

PROVIDING PROCESSING LINES AND TEST DATA FOR THE GMES LAND MONITORING CORE SERVICE

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ABSTRACT:

Geoland2 project is part of the GMES EU-lead initiative and intend to prepare, validate and demonstrate pre-operational service chains and products of the Land Monitoring Core Service (LMCS), and to propose its specific functional organization. The architecture of geoland2 is made of 3 Core Mapping Services (CMS) providing "basic" land products, and 7 Core Information Services (CIS) which are thematic elements using the CMS products to generate more "elaborated" information addressing specific European policies. One CMS, called BioPar, is dedicated to the production in near real-time and off-line mode of biophysical variables describing the continental vegetation state, the radiation budget at the surface, and the water cycle. We focus here on the following product lines: the Leaf Area Index, the Fraction of green Vegetation Cover, the Fraction of PAR absorbed by the vegetation, the NDVI, the surface albedo, and the Soil Water Index. Until 2012, the objective is to define, develop, validate, and run 2 versions of the processing lines. For each version, test data sets are generated: they are dedicated to the scientific validation performed by independent team, and to the product utility assessment carried out by the CIS users. The talk will describe the organization set-up to build the system, including the interfaces upstream with the team in charge of the algorithm definition, and downstream with the production centre which will perform the operation and dissemination. The emphasis will be put on the qualification procedure applied at each step of the development process. The test data sets, available during the first quarter of 2010, will be presented. Furthermore, we will show the main results of the validation procedure which relies on comparison with ground measurements, and on inter-comparison with similar EO-based products, and the first feedback about the utility of these products for the users' applications.

TOPIC: Physical modeling and signatures

ALTERNATIVE TOPIC: Remote sensing applications