

## RENEWABLE ENERGY AND LANDSCAPE QUALITY – A PAN-EUROPEAN COST-ACTION

In response to climate change, limited fossil fuels, and rising energy demand and prices, renewable energy is heavily promoted throughout Europe. While objectives to boost renewable energy and trans-European energy networks are ambitious, it is increasingly understood that public acceptance becomes a constraining factor, and general support for green energy does not always translate into local support for specific projects. Perceived landscape change and loss of landscape quality have featured heavily in opposition campaigns in many European countries, even though renewable energy can facilitate sustainable development, especially in disadvantaged regions rich in wind, water, biomass, geothermal or solar energy.

The COST Action TU1401 “Renewable Energy and Landscape Quality” (RELY), which was started on October 16, 2014 (see Figure 1. from the Kick-off meeting in Brusel) and will run for four years, will investigate the inter-relationships between renewable energy production and landscape quality, and the role of public participation for the acceptance of renewable energy systems.



*Figure 1.* The participants of the Kick-off meeting, the official start of the COST Action TU1401 “Renewable Energy and Landscape Quality” (RELY), 16<sup>th</sup> of October, 2014 (Photo: Berthe Jongejan)

COST – European Cooperation in Science and Technology – is the first and widest European framework (founded in 1971) for the transnational coordination of nationally funded research activities. It is based on an inter-governmental agreement and comprises currently 35 European Member Countries plus one Cooperating State. COST Actions take their funding from two Horizon2020 work programmes: “Europe in a changing world – inclusive, innovative and reflective Societies” and “Spreading Excellence and Widening Participation”. COST’s mission is to strengthen Europe’s scientific and technical research capacity by supporting cooperation and interaction between European researchers.

The COST Action TU1401 is a science and technology network chaired by Prof. Dr. Michael Roth (Nürtingen-Geislingen University, Germany) with a participation of currently 26 COST Member Countries plus one international partner country (Canada). It is organised through a range of networking tools, such as meetings, conferences, workshops, short-term scientific missions, training schools, publications and dissemination activities.

The Action will develop a better understanding of how landscape protection and management, and renewable energy deployment can be reconciled to contribute socio-environmentally to the sustainable transformation of energy systems. This Action will consolidate and extend knowledge from a pan-European perspective using a modular methodological framework. It will enhance the science base for decision-making, and develop guidelines for public participation in planning renewable energy systems. To do so, there are four interacting Working Groups (WG) addressing different scientific methods:

- WG 1 will review specific renewable energy production systems and their impacts on landscape character and quality in Europe from a past, present and future perspective (e.g. considering scenarios), and produce a systematic review of the nexus between renewable energy systems and Europe's landscapes' qualities, and documentation and a synopsis of landscape quality and character assessment.
- WG 2 will assess landscape functions/qualities and their sensitivity to/potential for specific renewable energy production systems. This analysis of potential and risk will be used to produce: (i) a typology of best practices of sustainable, landscape compatible renewable energy production systems, (ii) guidance for assessing the potential of areas for specific renewable energy systems in terms of effects on landscape quality/character, (iii) a catalogue of relevant criteria, indicators and respective GIS-available proxy-data for assessing the suitability of landscapes for renewable energy systems.
- WG 3 will investigate socio-cultural aspects of sustainable renewable energy production and propose modes and means of integrating specific aspects of renewable energy in participatory toolkits.
- WG 4 will focus on the synthesis of findings and dissemination of results.

Openness is one of the three key principles of COST Action (the other two being excellence and inclusiveness), so during the first year of the Action, interested participants are welcome to join. For further reference, please have a look at the Action's Memorandum of Understanding (MoU) at [http://www.cost.eu/COST\\_Actions/tud/Actions/TU1401](http://www.cost.eu/COST_Actions/tud/Actions/TU1401) which also includes a list of parties involved in the COST Action.

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