



ICT for Energy Efficiency (ICT4EE) Forum

Following on the European Commission Recommendation “**on mobilising Information and Communications Technologies to facilitate the transition to an energy-efficient, low-carbon economy**” SEC(2009) 1315 of 9th October 2009, in a Memorandum of Understanding DIGITALEUROPE, GeSI, JBCE and TechAmerica Europe agreed to establish an ICT for Energy Efficiency (ICT4EE) industry Forum.

The overarching objective of the ICT4EE Forum is to link digital technology more closely to EU climate and energy policies and economic development. The aims of the Forum are threefold:

- To demonstrate the commitment of the ICT sector to work in partnership to deliver energy efficient ICT solutions in other sectors of the European economy and leadership to improve the energy efficiency of its own processes through delivery of its three year Roadmap.

- To help ensure a coordinated global approach from the ICT sector to EU policy recommendations on ICT4EE and climate and energy efficiency policies more broadly; and
- To support the development of informed and coordinated policy making in the European Commission, European Parliament and Member States on the ICT4EE agenda.

This document reflects the ICT4EE Forum's overarching 3 year Roadmap which will be presented to the European Commission in January 2010, in line with the Commission's Recommendation. The Roadmap provides high level strategic direction for the work of the ICT4EE Forum. In line with its Terms of Reference, the ICT4EE Forum will establish three working groups which will be required to develop detailed work programmes, aligned to this Roadmap. The three working groups are:

WG1 Measuring the Energy Efficiency of ICT Processes.

- Development of methodologies, targets, reporting, auditing and verification frameworks.

WG2 Enabling Energy Efficiency in other Sectors

Using technology where there is greatest scope for energy efficiency improvements & emissions reductions: transport & logistics, buildings & construction and energy supply, based on a snapshot of cities as a systemic way of looking at all sectors

WG3 Policy and Technology for the Future

- Policy and technology timelines - from current mitigation to future transformation, including a focus on available technologies v's under-deployment, behavioural change, innovation drivers, scenario building and future policy frameworks

ICT4EE Forum Roadmap 2010-12

Developed by the MoU signatories and subject to input from stakeholders

KEY SUBJECT	APPROACH	HOW	EXPECTED OUTCOME(S)	TIMEFRAME
1. Energy efficiency of ICT processes: “manage the measurement”	Assess existing metrics & methodologies to measure the energy consumption of ICT processes including the production, transport and sales of ICT components and equipment. (Initial focus would be electricity consumption with scope to be developed by the Forum).	In collaboration with international bodies such as ITU, ISO, IEC and OECD. (Partnership with some of the organisations will be announced at EC high-level event on 23 rd February 2010).	Gap analysis and agreement on priorities for the development of methodologies.	2010
	Develop measurement methodology.	In collaboration with international bodies such as ITU, ISO, IEC and OECD. Recommendations and inputs are expected from these bodies. ITU-T will present its development work as a reference.	Agreed measurement methodology taking into account analysis and measurement considered in section 2 below.	2010-2011
	Agree protocols for standardised disclosure of energy consumption of ICT processes (taking into	Discussion in the ICT4EE Forum.	Voluntary industry agreement on reporting framework.	2011

	account existing methods such as GHG Protocol guidelines and other reduction methods, projects and processes).		Identified targets to improve the energy efficiency of ICT processes that aim to exceed the EU's 2020 targets by 2015.	
	Share verifiable data around energy measurement and performance of processes in the ICT industry.	Channels for sharing data to be defined by companies in the ICT4EE Forum (probably aligned to yearly reporting).	<p>Voluntary reporting framework on energy footprint of ICT industry processes.</p> <p>Comparison of energy performance, identification of areas for improvement and benchmarking of progress. Consideration of a common efficiency metric.</p> <p>Good practice guidelines and case studies to better understand energy implications of the processes of the ICT industry.</p>	2011
	Assess how to incorporate the use of renewables into ICT processes and its contribution to other sectors.	Companies exchange of best practice in the ICT4EE Forum.	Recommendations on how to account for use of renewables in ICT industry processes and its possible contribution to other sectors.	2011
2. Enabling energy efficient and low carbon ICT solutions in other sectors: buildings &	Identify how ICT solutions can contribute to the more intelligent and efficient use of energy.	Initiate dialogue with other sectors and ensure their engagement in the Forum.	<p>Identification of:</p> <ul style="list-style-type: none"> Existing and innovative sector-driven opportunities. 	2010

construction, transport & logistics, energy supply (power production, transmission & distribution) and consumer (household/business) sector – “be the enabler”		<p>The dialogues will be used to both inform the parties about what role ICT can play, as well as understand the challenges and pain points of other sectors.</p>	<ul style="list-style-type: none"> • ICT-driven existing & innovative solutions. • Barriers and drivers to improve penetration of ICT. • The business model that will sustainably embed energy efficiency and carbon savings in the economy. 	
	<p>2.1 Buildings & Construction - identify areas for ICT solutions to be maximised in buildings and construction sectors.</p>	<p>Set up informal networks with sectoral organisations in buildings & construction sectors to respond to energy efficiency issues.</p> <p>Examine the effects of ICT on the operation of buildings including systems for energy supply and changing the behaviour of consumers.</p>	<p>Common position papers and statements on energy efficiency and ICT use in the respective sectors.</p> <p>Developed and scaled up tools and applications to ensure compliance with the EPBD and interoperability in building and energy management systems.</p>	<p>2010</p> <p>2011</p>
	<p>2.2 Transport & Logistics: support the deployment of intelligent transport systems.</p>	<p>Set up informal networks with sectoral organisations in transport and logistics sectors to respond to energy efficiency issues. Drive international</p>	<p>Developed and scaled up technology applications e.g. for e-Freight logistics and ensure integration and interoperability of data flows.</p>	<p>2010-12</p>

		standardisation efforts to ensure interoperability.		
	2.22 Roads and Highways		<p>Lower traffic congestion to optimize journey time and reduce CO₂ emissions.</p> <p>Increased capacity on existing motorways to reduce new roads construction, giving the benefit of lower cost to Government, less negative environmental impact and faster delivery of the upgraded capacity.</p> <p>Road pricing/pay as you drive will reduce congestion and CO₂, limit unnecessary journeys and allow “direct” taxation for those that generate CO₂; will help manage policy on less polluting vehicles by having a scale of charges.</p> <p>Promotion of technologies such as infrastructure software used in ITS, inter-vehicle communication systems, electronic toll collection (ETC) systems and utilisation of probe traffic information etc.</p>	2010-12
	2.23 Rail and Metro		Development of:	2011-12

	Transport		<ul style="list-style-type: none"> • Regular services to avoid waiting times. • Efficient ways of paying and paying once for several changes of service provider in a given journey. • Productive and pleasant experience – being able to stay in touch, be entertained or to learn and work as the passenger travels. <p>Increased number, size and scale of projects utilising technologies which allow for transport substitution e.g. teleworking and electronic conferencing technologies.</p> <p>Improved logistics by traffic monitoring etc.</p>	
	3. Energy supply: support the shift to advanced metering infrastructure and transformational initiatives.	Contribute to, and align with, the Commission's Smart Grids Task Force.	Increased number, size and scale of projects deploying smart metering and smart grids and smart European cities.	2010-2012
	4. In all 3 abovementioned sectors: assess the energy savings incurred as a result	In collaboration with ITU, ISO, IEC and OECD.	Standardised metrics & measurement methodology for the energy savings incurred as a	2011-12

	of ICT applications.		<p>result of ICT application e.g. in buildings, transport, grids, households etc.</p> <p>Quantifiable case studies demonstrating the ICT sector as an enabler of technologies, applications and services that can enhance the efficiency of energy use and reduce emissions in other sectors.</p>	
3. Working with the public sector – “putting policy into practice”	Support the dematerialisation of goods and services and encourage societal change.	Discussion within the ICT4EE Forum.	<p>Recommendations on policies and regulations to support increased use of low carbon ICT solutions.</p> <p>Case study guides of sustainable use of ICT (IT refresh, building management, travel reduction, flexible working, electronic medical records etc) and cost effective and energy saving ICT enabled solutions for public authorities and governments.</p>	2010-11
4. Customers – “encouraging more energy efficient behaviour”	Address customer demand for more information on energy consumption of ICT products.	ICT4EE Forum to examine market research and initiatives and make recommendations.	<p>Develop customer friendly initiatives for providing information to help customers cut down their energy consumption e.g. Green Explorer.</p> <p>Provide a catalogue of energy</p>	2011

			efficient solutions and services and highlight such solutions and services through exhibitions, lectures and awards.	
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The Green IT Promotion Council in Japan and the Digital Energy Solutions Campaign (DESC) in the US, India and China are going to provide the results of their activities and cooperate with the ICT4EE Forum in the above mentioned activities.

NB this is an indicative list of issues prepared by the ICT signatory associations and subject to consultation with other sector companies and industry associations representing the buildings & construction, transport & logistics and energy sectors (recognising that ICT sector is often not their key business driver). It is planned to have initial stakeholder meetings to ensure broadest possible input prior to the start of the work on the Roadmap and to encourage companies from other sectors to participate actively in the ICT4EE Forum.

The roadmap is also dynamic and expected to evolve constantly in line with European and international developments.

January 2010



DIGITALEUROPE is the pre-eminent advocacy group of the European digital economy acting on behalf of the information technology, consumer electronics and telecommunications sectors. We are dedicated to improving the business environment, and to promoting industry's contribution to economic growth and social progress in the European Union. DIGITALEUROPE's members include 58 leading corporations and 40 national trade associations from all the Member States of EU; altogether 10,000 companies with 2 million employees and €1,000 billion in revenues. You can learn more about our activities at: <http://www.digitaleurope.org>



GeSI (Global e-Sustainability Initiative) is an international strategic partnership of ICT companies industry associations and UNEP and ITU, United Nations organizations. GeSI is committed to creating and promoting technologies as well as practices that foster economic, environmental, and social sustainability and drive economic growth and productivity. Formed in 2001, GeSI fosters global and open cooperation, informs the public of its members' voluntary actions to improve their sustainability performance and promotes technologies that foster sustainable development.

More information at: www.gesi.org



The Japan Business Council in Europe was established in 1999 as the representative organisation of Japanese

companies operating in the European Union. Our membership consists of more than 60 leading multinational corporations that are active across a wide range of sectors, including electronics, automotive, and chemical manufacturing. The key goal of JBCE is to contribute to EU public policy in a positive and constructive way. In doing this, we can draw upon the expertise and experience of our member companies.

More information at: www.jbce.org



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