projects; and (iii) R&D co-operation projects. The 'National infrastructure supporting technology transfer in Slovakia' project implemented via SCST, invests €8.2m in period 2010-2014 to support for RTD results application in social and economic praxis by the establishment of technology transfer centres in Slovak Universities and public research organisations. It aims to establish a National Portal for Technology Transfer. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | MESRS call supporting five clusters initiatives | 2012 | The 2011 Innovation Policy suggested several new policy measures, amongst those the 'Support to the Industrial Cluster Organisations' scheme. The MESRS launched a 'tailor-made' call supporting five incumbent clusters in October 2012. Support is designed for the five most important clusters in following areas: industrial production lines (\in 80,000), information technologies (\in 60,000), robotics and automation systems (\in 60,000), biodegradable plastics (\in 30,000), and construction, mining and wood processing machinery (\in 20,000). The applicants have to prove co-operation with the Slovak Universities and the Slovak Academy of Sciences. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Slovak Academic Network (SANET). | 1992 | The policies for research and education-related public e-infrastructures and for associated digital research services are implemented by the Slovak Academic Network (SANET). SANET is the NREN GÉANT project partner for Slovakia. It is an independent civil association (non-profit body), members of which agreed with conditions to provide each other with Internet services. By 2013 the SANET had 322 members (including all Slovak Universities, institutes of the Slovak Academy of Sciences, scientific libraries, 170 primary and secondary schools and several state institutions and municipalities). The SANET is self-managed, but the Ministry of Education, Science, Research and Sports subsidises SANET services for high schools and universities. The SANET implemented four important projects in 2012: (a) "SANET2" project aimed at building high-speed (100 gigabyte) network for Slovak academic community. The network became a member of GEANT trans-European network and the Internet (assigned through resolution N° 383/2001 of the Slovakian Government); (b) Implementing the Eduroam services. The Eduroam (education roaming) is the secure, world-wide roaming access service developed for the international research and education community. Eduroam allows students, researchers and staff from participating institutions to obtain Internet connectivity across campus, and when visiting other participating institutions by simply opening their laptop. © Issuing TERENA Certificate Service (TCS). (d) SANET for Schools' project aimed at extending infrastructure of the e-services from higher education and academic institutions to public authorities and secondary schools in 77 Slovak cities |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Membership of the TERENA network TLS/SSL server certificates via SANET TCS Server | 2011 | Slovakia is a member of the TERENA network and is represented via the SANET (Slovak Academic Network). In 2011 the SANET joined the TERENA Certificate Service (TCS) and started provision of TLS/SSL server certificates issued by Comodo CA Limited. The 2012 TERENA compendium states that there were some 38 HEIs, 20 research institutes, 7 institutes of further education, 250 secondary schools, 100 primary schools and 6 libraries connected to TERENA in 2012 in Slovakia. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law on Research and Development | 2011 | This framework law provides a basis for national publicly funded R&D activities. It provides the basis for main funding instruments and defines executive agencies for funding research and technological development activities. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Research and Innovation Strategy of Slovenia | 2011 | The Strategy (2011-2020) provides for effective governance of the Research and Development system; high-quality research in the public sector; establishment of adequate research infrastructures for stimulating the development of Research and Development; further linkage of science and markets by turning innovative products into marketable products; and enhancement and promotion of a knowledge-based society. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | National Reform Programme | 2013 | It proposes more efficient governance structures. It suggests enhanced cooperation between universities and public research institutes with increased mobility between sectors, and further integration of universities and complementary institutes. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Research and Innovation Strategy of Slovenia | 2011 | It supports further development and internationalisation of the peer review system. It stimulates cooperation between national and international funding organisations to harmonise evaluation procedures (e.g. lead agency principle). |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Methodology for evaluating applications, adopted by the Slovenian Research Agency to calls for proposals | 2008 | The key objective is to set the methodologies for the evaluation of all proposals applying to competitive calls. The system is constantly improved, in line with societal demands. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| More effective national research systems | Support through the Smart Specialisation Platform Member States and regions in using Structural Funds to develop research capacity and smart specialisation strategies, including support to joint research programmes, in line with Cohesion Policy objectives | National smart specialisation strategy | 2013 | The preparation of the RIS3 strategy is in a stage of public consultation. In line with EC guidelines the documents shall be the result of broad public consultation and define priority areas for further investments in the field of R&D. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Research and Innovation Strategy of Slovenia | 2011 | The activities identified in this section of the strategy are already implemented. International co-operation is increasing. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Research and Innovation Strategy of Slovenia Research Infrastructure Roadmap | 2011 | These measures make provisions for funding mechanisms for the operation, management, maintenance and systematic support of research infrastructure consortia to enable their successful operation. The Strategy indicates that Slovenia should establish its own RI, should cooperate in international RI projects, and "bring home" one of the key EU research infrastructure head office. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National Reform Programme | 2013 | The Research Infrastructure Plan is being implemented. Slovenia is joining to at least five ESFRI projects in 2013. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Research and Innovation Strategy of Slovenia | 2011 | It proposes to open up the use of all publicly funded Research and Development infrastructures, in order to attract interested researchers. Overview of publicly funded research infrastructure is available in Slovenian Current Research Information System (SICRIS). A joint portal is not yet implemented. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Research and Innovation Strategy of Slovenia | 2011 | It presents framework conditions to enhance researchers' mobility as for example, by eliminating administrative, technical and tax barriers for international mobility in both directions; establishing systematic measures to encourage international mobility in both directions, inter alia; and supporting international compatibility of researchers' qualifications recognition mechanisms. It also requires more systematic public calls for new job openings. The Ministry supports the building of the Slovene network of partners to the EURAXESS project and takes part in the activities of the ERA SGHRM Working Groups. At national level the Ministry has provided support to several amendments to the national regulation which covers the entry conditions for foreign researchers and the conditions for their stay and employment in the country. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Research and Innovation Strategy of Slovenia | 2011 | It proposes to remove the barriers hindering cross-border access of national grants and opening of tenders to participants from EU and third countries. The Slovenian Research Agency and Ad Futura-Public fund publish calls open for foreign researchers. The National Young Researchers Programme is to a certain degree compatible with foreign scholarships, as for instance Marie S. Curie donations, and enables short stays of young Slovenian researchers abroad. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess SI | | Euraxess SI provides services for national and foreign researchers. The services are provided by the Center of the Republic of Slovenia for mobility and European educational and training programmes. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Co-financing of PhD training programme | 2010 | Co-financing of PhD studies in various fields, with special emphasis in the field of research-business collaboration and current issues of modern society. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Research and Innovation Strategy of Slovenia | 2011 | It seeks to establish a strategy for the rejuvenation of HR in Research and Development based on merit, and to elaborate the ethical code of conduct of the Research and Development activities. Universities from Slovenia and several other research institutions have joined the process of implementing the principles arising from the European Charter for Researchers and from the Code of Conduct for the Employment of Researchers. They have acquired the acknowledgement for Excellence in Human Resources, which means that they implement their institutional strategies for the development of human resources in science. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Principle of Equal Treatment Act | 2004 | Its principles include gender among the grounds. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Research and Innovation Strategy of Slovenia | 2011 | A section in the strategy is devoted to the improvement of career opportunities for researchers, and inclusion of the gender equality principle in the HR Research and Development system. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | GENDER-NET (ERA-NET project) | 2013 | In order to become an active partner in the Partnership to foster cultural and institutional change on gender, the Ministry of Education, Science and Sport has become partner in GENDER-NET which will start in autumn 2013. |
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Normative act of Slovenian Research Agency (SRA) | 2008 | Rules for the composition of committees involved in project/programme evaluation (Expert system) at Slovenian Research Agency state that each thematic committee should be composed of at least one third of each gender with the exception of committee for technical sciences in which they should be one fifth. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Development centres Centres of excellence Competence centres | 2010 | Development centres of the Slovenian economy at sectoral and regional level are projects of the Ministry of Economic Development and Technology. The projects combine the critical mass of knowledge from individual fields and infrastructure for the further development and formation of new companies. Centres of excellence (CoE) aim at strengthening quality and co-operation, building critical mass and linking up to top centres abroad through partnerships between industrial partners and academia. Competence centres (CCs) link science and industry and give a strong role to industrial partners, applied research and industrial networks. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | Research and Innovation Strategy of Slovenia Research Infrastructure Roadmap | 2011 | A national repository of scientific information should be established and the dLib system - currently focusing mostly the preservation of cultural heritage- should be expanded to all scientific fields. The RISS proposes to link two already established systems: dLib and COBISS and to create a new database, which will be used as a repository for scientific and research information, outcomes etc. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | Slovenia is candidate to join eduGAIN through ArnesAAI, |

Spain

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Law of Science, Technology and Innovation (LCTI 2011) | 2011 | The Law of Science, Technology and Innovation (LCTI 2011) is the general framework around which the general lines for the promotion and overall coordination of scientific and technical research are established. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Spanish Strategy for Science, Technology and Innovation (EESTI) (2013-2020) | 2013 | The Spanish Strategy for Science, Technology and Innovation (EESTI) (2013-2020) presents the conceptual framework for the design of R&D&i policies in Spain, agreed by the Spain government and Regional Communities, and secures coordination with the R&D&i European Union policies. |

Spain

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Spanish State Plan for Scientific and Technical Research and Innovation (PECTI) (2013-2016) | 2013 | The new Spanish State Plan for Scientific and Technical Research and Innovation or PECTI (2013-2016), as it implements the Spanish Strategy for Science, Technology and Innovation, aims at increasing the role of competitive funding. Most of the funds will be allocated through competitive mechanisms. It promotes competitive funding through calls for proposals as the main mode of allocating public funds to R&D. PECTI establishes a short-term and medium-term planning for R&D&i activities from the Spanish goverment, financed by competitive funding including grants and loans. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | Spanish State Plan for Scientific and Technical Research and Innovation" (PECTI) (2013-2016) | 2013 | The new Plan implementing the Spanish Strategy for Science, Technology and Innovation 2013-2020 foresees increasing international peer review through its programmes of support to R&D Centers of Excellence Evaluations are still usually done by domestic experts. The Plan aims at increasing the role of international peers in the evaluation exercises mainly concerning basic science. In the last four years, international peer review has been implemented mainly within the context of research excellence programmes such as Ramón y Cajal, Consolider y Severo Ochoa. |

Spain

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint Programming Initiatives Article 185 initiatives | | Spain coordinates one Joint Programming Initiative (Water Challenges for a Changing World), is member in eight others initiatives and is an observer in (Urban Europe - Global Challenges, Local Solutions). Spain is also involved in 3 articles 185, with one participant leading one of them. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to the cross-border interoperability of national programmes to permit joint financing of actions including cooperation with non-EU countries where relevant | Bilateral and multilateral agreements in research | | Spain has several bilateral and multilateral agreements with various countries' research funding agencies and organisms (i.e. US, Japan, Canada, Brazil), in different research areas. Spain also belongs to certain international scientific organizations, like the International Council for Science (ICSU). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National research infrastructure roadmap | | Published in 2010 and currently in the process of revision. |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | The Law of Science, Technology and Innovation from 2011 includes a provision (additional provision number 17) to remove legal barriers to access research infrastructures, in conformity with EU provisions. This issue is addressed as a critical dimension for fostering technology transfer. In 2013, scientific research infrastructures in Spain are being evaluated including reforms to remove existing barriers. |
| Optimal levels of transnational co-operation and competition | Work with ESFRI to set priorities for implementing the Roadmap and to provide advice and guidance to Member States on overcoming legal, financial or technical obstacles to implementation | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | Spain considers the ESFRI, to be an important initiative and contributes significantly to a broad range of these facilities. Spain will host at least three large ESFRI installations: the construction in Catalonia of one of the five supercomputers in Europe of the Partnership for Advanced Computing; the solar research infrastructure (EU-SOLARIS) at the Advanced Technological Centre for Renewable Energy in Almeria; and the European Spallation Source (ESS) in the Basque Country, an advanced centre for researching the atomic and molecular arrangement for materials. |

Spain

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Work with e-IRG to promote the alignment of EU and national approaches to eRI development and use | RECOLECTA | 2007 | RECOLECTA is a national joint programme of the Spanish Public Universities and Research Libraries Network (REBIUN) and the FECYT to create an einfrastructure for repositories in Spain and its integration with international repositories. It provides a free open access platform and support to Spanish repositories so that they comply with international standards of interoperability and sustainability. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Blueprint of a Law to support entrepreneurs and their internationalisation | 2013 | The blueprint of a law to support entrepreneurs and their internationalisation, foreseen to be passed in 2013, provides a new regime of residence permits to foreigners that invest, amongst other, in projects of significant relevance to scientific or technological innovation. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Sub-programme for research stays of foreign lecturers and researchers in Spanish higher educational institutes and research organisations | 2008 | The Sub-programme for research stays of foreign lecturers and researchers in Spanish higher educational institutes and research organisations provides funding in order to facilitate the visiting stays of well experienced foreign researchers in the research groups of Spanish research organisations, higher educational institutes (universities) or other public research bodies. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Human resources training programme "Salvador de Madariaga" | | Training programme "Salvador de Madariaga" provides scholarships to eight PhD students from the EU in History, Economy, Law, and Social Sciences to conduct their PhDs at the European University Institute in Florence. The scholarship provides a monthly allocation for maximum 48 months. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess in Spain | 2004 | Spain joined Euraxess in 2004 and the FECYT (Spanish Foundation for Science and Technology) acts as national bridgehead organisation for general inquires. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Spanish Strategy for Science, Technology and Innovation (EESTI) (2013-2020) | 2013 | The Spanish Strategy for Science, Technology and Innovation (EESTI) (2013-2020) aims to promote "Industrial PhD programmes", through the exposure to industry and other relevant employment sectors in PhD training. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | The Spanish government requires all universities that present applications to obtain public support from tenders for Human Resources to accept and comply with the Charter. Notably, the Law sets up the conditions to ensure openness of the recruitment process. However, only nationals can be recruited in public universities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Statute for Research Interns | 2006 | The Statute for Research Interns sets the rights and obligation for young researchers. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Juan de la Cierva Programme | 2004 | The Juan de la Cierva Programme provides five-year funding to the recruitment of young postdoctoral researchers by public or private R&D Centres. |
| A more open labour market for researchers | Create an enabling framework for the implementation of the Human Resources Strategy for Researchers incorporating the Charter & Code | Ramon y Cajal Programme (RyC) posdoctoral senior grants | 2005 | The Ramon y Cajal Programme finances part of researchers' remuneration in the National Public Research System. |
| A more open labour market for researchers | Develop and implement structured programmes to increase mobility between industry and academia | Law of Science, Technology and Innovation (LCTI, 2011) | 2011 | The Law of Science, Technology and Innovation introduces measures to improve the mobility of researchers between sectors and to facilitate access to a research career. Spain supports the link between industry and academia and the LCTI includes a chapter on the purposes of this collaboration, including the training of staff. |

Spain

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | The Law of Science, Technology and Innovation (LCTI 2011) establishes in its additional disposition number 13 that any sex will account for neither more than 60% nor less than 40% of the total; and that the EESTI and PECTI should "include the gender dimension in research programmes in all the process, including definition of priorities in research, research problems, theoretical frameworks, methods, collection and interpretation of data, conclusions, technological development and future research. EESTI and PECTI mention gender equality and the gender dimension of research, but there is no specific programme to address these issues. In spite of it, gender equality represents a basic principle in the design and implementation of the specific R&D measures for both national and regional governments. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | The Law of Science, Technology and Innovation (LCTI 2011) establishes in its additional provison number 13 that "Public Research Bodies should adopt within 2 years "gender balance Plans" that will be yearly monitored. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | The Law of Science, Technology and Innovation (LCTI 2011) establishes the need to comply with a range of 40-60% of under-represented sex in committees involved in recruitment/career progression and in project/program evaluation. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Law of Science, Technology and Innovation - LCTI 2011 | 2011 | The Law of Science, Technology and Innovation (LCTI 2011) in its article 37 states that public research organisations should promote the development of open access archives of the publications of researchers, including the access to other similar initiatives at national and international level; researchers should publish a digital version of their results (publications) of publicly funded research no later than 12 months after their publication; these should be uploaded in open access archives; and the Ministry should facilitate central access to these archives and to promote links with international archives. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Digital Agenda for Spain | 2013 | A Digital Agenda for Spain was adopted in February 2013, providing a framework reference and roadmap for the Digital Agenda strategy for 2013-2015 in order to develop the digital economy and society. One of its main objectives is to increase the efficiency of information technology investments in R&D&I. |

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| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Alhambra Declaration on Open Access | 2010 | The Alhambra Declaration was signed on May 2010 by a group of open access' stakeholders (e.g. editors, librarians, funding agencies, university rectors and authors) from the South European countries (Spain, Portugal, France, Italy, Greece and Turkey), whose main languages are different from English, to promote open access to scientific productions. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Spanish State Plan for Scientific and Technical Research and Innovation" (PECTI) (2013-2016) | 2013 | The Spanish State Plan for Scientific and Technical Research and Innovation" (PECTI) (2013-2016) foresees a sub-programme for the development of new technologies (AEESD2.2). This programme includes the promotion of "Open Access" through technological forums and platforms. Open access is mandatory both concerning results and scientific output for calls under the plan financed by the public sector |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | RECOLECTA | 2007 | The national joint programme called RECOLECTA provides a free open access platform and support to Spanish repositories so that they comply with international standards of interoperability and sustainability. There is another initiative by the Spanish Centre for Sociological Research to create a public repository of scientific data about sociological research financed with State Plan public funds. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Law of Science, Technology and Innovation (LCTI 2011) | 2011 | The Law of Science, Technology and Innovation (LCTI 2011) introduced changes to improve the mechanisms of knowledge transfer. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | INNPACTO subprogramme | 2010 | The INNPACTO programme finances public-private partnership between research organisations and enterprises, promoting knowledge transfer. In the previous Plan there was a call for public-private collaborative and the Cenit Programme. In PECTI, a subprogramme for collaborative R&D exists, oriented to the demands of the production network, and the Challenges Programme. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Subprogramme of Institutional Strengthening in the PECTI | 2008 | INNPLANTA has been replaced by the new State Subprogramme of Institutional Strengthening in the PECTI. This subprogramme, addressed to technological centers, will foster its push effects towards other agents in the private sector. It will also promote the equipment of technological parks. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | eduGAIN | | Spain is member of eduGAIN through SIR. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | IRIS Network | 1988 | Eduroam ES is a project coordinated by RedIRIS, that supports a common roaming environment between Spanish research organizations. Allowing individual researchers to access network services in other research public organisations. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | 2008 Research Bill | 2009 | The 2008 Research bill made parts of institutional block grants for academic R&D subject to competitive allocation. The Swedish public sector R&D system is dominated by the higher education institutions, whose research income from governmental sources is split almost equally between institutional block grants and competitive project funding. The development in the past three years has been a steady increase on both accounts, with an especially notable growth in the institutional block grant research funding to the academic sector of almost 17% between 2009 and 2010 (as a result of the policies of the 2008 research bill). A corresponding increase in competitive funding (also resulting from the 2008 research bill) of almost 20% between 2008 and 2009 makes the long-term development of the ratio between institutional block grants and competitive funding largely unchanged in the past five year period (with a slight relative overall increase of the share of competitive funding from 50.9% in 2007 to 52.5% in 2011). |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Government Bill 2012/13:30 Research and innovation | 2012 | Taking into account the 2012 CSR on research and innovation to implement measures to improve excellence in research, commercialisation of innovative products and the development of new technologies, the Swedish Government presented in October 2012 a bill on research and innovation. The bill presents several measures to improve research excellence, utilisation of research results and innovation. This includes increased funds aimed at the allocation and reallocation of appropriations to universities and colleges, as wel as a new instrument for solving societal challenges through strategic innovation areas. The bill entails a substantial increase in funding to strengthen Sweden's position as a prominent research nation. The total increase amounts to SEK 4 billion for 2016. The bill presents several measures to improve research excellence and utilisation of research results and innovation. This includes increased funds aimed at universities, colleges, research funders and research institutes, as well as a new instrument for solving societal challenges through strategic innovation areas. Effective from 2014, an additional 10 percentage points, or a total of 20 percent of the appropriations, will be subject to reallocation based on assessment of quality and performance. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Funding scheme aimed at most prominent researchers in Sweden | 2013 | The Swedish Research Council has funds for international uitment of researchers for seven to ten years, enabling high-risk, high-potential research. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Government Bill 2012/13:30 Research and innovation | 2012 | For future allocation, the Swedish Research Council will, in consultation with other research funders, develop a resource allocation system that includes international peer assessment of universities and colleges' research quality and performance. This task will incorporate findings from the task Vinnova is leading in setting up system for assessing the universities collaboration with the surrounding society and impact of research results, and which is described under the KT-section. The new system can be introduced in 2018 at the earliest. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|--|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Strategic Research Areas | 2008 | The policy measures taken are designed partly taking into account the policies of other European countries, and the almost 30 Strategic Research Areas, identified in the 2008 research bill and 6 further in the 2013 research bill. These programmes were funded with a specific funding program allocating a total of €370 million. These programmes have been identified as highly relevant also in broader European perspective. Further, Vinnova began in 2011 launching calls aimed at solutions to grand challenges. The role of the Swedish research and innovation system in strengthening the long-term common European competitiveness is further strengthened in the latest research and innovation bill with a new coordination function for European partnership programmes. This function is placed at Vinnova and involves all Swedish research funding agencies. An additional 220 million funding per year has been allocated to this function to meet the increased number of European partnership programmes. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Nordic Cooperation / Nordforsk / Top-level Research Initiative | 2008 | Nordic cooperation involves Denmark, Finland, Iceland, Norway and Sweden as well as the three autonomous areas, the Faroe Islands, Greenland and the Åland Islands. The organisation of Nordic collaboration in research and innovation rests on two main pillars, one for research, NordForsk, and one for innovation, Nordic Innovation (formerly The Nordic Innovation Centre, NICE). In 2008 the Nordic Prime Ministers initiated the Top-level Research Initiative (TRI) and it is to date the largest joint Nordic research and innovation initiative that has a research focus within climate, environment and energy. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Ensure mutual recognition of evaluations that conform to international peerreview standards as a basis for national funding decisions | Excellence' funding programs: 2006 and 2008 Linnaeus Grants and the 2009 Strategic Research Areas grants | 2006 | The allocation of competitive public R&D funding in Sweden (mainly executed within the framework of the research councils) typically follows the procedure of internal peer review assessment boards with predominantly Swedish and Scandinavian members. However, the 2006 and 2008 Linnaeus Grants, Berzellii Centres and Vinn Excellence Centres, and the 2009 Strategic Research Areas grants (allocating in total €30 million and €300 million, respectively) involved the use of international peer reviewers. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | National research infrastructure roadmap | | 3rd edition published in 2011 |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|---|---------------|---|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Financial commitments to European Spallation Source (ESS), MAX IV | 2009 | The Swedish national policy for research infrastructures has resulted in significant investments in research infrastructures. Given its relatively small size a, Sweden has been exceptionally strong in science and not least big science in the second half of the 20th century, as seen in its record of contributions and participation in European collaborations in research, e.g. CERN, the European Southern Observatory (ESO), the European Synchrotron Radiation Facility (ESRF), and many others. But Sweden had, up until a decade ago, not been actively seeking to become host of any of these collaborations. This changed radically in 2007 when it was decided to fund an initiative to build and operate the European Spallation Source and upgrade the synchotron Max IV, two world-leading research infrastructures in materials sciences. Several billions euros are related to these infrastructures. Those comparably large investments being made in research infrastructure (also the Science for Life Laboratory, SciLifeLab, in Stockholm/Uppsala) are certainly of European interest. ESS has recently completed the preconstruction phase and is ready to move into construction phase as soon as sufficient funding can be allocated to the project. Sweden and Denmark, offer to host the facility and Sweden guarantees that 50 % of the construction costs will be funded from the Nordic rgion. MAX IV is currently being constructed in Lund and its opening is planned in 2015. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|--|--------------------------------------|---------------|---|
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | Access to MAX IV, ESS and SciFiLab | | The room for assessment of details of access to large research infrastructures in Sweden is dependent on decisions to be made with regard to the organization and legal status of MAX IV, ESS and SciLifeLab. The legal framework of ESS will be a European Research Infrastructure Consortium (ERIC). The facility will provide effective access for European researchers based on scientific excellence. The existing MAX-lab facility in Lund is a member and active voice in the ERF – European Association of National Research Facilities, an organization with a mission which includes the removal of barriers to access for researchers. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Universities autonomy reform | 2010 | This reform gave universities greater autonomy in determining their own organisation and HR policies, including liberties to change the procedures for hiring and promotion of academic staff. This autonomy reform does undoubtedly impact recruitment and mobility on almost all levels and in almost all instances. However, since the reform did not explicitly change the procedures in any direction, it is difficult to assess the effects. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Incentivize HEI to make international recruitment of prominent researchers | 2013 | New legal provisions and a funding programme for the international recruitment of researchers who conduct research of the highest quality. In the bill, the annual governmental grant to the Swedish Research Council is increased with an earmarked amount of 150 million SEK (€ 18 million) in 2013, followed by increases of 50 million SEK (€ 6 million) in 2014 and further 50 million SEK in 2016 to be spent on a program − designed and launched by the Council − "for the international recruitment of researchers who conduct research of the highest quality." The programme was launched in Spring 2013. Vinnova also has programmes for promoting mobility of researchers, such as the Vinnmer and later the Mobility for Growth programme. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | Universities autonomy reform | 2010 | Swedish HEIs have been required by the Employment Ordinance since 1994 to announce all job vacancies (both permanent or for a fixed period) for academic staff (including teachers and researchers) and advertise all relevant information on e.g. the EURAXESS portal (Researchers Report 2012). The University reform in 2010 allows Higher Education institutions to call individuals to specific posts, allowing to compete internationally for talent. The impact of this provision is not clear yet. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | Euraxess web portal | 2011 | The EURAXESS network is not subject to a national coordinated policy effort but rather administered and sustained by research councils and the participating institutions. There is no mentioning of EURAXESS in the two most recent governmental research bills (20098 and 2012) or in other governmental policy documents. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Measures to improved competitiveness of doctoral studies | 2013 | The 2012 research and innovation bill announces improved conditions for doctoral students, to strengthen the competitiveness of doctoral studies. Doctoral students should be employed at an earlier stage, and those on scholarships covered by insurance. The use of the principles for Innovative Doctoral Training has not been identified. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Grant for practical equality research during 2013-2014 to Vinnova | | There are few or no legislative barriers to gender equality in the public Swedish R&D system. The Swedish Government leaves the work to achieve gender balance in the academic sector largely to the institutions themselves. There are specific targets for all universities and university colleges regarding gender balance in new recruitment of professors. In the latest R&I bill, 32 million SEK per year was allocated to Vinnova for practical equality research during 2013-2014. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Vinnmer programme | | Vinnmer was intended for the underrepresented gender in the scientific field of application and towards researchers who have a PhD and who have completed their Post Doc qualification. It granted 50% of wages and relocation costs for women who build on their career by moving to another institution. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Delegation for Gender Equality in the Higher Education Sector | 2010 | This initiative by the government, the Swedish Agency for Higher Education and the academic sector, issued reports on various aspects of gender equality in the academic sector. Their work, while not yet having been directly translated into governmental policy, has become the focus of national debate and arguably raised key issues in connection with gender (in)equality in the public R&D system. The Delegation was active between 2009-2010 but a few projects are still running. From 1 January 2013, the Swedish National Agency for Higher Education has ceased to exist as a public authority. Its operations has been transferred to two new public authorities: the Swedish Higher Education Authority (Universitetskanslersämbetet) and the Swedish Council for Higher Education (Universitets- och högskolerådet). The latter will work against discrimination and in other ways encourage equal rights and opportunities regardless of gender, gender transcending identification or expression, ethnic background, religion or other belief system, disability, sexual orientation or age. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Gender equality and gender mainstreaming in research | Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes | Law on gender balance and government instruction to the Swedish Research Council | 2010 | The general instruction (regulation) to the Swedish Research Council is to establish and sustain equal gender representation in discipline-councils and peer review assessment boards and committees. The committees involved in the recruitment of academic staff in the Swedish academic sector are also, by law, required to have gender balance. This regulation has remained in place also after the implementation of the aforementioned 2010 so-called Autonomy Reform which otherwise deregulated several similar procedures within academic institutions. The panels assessing grant applications at the Swedish Research Council are supposed to have a balanced composition with respect to gender; the government's instruction to the council is that the council shall "promote gender equality within its area of work" but nothing more specific; the council has, on basis of this instruction, adopted its own gender equality strategy. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Government bill 2012:13:30 Research and Innovation (research data) | 2013 | Instruction to the Swedish Research Council and the National Library of Sweden to develop a national policy for open access to scientific information - research data and publications. The work will be carried out in cooperation with research funding bodies, universities and higher education institutions. The initiatives on EU level to build up research infrastructures for facilitating dissemination of data and results (e.g. European Social Survey, CESSDA, SHARE) are supported by the Swedish government who take active part as members in these initiatives and thus secure the access for Swedish researchers to them. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Swedish support to and participation in European research infrastructures facilitating dissemination of data and research results | | Support and active participation in European Social Survey, CESSDA, SHARE. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Government bill 2012:13:30 Research and Innovation (Scientific publications) | 2013 | Instruction to the Swedish Research Council and the National Library of Sweden to develop a national policy for open access to scientific information - research data and publications. The work will be carried out in cooperation with research funding bodies, universities and higher education institutions. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Government bill 2012:13:30 Research and Innovation | 2013 | The research and innovation bill presented several measures of importance for increased commercialisation and utilisation of research results, including funding and relevant instructions to governmental agencies. The research policy target was broadened for research to contribute to the development of society and industry's competitiveness, resulting in an overarching focus on utilisation. The measures for instance include a new instrument focussing on societal challenges and further strengthening of industrial research institutes, as well as new innovation offices at universities. It also includes measures and initiatives to strengthen the universities and colleges' assignment to work together with external society and work for research results to be of benefit, with the aim of including lessons learned from this into the future performance based resource allocation systems from 2018 that the science council is tasked to propose. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--------------------------------------|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Innovation strategy | 2012 | In parallel with the 2012 Research and Innovation bill, the Government adopted an innovation strategy aimed at strengthening the innovative climate. The innovation strategy takes a holistic view with the purpose of enhancing innovative capacity and meeting social challenges. The strategy emphasises, for example, the importance of all relevant actors being involved, the lowering of thresholds and the creation of incentives to advance different actors' capacity for growth and innovation. The innovation strategy includes several different areas of policy and affects a number of government bills over the period up until 2020. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | SwePub database, OpenAccess.org | 2010 | The SwePub database is run by the National Library of Sweden and makes it possible to search among articles, conference papers and doctoral dissertations published by researchers at Swedish universities and higher education institutions (all institutions except the Stockholm School of Economics are part of SwePub). The OpenAccess.se project, run and funded by the National Library of Sweden in collaboration with the Association of Swedish Higher Education, the Swedish Research Council, the Royal Swedish Academy of Sciences, the Swedish foundation for humanities and social sciences and the Knowledge Foundation (a public research foundation). Within this project, the collaborators work with information and counseling, infrastructure and services, and policy development regarding open access publishing. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Innovation and Research Strategy for Growth | 2011 | The Innovation and Research Strategy for Growth published in December 2011 remains the reference policy document. |
| More effective national research systems | Introduce or enhance competitive funding through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | Research Councils grants and support | | It provides competitive funding for basic research to researchers (individuals or groups) in national HEIs and PSREs. Allocation of funding is based on peer review assessment (following international peer review standards). RCUK Cross-Research Council programmes provide funding through all standard Research Council mechanisms but organised on a multiple research council basis. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| • | Introduce or enhance competitive funding | | | |
| More effective national research systems | through calls for proposals and institutional assessments as the main modes of allocating public funds to research and innovation, introducing legislative reforms if necessary | UK Higher Education Funding Bodies | | It allocates block funding for research via the Research Evaluation Framework (REF), a peer-review-based mechanism. HEIs' evaluations are carried out every four years. |
| More effective national research systems | Ensure that all public bodies responsible for allocating research funds apply the core principles of international peer review | UK Higher Education Funding Bodies Research Councils | | Allocate funding based on peer-reviews. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Joint Programming Initiatives | 2008 | UK Research Councils are involved in all ten JPIs. These were introduced in 2008 and are intended to tackle the challenges which cannot be solved solely at the national level. JPIs encourage MS to combine aspects of their national research programmes and their strategic planning to address global challenges. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|--|---|--|---------------|---|
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | ERA-nets | | Research Councils are partners in many ERA-nets, which co-ordinate national research programmes, e.g. the New Opportunities for Research Funding Agency Cooperation in Europe (NORFACE) ERA-net, ERASynBio in Synthetic Biology, HERA-net (Humanities), and ERA CAPS (Co-ordination Action in Plant Sciences). Working together as networks has allowed valuable exchange of practice and shared problem solving in the development of collaborative approaches. |
| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Open Research Area in Europe for the Social Sciences (ORA) | 2009 | ESRC is a partner in ORA, which currently involves 4 European countries (UK, France, Germany and the Netherlands) and is bringing in third countries (India and the United States). In the third and most recent joint call, the programme will fund integrated projects realised by researchers from three or more of the five participating countries, in any combination. Co-ordinated peer review and a single common selection process is conducted by the partner funding agencies. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Step up efforts to implement joint research agendas addressing grand challenges, sharing information about activities in agreed priority areas, ensuring that adequate national funding is committed and strategically aligned at European level in these areas | Several bi-lateral science and technology agreements with third countries | | For example, in 2010 the UK signed an MoU with Russia on Space to include collaboration between their respective space industries and research institutions. In April 2012 BIS and the Chinese Ministry of Science and Technology (MoST) signed an MOU on Innovation Cooperation and at the same time Research Councils UK also signed an MOU with MoST on "Global Partnerships" which launched a pilot joint call worth £2 million (£1m from each side) aimed at supporting high quality joint research projects in healthy ageing populations, smart grids and food security. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | RCUK Strategic Framework for Capital Investment | 2012 | It outlines where capital investment is important to ensure sustainability of the research base in the medium to long term. The Framework includes large facilities as previously described in the "Large Facilities Roadmap", but has broadened to include other significant capital priorities. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
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| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Large Facilities Capital Fund | 2002 | It supports the establishment of new, or the improvement of existing, large scientific facilities via Research Councils' investments in large research facilities and infrastructure with capital funding in order to support the excellence of the UK science base. |
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Research Partnerships Investment Fund 2012-2015 | 2012 | It supports large-scale projects able to leverage substantial co-investment from private sources to enhance the research facilities of higher education institutions undertaking world-leading research. It will secure £1 billion investment in university research infrastructure. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal levels of transnational co-operation and competition | Confirm financial commitments for the construction and operation of ESFRI, global, national and regional RIs of pan-European interest, particularly when developing national roadmaps and the next Structural Fund programmes | Budget 2013 | 2013 | The Budget 2013 allocates £600 million in Research Council infrastructure and facilities for applied research and development (Research and Development). |
| Optimal levels of transnational co-operation and competition | Remove legal and other barriers to cross-border access to Research Infrastructures | UK research infrastructures | | Access to UK research infrastructures is open to all UK and non-UK nationals who are registered as UK academics; Postdoctoral researchers from UK universities; those applying via EU transnational access arrangements; and overseas organisations that have contractual access agreements with the relevant facilities. In addition, applications from overseas (non-EU or without prior contractual access arrangement) are considered. |
| A more open labour market for researchers | Remove legal and other barriers to the application of open, transparent and merit based recruitment of researchers | The Concordat to Support the Career development of Researchers | 2008 | Agreement between the funders and employers of researchers in the UK, setting out the expectations and responsibilities of each stakeholder in research careers – researchers themselves, their managers, employers and funders. It aligns to the EU Charter and Code and the HR Excellence in Research Award. |
| A more open labour market for researchers | Remove legal and other barriers which hamper cross-border access to and portability of national grants | Money follows Researcher scheme | | All UK Research Councils are members of the scheme, which has been taken on by Science Europe following the disbandment of EUROHORCs. It allows researchers relocating to a new country to take with them the remainder of a current research grant to a new research institution where it can continue within the original terms and objectives. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|--|
| A more open labour market for researchers | Support implementation of the Declaration of Commitment to provide coordinated personalised information and services to researchers through the pan- European EURAXESS network | EURAXESS-UK | 2011 | It provides information on research funding and research careers to UK and overseas researchers. |
| A more open labour market for researchers | Support the setting up and running of structured innovative doctoral training programmes applying the Principles for Innovative Doctoral Training | Terms and Conditions of Research Council Training Grants | | The practices and principles espoused by the Research Councils for the recruitment and training of researchers collectively address most of the ERA Communication's principles for innovative doctoral training. |
| A more open labour market for researchers | Take initiatives to address social security barriers for researchers in the EU and further facilitate the entry and stay of third country national researchers by: – 1)Clarifying in a Communication EU rules on coordination of social security schemes for gr | Private pension agreements for researchers | | Researchers in the UK have access to private pension arrangements and may transfer their pensions to another pension arrangement abroad, subject to tax requirements. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| A more open labour market for researchers | Take initiatives to address social security barriers for researchers in the EU and further facilitate the entry and stay of third country national researchers by: 1)Clarifying in a Communication EU rules on coordination of social security schemes for gr | Tier 5 (Temporary worker - government authorised exchange) | 2013 | Higher education institution are able to sponsor researchers to obtain this specific type of visa. Sponsored researchers can possibly apply to switch into Tier 1 (Exceptional talent) category. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | RCUK Statement of Expectations for Equality and Diversity | 2013 | It places expectations on universities receiving Research Council funding to promote and lead cultural change in relation to equalities and diversities, to engage staff at all levels, ensure researchers are trained and supported to address inequalities and to evidence of this. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Equality Act 2010 | 2010 | It provides a legislative framework to advance equality of opportunities for all. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Public Sector Equality Duty | | It places a responsibility on public bodies, including universities and research councils, to consider gender issues in shaping policies, delivering services and employing staff. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|--|
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Research Excellence Framework Equality and Diversity Panel | 2010 | The Research Excellence Framework was developed taking account of equality issues and a REF Equality and Diversity Panel has been established to advise on implementing the REF diversity and equality measures. |
| Gender equality and gender mainstreaming in research | Create a legal and policy environment and provide incentives in order to: — remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality — address gender | Children and Families Bill | 2013 | It will be introduced in 2013 to create a system of flexible parental leave. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--|---------------|---|
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Athena Swan Charter | 2005 | The Charter tackles the unequal representation of women in science by fostering changing cultures and attitudes across the organisation. |
| Gender equality and gender mainstreaming in research | Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender - charters, performance agreements, awards | Royal Society and Royal Academy of engineering joint programme to tackle diversity in Science, Technology, Engineering and Mathematics (STEM) National Academies and their academic fellowships RCUKs PHD and fellowship awards STEMNET and STEM Ambassadors | | All these programmes addres diversity in STEM subjects. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | RCUK Policy on Open Access | 2013 | RCUK published its updated policy on Open Access in May 2013 which supports both 'Gold' and 'Green' routes to Open Access, though RCUK has a preference for immediate Open Access with the maximum opportunity for reuse. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|---------------------------------------|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Research Councils Repositories | | The UK is at the forefront of advancing this topic within Europe. The UK Research Councils have already invested in a number of successful repositories. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | Gateway to Research | 2012 | It provides infrastructure for preservation and open access to UK Research Council funded research data and outputs |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | RCUK Common Principles on Data Policy | 2011 | The RCUK common principles on data policy provide an overarching framework for individual Research Council policies on data policy. Making research data available to users is a core part of the Research Councils' remit and is undertaken in a variety of ways. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Define and coordinate their policies on access to and preservation of scientific information | National Reform Programme | 2013 | Arrangements are being put in place to make publicly funded scientific research available for anyone to read for free. Around 45% of such research will be available in 2013-14, increasing to over 50% in the following year. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|--------------------------------------|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Knowledge Transfer Partnerships | 1975 | Developing links between the academic and industry sectors and enhancing the flow of knowledge. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Knowledge Transfer Networks | 2004 | The Technology Strategy Board set up the Knowledge Transfer Networks, hosted by "on-connect", a powerful networking platform, to facilitate open innovation and allow people to network, share information and work together. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Catapult Centres | 2011 | They seek to develop links between the academic and industry sectors and enhance the flow of knowledge. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|--|---|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Technology Strategy Board Concept to Commercialisation | 2011 | It is the UK's principal innovation agency, facilitating networking to enable knowledge transfer through a variety of mechanisms. The "Concept to Commercialisation - A Strategy for Business Innovation" presents the strategy for 2011-2015. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Cooperative Awards for Science and Engineering (CASE) | 1994 | They seek to develop links between the academic and industry sectors and enhance the flow of knowledge. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Smart Cymru: R&D and innovation grant support to business | 2012 | Wales launched an enhanced KTP in partnership with the Technology Strategy Board, which will allow key companies in Wales, particularly the anchor companies and their associated supply chains, to engage at high level with their international offices and overseas academic institutions. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|--|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies | Higher Education Innovation Fund UK Research Partnership Investment Fund National Centre for Universities and Business | | These initiatives support knowledge exchange activities in universities and encourage universities to secure and accelerate business and charity c0-investment into long term strategic partnerships. The National Centre will make collaboration between universities and business more systematic acting as a repository of best practice. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | E-infrastructure Leadership Council | 2012 | The ELC is responsible for developing a strategy to provide a world class e-infrastructure and High Performance Computing (HPC) capability for the UK. It works in partnership with stakeholders across the academic community, industry, government and society. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Harmonise access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners | UK e-Science Programme | 2002 | The e-Science Core Programme has supported the development of generic technologies, such as the software known as middleware that is needed to enable very different resources to work together seamlessly across networks and create computing grids. Each Research Council has funded its own e-Science activities to develop techniques and demonstrate their use across a broad range of research and applications. In December 2009, RCUK undertook a review of the UK Research Councils' e-Science Programme. |

| ERA Priority | ERA Action | National Measure contributing to ERA | Year Adoption | How the measure contributes to ERA |
|---|---|--|---------------|---|
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | EDUGAIN | | UK has signed the policy to join eduGAIN through UK federation. |
| Optimal circulation and transfer of scientific knowledge, including through digital ERA | Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services | Open Researcher and Contributor Identifier (ORCID) | 2012 | The Joint Infrastructure Systems Committee (JISC) has concluded that the Open Researcher and Contributor Identifier (ORCID), offers the best solution even if its implementation would require certain challenges to be addressed, such as personal data security, scope of personal data use, identity validation and identity tracking. |