COMMISSION OF THE EUROPEAN COMMUNITIES

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**COMMISSION STAFF WORKING DOCUMENT**

**Accompanying the**

**COMMISSION RECOMMENDATION**

**on mobilising Information and Communications Technologies (ICT) to facilitate the transition to an energy-efficient, low-carbon economy**

**IMPACT ASSESSMENT SUMMARY**

**{C(2009) 7604 final}**
**{SEC(2009) 1315}**

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**BACKGROUND**

Following the Commission's adoption of a first Communication on ICT for energy efficiency,[1] an extensive period of public consultation, study and expert input has clarified how ICTs can contribute to energy efficiency and shift the European economy and society onto a more energy efficient footing. In attempting to quantify this potential, strong evidence emerged that the issue of quantification, measurability and accountability across virtually all economic and social sectors posed one of the greatest problems in terms of realising energy efficiency gains and, conversely, one of the main opportunities for the ICT sector to help meet the EU's energy efficiency goals. The consultation also indicated the readiness of some stakeholder groups to take initiatives within a policy framework at EU level. Various business-led and city-regional partnership initiatives already exist and could be stepped up.

*Problem definition*

The key problem identified in the Impact Assessment is that, although many ICT tools and technologies are already available and can be made commercially viable, they are not used on a mass scale, which curbs the potential of ICT for improving energy efficiency. Several obstacles to faster deployment of ICT tools and ICT-based innovations are identified in the ICT sector itself, in the major energy using sectors and in the economy at large (businesses, households, public administrations at all levels): lack of awareness and visibility of information, absence of commonly agreed measurement, quantification and management methodologies and tools, particularly for complex systems, investment problems, interoperability and standardisation issues, slow take-up of innovation, absence of cross-sectoral partnerships and limited use of green public procurement.

The Commission has put in place both regulatory and non-regulatory measures on energy efficiency and continues to strengthen those measures. Nevertheless, the reviewed Energy Efficiency Action Plan[2] states that most Member States are not yet on the right track to achieve the 20 % energy efficiency target. Efforts must be accelerated. A specific initiative on ICT for energy efficiency can complement, foster and bolster efforts to meet the 2020 energy efficiency targets.

*Subsidiarity*

The challenges are cross cutting, cross-border and indeed global. All Member States face problems. Even in Member States that have made the most progress and efforts to meet the energy efficiency goals, the market is clearly not overcoming the identified obstacles fast enough. Given these conditions, joint efforts at European level are necessary and can lay the ground for economies to integrate energy efficient solutions in production processes and business and consumer consumption patterns. European coordination could provide synergy between action at Member State and regional level. It is acknowledged that international institutions have a role to play in providing independent platforms for stakeholders to exchange ideas and take on a crucial leadership role. In the current climate, industry has made explicit calls for EU leadership.

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[1]     COM (2008) 241 of 13 May 2008: Addressing the challenge of energy efficiency through Information and Communication Technologies.
[2]     COM (2008) 742 Communication Energy Efficiency: delivering the 20 % target.

*Objectives*

The main objective is to leverage ICT to contribute to the EU's goals on energy and climate change through wider and faster take-up of ICT-based innovations in the ICT sector itself, in other major energy-using sectors and by taking the first steps to structurally shift to an energy-efficient, low-carbon information society.

*Broad Policy Options*

Four broad policy options have been examined:

– Option 1: No further EU action;

– Option 2: Issue a second communication highlighting increased cooperation and partnerships within existing frameworks;

– Option 3: Issue a Commission recommendation on mobilising ICT to facilitate the transition to an energy-efficient, low-carbon economy, accompanied by a communication;

– Option 4: Take regulatory or legislative measures.

Option 4 was discarded at an early stage of the assessment. A regulatory approach would inevitably impose greater costs and administrative burdens, notably on SMEs, and may unhelpfully constrain developments in a highly innovative field. Furthermore, it would not be appropriate to impose strict regulatory measures on the ICT sector at this stage, given that other sectors have not yet been subject to targeted regulatory intervention to reduce their energy consumption.

The assessment of Option 1 concluded that the current initiatives — whether in the form of existing policy instruments or voluntary initiatives taken by different actors — will improve energy efficiency but do not sufficiently address the key problems outlined in the impact assessment. The risk is that implementation on the ground will be rather slow and piecemeal with respect to the global 2020 energy efficiency target of 20 %.

Option 2 focuses on stepping up research under the Framework Programme and the Competitiveness and Innovation Programme (CIP)[3] and building on the opportunities for pre-commercial public procurement under the i2010 policy framework.[4]

Option 3 would go beyond coordinating existing policy, research and innovation frameworks and translate action into recommendations to a wider range of stakeholders, including the ICT sector, Member States, regional and local authorities and cities. The Recommendation would be accompanied by supporting measures taken by the Commission to aid implementation.

Policy Options 2 and 3 were assessed against pre-defined criteria and in comparison with Option 1. The assessment showed that the approach addressing a wider range of stakeholders, building new partnerships and focusing more on deployment and demand rather than on research and existing EU frameworks could yield more benefits and achieve the objectives faster. Option 3 was therefore selected as the preferred option.

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[3]    ftp://ftp.cordis.europa.eu/pub/fp7/ict/docs/ict-wp-2009-10_en.pdf.
[4]    http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm.

*Analysis of sub-options under the Commission Recommendation*

The preferred policy approach was analysed in more depth in terms of potential concrete recommendations. Recommendations with a differing level of ambition were proposed and assessed. Some measures were discarded on the grounds of high cost, difficult implementation or high risk of non-compliance. The preferred sub-options for a Commission recommendation address the ICT sector, the key energy-using sectors (logistics, buildings and construction and energy end-use) and local and regional authorities. Their focus is on catalysing change through new partnerships, adoption and use of common methodologies and tools for monitoring, measuring, controlling and reporting energy consumption. The ICT sector is asked to take leadership and agree on highly ambitious energy efficiency targets.

*Evaluation and monitoring*

There is still a risk that the preferred option falls short of its objective, irrespective of how committed certain sectors, cities and businesses appear to be. To assess progress on implementation and the need for further or stronger measures in the future, monitoring will start immediately and a comprehensive evaluation will be carried out in 2012.