Udvalget for Videnskab og Teknologi 2008-09
UVT alm. del Bilag 151
Offentligt

Ministry of Science Technology and Innovation

OECD

High-level OECD Conference
ICTs, THE ENVIRONMENT AND CLIMATE CHANGE
27-28 May 2009
Helsingør, Denmark

Draft Conference programme

www.oecd.org/sti/ict/green-ict

REV 2: Updated on 11 May 2009.

The Conference

The Danish Ministry of Science, Technology and Innovation will host a high-level OECD Conference on how Information and Communication Technologies (ICTs) can improve environmental performance and mitigate climate change in all sectors of the economy. The theme of "Green ICTs" will be discussed in the context of the economic crisis and the role of innovation for green growth.

The aim of the Conference is to develop strategies to improve environmental performance of ICT goods and services, make more effective use of ICT applications in tackling global warming and its impacts, and harness the ICT sector's innovation potential for green economic growth and positive impacts on employment. Policy-makers, representatives from business and civil society, and academic experts will advance the policy agenda on ICTs to improve environmental performance and combat climate change.

This Conference develops themes from the *OECD Workshop on ICTs and Environmental Challenges* in Copenhagen in May 2008 and the *OECD Ministerial Meeting on The Future of the Internet Economy* in Seoul in June 2008. Outcomes will feed into the *OECD Council at Ministerial Level* in June 2009. They will be particularly relevant in the context of the *United Nations Climate Change Conference*, 7-18 December 2009 in Copenhagen, Denmark (COP15).

OECD Secretary-General, **Angel Gurría**, and Danish Minister for Science, Technology and Innovation, **Helge Sander**, will open the conference. The detailed agenda gives a complete list of confirmed speakers.

Objectives and outcomes

The objectives of this Conference are to further develop policy instruments and analysis related to ICTs and environmental performance. The Conference aims to:

- Develop a better understanding of the relationships between ICTs, the environment, and climate change,

- Analyse environmental impacts of ICTs, the Internet and their applications,

- Promote R&D, innovation and long-term investments to foster sustainable economic growth and employment,

- Present and compare national "Green ICT" policies and good practices,

- Discuss the development of international policy instruments.

The Conference will facilitate future OECD work and the development of possible policy recommendations on "Green ICTs". It will also contribute to wider OECD work on innovation, the economic crisis and work towards COP15.

Organisation

The Danish Ministry of Science, Technology and Innovation will host a *Welcome Reception* at Kronborg Castle starting at 17.30 on 26 May. Known as Elsinore from Shakespeare's Hamlet, Kronborg Castle is one of Northern Europe's most important Renaissance buildings.

An official *Conference Dinner* will take place on the evening of the first Conference day, 27 May.

Plenary key-note sessions and a *moderated roundtable* will open the Conference. Lead speakers will present main challenges and discuss measures to address urgent environmental and economic issues. The focus will be on innovation and investment in the economic crisis.

Parallel sessions on both days will discuss key issues and strategies. Sessions in the afternoon of the first day will cover three strategic areas: *i*) reducing direct environmental impacts of ICTs; *ii*) promoting ICT innovation for green economic growth and employment; *iii*) clean technologies leading to wider societal and environmental improvements. Sessions in the morning of the second day will discuss how industry, the public sector, consumers and households can harness the innovation potential of ICTs to meet environmental challenges and foster green growth and employment.

Plenary sessions in the concluding part of the Conference will discuss effective policies to improve environmental performance in the ICT sector, promoting ICT applications for environmental goals and tackling climate change, and encouraging long-term investments for green innovation and growth.

A *live webcast* will be available at http://itst.media.netamia.net/ict2009. Internet users can follow discussions and send in questions for the panel. Presentations will be available online after the event.

The OECD *Twitter feed* will cover the Conference. Sign up at www.twitter.com/OECDtweet.

The final page gives details on logistics and practical arrangements.

Agenda at a glance

27 May 2009 (1st Conference day)

8:00 – 9:00	Registration and Morning Coffee

9:00 – 9:30	**Welcome and Opening addresses**
9:30 – 10:30	**Key-note presentations: Defining the challenges**

10:30 – 11:00	Coffee break

11:00 – 12:30	**Roundtable: Building a green future. Clean innovation, investment and jobs**

12:30 – 14:00	Lunch

ICTs, the environment and climate change: Key issues		
14:00 – 15:30	Session 1 **Reducing environmental impacts during the ICT life cycle**	Session 2 **Clean technologies for greener urban growth**
15:30 – 16:00	Coffee break	
16:00 – 17:30	Session 3 **ICTs in pollution reduction and resource management**	Session 4 **Innovation and behavioural change**

28 May 2009 (2nd Conference day)

8:30 – 9:00	Morning Coffee

Strategies to achieve environmental goals		
9:00 – 10:30	Session 5 **The ICT sector in focus**	Session 6 **Fostering sustainable consumption and use**
10:30 – 11:00	Coffee break	
11:00 – 12:30	Session 7 **Cleaner technologies and smarter ICT applications**	Session 8 **Governments paving the way**

12:30 – 14:00	Lunch

14:00 – 15:30	**Roundtable: New policy directions**

15:30 – 16:00	Coffee break

16:00 – 17:00	**Summary session: Meeting policy goals**
17:00 – 17:30	**Conclusions**

Plenary sessions in detail

Session set-ups are subject to revision.

27 May 2009 (1st Conference day)

9:00 – 9:30   Welcome and Opening addresses

The Conference will be opened by **Angel Gurría,** OECD Secretary-General and **Helge Sander,** Danish Minister for Science, Technology and Innovation.

9:30 – 10:30   Key-note presentations: Defining the challenges

This session will lay out environmental challenges, the importance of innovation and new technologies in tackling these challenges and the particular role of Information and Communication Technologies (ICTs). The session will outline the stakes related to global warming and other environmental challenges, set the context to explore development and use of innovative technologies for sustainable development, and highlight policy areas to further the innovation potential of ICTs in tackling these challenges.

Esko Aho, Executive Vice President, Nokia; Former Prime Minister of Finland

Botaro Hirosaki, Senior Executive Vice President, NEC

Taegun Hyung, Commissioner, Korea Communications Commission

11:00 – 12:30   Roundtable: Building a green future. Clean innovation, investment and jobs

This session will focus on how to promote long-term innovation and investments in clean technologies in the worsening economic climate. Questions will include:

Green economic recovery and future employment: What are high-impact areas for ICT applications?

Green technology investments: Where is the money coming from?

Beyond CO_2 and climate change: How will technological innovation help tackle further challenges to a green future?

Larry Hirst, Chairman Europe, Middle East & Africa, IBM

Jens Moberg, CEO, Better Place Denmark

Russell Pullan, Director New Energy & Clean Technology Ventures, Nomura International

Jeannette M. Wing, Assistant Director, National Science Foundation (United States)

... Plenary sessions in detail

28 May 2009 (2nd Conference day)

14:00 – 15:30   Roundtable: New policy directions

This session will examine and suggest innovative policies to achieve improved environmental performance and sustainability. The session will take stock of existing policies and suggest directions for effective national and international "Green ICT" policy instruments.

Moderator: **John M. Jordan**, Executive Director, Centre for Digital Transformation, Smeal College of Business, Penn State University (United States)

Mark Frequin, Director-General, Ministry for Economic Affairs (The Netherlands)

Malcolm Johnson, Director Telecommunication Standardization Bureau, International Telecommunication Union

Uffe Toudal Pedersen, Permanent Secretary, Ministry of Science, Technology and Innovation (Denmark)

16:00 – 17:00   Summary session: Meeting policy goals

This session will summarise Conference findings and identify how policies can address current and future sustainability issues, including the role of the OECD international policy co-ordination. Rapporteurs will report key findings from the Conference.

Chair: **Richard Simpson**, Director-General Electronic Commerce, Industry Canada; Chair, OECD Committee for Information, Computer and Communications Policy

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17:00 – 17:30   Conclusions

The Conference will be concluded by **Andrew Wyckoff**, Acting Director, Science Technology and Industry, OECD, and **Jørgen Abild Andersen**, Director-General, Danish Ministry of Science, Technology and Innovation, National IT and Telecom Agency.

Parallel sessions in detail

Session set-ups and presentation titles are subject to revision.

27 May 2009 (1st Conference day)

14:00 – 15:30 Session 1: Reducing environmental impacts during the ICT life cycle

The session will discuss approaches to identify, measure and limit direct environmental impacts during the life cycle of ICTs. Main questions include: *What are direct environmental impacts caused by the production, use and end-of-life treatment of ICT goods? How can impacts be measured, compared, assessed and reduced?*

Chair: **Lorenz Hilty**, Head Technology and Society Lab,
EMPA - Swiss Federal Laboratories for Materials Testing and Research

Marcus Courtney, Head Telecoms, Union Network International:
Environmental and employment impacts of ICTs

Masayuki Kanzaki, General Manager EcoLeaf, Japan Environmental Management Association for Industry: EcoLeaf label – Life-cycle analysis for ICT goods and services

Jens Malmodin, Senior Research Engineer, Ericsson:
Life-cycle energy use and CO2 emissions in mobile telecommunications

Anders C. Schmidt, Senior R&D Coordinator, Force Technology:
Life cycle CO_2-emissions of ICT services – online vs. physical delivery of publications at E-Boks

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14:00 – 15:30 Session 2: Clean technologies for greener urban growth

The session will discuss the role of ICT applications for making future urban environments more economically and environmentally efficient. Main questions include: *What are achievable goals for ICT-enabled energy efficiency in urban environments? What are trends in high-impact areas, e.g. buildings, transport, energy supply? What are existing barriers to wider application?*

Chair: **Katherine Richardson**, Chair, Danish Commission on Climate Change Policy;
Vice Dean, Faculty of Science, University of Copenhagen

Suk-Ho Bang, President, Korea Information Society Development Institute:
Government support for ICT applications for green cities

Ignacio Campino, Vice President Sustainability and Climate Change, Deutsche Telekom:
ICT applications for greener cities – case Friedrichshafen

Paulo Ferrão, Director, MIT-Portugal Programme:
ICT innovation for sustainable urban infrastructures

... Parallel sessions in detail

27 May 2009 (1st Conference day)

16:00 – 17:30   Session 3: ICTs in pollution reduction and resource management

The session will discuss ICT applications to monitor and improve environmental performance in all sectors of the economy. Main questions include: *How can sensor-based networks be used to monitor the environment and mitigate pollution impacts? What are main application areas to improve environmental performance across the economy? How can we measure and assess environmental effects of ICTs, including going beyond energy use and greenhouse gas emissions?*

Chair: **Deborah Estrin**, Director, Center for Embedded Networked Sensing,
University of California, Los Angeles (United States)

Sandy Andelman, Vice President, Conservation International:
    ICTs for biodiversity and oceans monitoring

Rob Bernard, Chief Environmental Strategist, Microsoft:
    ICTs for energy efficiency and environmental monitoring in companies

Eddy Y. T. Chan, Commissioner for Innovation and Technology, Government of the Hong Kong
    Special Administrative Region (China)

16:00 – 17:30   Session 4: Innovation and behavioural change

The session will discuss how ICTs can facilitate long-term structural changes towards sustainable behaviour of individuals and organisations. Main questions include: *How will ICTs alter environmental behaviour in the long run? How can ICTs contribute to systemic change for more equitable and sustainable global development? What are barriers to such behavioural change? What technologies are being developed and how will they enable widespread sustainable behaviour?*

Chair: **Per Morten Hoff**, Secretary-General, ICT Norway

Heather Creech, Director Global Connectivity, International Institute for Sustainable Development
    (Canada): ICTs as force for transformation and an issue for technology transfer

Klaus Fichter, Director, Borderstep Institute for Innovation and Sustainability (Germany)
    ICT innovation for behavioural adaptation – overcoming existing barriers

Martin Curley, Global Director IT Innovation and Director Intel Labs Europe, Intel:
    ICT Innovation for future environmental applications

... Parallel sessions in detail

28 May 2009 (2nd Conference day)

9:00 – 10:30 Session 5: The ICT sector in focus

The session will discuss innovative approaches to improve the environmental impacts of products, services and business operations in the ICT sector. Main questions include: *What are key areas to improve environmental performance of the ICT sector? What are policy approaches to green the ICT sector? How can ICT companies be encouraged to spread positive experience to other sectors and activities?*

Chair: **Takayuki Sumita**, Director Information and Communication Electronics,
Ministry of Economy, Trade and Industry (Japan)

Paolo Bertoldi, Project Officer, European Commission/Joint Research Centre:
The European Commission's Code of Conduct for data centres

Sarah O'Brien, EPEAT Outreach Director, Green Electronics Council (United States):
Guidance for purchasers – The EPEAT multi-stakeholder approach to greener ICTs

Zeina Al-Hajj, Head International Toxics and Electronics Campaign, Greenpeace International:
Greener Electronics – ICT industry leadership on climate change

Benjamin Kott, Green Business Operations Manager Europe, Middle East & Africa, Google:
Tackling energy use at Google's data centres

9:00 – 10:30 Session 6: Fostering sustainable consumption and use

The session will discuss the role of ICT goods and services for sustainable consumption. The main questions include: *How to promote sustainable consumption of ICT goods and services? How can individuals minimise their environmental footprints through information technologies, e.g. "smart" applications? What are promising approaches of using ICTs and the Internet to inform and educate consumers for sustainable development?*

Chair: **Ed Mayo**, Chief Executive, Consumer Focus (United Kingdom)

Trevor Bowden, Co-Founder, Big Room (Canada):
The .eco domain and venture capital for sustainable consumption

Bernard Flüry-Hérard, Engineer, Ministry of Environment, Energy, Sustainable Development and
Land Use Planning (France): Green ICT consumer issues in France

Anja Ffrench, Director Marketing and Communications, Computer Aid International

Göran Wilke, Head, Danish Electricity Saving Trust:
Challenges for Green IT – the Intelligent Home

... Parallel sessions in detail

28 May 2009 (2ⁿᵈ Conference day)

11:00 – 12:30   Session 7: Cleaner technologies and smarter ICT applications

The session will discuss how ICT innovation can improve environmental performance across all sectors of the economy. Main questions include: *What are high-impact areas for the application of ICTs to improve environmental performance? What are successful strategies in reducing environmental impacts of key ICT infrastructures? How can "Green ICTs" contribute to job creation?*

Chair: **John Higgins**, Director-General, Intellect (United Kingdom)

Michael Moesgaard, Chief Information Officer, DONG Energy:
Greening IT infrastructures

Anthony Murphy, Director of Olympics, Department for Business, Enterprise & Regulatory Reform (United Kingdom) (*tbc*): Green IT for the London 2012 Olympics

Rahul Tongia, Programme Director, Center for Study of Science, Technology, and Policy (India):
Smart grids, green grids and more – a comparison of the US and India

Labour/Trade Union Advisory Committee to the OECD (*Speaker tbc*):
Green ICTs impact on employment

11:00 – 12:30   Session 8: Governments paving the way

The session will discuss the role of the public sector in promoting ICT innovation for clean technologies and technology transfer. Main questions include: *How can governments effectively promote R&D, investments and uptake of ICT applications for sustainability, especially during the economic crisis? How can governments reduce the environmental impacts of their ICT infrastructures and at the same time provide best practices and model use? What are strategies to improve accountability and effective measurement of "Green ICT" policies? How can co-ordination within governments on "Green ICT" policies be improved?*

Chair: **Daniela G. Battisti**, Italian Agency for Inward Investments and Business Development; Chair, OECD Working Party on the Information Economy

Jørund Leknes, Political Advisor to Minister Røys, Ministry of Government Administration and Reform (Norway)

Catalina McGregor, Chair, HM Government CIOs and CTOs Council (United Kingdom)

Masayasu Nakano, Director Global ICT Strategy Bureau, Ministry of Internal Affairs and Communications (Japan): Realization of a Low-Carbon Society by utilizing ICT

Giovanni Tria, Economic Advisor to Minister Brunetta, Ministry for Public Administration and Innovation (Italy)

Bernd-Wolfgang Weismann, Head of Division Information Society, IT-, Media-, Cultural and Creative Industries, Ministry of Economics and Technology (Germany)

Logistics and practical arrangements

Registration

Conference participants are invited to register and book accommodation via www.green-ict.dk.

Accommodation can be booked via the online registration platform. Registration for the Welcome Reception at Kronborg Castle (26 May) and the official Conference Dinner (27 May) is also done online.

The Conference will take place at Marienlyst in Helsingør, approximately 45 km outside Copenhagen. Direct trains from Copenhagen Airport to Helsingør ("Helsingør st") run every 20 minutes during most of the day, schedules are available at http://www.rejseplanen.dk.

Side-event

The Danish NGO "Climate ICT" and the Danish IT Industry Association will hold a *Workshop on Climate Friendly Handling of Data* on 28 May at Marienlyst, Helsingør (www.klima-it.dk). The workshop will provide insights on green and economically profitable management of data and server storage to IT managers, market leaders and opinion makers with an interest in green data service.

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We are looking forward to welcoming you to Helsingør!