



## **A NEW CHALLENGE FOR METEOROLOGICAL MEASUREMENTS: THE “MeteoMet” PROJECT – METROLOGY FOR METEOROLOGY**

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Climate change and its consequences require immediate actions in order to safeguard the environment. Reliable assessment of climate change crucially depends on the robustness of climate data and on the uncertainties associated with measurements. Numerous different climate data users have expressed the need for new stable and traceable measurement standards, protocols, sensors and calibration procedures, and uncertainty-evaluation methods, to enhance data reliability and reduce uncertainties in climate models. Aiming to respond to these needs, a joint research project called “MeteoMet - Metrology for Meteorology” ([www.meteomet.org](http://www.meteomet.org)) started in October 2011 co-funded by European Commission and the national governments of participating institutes. This project is part of the European Metrology Research Program (EMRP) coordinated by the European Association of National Metrology Institutes (EURAMET).

The MeteoMet project, coordinated by the Italian Istituto Nazionale di Ricerca Metrologica (INRiM), is focused on the traceability of measurements involved in climate change: surface and upper air measurements of temperature, pressure, humidity, wind speed and direction, solar irradiance and reciprocal influences between measurands. This includes development and testing of novel instruments as well as improved calibration procedures and facilities, in-situ practical calibrations and best practice dissemination. The project will provide a first definition at the European level of validated climate parameters with associated uncertainty budgets and novel criteria for the validation and recalculation of historical data series.

The activities in the project and the specific subject have brought together a wide consortium of partners, the biggest in EMRP, and together with a strong stakeholder involvement it represents a key feature of the project helping to merge and exchange different knowledge aimed at improving the actual climate-science panorama, discussing and proposing common procedures, and allowing wide dissemination of project results.

The project activities, tasks and deliverables, are here described, with a specific focus on the objectives and the experimental devices that will be assembled for the purpose.