

Excellence in research for climate change adaptation – background information

Date: 19 November 2013
Place: Estonian Permanent Representation to the EU, Rue Guimard 11/13, 1000 Brussels
Time: 12.00 – 16.00 (including sandwich lunch & coffee break)
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Adaptation to climate change – a societal challenge for Europe

Innovation Union, the “Europe 2020” strategy flagship initiative, aims to re-focus the unions R&D and innovation policy on the challenges facing our society, among others fighting and adapting to climate change. To meet this challenge, the union has proposed and is implementing a wide selection of strategies and measures.

In April 2013, the European Commission adopted an [EU Strategy on adaptation to climate change](#), which recommends Member states to adapt their own respective strategies for a more coherent approach, including international research cooperation. The EU Climate Change Adaptation Strategy will help the EU move towards a low-carbon and climate-resilient economy, and will promote sustainable growth, stimulate climate-resilient investment and create new jobs.

The consequences of climate change are increasingly being felt in Europe and worldwide. The European Environmental Agency (2012) and The Intergovernmental Panel on Climate Change (2013) reports show that average global temperature, currently around 0.8°C above pre-industrial levels, continues to rise. Some natural processes are being altered, precipitation patterns are changing, glaciers are melting and sea levels rising. This all adds up to an uncertain future for the natural environment and economic situation in countries. Climate change mitigation must therefore remain a priority for the global community and EU’s societies.

The response: aligning EU and national research agendas in climate change

Until now only 15 EU Member States have adopted a climate change adaptation strategy. There is still a need to create and align national strategies for a joint vision and way forward in responding to climate change adaptation. Research and innovation activities in this field are dependent on the national strategies, but also on the centrally-funded R&D-programmes such as Horizon 2020. So there is added value in aligning national and European priorities and activities in climate change research.

To ensure that respective climate adaptation strategies and policies take the best advantage of evidence based research results, more cross-border coordinated research activities are needed. Making full use of the latest data and research findings is crucial for well-informed decision making.

The European Commission has prioritized climate change adaptation for all relevant EU financed programmes for 2014-2020. The European Structural and Investment funds as well as Horizon 2020 and the LIFE programme will provide significant support to Member States, regions and cities to invest in programmes and projects dealing with low-carbon economy, adaptation. A co-ordinated and complementary approach between those programmes and the national adaptation actions needs to be ensured.

In the upcoming EU programme for research and innovation – Horizon 2020, the share of climate-related expenditure is planned to be approximately 35 % of the total budget. The objective of the Societal Challenge 5 “Climate action, environment, resource efficiency and raw materials is to achieve a resource - efficient and climate change resilient economy and society.

Climate change adaptation research in Estonia

Estonia has started developing a [national climate change adaptation strategy](#) and aims to adopt the strategy by the end of 2015. The focus in policy has so far been more on climate change mitigation and crisis management, adaptation issues have been incorporated in some sectoral development plans. Aggregating the existing scientific evidence and open calls to address knowledge gaps will be central activities in the process, with the aim of creating country-specific climate change future scenarios.

Recently, Estonia joined three Joint Programming Initiatives (JPIs) in the environmental field: JPI Climate, JPI Water and JPI Oceans – which should lead to increased international cooperation. Estonia has several excellent climate-related research groups in the field of meteorology, physiology of vascular plants, hydrobiology, geophysics, physical oceanography, atmosphere interactions modelling, dynamics of greenhouse gas emissions etc. This seminar aims to give two examples of top researches in their field contributing to international cooperation in climate change research (please see the speakers’ profiles on the next page).

Aims of the seminar

- To discuss the alignment of the R&D priorities related to climate change adaptation between the EU’s Climate Change Adaptation Strategy and the “Horizon 2020” framework programme and relevant Joint programming Initiatives;
- To showcase the added value of integrating European strategic climate change priorities with international cooperation in climate change research

The follow-up on the seminar will include a memo with the conclusions from the seminar, in addition to the presentations of the speakers, to be disseminated among the participants and other relevant stakeholders.

Excellence in research for climate change adaptation - speaker profiles



Ülo Niinemets, Professor of Estonian University of Life Sciences (Eesti Maaülikool) and head of the Centre of Excellence in Environmental Adaptation ENVIRON (<http://environ.emu.ee/en>), is one of the most cited scientists in Estonia and a distinguished plant scientist with a global scope. He has conducted work on plant stress responses and adaptation from subarctic to tropics. Ülo Niinemets has published more than 200 papers in peer-reviewed international scientific journals and books, altogether with more than 500 co-authors from 40 countries. He is the only Estonian scientist included in 1% top-cited scientists worldwide covering ISI Essential indicators database in two separate fields of study (Plant and Animal Science; Ecology) and the first Estonian scientist who has received the Advanced Grant of European Research Council.



Peeter Nõges, Research Professor of Estonian University of Life Sciences (Eesti Maaülikool), is a renowned scientist and expert in general limnology, catchment and climate change impacts on lake ecosystems and high frequency studies. With almost 100 papers in peer-reviewed international scientific journals and books with more than 150 co-authors he is among 1% of the most cited researchers in Plant and Animal Science. Peeter Nõges was a seconded national expert and contract agent at EC Joint Research Centre, Institute for Environment and Sustainability (Italy, Ispra) from 2003 to 2009.