

Towards an improved access to hyperspectral data across Europe (HYRESSA)

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Today Europe has more than 20 years experience in hyperspectral remote sensing. Several flight campaigns with different kind of hyperspectral sensors have been executed during the last few years and next-generation airborne hyperspectral sensors (APEX and ARES) are under construction. These sensors are operated by different facilities in different EU member states. Consequently the flight campaign planning, sensor calibration, data processing, ... for the different facilities is strongly variable. Different calibration, acquisition, processing and in-situ measurement protocols and the relatively high costs related to uncoordinated sensor deployments are barriers to exploit the full potential of hyperspectral imagery. There is a need to optimize data access to and streamline the use of hyperspectral images and operations of hyperspectral sensors at European level. The aim of the HYRESSA (HYperspectral REmote Sensing in Europe – specific Support Actions) FP6 project is to investigate the Strengths, Weaknesses, Opportunities and Threats of hyperspectral remote sensing in Europe and to investigate the User Needs of the European scientific hyperspectral remote sensing community. For that purpose, a European hyperspectral contact database containing about 700 contacts was first built, and a SWOT and User Needs workshop was organized on 5-6 July 2006 at DLR (Germany). A Questionnaire on User Needs (QUN) will be launched by the end of 2006. The main user needs identified during the SWOT and User Needs workshop are: standardization (especially for data processing and calibration), more transparency on calibration processes, European platform for hyperspectral remote sensing (e.g. sensor pool, information about campaigns, data pool, spectral libraries, ...), education and training and the increase of the awareness of the added value of hyperspectral remote sensing. Furthermore, HYRESSA will investigate the refinement of protocols (calibration, acquisition, processing, in-situ measurements) in compliance with standards and will explore new strategies on how to build a European network of hyperspectral remote sensing facilities and on how to coordinate a European user-oriented hyperspectral remote sensing Research Infrastructure. More information can be found at the HYRESSA website (<http://www.hyressa.net>).