



**OECD/European Commission/Nordic Innovation Joint Workshop**

***THE FUTURE OF ECO-INNOVATION:  
The Role of Business Models in Green Transformation***

**19-20 January 2012**

**Danish Business Authority  
Langelinie Allé 17, Copenhagen, Denmark**



**Hosted by FORA**

**Background and purposes**

Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. However, existing production technology and consumer behaviour can only be expected to produce positive outcomes up to a point. Innovation pushes the frontier of green solutions outward and can help to decouple growth from natural capital depletion. Innovation will also lead to new ideas, new entrepreneurs and new business models, thus contributing to the establishment of new markets and eventually to the creation of new jobs and industrial transformation. Leading firms and entrepreneurs are exploring green business opportunities, sometimes based on systemic thinking and radical innovations, aiming to capture and create value from new business models. Policy makers are also increasingly paying attention to the need for radical and systemic eco-innovations as a powerful lever in enabling a long-term transition and transformation towards a greener economy. The forthcoming EU Eco-Innovation Action Plan refers to “business model eco-innovation” as a new important area to be taken into account for promoting eco-innovation, while the EU Sustainable Consumption and Production and Sustainable Industrial Policy (SCP/SIP) Action Plan is under review with a consideration of integrating this new development.

Since eco-innovation and the resulting new business models are still relatively new to industry and policy makers alike, a better knowledge and understanding of emerging practices is needed to enable government to elaborate appropriate policies and to encourage industry to take up new opportunities. Therefore, both the OECD and the Nordic Innovation (NI) are currently conducting business case studies in this area. This workshop aims to showcase good practices of radical and systemic eco-innovations and enhance understanding of the role that new business models can play, and will also draw lessons for industry and policy makers to accelerate the deployment and diffusion of promising environmental technologies and solutions. The workshop will also serve to establish a network of experts and innovators and identify potential future work for the OECD and the EU. The outcomes from the workshop will be fed into the OECD and the NI studies, both of which will be completed in the first half of 2012.

**DAY 1: 19 January 2012**

Chair: Finn Lauritzen

(Chair, OECD Committee on Industry, Innovation and Entrepreneurship)

12.00-13.00	<i>Registration and refreshments</i>
13.00-13.15	<p><b>WELCOME AND OPENING</b></p> <p><i>Betina Hagerup, Director General, Danish Business Authority</i></p> <p><i>Patrick O’Riordan, Sustainable Industrial Policy Unit, DG Enterprise and Industry, European Commission</i></p> <p><i>Dirk Pilat, Head, Structural Policy Division, OECD Directorate for Science, Technology and Industry</i></p>
<p><b>SESSION I: SETTING THE SCENE</b></p> <p>This first session will set the scene for the workshop in reviewing the latest perspectives on green growth and the critical role of eco-innovation from the perspective of academic and industry experts. The preliminary findings from the OECD project will also be presented to provide a framework for understanding new developments in eco-innovation and to share the objectives of the workshop with participants.</p>	
13.15-14.00	<p><b>KEYNOTES: Green growth and the role of innovation and business</b></p> <p><i>The role of radical and systemic changes for green transformation</i>  <i>Fred Steward, Policy Studies Institute and University of Westminster, United Kingdom</i></p> <p><i>The role of business models for greening industry</i>  <i>Josh Suskewicz, Principal, Innosight, United States</i></p>
14.00-14.30	<p><b>FRAMING DISCUSSIONS: OECD work on green growth and eco-innovation</b></p> <p><i>Overview of the OECD project and objectives of the workshop</i>  <i>Tomoo Machiba, Project Manager, Green Growth &amp; Eco-Innovation, OECD</i></p> <p><i>Preliminary findings and analysis from OECD case studies</i>  <i>Michal Miedzinski, Technopolis Belgium (consultant for the OECD project)</i></p>
<p><b>SESSION II: SHOWCASING GOOD INDUSTRY PRACTICES (1)</b></p> <p>Following the plenary talks, the workshop will turn to actual practices, experiences and messages from leading eco-innovators which were involved in the OECD and NI case studies. Each case study will highlight the main characteristics of the relevant business model, the potential impacts on eco-innovation and for scaling up, the obstacles that had to be addressed, and any other lessons that could have implications for policy. The session will explore some of the key areas of eco-innovation explored in the OECD and NI studies. The showcasing session will continue in the morning of Day 2.</p>	

14.30-15.30	<p><b>NEW BUSINESS MODELS 1: Transport and mobility</b></p> <p><b>Presentation from innovators</b></p> <p><u><i>Better Place, Israel/US/Denmark</i></u> Johnny Hansen, CEO, Better Place Denmark</p> <p><u><i>SkyCab, Sweden</i></u> Åke Åredal, President &amp; CEO</p> <p><b>Comments from experts</b> Vassilios Kefalas, National Technical University of Athens, Greece Mattias Lindahl, Linköping University, Sweden</p> <p><b>Discussion with the floor</b></p>
15.30-15.50	<i>Coffee break</i>
15.50-16.50	<p><b>NEW BUSINESS MODELS 2: ICT-based facilitation and optimisation</b></p> <p><b>Presentation from innovators</b></p> <p><u><i>Intelen (Energy monitoring through social network), Greece</i></u> Vasillis Nikolopoulos, CEO and Co-founder</p> <p><u><i>TaKaDu (Water infrastructure monitoring), Israel</i></u> Haggai Scolnicov, Chief Technical Officer</p> <p><b>Comments from experts</b> Martin Charter, Centre for Sustainable Design, University of Creative Arts, UK Søren Cajus, Danish ICT and Electronics Federation</p> <p><b>Discussion with the floor</b></p>
16.50-17.50	<p><b>NEW BUSINESS MODELS 3: Eco-housing and cities</b></p> <p><b>Presentation from innovators</b></p> <p><u><i>Hammerby Sjöstad, Sweden</i></u> Erik Freudenthal, Communication Manager, GlashusEtt (Information Centre for Hammerby Sjöstad)</p> <p><u><i>DigiEcoCity, Finland/China</i></u> Juha Lipiainen, Chief Operating Officer</p> <p><b>Comments from experts</b> Dimitris Raidis, Architect &amp; Urban Planner, KARD Architects and Board Member, Greek International Business Association Christer Lindström, Founder, Institute for Sustainable Transportation, Sweden</p> <p><b>Discussion with the floor</b></p>
17.50-18.00	<p><b>Conclusions from Day 1</b></p> <p><i>Dirk Pilat, OECD</i></p>
18.00-19.30	<i>Cocktail and networking opportunity</i>

8.30-9.00	<i>Refreshments</i>
<p><b>SESSION III: SHOWCASING GOOD INDUSTRY PRACTICES (2)</b></p> <p>The first session in Day 2 will explore some further practices from eco-innovators. The findings and cases from the NI and EU projects will also be presented to provide additional contexts and examples for understanding developments in eco-innovation.</p>	
9:00-9:30	<p><b>MAKING THE CASE FOR BUSINESS: Work from the EU and Nordic countries</b></p> <p><i>Examples from CIP Eco-innovation Market Replication projects</i>  <b><i>Maciej Szymanowicz, DG Environment, European Commission</i></b></p> <p><i>Preliminary findings from NI project on green business model innovation</i>  <b><i>Kristian Henriksen, Danish Ministry of Business and Growth</i></b></p>
9.30-10.30	<p><b>NEW BUSINESS MODELS 4: Functional sales and innovative financing</b></p> <p><b>Presentation from innovators</b></p> <p><b><u>SAFECHM Europe (Dow Chemical), Germany</u></b>  Steffen Saecker, Marketing Manager</p> <p><b><u>Siemens (ESCO), Germany/Denmark</u></b>  Henrik B. Hansen, Sales Manager, Infrastructure &amp; Cities Sector</p> <p><b>Comments from experts</b>  Arnold Tukker, TNO/NTNU, Netherlands/Norway  Cecilia Bengtsson, Director of Environment and Quality, Business Office, Volvo Group Real Estate, Sweden</p> <p><b>Discussion with the floor</b></p>
10.30-11.30	<p><b>NEW BUSINESS MODELS 5: Industrial symbiosis and cradle to cradle</b></p> <p><b>Presentation from innovators</b></p> <p><b><u>Maersk Line, Denmark</u></b>  Jacob Sterling, Head of Climate and Environment</p> <p><b><u>Kwinana Regional Synergies, Australia</u></b>  Michele Rosano, Director, Sustainable Engineering Group, Curtin University (<i>OECD expert</i>)</p> <p><b><u>Humo Olea, Greece</u></b>  Apostolo Vlyssides, Eco-Organic Ltd. and National Technical University of Athens</p> <p><b>Comments from experts</b>  Jonas Engberg, Sustainability Manager, IKEA Denmark  Søren Lyngsgaard, Creative Director, Vugge til Vugge (Cradle to Cradle) Denmark</p> <p><b>Discussion with the floor</b></p>
11.30-11.40	<i>Brief coffee break for changing the format</i>

## SESSION IV: EXTRACTING LESSONS FOR INDUSTRY

This session aims to extract and synthesise lessons from the new eco-innovation practices which have been presented in earlier sessions with a particular focus on how good practices could be scaled up and what industry could do to capture opportunities from new business models and turn these into mainstream businesses.

11.40-12.40	<p><b>SYNTHESISING LESSONS FOR INDUSTRY: Panel discussion</b></p> <p><b>Discussion with panellists from experts and innovators</b></p> <p><i>Dax Lovegrove, Head of Business and Industry, WWF-UK</i>  <i>Yoram Krozer, Sustainable Innovations Academy, University of Twente, Netherlands</i>  <i>Paul A. Linzmeyer, General Partner, ISO International LLC, United States</i>  <i>Jason Donohue, Project Manager, i-Propeller, Belgium</i>  <i>Justin Perretson, Senior Advisor, Public Affairs, Novozymes, Denmark</i>  <i>Florence Coulamy, European Sustainability Regulatory Affairs Manager, Unilever, France</i>  <i>Rick Johnson, Business and Industry Advisory Committee to the OECD (BIAC), United States</i></p> <p><i>Facilitator: Karin Klitgaard, Director, Environmental Policy, Confederation of Danish Industry</i></p>
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12.40-13.30	<i>Lunch and networking opportunity</i>
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## SESSION V: EXTRACTING POLICY LESSONS

Through dialogue between industry, experts and policy makers, the final session will discuss what government could do to extend the scale and depth of eco-innovation and to accelerate radical and systemic shifts towards a green transformation. The discussion will also include the identification of gaps in the current understanding of industry and policy practices and the exploration of further work that the OECD, the EC and countries might undertake to strengthen eco-innovation and to disseminate knowledge and good practices.

13.30-14.00	<p><b>ADVANCING STRATEGIES: The integration of business model innovation in policies</b></p> <p><i>Europe 2020, Industrial Policy and the revision of the EU SCP/SIP Action Plan</i>  <i>Patrick O’Riordan , DG Enterprise and Industry, European Commission</i></p> <p><i>The launch of the EU Eco-Innovation Action Plan</i>  <i>Aurelio Politano, DG Environment, European Commission</i></p>
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<b>IDENTIFYING EFFECTIVE POLICIES: Two policy roundtables</b>	
<p>14.00-15.15</p> <p><b>Group A: Discuss policy implications of changing multi-sectoral dynamism</b> (mainly based on lessons from the first three sessions - mobility, ICT and eco-housing)</p> <p><i>Preliminary findings on policy implication from the OECD work</i></p>	<p><b>Group B: Discuss policy implications of changing value chains</b> (mainly based on lessons from the last two sessions -functional sales and cradle to cradle)</p> <p><i>Preliminary findings on policy implication from the NI work</i></p>

	<p><b><i>Asel Doranova, Technopolis Belgium</i></b></p> <p><i>Interactive discussions with panelists</i></p> <p><b><i>Panellists:</i></b></p> <p>Magnus Emfel, WWF Sweden  Takayuki Sumita, Director General, Japan Machinery Centre for Trade and Investment, Japan/Belgium  António Victor Carreira de Oliveira, Senior Adviser, Sustainable Development, Ministry of Economy, Innovation and Development, Portugal  Howard Ross, Deputy Director of Research and Economics, Ministry of Industry, Trade and Labor, Israel  Jesper Jerlang, Director of Standardization, Danish Standards Foundation  Nadine Pratt, Team Leader, UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (CSCP), Germany</p> <p><b><i>Facilitator:</i></b> Aurelio Politano, DG Environment</p> <p><b><i>Rapporteur:</i></b> Michal Miedzinski, Technopolis Belgium</p>	<p><b><i>Jakob Øster, FORA</i></b></p> <p><i>Interactive discussions with panellists</i></p> <p><b><i>Panellists:</i></b></p> <p>Arnold Tukker, TNO/NTNU, Netherlands/Norway  Peter Laybourn, International Synergies Ltd, UK  Robbert Droop, Sustainability Division, Ministry of Infrastructure and Environment, Netherlands  Panagiotis Panagiotakopoulos, Managing Director, Close the Loop Managing &amp; Consulting, Greece  Christian Kühne, Ministry of the Environment, Climate Protection and the Energy Sector, State of Baden-Wuerttemberg, Germany  Matthew Barton, Programme Manager, Energy Technologies Institute, UK</p> <p><b><i>Facilitator:</i></b> Tanja Bisgaard, Novitas Innovation</p> <p><b><i>Rapporteur:</i></b> Lars Wärngård, Swedish Governmental Agency for Innovation Systems (VINNOVA)</p>
15.15-15.45	<p><b>SYNTHESISING LESSONS FOR GOVERNMENT</b></p> <p><b><i>Report from rapporteurs</i></b>  <b><i>Discussions with the floor</i></b>  <b><i>Facilitator: Dirk Pilat, OECD</i></b></p>	
15.45-16.00	<p><b>CONCLUDING SESSION</b></p> <p><b><i>Jens Lundsgaard, Deputy Permanent Secretary, Danish Ministry of Business and Growth</i></b></p>	
16.00	<p><b>End of the Workshop</b></p>	