

**1) Introduction**

Data-driven innovation is a key driver of growth and jobs that can significantly boost European competitiveness in the global market. If the right framework conditions are put in place, the European data economy could double by 2020.[[1]](#footnote-2)

The Commission has already implemented key measures to improve the framework conditions for data-intensive industries. With the General Data Protection Regulation[[2]](#footnote-3), the EU has created a solid framework for digital trust, a precondition for the sustainable development of the data economy. The General Data Protection Regulation guarantees a high level of data protection. All those affected by the new rules, which will come into force on 25 May 2018, will need to ensure full compliance. To lay the foundations for a future competitive advantage based on trusted and accepted data technologies, the free movement of personal data within the EU granted by EU data protection rules will be complemented by the free flow of non-personal data under a proposal for Regulation put forward in September 2017.[[3]](#footnote-4)

However, further action is needed in order to improve the efficient use of data across the EU. As part of its Digital Single Market strategy, the Commission has taken important steps in this direction. In January 2017, it published the Communication ʻBuilding a European Data Economyʼ[[4]](#footnote-5), which launched an extensive stakeholder consultation, including a public online consultation[[5]](#footnote-6). The subsequent mid-term review of the Digital Single Market strategy[[6]](#footnote-7) announced initiatives on the free flow of non-personal data and on accessibility and re-use of public and publicly funded data. It also indicated further measures in the area of private sector data that are of public interest.

Building on the data protection legislation in force, the Commission is now proposing a package of measures as a key step towards **a common data space in the EU -** a seamless digital area with the scale that will enable the development of new products and services based on data. The measures put forward along with this Communication include:

* a proposal for a review of the Directive on the re-use of public sector information (PSI Directive) [[7]](#footnote-8);
* an update of the Recommendation on access to and preservation of scientific information[[8]](#footnote-9); and
* guidance on sharing private sector data[[9]](#footnote-10).

This guidance builds on the principles for data sharing between businesses and between businesses and the public sector, which are laid down in this Communication. The envisaged measures cover different types of data and therefore have different levels of intensity. At the same time, they all work towards the broader goal of bringing together data, as a key source of innovation and growth, from different sectors, countries and disciplines into a common data space.

**2) Reaping the socio-economic benefits of data-driven innovation**

Data is the raw material of the Digital Single Market. It can revolutionise our lives and create new opportunities for growth, including for small and medium-sized enterprises. The availability of huge quantities of data, much of which is generated by machines and sensors, has an impact on all of us. In fact, there are few areas of our lives that have not already been affected by the ongoing data revolution. Optimal use of data can help us live healthier and longer lives that are also less stressful and more environmentally friendly. It can also help our scientists to develop better models to predict climate change and natural catastrophes.

The smart use of data has a transformative effect on all sectors of the economy and the public sector:

*For instance, in the agricultural sector, analysis of up-to-date weather or soil moisture data can help maximise crop production. In manufacturing, real-time sensor data supports predictive maintenance.*

*Data-driven innovation can also improve public policy-making, public service provision and ease the administrative burden. It can help with crisis management and in developing environmental and financial policies. Sharing research data on the outbreak of epidemics can advance relevant research much faster and contribute to a more timely response.*

*High-resolution satellite data from Copernicus Sentinel satellites contributes to the real-time monitoring of natural water resources to prevent drought or pollution. Such data holds considerable benefits for public authorities, researchers and private companies in terms of providing innovative services.*

The economic impact of data is huge. In 2016, there were 254,850 data companies[[10]](#footnote-11) across the EU, a figure that could increase to some 360,000 by 2020 under a high growth scenario.

Generally speaking, the capability to analyse and learn from data is rapidly becoming a key ingredient in business success and government efficiency. Companies with huge amounts of data at their disposal, and with the technical capacity and skilled employees to analyse the data, will gain a competitive advantage.[[11]](#footnote-12)

Data is also recognised as an increasingly critical asset for the development of new technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT). AI solutions hold remarkable potential benefits for both the public and the private sector. The use of Artificial Intelligence technologies supports productivity and competitiveness in a wide range of sectors. It also helps to address societal and environmental challenges, while addressing its own challenges at the same time. In this context, in parallel with this data package the Commission is adopting the Communication ʻMaximising the benefits of Artificial Intelligence for Europeʼ, which outlines the EU strategy on Artificial Intelligence. The strategy has three dimensions: boosting Europe's technology and industrial capacity, preparing for socio-economic changes, and ensuring an appropriate ethical and legal framework. One of the main goals is to democratise Artificial Intelligence technology, in order to support not only Artificial Intelligence start-ups but also Artificial Intelligence users, including non-tech companies of any size. In 2019, the Commission will launch an AI-on-demand platform to facilitate access, for European researchers and companies, to high-quality Artificial Intelligence tools, data and services.

Together with this data package, the Commission is also adopting one more initiative that is important for the data economy – the "Communication on enabling the digital transformation of health and care in the Digital Single Market empowering citizens and building a healthier society", which concerns the potential of data as a key enabler for digital transformation in health and care. Data can increase the well-being of millions of citizens and change the way health and care services are delivered, including personalised medicine, early detection of infectious outbreaks and accelerated development of medicines and medical devices.

To unlock this potential in the data economy, the EU must take its opportunities to stimulate innovation in healthcare solutions such as telemedicine and mobile health applications, as stated in the mid-term review of the Digital Single Market, and in full compliance with data protection legislation. Three key areas have been identified:

* citizens' secure access to and sharing of health data;
* better data to promote research, disease prevention and personalised health and care;
* digital tools for citizen empowerment and for person-centred care.

In the abovementioned Communication the Commission has outlined actions to be taken in all three areas. They include a recommendation on a European exchange format for electronic health records, a mechanism for voluntary coordination in sharing data including genomic data for prevention and personalised medicine research, as well as proposals on the exchange of innovative and best practices, capacity building and technical assistance for health and care authorities.

The above measures are also accompanied by a preliminary analysis of issues raised in regard to safety and liability[[12]](#footnote-13) arising from emerging data-driven digital technologies, to ensure an environment of trust and accountability through a predictable legal environment for businesses and investors and safeguard protecting the rights of consumers and citizens. Together with the relevant initiatives put in place under the Digital Single Market strategy so far, these measures will bring the EU into a unique position to benefit from the opportunities offered by the data revolution and to develop a thriving, sustainable and secure data economy, building on the scale of the internal market, the innovative capacity of European companies, and with full respect of European values.

**3) Public and publicly funded data at the service of data-driven innovation**

Access to and re-use of public and publicly funded data constitute major cornerstones of a common European data space. In the mid-term review of the Digital Single Market strategy, the Commission announced that, based on an evaluation of existing legislation and subject to an impact assessment[[13]](#footnote-14), it would prepare an initiative on accessibility and re-use of public and publicly funded data. This section describes the elements of this initiative.

**a) Re-use of public sector information**

Public sector bodies produce and collect huge quantities of data, which constitute valuable raw material for the development of innovative digital services and better policy making.

*Public sector information can be used as the basis for a wide range of products and services. For example, the* [*iMar*](https://play.google.com/store/apps/details?id=es.nologin.imar.android&hl=en) *application uses information published by state owned ports in Spain and combines it with wind forecasts provided by Spain's national weather service. As a result users of the application receive both real-time information as well as shipping forecasts so they can safely plan their trip at sea.* *Similarly, bathymetric data originally collected by national hydrographic agencies for safe navigation have been re-used by the EMODnet partnership into topographic maps to greatly improve storm surge forecasts in the North Sea.*

The EU has already taken a range of measures to open up government data across the Union as a key asset for the data economy. Directive 2003/98/EC on the re-use of public sector information[[14]](#footnote-15) has created an EU-wide framework stimulating the cross-border use of publicly funded data and help develop of pan-European data services and products. This has been complemented by measures to make it easier to find and use public sector data across borders and languages, such as the launch of the European Open Data Portal[[15]](#footnote-16). The Commission leads by example, with a legal framework for the re-use of its own data[[16]](#footnote-17). It is complemented by the Open Data portal, which provides access to data from the EU institutions and other EU bodies[[17]](#footnote-18).This framework is one the most advanced re-use regimes in the world, with a default rule whereby re-use of the Commission's data has to be allowed for non-commercial and commercial purposes without the need for an individual application, without charging the re‑user, without putting conditions on the re-use and without discriminating between re-users, with only very limited, duly justified exceptions.

The **review of the Directive on the re-use of public sector information**[[18]](#footnote-19) lies at the heart of the current data package. The proposed changes will make a real difference by making more data available and making data more re-usable. The review has the following objectives:

* reduce market entry barriers, in particular for small and medium-sized enterprises, by lowering charges for the re-use of public sector information;
* increase the availability of data by bringing new types of public and publicly funded data into the scope of the Directive: (i) data held by public undertakings in the utilities and transport sectors, and (ii) research data;
* minimise the risk of excessive first-mover advantage, which benefits large companies and thereby limits the number of potential re-users of the data in question, by requiring a more transparent process for the establishment of public-private arrangements;[[19]](#footnote-20)
* increase business opportunities by encouraging the publication of dynamic data and the uptake of application programming interfaces (APIs).

Providing access to dynamic data via application programming interfaces is particularly important, as it supports the open data ecosystem, saves time and costs through automation of the download process, and greatly facilitates the re-use of data for a wide range of new products and services. Sharing data via the correct and secure use of application programming interfaces can generate significant added value for different actors of the data value chain. It can also contribute to the creation of valuable ecosystems around data assets whose potential is often unused by data holders.

Currently the use of application programming interfaces by public sector bodies is insufficient, and many documents are still made available as PDFs. This results in a sub-optimal use of dynamic data from the public sector for the creation of value-added services. The proposed changes in the Directive on the re-use of public sector information aim to speed up the move of public sector bodies across Europe towards web-based functionalities and towards more wide-spread publication of dynamic data and the use of application programming interfaces.

The package also contains the results of the evaluation of the **Database Directive**[[20]](#footnote-21). The evaluation[[21]](#footnote-22) covers the overall functioning of the two parts of the Directive, copyright and the protection of databases by the *sui generis* right, with more emphasis on assessing the performance of the latter. This includes the analysis of the relationship between the *sui generis* right established in the Directive and the data economy.

One of the main conclusions in the evaluation is that the *sui generis* right does not systematically cover big data situations and single-source databases[[22]](#footnote-23), thus does not prevent problematic cases where certain right-holders could claim indirect property rights of digital data. Nevertheless, the evaluation indicates that this assumption should be closely tracked in the future as questions have emerged within academic and stakeholders' circles, triggered by occasional court cases, on whether the *sui generis* right might in fact apply more broadly than what is generally assumed, for example to machine-generated data. The evaluation of the Database Directive also tackles the possible interactions between the *sui generis* right and the Directive on the re-use of public sector information, an issue that was also covered in the evaluation of the Directive on the re-use of public sector information[[23]](#footnote-24). Taking into account that such interaction might occur in practice, the proposed review of the Directive on the re-use of public sector information aims at clarifying the alignment of the provisions of both instruments.

The proposed review also contains clarifications concerning the relationship between the Directive on the re-use of public sector information and the Directive establishing an Infrastructure for Spatial Information (INSPIRE)[[24]](#footnote-25) in order to ensure full coherence between these two legal instruments

Additionally, under the Connecting Europe Facility programme, the Commission will continue to support the deployment of a fully-fledged open data infrastructure as a follow-up to the deployment of the European Open Data Portal[[25]](#footnote-26). This environment could make available interoperable data and tools, as well as knowledge and support, in order to maximise the re-use of open data by European public administrations and businesses, notably small and medium-sized enterprises, and to build content capacity for the European Artificial Intelligence development. The Commission has proposed[[26]](#footnote-27) that data sharing by the public sector will also be aided by a **Support Centre for data sharing** under the Connecting Europe Facility programme as from 2019 onwards.

The Commission is also considering further funding actions to support the availability of public sector data for re-use after 2020 aimed at establishing a comprehensive common European data space.

Finally, the principles on the re-use of public sector information are also taken into account when the European Structural and Investment (ESI) Funds[[27]](#footnote-28) support and match local needs leading to efficiency gains thanks to e-government solutions, modernisation of public  information and administration systems.

**b) Access to and preservation of scientific information**

Open Science has been identified[[28]](#footnote-29), in the context of access to and re-use of publicly funded research results in particular, as a crucial ingredient in advancing science and benefiting society. This was highlighted in the Council conclusions on the transition towards an Open Science system[[29]](#footnote-30), in which the Council called on the Commission, in cooperation with the Open Science Policy Platform and in close cooperation with the Member States and stakeholders, to further develop the European Open Science Agenda. Open Science calls for the research processes conducted by any type of researcher (including citizen scientists) to be open at all stages, from project design, methodologies and workflows to the dissemination of results, so that research can build on previous research more easily. This increases quality, avoids duplication and makes re-use easier, which ultimately enhances the impact of science on society. The Commission believes that it is time to put access to and preservation of scientific information in a context of Open Science, building upon its policy on open access from 2012.

The Commission leads by example on open access policy thanks to its Horizon 2020 programme rules. It also supports the development of tools and services that underpin Open Science, by funding a pan-European portal for the European Open Science Cloud.[[30]](#footnote-31)

In 2012, the Commission adopted a policy package containing a series of measures to improve access to scientific information produced in the Union. As part of this package, Commission Recommendation 2012/417/EU on access to and preservation of scientific information[[31]](#footnote-32) built on the premise that scientific information resulting from public funding should be accessible and re-usable with as few restrictions as possible.

The evaluation of the Recommendation confirms that it has been a valuable and impactful tool that remains relevant for policy. However, to make it future-proof, a revision is needed to reflect recent developments in research practices, as well as recent EU policy developments. As announced in the European Cloud Initiative[[32]](#footnote-33) as part of the European Open Science Cloud and the mid-term review of the DSM strategy[[33]](#footnote-34), the current data package therefore includes the review of the Recommendation on access to and preservation of scientific information[[34]](#footnote-35).

The review of the Recommendation is presented in parallel with the review of the Directive on the re-use of public sector information[[35]](#footnote-36), which proposes to extend the scope of the Directive to research data and to ensure the coherence and the complementarity between EU open access and open data policies. This therefore unlocks the potential of public sector information and publicly funded research data at the same time. Based on the proposed revision of the Directive on the re-use of public sector information, Member States would be obliged to develop policies that address the area of open access to public and publicly held research data and the reviewed Recommendation on access to and preservation of scientific information would provide guidance on the implementation of open access to public and publicly held research data.

**4) Private sector data as a key driver of innovation and competitiveness in Europe**

Access to and re-use of private sector data constitute further major cornerstones of a common European data space. In line with the mid-term review of the Digital Single Market strategy, and drawing on the results of the stakeholder consultation a number of principles for private sector data sharing to be taken account of can be defined.[[36]](#footnote-37)

**a) Business-to-business (B2B) data sharing**

The Communication "Building a European Data Economy" raised a number of issues on the ever-increasing amount of data. This is often created in an automated way by machines or processes based on emerging technologies, such as the Internet of Things. To extract maximum value from this and other types of private sector data, market players may need to be able to access and use such data, also across borders in different scenarios. As identified in that Communication, non-personal data generated by Internet of Things objects in an automated manner pose specific questions as typically the manufacturers of such objects are in a privileged position to determine access to and usage of the data generated. Depending on the nature of the respective market they may or may not grant access and usage rights to the user of the object who may find himself prevented from the usage of data the generation of which he triggers.

The stakeholder dialogue and replies to the online survey[[37]](#footnote-38) showed that stakeholders largely agree that more business-to-business data sharing would be beneficial. At the same time, they take the view that, at this stage of the development of the data economy, the existing regulatory framework is fit for purpose and that it is too early for horizontal legislation on data sharing in business-to-business relations. The starting point should be to ensure that data markets have the best possible conditions to develop on their own, with freedom of contract as a cornerstone. In general, businesses should be free to decide to whom and under what conditions access can be granted to their non-personal data. In general, stakeholders also do not favour a new 'data ownership' type of right, with a range of inputs indicating that the crucial question in business-to-business sharing is not so much about ownership, but about how access is organised.

On the other hand, there is strong support from stakeholders for non-regulatory measures, such as (i) fostering the use of APIs for simpler and more automated access to and use of datasets; (ii) developing recommended standard contract terms; and (iii) the provision of EU level guidance.

Taking into account all the evidence currently available and building on the principles developed in the Communication ʻBuilding a European Data Economyʼ[[38]](#footnote-39), the Commission considers that it is important to acknowledge the fact that data can be re-used without a loss in data quality and, in many cases, without losing the competitive edge as the same data can underpin or completely improve different products or services. This applies in particular to making relevant data available for training Artificial Intelligence applications — a major industrial challenge in Europe. More companies could be encouraged to engage in data partnerships, i.e. arrangements with other companies designed to make the most out of data by as many commercial players as possible.

The Commission also considers that in order to ensure fair and competitive markets for the IoT objects and for products and services that rely on **non-personal machine-generated data** created by such objects, the following **key** **principles** should be respected in contractual agreements:

a) **Transparency**: The relevant contractual agreements should identify in a transparent and understandable manner (i) the persons or entities that will have access to the data that the product or service generates, the type of such data, and at which level of detail; and (ii) the purposes for using such data.

b) **Shared value creation**: The relevant contractual agreements should recognise that, where data is generated as a by-product of using a product or service, several parties have contributed to creating the data.

c) **Respect for each other's commercial interests**: The relevant contractual agreements should address the need to protect both the commercial interests and secrets of data holders and data users.

d) **Ensure undistorted competition**: The relevant contractual agreements should address the need to ensure undistorted competition when exchanging commercially sensitive data.

e) **Minimised data lock-in**: Companies offering a product or service that generates data as a by-product should allow and enable data portability as much as possible[[39]](#footnote-40). They should also consider, where possible and in line with the characteristics of the market they operate on, offering the same product or service without or with only limited data transfers alongside products or services that include such data transfers.

As the debate on business-to-business data sharing is ongoing and more experience is garnered over time, this Communication will launch a further consultation process with stakeholders. Based on the analysis of the information gathered, these principles may evolve further. The Commission will continue to assess whether such amended principles and possible codes of conduct prove to be sufficient in order to maintain fair and open markets and will address the situation if necessary by taking appropriate action. As a result of the difference in structure of individual markets, they may need to be complemented by sector-specific measures.

As part of the Digitising European Industry[[40]](#footnote-41) initiative, the Commission has already taken action to support industry, among other things by giving financial assistance to industrial data platforms and innovation hubs under the Horizon 2020 programme. As a continuation of these efforts, the research and innovation measures under Horizon 2020 in 2018-2020[[41]](#footnote-42) (in particular the ʻindustrial and personal data platformsʼ) promote the development of trusted and secure platforms and privacy-aware analytics methods for the secure sharing of proprietary industrial data and personal data explicitly, while facilitating compliance with relevant legislation (such as data protection legislation).

The **Support Centre for data sharing** under the Connecting Europe Facility programme will put in place a set of measures to make it easier to share private sector data in addition to public sector data. It will offer know-how and assistance on data sharing by providing best practice examples and information on APIs, existing model contracts and other legal and technical aspects. It will also help in further developing the guidance set out in the staff working document accompanying this communication[[42]](#footnote-43); checklists and, if it is considered useful, model contract clauses could be developed. The work will take into account the results of the Interoperability Programme for the period 2016-2020 (ISA2).

The Commission will also explore further the **fostering of application programming interfaces** in, for example, e-government and actions surrounding the use of the once only principle. Today, many companies have large assets of unused data and they do not have the resources or the capacity to analyse the data or to create commercially interesting services around their data. With a suitable use of application programming interfaces, this may open up for the creation of start-up ecosystems, drawing value from an unused asset and helping the host companies to create new services and products. This has been the case in the financial sector where the access to certain bank data, via the use of well designed application programming interfaces, has opened up for a whole new ecosystem of financial services like personalised advice on daily spending patterns, all under the control and management of the financial institutions that would not, otherwise, offer such services. The set-up and use of application programming interfaces needs to be based on several principles: stability, maintenance over the lifecycle, uniformity of use and standards, user-friendliness as well as security.

Finally, the Commission will continue to facilitate **tests** and **demonstrations** in selected areas, for example for the large-scale deployment of connected and automated mobility on digital cross-border corridors. The work on these corridors results from the Letter of Intent signed by 29 Member States and EEA countries, the Frankfurt Round Table with industry and Member States and the Digital Day 2018, where EU and EEA Member States and relevant industry stakeholders signed up for these actions. The experience on these corridors will *inter alia* test the technical and legal means of access to and reuse of in-vehicle data and other commercial relevant data in the connected and automated mobility eco-system and the experiences may contribute to further EU guidance addressing this aspect of the Digital Single Market.

**b) Access to private sector data for public interest purposes – business-to-government (B2G) data sharing**

The Commission is also examining data sharing between businesses and the public sector. Public sector bodies have started to assess the potential of data analytics to guide policy decisions or improve public services by deploying a significant number of pilots.

Data held by companies, such as telecoms operators, online platforms, car manufacturers, retailers or social media is highly relevant in this context. Its use can, for example, lead to a more targeted response to epidemics, better urban planning, improved road safety and traffic management, as well as better environmental protection, market monitoring or consumer protection.

When compiling official statistics, analysis of such data can be more cost-efficient and produce faster outcomes on aspects such as population movements, prices, inflation, the internet economy, energy or traffic. This can also lower the burden on companies and citizens by avoiding survey questionnaires. The 2017 Communication ʻBuilding a European Data Economyʼ[[43]](#footnote-44) discussed these opportunities, and in the mid-term review of the Digital Single Market strategy the Commission committed to exploring this issue further.

The results of the consultation undertaken in the context of the review of the Directive on re‑use of public sector information[[44]](#footnote-45) showed support for the idea of improving access to private sector data for public authorities and scientific purposes in general. However, data holders pointed to the need to address a number of issues, including compensation, allowing to recover the investments made into collecting or adapting the data.

Any action taken in this respect shall be fully compliant with the legislation on the protection of personal data.

Taking into account the existing experience and the results of the consultation of stakeholders, the Commission considers that the respect of the following **key principles** could support the supply of private sector data to public sector bodies under preferential conditions for re-use.

a) **Proportionality in the use of private sector data:** Requests for supply of private sector data under preferential conditions for re-use should be justified by clear and demonstrable public interest. The request for private sector data should be adequate and relevant to the intended public interest purpose and be proportionate in terms of details, relevance and data protection. The cost and effort required for the supply and re-use of private sector data should be reasonable compared with the expected public benefits.

b) **Purpose limitation**: The use of private sector data should be clearly limited for one or several purposes to be specified as clearly as possible in the contractual provisions that establish the business-to-government collaboration. These may include a limitation of duration for the use of these data. The private sector company should receive specific assurances that the data obtained will not be used for unrelated administrative or judicial procedures; the strict legal and ethical provisions governing statistical confidentiality in the European Statistical System could serve as a model in this regard.

c) **ʻDo no harmʼ:** Business-to-government data collaboration must ensure that legitimate interests, notably the protection of trade secrets and other commercially sensitive information, are respected. Business-to-government data collaboration should allow companies to continue being able to monetise the insights derived from the data in question with respect to other interested parties.

d) **Conditions for data re-use:** business-to-government data collaboration agreements should seek to be mutually beneficial while acknowledging the public interest goal by giving the public sector body preferential treatment over other customers.

This should be reflected in particular in the level of compensation agreed, the level of which could be linked to the public interest purpose pursued.

Business-to-government data collaboration agreements that involve the same public authorities performing the same functions should be treated in a non-discriminatory way.

Business-to-government data collaboration agreements should reduce the need for other types of data collection such as surveys. This should reduce the overall burden on citizens and companies.

e) **Mitigate limitations of private sector data:** To address the potential limitations of private sector data, including potential inherent bias, companies supplying the data should offer reasonable and proportionate support to help assess the quality of the data for the stated purposes, including through the possibility to audit or otherwise verify the data wherever appropriate. Companies should not be required to improve the quality of the data in question. Public bodies, in turn, should ensure that data coming from different sources is processed in such a way to avoid possible ʻselection biasʼ.

f) **Transparency and societal participation:** business-to-government collaboration should be transparent about the parties to the agreement and their objectives. Public bodies’ insights and best practices of business-to-government collaboration should be made publicly available as long as they do not compromise the confidentiality of the data.

The Commission will **organise a high-level round table on access to private sector data for public interest reasons** to further reflect on this topic. Due attention will be paid to the advanced degree of maturity of the discussion in some domains (e.g. the re-use of such data for official statistics). The principles above will be proposed as the basis for further discussions with stakeholders. The Commission will continue to assess whether these measures prove to be sufficient in facilitating business-to-government data sharing and it will address the situation if necessary by taking appropriate action, including possible measures in specific sectors.

**5) Conclusion**

In this Communication the Commission has presented measures that will make it easier for businesses and the public sector to access and re-use data coming from different sources, sectors and disciplines in the EU. Together with the initiatives that are already in place, such as the new regulatory framework for the protection of personal data that enters into force in May 2018, the proposal on the free flow of non-personal data and the initiatives on boosting connectivity and encouraging high-performance computing, these measures will create a truly European common data space supported by both EU-wide policy measures and targeted research and innovation funding. These are essential for EU economic growth and competitiveness.

The Commission calls on the co-legislators to work towards a rapid adoption of the legislative element of the proposed data package[[45]](#footnote-46) to ensure that the EU can fully benefit from the opportunities offered by the data economy. It also calls on the Member States and all other stakeholders to contribute to the announced measures and initiatives.

1. From 1.99% of EU GDP in 2016 to 4% in 2020, IDC 2017, European Data Market Study, Final Report. [↑](#footnote-ref-2)
2. OJ L 119, 4.5.2016, p. 1. [↑](#footnote-ref-3)
3. COM(2017) 495 final. [↑](#footnote-ref-4)
4. COM(2017) 9 final. [↑](#footnote-ref-5)
5. <https://ec.europa.eu/digital-single-market/en/news/public-consultation-building-european-data-economy> [↑](#footnote-ref-6)
6. COM(2017) 228 final. [↑](#footnote-ref-7)
7. COM(2018) 234. [↑](#footnote-ref-8)
8. C(2018) 2375. [↑](#footnote-ref-9)
9. SWD(2018) 125. [↑](#footnote-ref-10)
10. Organisations whose main activity is producing data-related products, services, and technologies. [↑](#footnote-ref-11)
11. OECD, Data-driven innovation. Big Data for Growth and Well-being, 2015. [↑](#footnote-ref-12)
12. Staff Working Documents on the evaluations of both the Machinery Directive and the Product Liability Directive and a Staff Working Document on liability for emerging digital technologies. [↑](#footnote-ref-13)
13. SWD(2018) 127. [↑](#footnote-ref-14)
14. [Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32003L0098). [↑](#footnote-ref-15)
15. <https://www.europeandataportal.eu/> [↑](#footnote-ref-16)
16. [Commission Decision 2011/833/EU on the re-use of Commission documents](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011D0833). [↑](#footnote-ref-17)
17. <https://data.europa.eu/euodp/en/home> [↑](#footnote-ref-18)
18. COM(2018) 234. [↑](#footnote-ref-19)
19. The main problem of such arrangements is that they lead to one or very few re-users exploiting the data in practice and that this limited re-use is due not to the specifics of the market but to the way in which the public-private arrangement was concluded. The increased transparency of the process aims at limiting the 'excessive first-mover advantage' by a) allowing any company to learn about the data being available and b) increasing the chance of a wider range of re-users actually exploiting the data in question. [↑](#footnote-ref-20)
20. [Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31996L0009). [↑](#footnote-ref-21)
21. SWD(2018) 146. [↑](#footnote-ref-22)
22. A single-source database means that there is no other source to data than by relying on the one database. [↑](#footnote-ref-23)
23. SWD(2018) 145. [↑](#footnote-ref-24)
24. [Directive 2007/2/EC of the European Parliament and the Council of 14 March 2007](http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007L0002). [↑](#footnote-ref-25)
25. <http://data.europa.eu/europeandataportal>. [↑](#footnote-ref-26)
26. <https://ec.europa.eu/digital-single-market/en/news/connecting-europe-facility-cef-telecom-work-programme-2018-adopted>. [↑](#footnote-ref-27)
27. <https://cohesiondata.ec.europa.eu>. [↑](#footnote-ref-28)
28. COM(2018) 22 final. [↑](#footnote-ref-29)
29. http://data.consilium.europa.eu/doc/document/ST-9526-2016-INIT/en/pdf. [↑](#footnote-ref-30)
30. SWD(2018) 83 final. [↑](#footnote-ref-31)
31. C(2012) 4890 final. [↑](#footnote-ref-32)
32. COM(2016) 178 final. [↑](#footnote-ref-33)
33. COM(2017) 228 final. [↑](#footnote-ref-34)
34. C(2018) 2375. [↑](#footnote-ref-35)
35. COM(2018) 234. [↑](#footnote-ref-36)
36. SWD(2018) 125 "Guidance on sharing private sector data in the European data economy" consisting of two parts: one dealing with data sharing in business-to-business (B2B) relations, and one addressing data sharing in business-to-government (B2G) contexts. [↑](#footnote-ref-37)
37. <https://ec.europa.eu/digital-single-market/en/news/public-consultation-building-european-data-economy> [↑](#footnote-ref-38)
38. COM(2017) 9 final, p. 11. [↑](#footnote-ref-39)
39. E.g. data produced by robots in the context of industrial processes, relevant for provision of after-sales services (e.g. repair and maintenance), or data on the rating of service providers. [↑](#footnote-ref-40)
40. COM(2016) 180 final. [↑](#footnote-ref-41)
41. <http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_en.pdf>. [↑](#footnote-ref-42)
42. SWD(2018) 125. [↑](#footnote-ref-43)
43. See also: Commission Staff Working Document SWD(2017) 2 final. [↑](#footnote-ref-44)
44. COM(2018) 234. [↑](#footnote-ref-45)
45. COM(2018) 234. [↑](#footnote-ref-46)