



NSC 25th anniversary stakeholder conference



Aalborg (DK)
12th – 14th March 2014

Parallel workshops – Energy and climate change

Green transport – Promoting alternative fuels for sustainable urban mobility and regional transport

Description

Alternative fuels are urgently needed to break the over-dependence of European transport on oil. Transport in Europe is 94% dependent on oil, 84% of it being imported, with a bill up to EUR 1 billion per day, and increasing costs to the environment. The European Commission has launched a package for Clean Power for Transport which aims to facilitate the development of a single market for alternative fuels for transport in Europe. Research and technological development in the North Sea Region supported by Interreg and other EU programmes have led to successful demonstrations of alternative fuel solutions on the basis of electrical power, bio products, hydrogen and gas for all transport modes.

The workshop will explore, demonstrate and discuss

- Policy frameworks with targets and specifications for the introduction of alternative fuels and innovative carbon reduction strategies for urban and regional transport
- Good practice solutions on the development of infrastructure, technologies, skills and financial instruments to support increased application of alternative fuels
- Ideas for new projects in the next generation of EU programmes from 2014

North Sea Grid

Description

Numerous North Sea Countries are planning and erecting offshore wind parks, regulated by national procedures and law related to their individual Exclusive Economic Zones in the North Sea. All of them are facing the need to connect these sufficiently to the related national transmission grid infrastructure. Still this is a challenge for each individual state and the related (national) Transmission System Operators.

Against this background, the idea of a “North Sea Offshore Electricity Grid” was initially suggested by Greenpeace in 2008, taken up by the European Commission in its “2nd Strategic Energy Review” (late 2008) and further elaborated in the European Commission’s report package on “Energy Strategy 2020/Energy Infrastructure Priorities 2020-2030” (late 2010). Its basic idea behind reads as follows:

- Taking up the High Voltage Direct Current technology for a kind of circular grid ring, allowing free flow of power over a longer timely period as well as the option to take power from this ring whenever needed in a country’s electricity market.
- Using the central converting platforms at offshore wind farms for interconnecting points of this ring – meaning the circular grid ring to be a pure submarine construction at higher seas, and using the transmission cables to the coastlines as access to national electricity grid systems.

The workshop will explore and discuss

- The main legal challenges for establishing a North Sea Grid
- Differing national regimes for subsidizing off-shore wind energy around the North Sea
- Measures to be undertaken to make implementation of the North Sea grid infrastructure attractive to investors?

Clean shipping – Recommendations for improving the environmental performance of shipping – reducing air emissions in ports in accordance with international regulations

Description

Although maritime transport is one of the most environmentally friendly modes of transport in terms of energy consumption per transported unit, the increase in global volumes nevertheless makes shipping a significant source of air pollution. Ships are the largest single emission source for nitrogen oxide, particulate matter and sulphur oxide emissions in the transport sector.

Following a decision by the International Maritime Organisation (IMO) in 2008, the European Union adopted a Directive in 2012 imposing a drastic reduction in sulphur emissions from ships. The Directive promotes the use of alternative technology-based methods of compliance to the fuel-based option, e.g. on-board exhaust gas cleaning systems, alternative fuels such as liquefied natural gas (LNG) and shore-side electricity.

The North Sea has been designated a Special Emission Control Area where the strictest standards are to be implemented already from 2015. Considerable investments from both port authorities and ship owners will therefore be required in order to fulfil this directive.

In 2011 the Commission published a working paper on a tool box with various measures for reducing emissions from maritime shipping. A European Sustainable Shipping Forum (ESSF), consisting of member states and maritime transport stakeholders was established in 2013 in order to advance this tool box.

The workshop will explore and discuss

- Main challenges for complying with the Sulphur Directive
- Tools and solutions (financial, technical, governance, etc.) required to cope with the Directive in an efficient manner
- Reduction of emissions from other sources like NO_x, particles and CO₂

Climate change adaptation in harbours and coastal cities - Developing robust coastal cities and harbours, dealing with sea level rise and increased frequency of storms

Description

In the North Sea Region common effects of climate change are rising sea water levels and more frequent storms and increased precipitation. These changes cause problems for the built infrastructure everywhere but most of all in coastal regions. Cities and harbours face the enormous task of carrying out adaptations of the infrastructure, to ensure the robustness towards the combined challenges of stronger winds, higher sea levels and more rain.

However, climate models vary a lot. They are not easily adapted to a local level, and it is not possible to make precise forecasts concerning the future water level. The economic cost of the adaptation is huge. But so are the costs of doing nothing or doing too little. Planners and engineers are faced with the difficult task of balancing risks and costs in the adaptation to climate change.

The workshop will explore and discuss

- Challenges and solutions in climate change adaptations of harbours on big and small scale
- Considerations of the cost of adaptations and the potential damage to an unprotected infrastructure
- Tools and solutions (financial, technical, governance etc) required to cope with climate change adaptation of coastal cities and harbours.

Parallel workshops – Marine resources

Blue growth - How to boost sustainable blue growth in the North Sea area?

Description

The sea and the coasts are drivers of the economy. The North Sea Region (NSR) includes a number of strong economies and is one of the most successful regions in Europe. The NSR has the potential to act as an engine for growth in Europe. To make it happen we need to focus on blue growth; to exploit the unused potential of Europe's oceans, seas and coasts for jobs and growth.

The blue economy consists of all existing sectors exploiting the sea and the marine resources. The individual sectors are interdependent. They rely on common skills and shared infrastructure such as ports and electricity cables. They depend on others using the sea sustainably. Efficient use is also determined by good dialogue between users and good systems of marine planning.

The workshop will explore, demonstrate and discuss

- EU policies and strategic guidelines to promote blue growth and management of the North Sea
- Best practice solutions on coordination and co-existence
- Ideas for new projects within Horizon 2020 and other EU programmes from 2014

Coastal Communities

Description

Over the past 25 years many of the coastal communities around the North Sea have changed dramatically some for the better and some for the worse. These changes have come about for a variety of reasons including;

Downside: Over reliance on traditional industries, such as fishing and agriculture. An ageing maritime workforce with not enough young people being encouraged or educated to replace them. Empty harbours because of downturn in fisheries.

Upside: Some communities welcomed the oil and gas sector, others invested in research and development, renewables and education.

The workshop will explore, demonstrate and discuss

- EU/National/Regional policies which will address the needs of our more fragile coastal communities, while promoting the development of our more affluent communities.
- Added value of co operation between regions around the North Sea
- Development of skills and employability through close cooperation and coordination between regions
- Developing existing industries to meet the needs and challenges of global economic problems

Marine preservation

Description

The North Sea is a very complex and open marine ecosystem, providing a nursery for fish and a migratory and wintering area for many species of birds. Preservation of the marine environment is in competition with growing economic development in the North Sea basin. Marine preservation is regulated by different guidelines and legal documents on global, European and national level. A more coherent approach based on extensive marine knowledge seems crucial for a future sustainable development in the North Sea.

The workshop will explore, demonstrate and discuss

- EU/national/regional policies and guidelines on marine preservation, and interaction between them
- Added value of cooperation and cross-country approaches
- Best practice solutions on coordination and co-existence
- Ideas for new projects within Horizon 2020 and other EU programmes from 2014