VALIDATING THE USABILITY OF AN INTERACTIVE EARTH OBSERVATION BASED WEB SERVICE FOR LANDSLIDE INVESTIGATION

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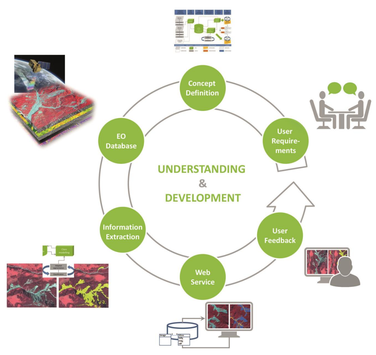
Introduction

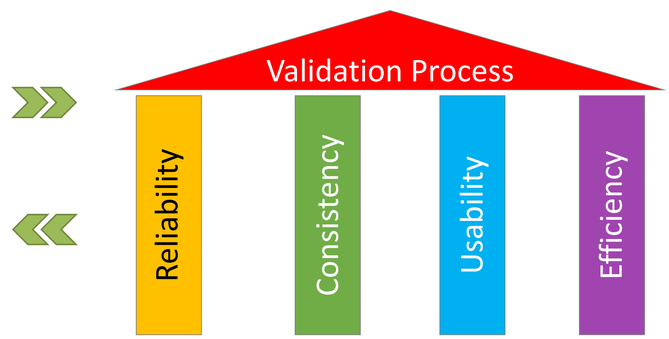
Regional authorities and infrastructure maintainers in almost all mountainous regions of the Earth need detailed and up-to-date landslide inventories for hazard and risk management. Landslide inventories usually are compiled through ground surveys and manual image interpretation following landslide triggering events. **For improving the collection of landslide information, we developed a web service that uses Earth Observation (EO)** data and supports the required mapping and monitoring tasks.



Next, a comprehensive **validation of the EO-based web service** is necessary **in order to judge the quality of our test development**. Apart from evaluating the achievable landslide information quality, the planned validation specifically **focuses on the usability** and user friendliness of the user interface of the web service.

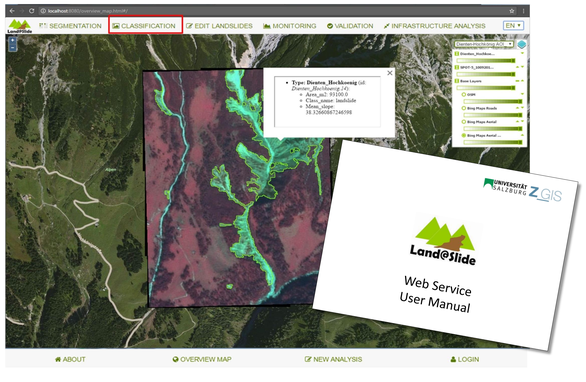
Objectives & Approach

The validation of the EO-based web service for landslide mapping and monitoring intends to **gather feedback from users** as a basis for improving the web service and its associated documentation.
The feedback is acquired with a user workshop and an online questionnaire that addressed validation criteria of usability and allow an improvement of the user requirements and further development of the web service.

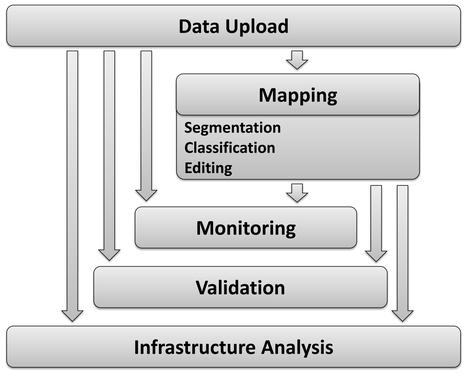


User Requirements gathering (…) → User Interviews → Document Scenarios, Needs, Requirements → **Web Service Design** → **Web Service Development** → **Web Service Validation** (Criteria Development; User Validation Workshop; Criteria Documentation)

Web service user interface



Landslide web mapping and monitoring service modules



Workshop Agenda

- Introduction to EO-based landslide mapping
- Usability tests of web service
  - Mapping interfaces: Segmentation, Classification, Editing
  - Monitoring interface
  - Validation interface
  - Infrastructure analysis interface
- User feedback session

Validation criteria documentation

Usability Criteria

- Spatial coverage of the area of interest
- Overview map
- Readability
- Legend symbols are clearly defined
- Multilingual support
- Metadata consistency
- Tool usage is intuitive
- Constraints related to access, use and sharing of information

Other criteria

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