

## SATCHMO - SEASONAL AND ANNUAL CHANGE MONITORING.

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#### ABSTRACT:

Seasonal & Annual Change Monitoring (SATChMo) is one of the Core Mapping Services within the geoland2 project. The project is co-founded by the European Commission under the 7th Framework Programme in the Space Activity area. SATChMo can be divided into four main groups of coherent products. Area Frame Sampling (AFS) Europe, AFS Africa, Vegetation Phenology and Global Land Cover Change. SATChMo operates at continental scale over Europe and Sub-Saharan Africa. It delivers: a VHR/HR AFS over permanent samples representative for all European and African environmental / ecological conditions for annual and, in the case of African products at 5 year intervals with statistics of land cover & land cover change; a complete MR continental coverage of seasonal and annual vegetation parameters to produce land cover change and agricultural land use. The time frequency of the product update is of the order of 3 - 12 months. SATChMo is highly innovative in exploiting the synergy between MR, HR and VHR data. The MR data will serve as indicators of rapidly changing "hot spots", in which more detailed analysis with the HR and VHR data is to be performed. Output from HR data will be used as a training source for MR LC analysis and as a validation source for MR LC product. The MR-HR synergy allows the derivation of LCC estimates on national / regional scales of better accuracy than obtained by existing tools. SATChMo is aiming to cover 27 EU countries, which are the EUROLAND and LUCAS commitments. SATChMo is focused on fulfilling needs of international users like European Environmental Agency and Eurostat. On the other hand SATChMo services are also of interest to national agencies like Polish Statistical Office, Lithuanian Environment Protection Agency, Soil Science Institute of Athens and many others.

**TOPIC:** Operational remote sensing programs

**ALTERNATIVE TOPIC:** Land cover classification