



POLISH PRESIDENCY OF THE EU COUNCIL 2011



**Ministry of Science
and Higher Education**
Republic of Poland



SCIENTIFIC SUPPORT TO A COMPETITIVE EUROPEAN LOW CARBON ECONOMY: ENERGY, TRANSPORT AND EMERGING TECHNOLOGIES

7 July 2011

Venue: The Palace of Culture and Science, Warsaw, Poland

Draft Programme

The conference will address issues that will be central to the progressive transition of the EU towards a low carbon society: energy, transport and emerging technologies. The conference participants will discuss how science can support the building of a European low carbon economy while at the same time preserving its ability to be competitive in global markets.

Europe is facing huge energy challenges: increasing demand, dependence on imports, the strain on fossil fuel resources, and threats to security of supply. This is taking place against the background of global climate change in which carbon emissions are a key factor with the EU currently depending on fossil fuels for the greater part of its energy.

Through its selected theme the conference will contribute to the Europe 2020 Strategy and more particularly to the flagships on "Resource-efficient Europe" and "Industrial Policy for the Globalisation Era".

The conference comes at a timely moment. On 8 March the European Commission set out its vision of how the EU can meet its objective of cutting greenhouse gas emissions by 80-95% by 2050 in the communication "A roadmap for moving to a low-carbon economy in 2050". The Roadmap provides cost-efficient and pragmatic pathways for key economic sectors to reach this target. A new Energy Efficiency Plan taps the considerable potential for higher energy savings throughout the energy value chain and closes the gap in reaching the EU's 20% energy saving objective.

The conference is organised jointly by the European Commission's Joint Research Centre (JRC), the Polish Ministry of Science and Higher Education and the Polish Academy of Sciences.

08h30 09h00 *Registration*

09h00 09h45 OPENING SESSION

- Dominique Ristori, Director General, Joint Research Centre (JRC), European Commission
- Maciej Banach, Under Secretary of State, Ministry of Science and Higher Education of the Republic of Poland
- Michał Kleiber, President, Polish Academy of Sciences

09h45 10h45 SETTING THE SCENE: the European Dimension

- A roadmap for moving to a low-carbon economy in 2050 and scientific support to a low carbon economy:
 - Krzysztof Maruszewski, Director, JRC, European Commission
 - Antonio Soria, Head of Unit, JRC, European Commission
 - Karsten Krause, Directorate General for Climate Action, European Commission
- Polish Presidency: Polish Ministry of Economy
- Discussion

10h45 11h15 *Coffee break*

11h15 12h45 ENERGY: Clean technologies and energy efficiency as key drivers for the transition to a low carbon economy

Description: In many ways, energy efficiency can be seen as Europe's biggest energy resource. The cost-efficient ways to make the European economy more climate-friendly and less energy-consuming are becoming essential for the future for Europe's economy. By 2050 Europe could cut most of its greenhouse gas emissions by using clean technologies. With its "Roadmap for moving to a competitive low-carbon economy in 2050" the European Commission is setting out a plan to meet the long-term target of reducing domestic emissions by 80 to 95% by mid-century. A low-carbon economy would have a much greater need for renewable sources of energy, energy-efficient building materials, hybrid and electric cars, 'smart grid' equipment, low-carbon power generation and carbon capture and storage technologies. The key driver for this transition will be energy efficiency. In this context nuclear energy should be seen as indispensable part of the overall European energy mix and a rational management of nuclear energy is needed, opposed to emotional reactions.

- Heinz Ossenbrink, Head of Unit, JRC, European Commission
- Roberto Caciuffo, Head of Unit, JRC, European Commission
- Directorate General for Energy, European Commission
- Nuclear energy – a key element of sustainable development in 2050, Grzegorz Wrochna, the Andrzej Soltan Institute for Nuclear Studies, Poland
- Technological alternative to CO₂ geological storage, Aleksander Sobolewski, Institute for Chemical Processing of Coal, Poland
- Smart grid Hel peninsula pilot project, Adam Babs, Institute of Power Engineering, Poland
- Member States views: Denmark (EU Council Presidency 2012)

12h45 13h45 *Lunch*

13h45 14h45 TRANSPORT: Towards a competitive and resource efficient transport system

Description: Mobility is vital for the internal market and for the quality of life of citizens. Transport has become more energy efficient, but EU transport still depends on oil and oil products for 96% of its energy needs. The challenge is to break this dependence without sacrificing its efficiency and compromising mobility. In line with the flagship initiative “Resource efficient Europe” set out in the Europe 2020 Strategy the paramount goal of European transport policy is to help establish a system that underpins European economic progress, enhances competitiveness and offers high quality mobility services while using resources more efficiently. Synergies with other sustainability objectives such as the reduction of oil dependence, the competitiveness of Europe’s automotive industry as well as health benefits, make a compelling case for the EU to step up its efforts to accelerate the development and deployment of the key technologies.

- Alois Krasenbrink, Head of Unit (acting), JRC, European Commission
- Directorate General for Mobility and Transport, European Commission
- Polish transport research organisation or Polish auto-motive industry

14h45 16h00 INDUSTRIAL PRODUCTION AND THE ROLE OF EMERGING TECHNOLOGIES

Description: A wide range of emerging technologies are expected to transform society. They are anticipated to revolutionise fields as diverse as energy, agriculture and health care. With applications in a broad variety of industrial sectors, life sciences and biotechnologies are playing an increasingly significant role in boosting technological innovation and bringing new environmentally compatible products and processes based on renewable raw materials to the market. In convergence with other technologies they provide the knowledge-base for the sustainable management, production and use of biological resources, new, safe, affordable and eco-efficient products and support competitiveness and sustainability of major European industries.

- Life cycle-based indicators, supporting a Low Carbon Society and a Resource Efficient Europe, Malgorzata Goralczyk, JRC, European Commission
- Research and development in biotechnology – towards innovation industry in Poland, Ewa Bulska, Chemical Department, Warsaw University
- Fossil, fissile and renewable energy sources , they role in sustainable country development, Andrzej G. Chmielewski, Institute of Nuclear Chemistry and Technology, Poland
- Member States views: Hungary (EU Council Presidency 2011)

16h00 16h30 CONCLUSIONS AND THE WAY FORWARD