



## **QA4ECV: Developing Metrological Traceability Through ECV Products**

Joanne Nightingale (1), Tracy Scanlon (1), and Clive Farquhar (2)

(1) National Physical Laboratory, London, UK, (2) CGI, Leatherhead, UK

Meteorological traceability is the relation of the result to a reference (for example SI) through an unbroken chain of documented calibrations or comparisons. Each link in the chain contributes to the uncertainty associated with the derived value. The QA4ECV project (which has received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) under QA4ECV grant agreement no. 607405) aims to demonstrate traceability through the processing steps associated with the production and validation of 6 Essential Climate Variable (ECV) products (3 land and 3 atmosphere). This involves the development of ECV algorithm and product validation diagrams and demonstrable uncertainty estimation processes through each step of these chains. A traceability and uncertainty propagation tool (TUPT), which graphically demonstrates the propagation of uncertainties through an algorithm and product validation chain will be developed to support a pioneering and robust quality assurance framework for ECV climate data records.