



National IT and Telecom Agency

Ministry of Science
Technology and Innovation



WORKSHOP ON ICTS AND ENVIRONMENTAL CHALLENGES

**Eigtveds Pakhus, Copenhagen, Denmark
22-23 May 2008**

PROGRAMME

**OECD
DANISH MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION
NATIONAL IT AND TELECOM AGENCY**

WORKSHOP ON ICTS AND ENVIRONMENTAL CHALLENGES
22-23 May 2008

The objectives of the workshop are to:

- Take stock of the impacts of information and communication technologies (ICTs) on the environment.
- Identify areas for further analysis of the application and use of ICTs to further environmental goals.
- Identify opportunities and best practices in the use of ICTs, the Internet and sensor networks in environmental management, energy efficiency, cleaner technologies and improved resource management.
- Consider policy implications and the development of goals and priorities in efficient buildings, transport and distribution systems that harness the potential of ICT-based systems and sensor networks.
- Contribute to preparation of the OECD Seoul Ministerial on the Internet Economy, the Hokkaido G8 meeting, the OECD Innovation Strategy, and the planned OECD conference on ICTs and the environment in 2009 and the United Nations Climate Change Conference in 2009.

22 May 2008

Session 1: The environmental impacts of ICTs in the knowledge economy

This session will focus on a general overview of the impacts of ICTs on meeting environmental challenges. Questions to be addressed include:

- To what extent can ICTs reduce energy intensity in energy-intensive activities?
- What are the overall magnitudes of the impacts of ICTs on reducing green-house gas emissions and improving energy efficiency?
- What are the impacts of digitalisation and digital delivery on environmental performance?
- What are the environmental impacts of expanded use of ICTs in work and social organisation? How have ICTs affected transport and logistics patterns and what is the potential for further improvements?
- How large is the “rebound effect”, where improvements in efficiency and environmental performance lead to greater use (e.g. improved energy efficiency in transport lowers costs, encourages greater use, and does not achieve energy savings and emission reductions)?

8:45-9:15 Registration and coffee

9:15-9:45 *Welcome and introduction*

*Marie Munk
National IT and Telecom Agency,
Denmark.
Graham Vickery, OECD*

9:45-13:00 Session 1: The environmental impact of ICTs in the knowledge economy

Chair: Marie Munk
National IT and Telecom Agency,
Denmark

9:45-11:15 *A framework for modelling ICT and environmental challenges using future scenarios*

*Don MacLean
International Institute for
Sustainable Development,
Canada*

From green attitude to green action: The approach of the Norwegian ICT-industry

*Per Morten Hoff
ICT Norway*

Eco-innovation in the knowledge economy: Challenges and opportunities for ICT

*Maj Munch Andersen
Department of Management
Engineering, Technical University
of Denmark*

11:15-11:30 Coffee break

11:30-13:00 *The future impact of ICTs on environmental sustainability*

*Lorenz Erdman
Institute for Futures Studies and
Technology Assessment,
Germany*

ICT contribution to the emergence of carbon-sober social behaviour

*Michel Petit
Ministry of Economy, Industry
and Employment, France*

ICTs and the environment: A framework for analysis

*John Houghton
Victoria University, Australia*

13:00-14:15 Lunch

Session 2: ICTs in pollution management, cleaner technologies and better resource management

This session will focus on more detailed applications and areas of “low-hanging fruit” in improving energy efficiency and reducing carbon emissions in buildings, lighting, heating and cooling applications, transport, and standby losses and where applicable control systems in the energy generation and distribution network.

14:15-17:30	Session 2: ICTs in pollution management, cleaner technologies and better resource management	Chair: Hedwig Verhagen Ministry of Economic Affairs, The Netherlands
<i>14:15-15:45</i>	<i>e-Strategies in governments and business</i>	<i>Dennis Pamlin</i> <i>WWF, Sweden</i>
	<i>Networks, energy consumption and managing energy use</i>	<i>Rich Brown</i> <i>Lawrence Berkeley Labs, United States</i>
	<i>Impacts of technology-specific applications: Broadband access, DSL and fibre access networks</i>	<i>David Faulkner</i> <i>BT, United Kingdom</i>
15:45-16:00	Coffee break	
<i>16:00-17:30</i>	<i>Energy efficiency in ICTs</i>	<i>Wolfgang Nebel</i> <i>OFFIS - Institute for Information Technology, Germany</i>
	<i>Environmental benefits of broadband</i>	<i>Chris Lloyd</i> <i>Verizon, United States</i>
	<i>How green IT can beat CO2</i>	<i>Soren Jensen</i> <i>TDC, Denmark</i>
19:00-23:00	Dinner	

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Session 3: The ICT producing sector – challenges and progress

This session will focus on the ICT-producing sector and examine efforts to increase energy efficiency and improve environmental performance through better life-cycle audits of products and production processes, including reducing waste generation, the use of hazardous substances and recycling.

8:45-9:15 Coffee

9:15-12:30 **Session 3: The ICT producing sector – challenges and progress** Chair: Mark Carvell
Department for Business
Enterprise and Regulatory
Reform, United Kingdom

9:15-10:45 *Environmental impact of ICT: A conceptual framework
and some strategic recommendations* *Lorenz Hilty
EMPA, Switzerland*

ICTs, resource management and energy efficiency *Mario Tobias
BITKOM, Germany*

The Green IT index and firm organisation *Ewa Thorslund
IT and Telecom Industries,
Sweden*

10:45-11:00 Coffee break

11:00-12:30 *High tech: Low carbon* *Emma Fryer
Intellect, United Kingdom*

*The TCO label: Marketing, development and
certification issues* *Helena Nordin
TCO – The Swedish
Confederation for Professional
Employees, Sweden*

The changing role of ICT: An industry view *Tetsuo Karaki
Fujitsu, Japan*

12:30-13:45 Lunch

Session 4: Policy developments, policy issues and implications for future work

This session would draw out issues for further analysis and examine policy implications. The underlying approach is that it is important to focus on areas where ICT applications have the greatest positive environmental impacts, for example improving energy efficiency in buildings, lighting, heating and cooling, transport applications, and reducing standby losses. Setting new goals for further improving the environmental performance of the ICT industry would be another key area. The aim would be to explore what policies could promote the development and increased use of ICTs for environmental sustainability and what new areas of work are necessary to underpin policy development.

13:45-17:00	Session 4: Policy developments, policy issues and implications for future work	Chair: Daniela Battisti Agency for Inward Investments and Business Development, Italy
<i>13:45-15:15</i>	<i>The road from Bali to Copenhagen</i>	<i>Thomas Becker Ministry of Climate and Energy, Denmark</i>
	<i>European policies for ICTs in a highly-efficient, low-carbon economy</i>	<i>Peter Johnston European Commission, DG Information Society and Media</i>
	<i>The Global e-sustainability Initiative (GeSI)</i>	<i>Luis Neves GeSI Chair Deutsche Telekom, Germany</i>
<i>15:15-15:30</i>	<i>Coffee break</i>	
<i>15:30-17:00</i>	<i>Japan's Green IT Initiative</i>	<i>Takayuki Sumita Ministry of Economy, Trade and Industry, Japan</i>
	<i>How Public Administration can contribute to a sustainable ICT</i>	<i>Giovanna Sissa Technological Observatory for Schools, Italy</i>
	<i>The Action Plan for Green IT in Denmark</i>	<i>Adam Lebech National IT and Telecom Agency, Denmark</i>
17:00-17:30	Conclusions: This session will wrap up future work directions and suggestions regarding priorities.	

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