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Creating Impact through COST Action networks

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The European Cooperation in Science and Technology (COST) has a very important role in fostering the establishment of scientific excellence in many fields such as: Geoscience, Planetary and Environment. Over the years, COST Actions have contributed to European competitiveness through their many contributions to standardisation bodies, the small to medium enterprises originating from COST networks and the transfer of results to the European industry.

A series of COST Actions in the field of Meteorology developed global data transfer standards on the basis of infra-networks in collaboration with the World Meteorological Organization advantaging the competitiveness of the industrial participation. Such achievements include harmonisation of UV-index, developing operational programmes, services, networks and phenological responses to climate on a Pan-European Scale and were recognised by the Intergovernmental Panel on Climate Change. European Centre for Medium-Range Weather Forecasts (ECMWF) is another good example as a result of an Action through its evolution to become an independent intergovernmental organisation with its own structure and headquarters supported by 34 states.

The key findings of COST networks not only contribute to the atmospheric drivers on the impacts of the global change but also increase the understanding of the function of marine ecosystems and its response to climate change. A number of Actions in the field of marine science have developed observing system to integrate the dynamic response of sea-level variations to combine effects of various natural drivers into multi-criteria tools by bringing together oceanographers and meteorologists. These developments urged for an integrated implementation of technology in sea-level monitoring, and for further international agreements on data storage and exchange.

A wide range of disciplines, evaluating the complex interactions between the oceans and the global change, geosciences, natural resources management, environmental monitoring, biogeochemical cycles, ecology, hydrology, natural disasters, water cycle have well undertaken through COST Action networks. The results were published in high impact journals, guidelines were represented in position papers leading to new research projects on a global scale. Participation in COST leads to significant results and follow-up in terms of number of proposals submitted for collaborative research in Horizon 2020, with a striking success rate of 33% (the Horizon 2020 average is at 12.2%). By enabling researchers and innovators from all career levels to network, COST connects complementary funding schemes, facilitating the entry of promising young talents into these schemes.

COST is committed to reinforcing its role as the leading networking instrument in the European Research Area (ERA), while creating even higher tangible impact on society.