

Statement of the Partnership for European Environmental Research (PEER)  
at the L2L Conference in Leipzig, May 10<sup>th</sup> 2007

# Climate change and sustainable development – an unprecedented challenge for the research community

## Key Message

Scientific evidence has shown that there is a likely link between recent climate change and human activity. This provides a major challenge to policy-making. In order to identify the most effective responses, we need to improve our understanding of the relevant earth system components and their interrelations. Mitigation and adaptation will impact on our environment and our societies in many unexpected ways. The choice of action should be based on a combination of the best available knowledge and guided by a long-term strategy.

The scale and complexity of the interactions between society, ecosystems and global climate change is an unprecedented scientific challenge. The reports of the Intergovernmental Panel on Climate Change (IPCC) have identified key areas, where innovative solutions on different scales are required. The interplay of mitigation and adaptation measures and their impacts need to be better understood and assessed. Major progress can be made through well co-ordinated joint research across national and disciplinary borders. Europe is a world leader in the battle against climate change, and therefore has a particular responsibility to show the way forward.

Seven of Europe's large environmental research organisations, united in the Partnership for European Environmental Research (PEER), will mobilise their unique combination of skills and capacities to provide novel perspectives on mitigation and adaptation. With 4700 staff and a combined annual budget of 360 million euros PEER can contribute significantly to integrated solutions that are compatible with sustainable development.

## The challenge we face

Mitigation and adaptation are the two interrelated approaches to minimise the adverse effects of climate change. Tools such as emissions trading have been developed, and need to be enhanced further. However, the complexity of climate change calls for new types of innovative solutions, especially on a regional and local scale. These solutions should also be compatible with the environmental, social and economic pillars of sustainable development. We do not yet have sufficient understanding of the long-term and dynamic effects of possible measures, including the effects on society itself. These uncertainties hamper political action.

## The need for programmatic research

In order to develop practical solutions to the complex challenges imposed by climate change, disciplinary excellence must be linked to interdisciplinary thinking. Environmental, economic and social aspects must be considered and assessed together. Long-term programme-oriented research with appropriate governance and

funding can achieve this. Such research programmes must be developed in a coherent way across organisational and national borders, in close collaboration with relevant stakeholders from politics, industry and society at large. Research organisations must learn to communicate and debate results beyond the scientific community to foster societal learning.

## The need for stronger European research co-operation

For more than two decades the European Commission has funded research through the Framework Programmes (FP) for Research and Technological Development. At Member State level, Ministries, national research agencies, academies of science, and other national science organisations are directly funding research in institutes and universities. Although specific instruments such as ERA-NETs have been developed to improve European co-ordination of national funding programmes, this co-ordination is still relatively limited. Better co-ordination of national research programmes, and sharing of expertise across institutional and territorial borders, is required to enable decision-making for sustainable development in the face of climate change.

## The PEER initiative

PEER, the Partnership for European Environmental Research, unites seven major European public environmental research centres. A prime activity of PEER is to foster strong interdisciplinary environmental research and monitoring. Since its foundation in 2001, PEER has promoted synergies and added-value on a European scale through the co-ordination of research strategies and activities of its partners. PEER members are active in many areas of environmental research. These include biodiversity and ecosystem services, water cycle and natural hazards, conflicts in land use, renewable energies, sustainable production and consumption, development of environmental technologies, risk assessment of pollutants, and policy evaluation and environmental governance. PEER research covers natural and social sciences and uses tools such as remote sensing, geoinformatics, modelling, environmental monitoring and scenario-building in a wide variety of ecosystems at different spatial and temporal scales.

**PEER proposes a joint initiative to analyse and explore novel approaches to mitigation and adaptation.** We invite our regional, national, European and global research partners to participate in this initiative. **Together, we can build an open European platform that brings together expertise and exchanges information on the best approaches to mitigate and adapt to climate change.** By taking full advantage of cross-boundary approaches and by sharing knowledge, we can find new solutions that are compatible with sustainable development. Events that foster debate with all sectors of society are a key part of this initiative. The institutes will also enhance exchange between databases, their interoperability and the development of environmental observatories. Together these efforts by the research community will significantly support European policy-making on climate change.

## Our joint commitment

The challenge of climate change requires an unprecedented European response. Co-ordinated action is required across organisational and territorial boundaries. The PEER members are committed to joint innovative research that fosters integrated solutions for mitigation and adaptation and long term sustainable development.