

**OECD Project on Green Growth & Eco-innovation**

**Nominate Examples of  
“Radical and Systemic” Eco-innovation**

**Deadline: 31 May 2010**

***Background***

The OECD Committee on Industry, Innovation and Entrepreneurship (CIIE) has since 2008 been undertaking a project on Green Growth and Eco-innovation that aims to better understand how innovation can result in new, effective solutions to global challenges and to provide industry with tools and examples to improve their contributions to sustainable development. The first phase of this project focused on the development of a common analytical framework and a review of the state of current knowledge, which was published as *Eco-Innovation in Industry: Enabling Green Growth*.

The second phase of the project is being undertaken during 2010 in the context of the CIIE’s contribution to the development of an OECD Green Growth Strategy. The project now consists of four modules:

- a) Case studies of new business approaches to eco-innovation;**
- b) Analysis and case studies of policies to drive eco-innovation;
- c) Empirical analysis of eco-innovation and the transition in industrial structure required to realise green growth; and
- d) Development of an indicator toolkit to help realise sustainable manufacturing in firms.

This questionnaire serves to help the work of the first module of the project. For more details on the project, please visit [www.oecd.org/sti/innovation/sustainablemanufacturing](http://www.oecd.org/sti/innovation/sustainablemanufacturing).

***Need for radical and systemic eco-innovation***

To realise green growth, countries need to aim both at incrementally reducing resource use per unit of production (*relative decoupling*) and at keeping resource use and environmental impact stable or declining while the economy is growing (*absolute decoupling*). OECD analysis has shown that addressing these challenges without innovation will be more difficult and more costly.

Eco-innovation involves diverse approaches to help realise resource efficiency and green growth through accelerating innovation, including both technological and non-technological changes. The approaches can

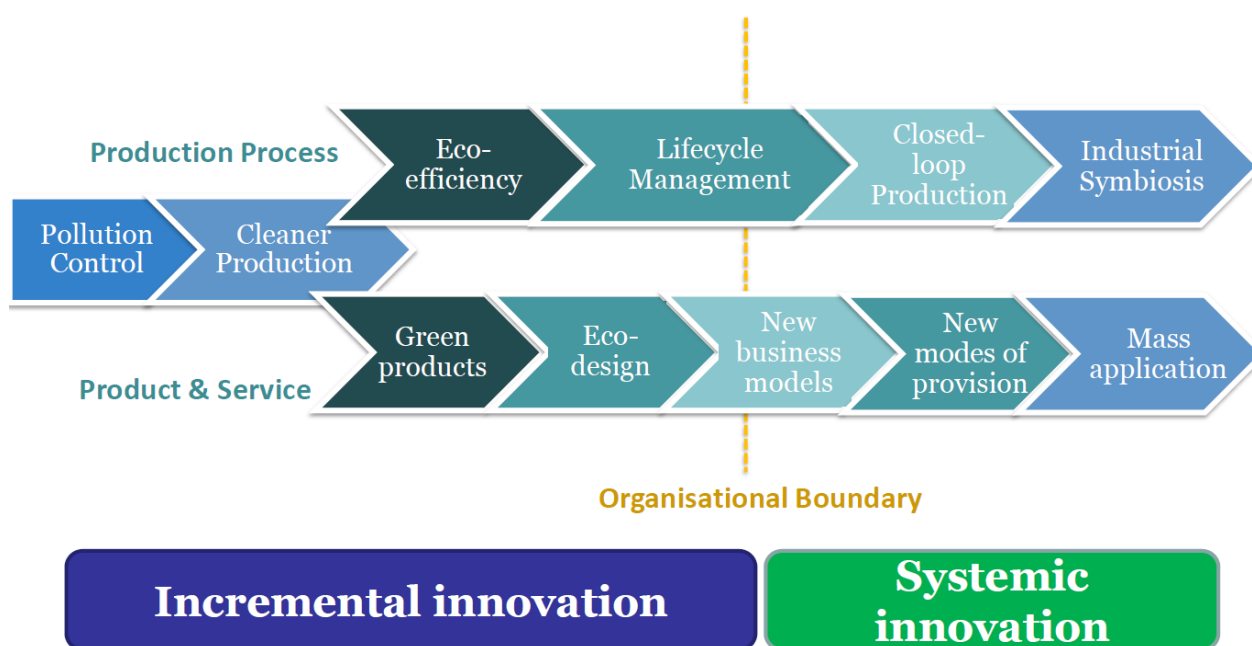
be roughly categorised into *incremental innovation* and *radical or systemic innovation*. Incremental innovation primarily contributes to relative decoupling, while the latter tends to have larger potential for making absolute decoupling possible. If countries are to tackle climate change and other environmental challenges, they will need to engage in a broad range of eco-innovations in the medium to long term.

This project module therefore aims to collect and analyse examples of radical and systemic eco-innovation in the business sector, with the aim to identify factors and policies that can support and facilitate the longer-term changes necessary to achieve green growth. This work is also aimed at helping governments support the development of new and better green products and processes, thus helping foster new green businesses, industries and jobs, as well as the restructuring of existing industries.

**Eco-innovation examples we looking for**

Radical or systemic eco-innovations may be simple but with a very wide range of applications, or may be highly complex involving many actors and a range of technological and non-technological changes in organisational and institutional arrangements. The boundary between incremental and radical or systemic eco-innovations is not necessarily clear-cut but Figure 1 presents a general distinction. More specific criteria of such examples are provided in Box 1.

**Figure 1. Conceptual distinction between incremental and systemic eco-innovations**



### **Box 1. General criteria of radical and systemic eco-innovation for case nomination**

Examples of radical or systemic eco-innovations could include one or more of the following characteristics:

- **Alternative solution:** Innovation which comprises the introduction of alternative or entirely new solutions to existing products, processes, marketing methods or organisational structures that may significantly reduce environmental impacts.
- **Significant environmental improvement:** Innovation which is or has the potential to contribute to a significant reduction in overall environmental impacts.
- **Significant economic impact:** Innovation which has or could bring substantial economic gains, competitiveness, market acceptance and/or job creation as well as environmental improvements.
- **Wider application:** Innovation which involves the introduction of products, processes or new solutions at a wider scale to reduce environmental impacts such as a new transport system, a district energy system or eco-towns.
- **New business models:** Innovation which involves a radically different business model from the conventional ways of providing products and services, with the potential to significantly improve environmental sustainability.

**Win-win innovations that combine improvements in environmental performance with opportunities for economic benefit are of particular interest**, as these are of particular importance for green growth.

The selection of areas of eco-innovation cases (sectors, types of technologies, etc.) is at your discretion, as it should reflect ongoing innovative activity in your region. This will also enable a wide range of potentially interesting innovation examples to be brought to the attention of other countries. However, to collect cases which can be comparable, a non-exhaustive list of some potential areas for radical or systemic eco-innovations is provided in Box 2.

#### ***Nominate interesting examples***

As one of experts in the field, **you are invited to nominate examples of advanced eco-innovations with which you are familiar** (given separately). The example should be based on a “solution” including a product or service, an application and a project (*i.e.* do not nominate a technology or a company). Examples are not necessarily only those from private firms but could also include some from public sector or not-for-profit entities such as NGOs and social entrepreneurs.

Examples of solutions that are already successfully applied in the market would be preferable – as they have already faced the test of the market - but you are invited to include examples not yet on the market if they are highly unique and are considered to have a high potential for environmental improvement and market acceptance. You are also invited to ask your colleagues and other experts to provide interesting examples by forwarding this request.

## Box 2. Possible application areas of radical and systemic eco-innovations

- 1) **Significant improvements in processes, e.g.:**
  - Resource or energy efficiency improvement in manufacturing process
  - Development of new materials and new applications of existing materials
  - Closed-loop manufacturing and integrated resource and end-of-life management
  - Efficiency in logistics and retail
  
- 2) **New solutions through products and services, e.g.:**
  - Urban mobility
  - Energy provision and management
  - Food, water, beverage and nutrition
  - Housing and construction
  - Housekeeping, offices and entertainment
  - Clothing, home and personal products
  - Leisure and travel
  - Other resource/energy efficiency
  
- 3) **Wider-scale application and experiments, e.g.:**
  - Eco-industrial parks
  - Eco Towns and Green Cities
  - Eco-housing and neighbourhood
  - New urban/spatial planning for efficient provision of energy and mobility; Compact Cities
  - Virtual solutions through the Internet, etc.

Please nominate examples by filling in the attached template in English and send to: [ecoinno@oecd.org](mailto:ecoinno@oecd.org). The first deadline for case nominations is **31 May 2010** but we would also welcome later submissions to add further interesting cases.

**Confidentiality:** Although the diffusion of information on eco-innovation is important to help promote environmental sustainability, some information from firms may be considered confidential. OECD Secretariat will take measures to respect the business confidentiality of cases where necessary; however, if only limited information on a case can be shared, the example may not be fully suitable for inclusion in the study. Before the analysis based on the collected information is made publicly available, the interviewees will be contacted in advance to ask for their permission.

### ***Follow-up***

Based on the nominations received, OECD Secretariat will select a total of around 50-70 examples for more detailed study. The experts nominated by participating governments will conduct the interviews to innovators and draft reports. Secretariat will synthesise the reports and provide input into the OECD Green Growth Strategy. A conference will be planned to showcase some of the eco-innovation examples presented by some innovators and experts in early 2011.

***Take part in the community website***

Throughout this project module, experts are also invited to participate in the member-only community website (<https://community.oecd.org/community/eco-inno>), which allows an exchange of information and views with other experts. Please e-mail to [ecoinno@oecd.org](mailto:ecoinno@oecd.org) if you would like to join this interactive website.

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