

Introduction

- Good morning,
Firstly I would like to thank ENERO and its president Ronald Albers for inviting me to celebrate the 20'h anniversary of ENERO. Ronald has already given us a good idea of the origins of this network and its key objectives and achievements since its establishment.
- I am therefore very grateful to the organisers for giving me this opportunity to point out the relevance of eco-innovation in securing a sustainable future.
- Since the birth of ENERO, the concept of sustainable Future has been growing stronger across Europe and around the world. **We are now facing a broad range of environmental, societal and economic challenges** and we need strong capacity building and knowledge sharing to address these challenges.
- ENERO has been a significant contributor towards the development of practical solutions to environmental problems by being very active in the Framework Programmes of the EU on Environment, Energy, Nanotechnologies, Materials and new Production Technologies.
- ENERO's members have contributed to the exchange of information and stimulate joint research based on their wide range of expertise (Air quality and climate change, Ecotoxicology, Clean and low carbon energy, Resource efficiency, Eco-innovation and clean technologies, Technical preparation of standards and regulations, etc).
- Today's Seminar comes at a pivotal moment in addressing some of the challenges we face. Yet, **where there are challenges, there are opportunities.**
- Let's take a step back and look at how the world has changed since the establishment of ENERO , 20 years ago.

Policy Context

- Over the last 2 decades, global extraction of natural resources, from metals to biomass has grown exponentially: from just 48 billion tonnes in 1992 to an expected 80 billion tonnes by 2020.
- The world is now consuming natural resources at an unsustainable rate: by 2030 humanity would need twice the Earth's capacity to absorb our carbon emissions and sustain our natural resource use.

- Globalisation, climate change and the rapid growth of emerging countries are all putting great pressure on our resources and therefore our businesses.
- **We have no option -we must change the way we think, generate wealth and grow our economy.**
- We need to think about managing business risks and building economic resilience. **Security of supply** in certain materials, including those key to low carbon technologies, **is a potential barrier to growth**. It is becoming an increasing area of business concern.
- There are many potential risks to businesses supply chains from protectionist measures by producer countries, to the risks of the high environmental impacts of resources used.
- **Eco-innovation can provide us part of the answer by helping us deliver greater resource efficiency and green economic growth.**
- But eco-innovation is not only about technologies, it is a much broader concept encompassing social and economic perspectives. Eco-innovation has the **potential for transformative change** by focusing on the key actors in the sustainable innovation arena. It can be defined as any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment, enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources.
- Addressing eco-innovation and the challenges for eco-innovation has become a priority for the European Commission, **firmly embedded in the central vision guiding its policies.**
- Eco-innovation is indeed a central element of the European Union's approach to major environmental challenges such as climate change, natural resource scarcity and dwindling biodiversity.
- In order to understand the challenges for eco-innovation, let's first look at the state of play of eco-industries.

Eco-innovation State of Play

- In recent years, **eco-industries have emerged as an important segment of the European economy**. This sector has an estimated turnover of around €227 billion, corresponding to 2.2% of EU GDP (greater than the European aerospace or pharmaceutical industries). This sector employs 3.4 million people directly.
- **The market for environmental technologies grows as their potential continues to improve.** Certain sectors are expanding at a remarkable rate in Europe and around the globe

-over 20% annually for some renewable energy sources such as wind power. Europe has roughly one third of the world market of eco-technologies, which is projected to double from its current level to 1000 billion EURO by 2020.

- **Eco-innovation is an opportunity for business.** Eco-innovation in companies leads to reduced costs, improves capacity to capture new growth opportunities as well as strengthening the company image to its customers.
- Process eco-innovation is the most popular type of eco-innovation for companies in the agricultural, water and manufacturing sectors. Companies in the construction sector are more likely to have brought a new product or service to the market, whereas companies in food services tend to implement higher amounts of organisational innovation.
- Putting back eco-innovation into a resource efficiency context, around 4% of eco-innovators declare that the change they have introduced led to more than 40% reduction of material use per unit output; this roughly corresponds to 50% improvements in resource productivity.
- In this context, eco-innovation is a powerful concept as it combines reduced negative impact on the environment with a positive impact on the economy and the society.
- The eco-innovation agenda is thus not only an environmental agenda. It is a competitiveness agenda and it is a perspective for sustainable future prosperity and wellbeing.
- Policy has a key role in setting the right conditions that allow industry and consumers to work for the transition to a sustainable economy and fostering the development and uptake of eco-innovation.
- But policy, has a role in identifying the barriers that prevent the implementation of new technologies and transform the supply chain of the industry.
- Since 2004, the EU has been supporting eco-innovation through very specific initiatives such as the Environmental Technologies Action Plan (ETAP), and through the integration of eco-innovation priorities in other policies and programmes.
- Taking into account the new economic climate, it was however necessary to review the Commission's policies and areas for priority actions.

EU 2020, the Innovation Union and the Eco-innovation Action Plan

- As a result, the Commission adopted in 2010 the Europe 2020 strategy. This strategy aims at transforming the EU to a smarter, greener, more inclusive economy. This transformation will be enabled by greater innovation and by managing our resources more efficiently.

- It will result in an EU economy that is more competitive in a world of increasing energy prices, and significantly greater resource constraints and competition.
- 7 flagship initiatives will help deliver the objectives of the strategy and amongst them, the Innovation Union and the Resource efficient Europe flagship initiatives.
- My colleague Manuela Soares will take you through the Innovation Union flagship in the next presentation so I will not go into too much detail. One key objective of this initiative was the adoption by the Commission of "an Eco-innovation Action Plan" focusing on the specific bottlenecks, challenges and opportunities for achieving environmental objectives through innovation.
- The flagship initiative "Resource efficient Europe", recognises the role that eco-innovation can play and details the support foreseen under numerous EU policy instruments such as:
 - sector specific regulation dealing with natural capital and ecosystem services;
 - stricter requirements for Green Public Procurement;
 - measuring companies' environmental performance;
 - the use of partnerships to stimulate innovation; or
 - guidance on environmental fiscal reform, which could contribute to a level playing field for businesses.
- The aim of **the Action Plan is to increase the rate of eco-innovation and its uptake in Europe**, delivering efficient solutions for environmental problems and improving European resource efficiency and competitiveness.
- The Action Plan will improve the integration of eco-innovation concerns into other policies, contributing to better targeting of European funds, focusing on problems faced by the businesses (especially small ones) and improving global markets for eco-innovation.
 - This Action Plan foresees, in particular:
 - The screening of the environmental regulatory framework to support eco-innovation better;
 - Further mobilisation of financial resources for eco-innovative businesses in the next European Research and Innovation(R&I) programme, Horizon 2020;
 - The launch of an European Environmental Technologies Verification pilot programme to increase market confidence;
 - The "EU Skills Panorama" will facilitate exchanges of information between the Member States on skills needs and gaps for eco-innovation;
 - Integrate eco-innovation considerations into demand and supply side actions in emerging innovation sectors through the European Innovation Partnerships (notably water efficiency and raw materials);
 - Better promotion of environmental technologies in developing countries through ad-hoc partnerships (e.g.: UNEP).

- The Eco-innovation Action Plan will therefore play a critical role in addressing the challenges that eco-innovation and eco-innovators are facing.

Example of challenge for eco-innovation -Finance

- One recognised challenge for eco-innovators is the access to finance. For eco-innovation, **mobilisation of financial resources** aimed at SMEs, especially in the post research phase ("valley of death"), **is key to a structural change** towards a greener and more resource efficient economy.
- The Competitiveness and Innovation Programme (CIP) has adopted a successful model for supporting eco-innovation that furthers its uptake through market replication projects. It also generates leverage (financial instruments allowing for co-investment in Venture Capital funds). 70 % of participants in eco-innovation market replication projects are SMEs in sectors such as recycling, food & drink, or new business methods.
- CIP provides a relevant policy tool with clear added-value for the eco-innovation sector. DG ENV wants to keep under the new financial perspectives the key features of the CIP eco-innovation programme: flexibility; focus on .eco-innovative solutions; support also for 'incremental' innovation small projects; close to the market; accessible for SMEs aiming at broader market penetration.
- However, with its some 400 million EURO for 7 years, the level of support provided remains rather limited in size and cannot lead directly to sizeable changes to the market and the sector.
- A lot of what will be done in innovation should be good for clean technology or eco-innovative businesses. The Commission's portfolio of financial instruments (especially in the field of R&I) should provide appropriate resources and allow for more favourable and flexible risk-sharing conditions to attract financial intermediaries to the eco-innovation area.
- **Good opportunities for private-public partnerships** and for using Financing Instruments exist in the field of eco-innovation and R&I, such as the existing Risk Sharing Finance Facility and venture capital funds supporting innovation under the CIP and as I have recently discussed in a meeting with the European Investment Bank president there is scope and willingness also from their side to do more to promote eco-innovation.
- Therefore a clear goal for ENV level in this new instrument is to cover environmental needs both in the area of research but also commercialisation through:
 1. providing **financing options**, for early stage eco-innovative enterprises (grants, debt, equity and also smaller scale type of financing and risk sharing conditions in order to engage enterprises and financial intermediaries)

2. dealing with a **clear oversubscription of the eco-innovation SME oriented market replication projects**. The number of applications for co-financing eco-innovative projects exceeds several times the funds available within this programme (for instance, 6 times in the 2010 call for proposals).

- Addressing the challenges and overcoming the barriers for eco-innovation cannot be achieved by the Commission alone. **We will build upon the broad stakeholder involvement** for eco-innovation we have developed through such initiatives as the Environmental Technologies Action Plan. **Dedicated networking activities aimed at entrepreneurs and financiers** will help create new business opportunities in Europe and abroad, and generate a critical mass of financial backing for the sector.
- **We cannot forget the role of the Member States**, who put in place and implement policies for eco-innovation. A High-Level Working Group will bring together Member States to provide stronger policy guidance. Forward looking National Eco-innovation Roadmaps will help coordinate and exchange policies and create a level playing field for green entrepreneurs.
- Finally, to achieve the aims of the Europe 2020 strategy we need strong support from organisations like ENERO. Your members' expertise could play a significant role in driving forward the eco-innovation agenda and help us deliver a sustainable future. **Information sharing and knowledge exchange can be a powerful tool** and I strongly support such initiatives.

Conclusion

- **The environmental challenges facing us are urgent and daunting.** Fundamental shifts in our socio-economic system, leading to sustainable patterns of production and consumption, are required if we are to address them.
- **The alternative to doing so is unthinkable.**
- That is why, Mr Albers, it gives me such pleasure to congratulate ENERO and its members on 20 successful years of work that have considerably improved research activities in support to policies and provided expertise to support both competitiveness and sustainable development of the European industry.