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DLR-DFD

B2: « Certification of sustainable bioenergy use »

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ENDORSE



EU Renewable Energy Directive (2009)

- RED is part of the EU climate and energy package
- RED aims to achieve 20% renewable energy in the EU in 2020
- Specific 10% target for renewable energy in transport
 - Increased use of biofuels
- RED includes the **biofuel sustainability scheme**

Sustainability criteria

- GHG saving of at least 35%
 - 50% from 2017
 - 60% for new installations from 2018
- **No raw material from converted land with:**
 - high biodiversity value
 - Primary forest, protected areas, bio-diverse grassland
 - high carbon stock
 - Forests, peatland, wetlands

Objectives

- Develop and validate a regional service promoting the sustainable use of biomass in collaboration with the German Biomass Research Center (DBFZ) with special focus on direct land use change (dLUC) derived from EO-data
- Assess the level of acceptance of the new service through survey

MERIS-FR: July 28, 2009



RGB image of
Sardinia

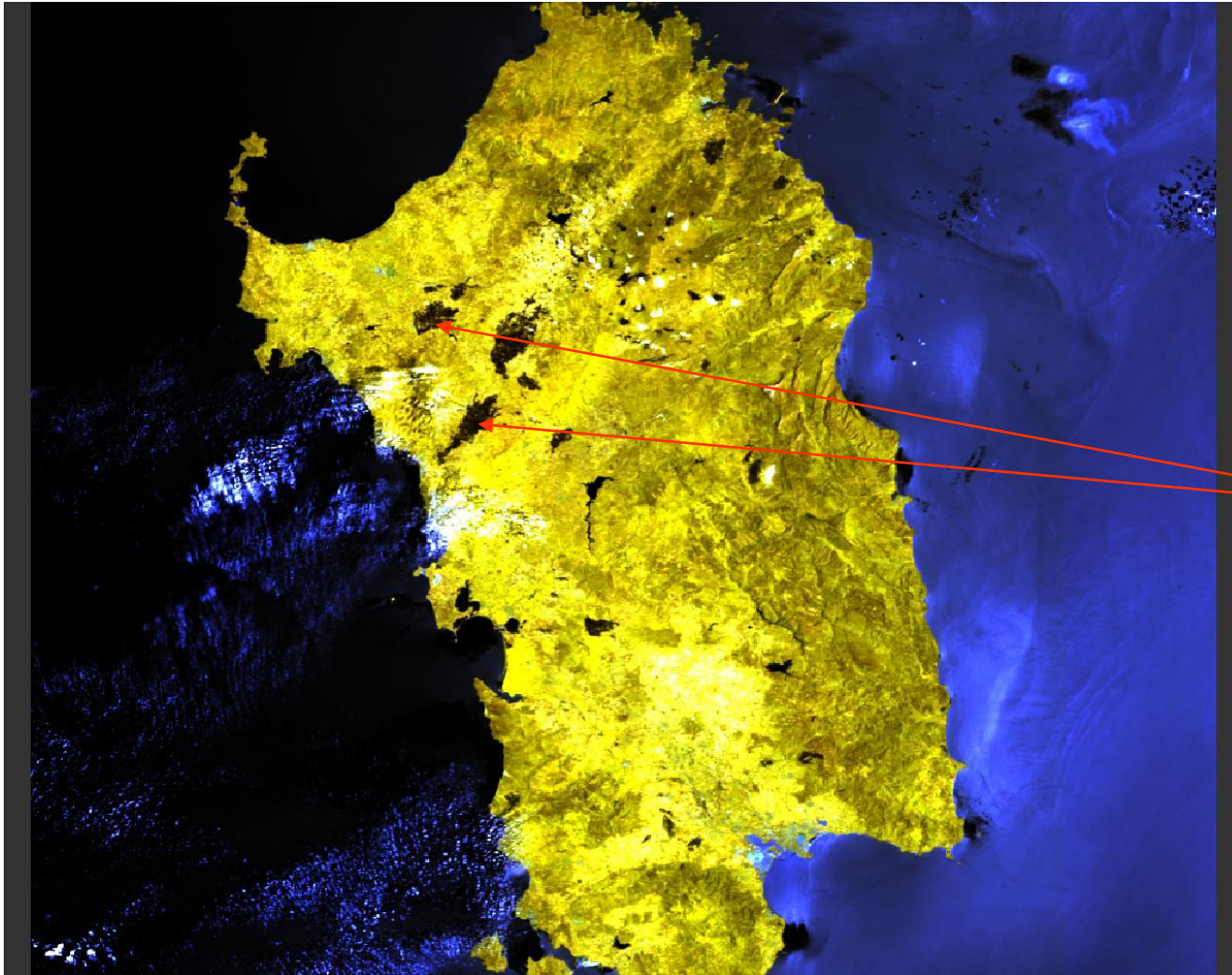
Challenges & expectations

- Use of EO-data especially MERIS-FR data with 300m resolution
- Use of Geoland 2 data on land cover / land use, protected areas, inhabited areas especially the global GlobCover data set
- Use of GEOSS catalogues as entry points to EO data

Product & service

- Maps showing the land cover change of areas where energy plants are cultivated (comparison with past data)
- On request, actual and past EO data of regions of interest will be made available, pre-processed and processed to show the land cover change
 - Pre-requisite: availability of EO data of the same region and the same time span

MERIS-FR: July 28, 2009



Land cover
change due to
fire

Innovation & market

- Provision of a tool for an accurate evaluation of the sustainable use of biomass resources (legal certification processes) using MERIS-FRS data (300m spatial resolution) and exploiting the full spectral capabilities of MERIS data
- Market / users:
public authorities supervising and controlling the quality assessment and sustainability of biomass products

Measures of success of each phase

- Phase 1:
 - WP409: Product development
 - Person months: 7
 - KO+3 – KO+21
 - Validation of the product, discussion with prime user (DBFZ) and feedback refinements
- Phase 2:
 - WP609: Pre-market service development
 - Person months: 2
 - KO+19 – KO+30
 - Improvement plan including the specifications for the pre-market service (data access to MERIS and auxiliary data, definition of metadata, format, delivery mechanism)
 - Presentation of the product and service at the European Biomass Conference