



SPATIAL DATA INFRASTRUCTURES (2019/2020)

PRACTICAL LESSON 1

- 1.** Use the following link to access the INSPIRE Home Page in order to watch a video about the INSPIRE Directive.

<https://inspire.ec.europa.eu/>

- 2.** Use the following link to access to the INSPIRE Geoportal.

<http://inspire-geoportal.ec.europa.eu/>

- a) Browse INSPIRE Thematic Data Sets and then Country Overview and select Portugal. Identify the number of available data sets for Portugal and how many are downloadable or just viewable.
- b) For Portugal identify the number of available data sets for the INSPIRE theme: Administrative Units. Download the most recent data and visualize it using QGIS.
- c) Search for data sets related to “Carta de Uso e Ocupação do Solo”. Download the most recent data and visualize it using QGIS.

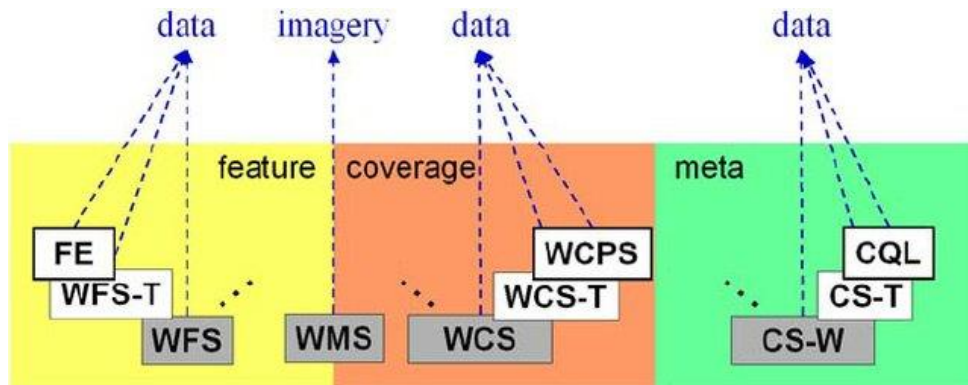
- 3.** Use the following link to access to the iGEO geoportal.

<http://www.igeo.pt/>

- a) Search for data sets related to “Árvores de interesse público” (Trees of public interest) and to “Áreas protegidas” (Protected areas). Identify the data services available for this type of data. Explain the differences between them.

<http://www.opengeospatial.org/standards>

- b) Using the WFS URL (Uniform Resource Locator) available for both types of data, visualize both data sets using QGIS.



4. Use the following link to access to the SNIG geoportal.

<https://snig.dgterritorio.gov.pt/>

- a) Browse for available data sets, choose a data set with a WFS and visualize it using QGIS.

5. Analyse the INSPIRE Metadata Regulation and its corresponding technical guidance document.

<https://inspire.ec.europa.eu/documents/inspire-metadata-regulation>

<https://inspire.ec.europa.eu/documents/inspire-metadata-implementing-rules-technical-guidelines-based-en-iso-19115-and-en-iso-1>

- Identify which metadata elements are mandatory (M), conditional (C) and optional (O) according both to INSPIRE and ISO.
- Find out the multiplicity and the related conditions set expected for each metadata element or groups of metadata elements.
- Identify the type of resources that are described in the metadata files.
- Select what possible topic categories would you choose to classify a spatial data set related to fish species identified in the Azores region.
- Find out what types of spatial data services are available.
- How many keywords are required to describe a spatial data set.
- Considering a spatial data set related to the multibeam bathymetry in the Azores region (INSPIRE theme "Elevation"), what keywords should you adopt (from the General Multilingual Environmental Thesaurus - GEMET) to improve the search for these data?

<https://www.eionet.europa.eu/gemet/en/inspire-themes/>

6. Use the GeMA metadata editor to create a metadata file (xml file). The GeMA metadata editor can be freely downloaded from the following link.

<http://www.ideia.azores.gov.pt/paginas/gema.aspx>