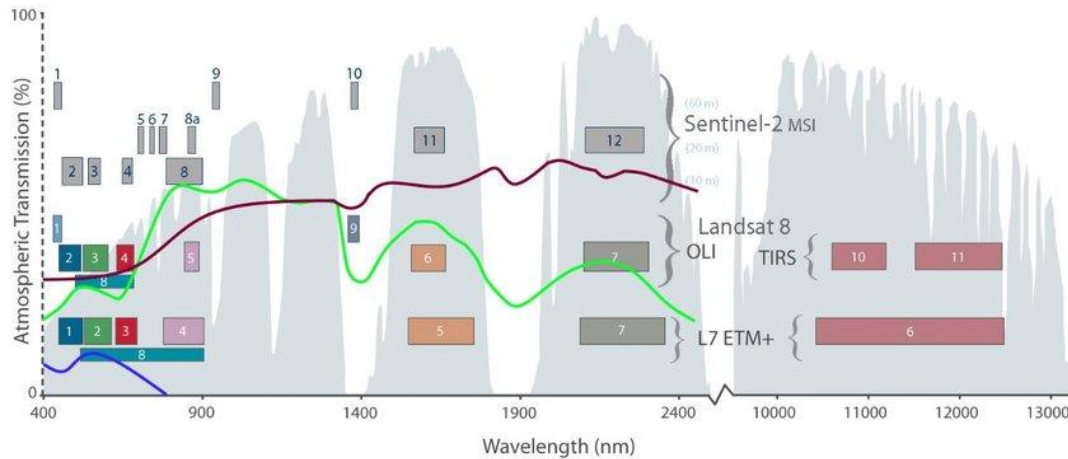


GIS - Exercise 6

Working with raster data - Composite Bands + Land Cover Digitizing

Data: <https://browser.dataspace.copernicus.eu/>

Spectral reflectance curves of vegetation (green), soil (maroon), and water (blue):



Comparison of Landsat 7 and 8 and Sentinel 2: https://www.usgs.gov/centers/eros/science/usgs-eros-archive-sentinel-2-comparison-sentinel-2-and-landsat?qt-science_center_objects=0#qt-science_center_objects

Sentinel 2 – bands and combinations: <https://gisgeography.com/sentinel-2-bands-combinations/>

The Band Composite in ArcGIS Pro: <https://www.staridasgeography.gr/blog/how-to-make-outstanding-maps-with-sentinel-2-and-arcgis-pro-part-1-band-combinations/>

Sentinel-2 Bands	Central Wavelength (nm)	Resolution (m)
Band 1 - Coastal aerosol	443	60
Band 2 - Blue	490	10
Band 3 - Green	560	10
Band 4 - Red	665	10
Band 5 - Vegetation Red Edge	705	20
Band 6 - Vegetation Red Edge	740	20
Band 7 - Vegetation Red Edge	783	20
Band 8 - NIR	842	10
Band 8A - Narrow NIR	865	20
Band 9 - Water vapour	940	60
Band 10 - SWIR - Cirrus	1375	60
Band 11 - SWIR 1	1610	20
Band 12 - SWIR 2	2190	20

- Task:**
- Create a colour composite (Composite bands tool) of the Sentinel-2 image in:
 - true colour (B4, B3, B2)
 - false colour using the near-infrared band (B8, B4, B3)
 - Interpret the Sentinel-2 image and manually digitize land cover classes for your area of interest (artificial surfaces, agricultural areas, forest and semi-natural areas, water bodies)
- Creating and editing shapefiles in ArcGIS Pro: <https://www.youtube.com/watch?v=TPbmUBm9DYQ>
- Set Attribute Domains in ArcGIS Pro: <https://www.youtube.com/watch?v=GURzWvfwWOE>