SlovakEye

DanubeHack 2.0
2016

Jakub Kočica, Tomáš Kliment

What is the aim?

- We want to explore the quality of our landscape in scale of the region

- We have open data from ESA´s Sentinel 2 mission

- We want to share our data and help other researchers in the topic of remote sensing

Sentinel 2 characteristics

- Sentinel 2 is optical high resolution mission of European Space Agency (ESA)
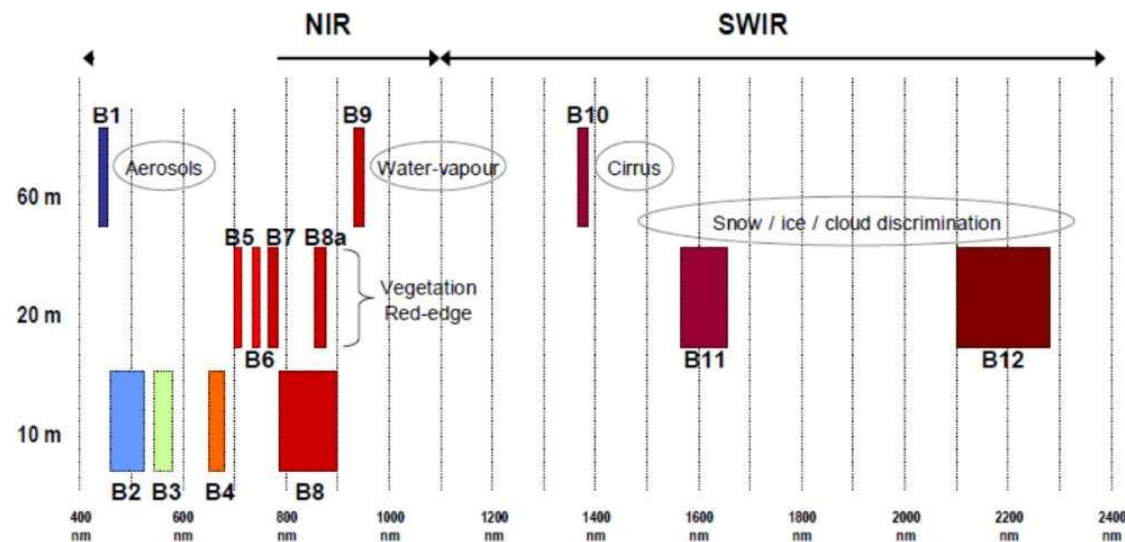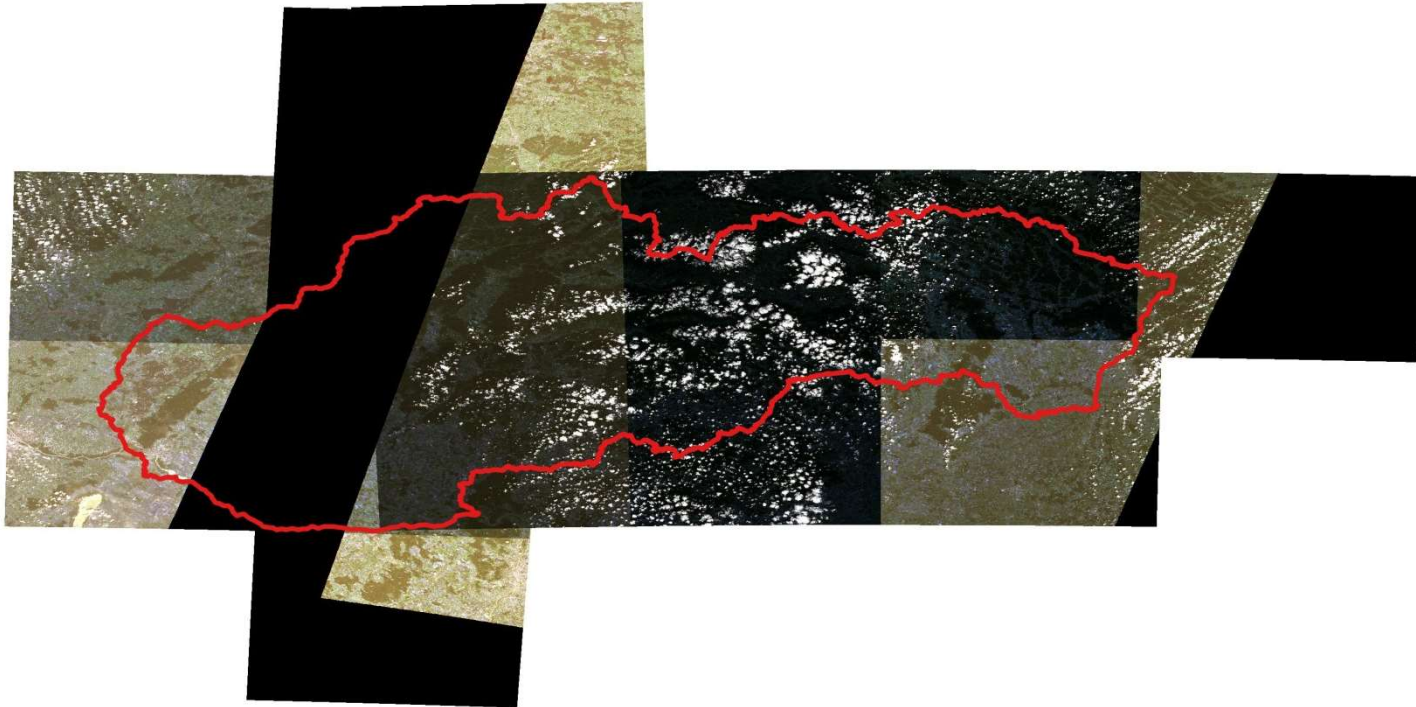- There are two satelites observing earth in the interval of 10(5 days)
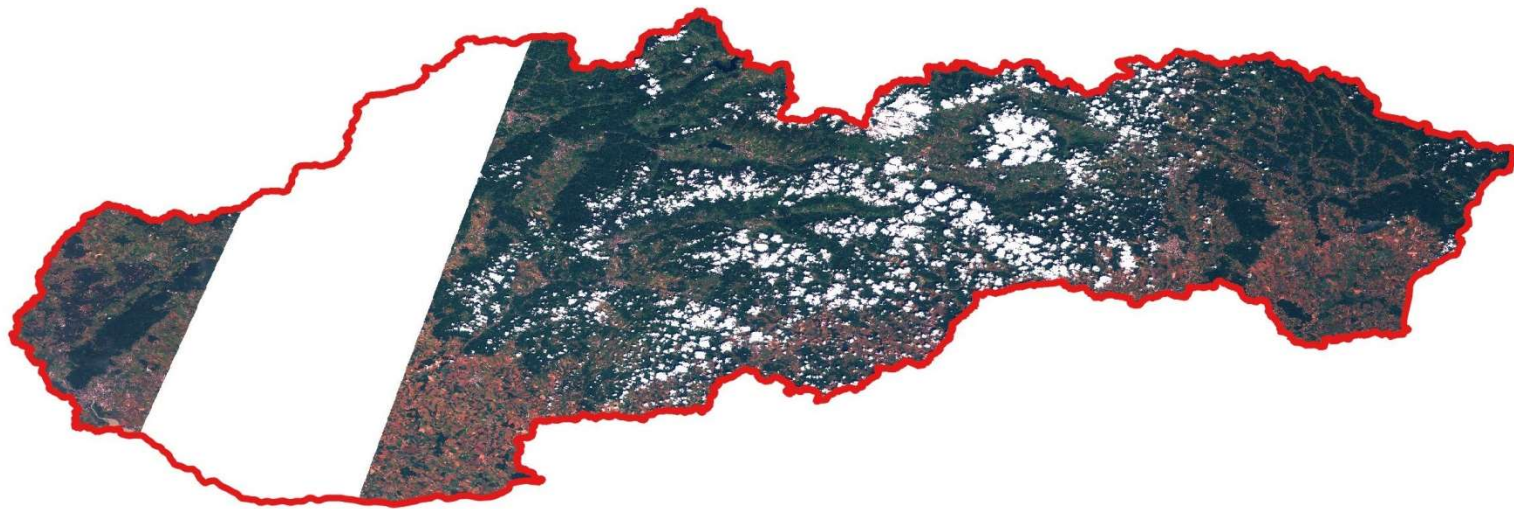

Figure 1: MSI Spectral-Bands versus Spatial Resolution

Input data

- Sentinel 2 L1C 2x2 tiles (observed 25. 06. 2016)
- Selection for Slovakia = 13 sub-tiles

Processing

- Merging bands 2 – 8a into single raster layer
- Resampling original 10 (20)m resolution to 50 m
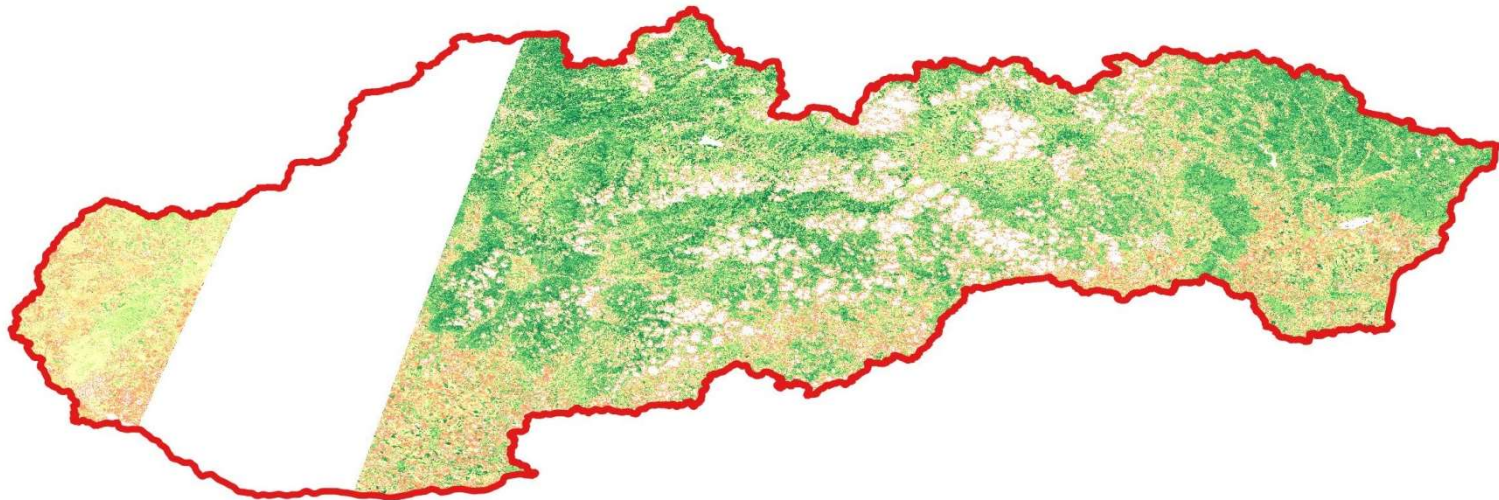- Merging raster layers into single one
- Clipping

NDVI estimation

- NDVI calculation on the client side
- http://bolegweb.geof.unizg.hr/danubehac k2/slovak-eye/

$$NDVI = \frac{(NIR - VIS)}{(NIR + VIS)}$$

Publishing

- Dataset is published trough GeoServer and available for download by WCS
- http://data.datacove.eu:8080/geoserver/slovak-eye/wcs?service=WCS&version=2.0.1&request=GetCapabilities

Thank you for attention!