

Green ICT for a low carbon economy



Nowadays global warming is the biggest challenge faced by our society. It is estimated that Information and Communication Technology (ICT) can help cut global CO2 emissions by as much as 15 percent by 2020 ([Gesi Smart 2020 report](#)). No other sector has the potential to contribute as much as ICT.

By providing technology and energy efficient solutions, the ICT sector holds a key role in enabling other sectors to reduce their emissions and to develop alternative sources of energy. Aware of the sector's potential to act as a catalyst for climate change, the EU is devoting considerable resources to this area. New legislative initiatives and financial support for green ICT companies are in the pipeline.

In parallel, the EU is putting the spotlight on the ICT sector's own carbon footprint. Binding EU measures to reduce the consumption of energy in some ICT appliances have already been introduced, and other products are on the EU's hit list.

This paper from Fleishman-Hillard reviews the latest initiatives in this area at EU level and their potential business impact.

Ecodesign Directive and ICT

The ICT industry's total amount of carbon emissions has been estimated at about 2% of total global emissions ([Gartner](#)), a figure equivalent to that of the aviation industry. Like many other sectors, the ICT industry is being urged to implement technologies able to reduce its environmental footprint in the future. Under the umbrella of the Ecodesign Directive, the EU has already adopted a series of binding measures addressed to reduce energy consumption of some ICT products. So far ad hoc regulation has been adopted for a number of products – including set-top boxes, external power supplies, televisions – as well as measures to establish standby and off mode electric power consumption of household and office equipments. The impact for business is clear: companies will not be allowed to sell their products in the EU if they don't comply with these measures.

The Eco-design Directive for Energy-using Products (Directive 2005/32/EC & amended 2008/28/EC) is meant to improve the energetic performance of products by integrating environmental aspects in the production design phase. Under this Directive the EU can implement binding measures to fix environmental standards for a given class of product.



Getting your voice heard: next steps

EU regulators will now turn their attention to other product groups with high potential for energy saving such as sound, networks, data storing equipment and personal computers. New binding measures will be introduced for the period 2009-2011. Other non ICT product groups expected to be affected include: food-preparing, electric and fossil-fuelled heating equipment, air-conditioning and ventilation systems, etc.

- ➔ The ICT sector and any of the above product groups should start engaging with the Commission. Voluntary Industry Codes to achieve energy reduction are welcomed by the EU and could be pursued by concerned businesses.

"My priority for Digital Europe is: making better use of innovative ICT solutions to meet our objectives of a low-carbon economy."

Viviane Reding,
Commissioner for
Information Society and
Media

"I also want to look at other ways to increase the EIB's role in financing essential projects in particular in the areas of green technology, infrastructure and energy security."

José Manuel Barroso,
President of the
Commission

"We now have evidence demonstrating that the ICT industry is a key player in creating a low carbon society."

Luis Neves, chair
GeSi.global e-sustainable
initiative

2010 –2015 ICT strategy: sustainable low carbon economy

The European Commission is preparing a new initiative for the information society. The i2010– 2015 strategy is a framework strategy which will condition legislation in the ICT sector for the next 5 years. The strategy should be delivered in Spring 2010. In its preparations the Commission is putting particular emphasis on ICT for a sustainable low carbon economy and has asked for stakeholders' views on the main barriers to making the transition to an "ICT enabled" low carbon economy.

Getting your voice heard: next steps

An online consultation on post i2010 is being held (ended 9

October) and the Commission will then review all responses to draft the measure.

- ➔ If your business is green or you are producing green technologies and you have ideas on how to move to a low carbon economy, then you have the opportunity to share this expertise with EU policymakers. Ideas on new, sustainable business models to put in place ICT-enabled solutions are also welcome.

Research & Funding: helping you go green

The European Commission has placed ICT at the core of the 7th Framework Programme (FP7) aimed at funding R&D to boost European creativity and competitiveness. €9.1 billion is being provided to fund projects to help make Europe a world leader in the ICT sector.

Getting your voice heard: next steps

Under the work programme 2009-2010 a further €74 million has been reserved for research projects on Green ICT. ICT tools able to

foster an open electricity market, as support for energy-positive buildings, and web-based solutions for climate change mitigation are just some of the areas being funded. R&D on smart energy grids and meters is also receiving a lot of attention.

- ➔ If your business is involved in research around ICT for energy efficiency, this programme could help you to develop your ideas with EU financial backing.

Action Plan to speed up energy savings through ICT

In June 2009, the European Commission announced a review of the Energy Efficiency Action Plan (2007-2012).

This plan sets up a framework of legislation, policies and measures to push EU energy savings of 20% by 2020. It aims to achieve this by improving the energy performance of infrastructure, products and systems. The Commission claims that existing legislation is simply not doing enough. It is a widely held view that the Commission could bring forward ambitious binding measures for sectors that can contribute the most to improving energy efficiency. ICT falls into this category and industry will need to monitor the relevant provisions expected to be included in the revised plan.

Getting your voice heard: next steps

The Commission recently held a public consultation and is currently reviewing all contributions in preparation for publication of the revised plan this November. The proposal will certainly raise interest among Member States and the European Parliament, and ICT stakeholders can use this to provide an important contribution to the debate.

- ➔ Companies delivering ICT products and services should engage with the Commission with the aim of identifying any possible binding measures. This is also a great profile raising opportunity for businesses involved in developing innovative energy efficient solutions for buildings and products, or energy distribution.

Did you know?

How smart grids and meters work in practice?

The idea behind smart grids and meters is that consumers can switch from centralized energy distribution to a system where each building may have its own power plant e.g. solar powered.

Therefore, instead of relying on one big power plant, towns will also have a network of small clean power accumulation and distribution systems. The energy accumulated by the different buildings/hubs of the network can be stored, converted, and sent back to the grid through the use of ICTs. Thus the name "smart grid".

Smart meters can instead allow us to decide the amount of energy to use for each daily activity thanks to software applications. We will also be able to choose the part of the day when energy consumption is more convenient given price

fluctuations. Therefore, people can use less energy when the price is higher.

New Commissioner for Climate Action?

Commission President José Manuel Barroso, recently announced his intention to set up a new department for Climate Action: *"I will set up a Commissioner for Climate Action, to reflect the fact that climate change is a challenge that needs to be addressed across the whole range of our policies. A dedicated Commissioner for Climate Action will also send an important signal to the world that, independent of the level of ambition that comes out of Copenhagen, Europe is serious about maintaining momentum for action."*



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