



Scientific reviews of new remote sensing products in geoland2

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Workshop
„Validation, Verification, Qualification & Certification of Services“
geoland2 Forum 6
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geoland₂



European Commission Fast Track Service Land within the GMES initiative in FP-7





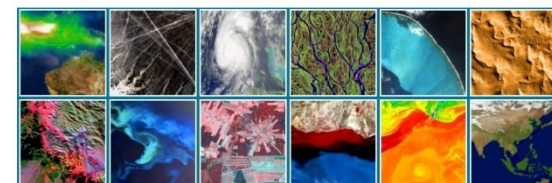
- **The European Association of Remote Sensing Laboratories (EARSeL) is a scientific network of European remote sensing institutes, which come mainly from academia**
- **There are about 200 member laboratories**
- **EARSeL is run by a Council of elected national representatives from each country where there are member laboratories and an executive Bureau, elected by the Council**
- **EARSeL was founded in 1977 under the auspices of the European Space Agency, the Council of Europe and the European Commission**





- **EARSeL is a ‘big family’ for the facilitation of cooperation among European laboratories, within which ideas are communicated, solutions are cooperatively found, challenges are pursued, and specialized groups come together to address spearhead scientific issues**
- **EARSeL organizes and coordinates:**
 - Annual Symposia & Workshops
 - Special Interest Groups
 - Publications
 - Projects

recent GMES project: Science Education through Earth Observation for High Schools (www.seos-project.eu)





■ Special Interest Groups (SIGs)

- 3D Remote Sensing
- Remote Sensing of the Coastal Zones
- Developing Countries
- Forestry
- Forest Fires
- Geological Applications
- Data Fusion
- Imaging Spectroscopy
- Land Ice and Snow
- Land Use and Land Cover
- Temporal Analysis of Image Data
- Urban Remote Sensing
- Education and Training
- Radar Remote Sensing
- Archaeology and Cultural Heritage
- Thermal Remote Sensing





■ Science Platform: EARSeL

1. selects and assigns external reviewers from its member laboratories for geoland2 new remote sensing product scientific reviews

2. takes care of the dissemination of the scientific findings through its conferences and dedicated working groups.

Scientific soundness review (SSR)

(models and algorithms proposed to solve a user information need to be reviewed against pre-existing results from scientific research activities)

Feedback for quality assurance (F&QA)

(SIG meetings, workshops, and special sessions in the framework of Symposia to bring together experts related to the specific product to receive their feedback and possible improvement suggestions)



■ Science Platform already active and supports the design and development phase:

- Scientific soundness reviews for the SatCHMo and Euroland activities are drafted, first reports are provided, and are currently on going

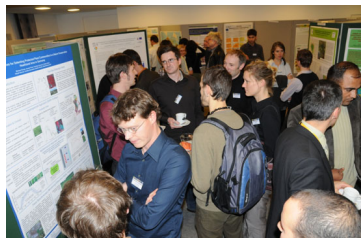
[ref. to SATChMo Europe (WP3210), AFS Scheme review: Africa (WP3220), Crop area estimate and crop growing conditions review: Europe (WP3230), Vegetation phenological trends review: Europe (WP3240), LCC maps review: Europe & Africa (WP3250), Survey of HR/MR data synergy methods (WP3260), Euroland methods compendium].

The reviews were done on the number of documents provided. No severe scientific issues were found. Minor and/ or major issues were identified. The procedure is iterative and the review documents in this phase are considered as living documents.

- New reviews are expected shortly according to the DoW and the development of the project (-needs)



- **Science Platform already active and supports the design and development phase:**
 - Feedback for Quality Assurance is provided by
 - EARSeL's participation in the Change Detection workshop in Madrid last year and report a review on change detection methods
 - The organization of a well attended international scientific workshop on Land Use Land Cover mapping from 25-27 November 2009 in Bonn, with more than 130 participants registered from 30 nations, and the parallel presence of geoland2 actors. A special half-day session was dedicated on European Land Cover Mapping activities incl. national approaches, and a meeting on the Object Oriented Data Model took place in advance on 24 November at Bonn University with a productive output according to the minutes of the meeting.



» New meetings planned ahead, as the participation of geoland2 actors into specially devoted sessions on Land Use/ Land Cover within the framework of the 30th EARSeL Symposium to be held this June in Paris (UNESCO).



- The review **examines** the scientific soundness of the applied and tested methods **in regard to their suitability in order to achieve the proposed goals**. It evaluates **if** the proposed and investigated approaches **are promising and follow the state-of-the-art knowledge**.
- Major and minor **difficulties** are outlined. It is stated where from the reviewer perspective **additional clarification is required**, where the method compendiums **need to be updated** or where general difficulties are seen.
- **It is structured as follows:**
 - **1. Part**
 - Registration of the reference information for the archive
 - Introduction of relevant abbreviations, and terminologies
 - Registration of reference documents used
 - Provision of a qualitative scale for categorization and prioritization of findings



■ It is structured as follows:

■ 2. Part

- Compliance with the state of the art
- Discussion and justification against the alternatives
- Description and validity of the applied methodologies
- Consideration of interfaces (input data, suppliers, users)
- Applicability according to the user segment (involvement, specific needs)
- Consideration of future developments
- Any other comments

3. Part

- General conclusion statements of the reviewer



I would like to acknowledge and thank Matthias Braun (LEAR of EARSeL till February, SIG Chairman of Land Use & Land Cover) for his work so far



Thank you for your attention

Your feedback and input is highly appreciated



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