



ALErT Module A 5 “Present-day monitoring and data management: Databases, GIS and Remote Sensing”

Potsdam, Mar 22-28, 2015

Report

This module provided training in how to integrate and manage geological complex data into a relational database of a Geographic Information System (GIS). The class introduced methods of data collection, remote sensing image interpretation, statistical analysis, and map production using GIS applications.

The scenario undertaken over the course of a week based on a region in Southern France. The project revolved around using ArcMap to format a finished geological map from geological field sheets that were collected in the area. Data that was digitized included graphic detail such as lithology, contacts, structures, bedding readings with correct strike and dips, and scale bars etc. A 2½ D model was derived from the processed map in order to visualize and verify the geological setting. Geological cross sections were generated automatically and questions were solved using ArcMap data intersections to find the best location to place a quarry and a vineyard in the area. One additional aspect was the use of ArcGIS Portal as a platform for sharing the data and results among the Alert participants. At the end, time was given to the use of LIDAR in geological mapping and automatized feature extraction.

The motivation and the reception of the topics by the participants was high, creating an atmosphere during the class that was very inspiring and effective.