



# Smart ICTs and Green Growth

## OECD Technology Foresight Forum 2010

OECD Conference Centre, Paris  
29 September 2010 9:00 – 18:00

### AGENDA

#### Introduction

Green growth is a major avenue to “decouple” economic growth from energy and materials consumption and other environmental impacts. ICTs and their “smart” application are a key component in greening economic activities in sectors as diverse as utilities, transport, buildings. And ICTs have the potential to reduce the environmental impacts of individual life-styles, including consumption, living and working habits. Economic and employment opportunities arise from ICT-based “clean technologies” for smart grids, intelligent transport, improved water management.

Despite high potential benefits of creating smart “systems of systems”, *e.g.* by linking electricity infrastructures with new modes of transport, implementation rates for ICT-enabled systems remain low in many countries. There are structural, technological and other barriers, including lack of information and lack of co-ordination between stakeholders. There are also risks and uncertainties related to the application of ICTs. Practical and policy challenges will be discussed with the aim of achieving “foresight” on policies that can exploit the potential of ICTs in enabling a greener global economic recovery. Sessions will therefore also cover topics with relevance to “Smart ICT” developments in emerging, non-OECD economies.

A **background report is available for download** that discusses the direct, enabling and systemic impacts of ICTs on the environment. Furthermore, the **OECD Council Recommendation on ICTs and the environment** provides policy guidance; discussions at the Forum are intended to take this work further. The event will also feed into ICCP, OECD and wider international work on the role of technologies for Green Growth.

More information at [www.oecd.org/ict/TechnologyForesightForum](http://www.oecd.org/ict/TechnologyForesightForum)

Use **#OECDict** to tag your Twitter feeds about the Forum



## Overview

Time	Session	
	<i>Registration (starting 8.30)</i>	
9.00 – 9.30	<b>1: Welcome</b>	
9.30 – 10.30	<b>2: Introducing smart ICTs for green growth</b>	
	<i>Coffee break</i>	
11.00 – 12.30	<b>3: Two complementary perspectives on smart ICTs for Green Growth</b>	
	<b>3a: Smart technologies</b>	<b>3b: Smart life-styles</b>
	<i>Lunch break</i>	
14.00 – 16.00	<b>4: Smart ICTs for electric mobility – the need for integrated energy and transport systems</b>	
	<i>Coffee break</i>	
16.30 – 18.00	<b>5: What policies to enable smart ICTs for Green Growth?</b>	

## Venue

OECD Conference Centre  
 2, rue André Pascal  
 75016 Paris  
 FRANCE

More information at [www.oecd.org/conferencecentre](http://www.oecd.org/conferencecentre)

## Contacts

For further information regarding the Technology Foresight Forum, please contact:

Arthur Mickoleit: [arthur.mickoleit@oecd.org](mailto:arthur.mickoleit@oecd.org), +(33-1) 45 24 91 32

Taylor Reynolds: [taylor.reynolds@oecd.org](mailto:taylor.reynolds@oecd.org), +(33-1) 45 24 93 84



## Detailed agenda

### Session 1: Welcome

9.00 – 9.30

Opening of the ICCP Technology Foresight Forum 2010 by **Mr. Andrew Wyckoff**, Director of Science, Technology and Industry, OECD. This is followed by welcome speeches by:

1. **HE Ms. Cristina Narbona Ruiz**, Ambassador, Permanent Representative of Spain to the OECD and former Minister of Environment of Spain
2. **Dr. Zoran Stančić (European Commission)**, Deputy Director-General, DG Information Society and Media

### Session 2: Introducing smart ICTs for green growth

9:30 – 10:30

Key-note speakers will introduce key impact dimensions of Smart ICTs: 1) The environmental dimension: How can ICTs help tackle key environmental challenges, e.g. climate change and disruption, pollution of soil, water and air, water scarcity, biodiversity loss? 2) The economic dimension: What is the contribution of smart ICTs to innovation, growth and jobs? 3) The global dimension: How can smart ICTs contribute to green growth globally?

*Moderator:* **Mr. Jørgen Abild Andersen (Ministry of Science, Technology and Innovation, Denmark)**, Director General and Chair of the OECD ICCP.

Key environmental challenges introduced by **Ms. Helen Mountford (OECD)**, Deputy Environment Director.

*Key-note speeches:*

1. *Venture capital trends in smart ICTs – impacts on innovation and growth.* **Mr. Richard Youngman (Cleantech Group)**, Managing Director Europe and Vice President, Global Research
2. *Smart ICT applications in emerging economies.* **Dr. Rahul Tongia (Center for Study of Science, Technology, and Policy, CSTEP, India)**, Programme Director, Energy and ICTs
3. *Using energy data analytics for consumers, utilities and the environment.* Video message by **Mr. Alex Laskey (Opower, United States)**, President and Co-Founder

*Discussion*

10:30 – 11:00 *Coffee break*



Session 3 (two break-out sessions):

11:00 – 12:30

**Complementary perspectives on Smart ICTs for Green Growth**

In two parallel sessions participants will discuss how ICTs can contribute to greening the economy and how ICTs can help individuals to make greener individual life-style choices.

**3A: SMART TECHNOLOGIES**

This session will discuss smart technologies that enable automation, improved resources efficiency and resources management (enabling impacts). Topics include networked smart grids solutions and their impact on the energy sector, opportunities and challenges in areas such as water management and integrated applications.

*Moderator:* **Dr. Mario Tobias (BITKOM, Germany)**, Managing Director

*Presentations:*

1. *Benefits and barriers to the smart grid, the Korean example.* **Dr. Gyu Myoung Lee (Electronics and Telecommunications Research Institute, ETRI, Korea)**, Invited Researcher
2. *Smarter water management through sensor-based networks.* **Dr. Ian Oppermann (Commonwealth Scientific and Industrial Research Organisation, CSIRO, Australia)**, Director, CSIRO ICT Centre
3. *Integrating smart energy and water systems – opportunities and challenges for ICTs,* **Mr. Antonio Pires Santos (IBM)**, Energy and Utilities Leader

*Discussion*

**3B: SMART LIFE-STYLES**

This session will discuss how smart technologies can contribute to greener individual life-style and consumption choices (behavioural and systemic change). It will discuss how ICT applications and Internet-based services contribute to sustainable individual behaviour and outline some challenges.

*Moderator:* **Ms. Fabienne Pierre (United Nations Environment Programme, UNEP)**, Associate Programme Officer, Sustainable Consumption and Production

*Presentations:*

1. *Smart meters as a basis for advanced utility consumer services.* **Dr. Karl Derler (Linz AG, Austria)**, Managing Director
2. *How do smart meters impact energy consumption of individuals and households?* **Ms. Mari Martiskainen (University of Sussex, United Kingdom)**, Research Fellow, Sussex Energy Group
3. *Environmental opportunities from context-aware and mobile computing for individuals.* **Prof. Hiroyuki Morikawa (University of Tokyo, Japan)**, Director, Morikawa Laboratory
4. *Privacy issues related to smart technologies.* **Ms. Lillie Coney (Electronic Privacy Information Center, EPIC)**, Associate Director

*Discussion*

12:30 – 14:00 *Lunch break*



## Session 4: Smart ICTs for electric mobility – the need for integrated energy and transport systems

14:00 – 16:00

This session will build on findings from the parallel sessions to discuss one key application area for smart ICTs: electric cars. Communications networks, software and Internet-based services are a pivotal element to ensure a smooth and environmentally beneficial transition to electricity-powered vehicles on a wider scale. Smart ICT applications will be required to integrate future transport and (renewable) energy systems; and to connect dispersed entities: utilities, infrastructure operators, vehicle manufacturers, authorities, individual end users. The session will raise technological opportunities, challenges and related policy implications to be discussed in greater detail during the final session.

*Moderator:* **Mr. Bill St. Arnaud**, Green IT expert, Canada

*Presentations:*

1. *A utility view on the role of ICT applications for electric mobility.* **Mr. Paul Mulvaney (Electricity Supply Board, ESB, Ireland)**, Managing Director ESB ecars
2. *A major city view on smart ICT applications for electric mobility.* **Mr. Maarten Linnenkamp (City of Amsterdam, The Netherlands)**, Programme Manager Air Quality Improvement Department
3. *A private sector view on ICT applications for country-wide electric mobility.* **Dr. João Jesus Caetano (Center for Excellence and Innovation in the Automotive Industry, CEIIA, Portugal)**, Mobi.E R&D Programme manager
4. *An ICT sector perspective on opportunities and challenges for integrated electricity and transport systems.* **Mr. Jesus Bermejo (Telvent, Spain)**, R&D Manager
5. *An empirical regard on integrated smart grids and smart mobility pilot projects (MeRegio Mobil).* **Prof. Hartmut Schmeck (Karlsruhe Institute of Technology, KIT, Germany)**, Informatics Institute, Faculty of Economics and Business Engineering

*Discussion, initiated by* **Mr. Philippe Crist (International Transport Forum)**, Analyst.

16:00 – 16:30 *Coffee break*



## Session 5: What policies to enable smart ICTs for Green Growth?

16:30 – 18:00

In light of the day's discussions, this session will discuss policy challenges in promoting smart ICTs for Green Growth. Questions to be addressed include: What is the role of governments in linking smart ICT policies with other ICT, climate, energy and environmental policies? How can the *OECD Council Recommendation on ICTs for the environment* be applied and improved for smart ICTs and green growth? What is the potential of market-based policies (e.g. carbon pricing) and other policies, e.g. procurement, regulation and R&D promotion? How can governments leverage the Internet and (public sector) information for environmental benefits? How to balance environmental and economic opportunities with privacy and security challenges arising from increased connectivity, data collection and use?

*Moderator:* **Mr. Jørgen Abild Andersen (Ministry of Science, Technology and Innovation, Denmark)**, Director-General and Chair, OECD ICCP Committee.

*Brief presentations of selected government policies (eight minutes each):*

1. *Linking the US National Broadband Plan with energy and environment policies.* **Ms. Tracey Weisler (Federal Communications Commission, FCC, United States)**, Senior Advisor
2. *The Dutch ICT and Energy programme.* **Mr. Michel Verhagen (Ministry of Economic Affairs, The Netherlands)**, Deputy Director, ICT policies division
3. **Mr. Yoshiaki Tojo (Ministry of Economy, Trade and Industry, METI, Japan)**, Director, Information Services Industry division
4. **Ms. Nevine Tewfik (Ministry of Communications and Information Technology, MCIT, Egypt)**, Director, Information Infrastructure division

*Brief stakeholder statements by* Mr. Joseph Alhadeff (representing the **Business and Industry Advisory Committee, BIAC**); Ms. Lillie Coney (representing the **Civil Society Information Society Advisory Council, CSISAC**); Mr. Bill St. Arnaud (representing the **Internet Technical Advisory Committee, ITAC**); **Trade Union Advisory Committee, TUAC**, tbc.

*Discussion*

