

The Portuguese Land use/Land cover INSPIRE data harmonization made within SmartOpenData and eENVplus project pilots.

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This communication describes the data harmonization performed in the context of the development of pilots for Portugal under the European projects eENVplus and SmartOpenData and their relevance in the national context of Inspire implementation.

The main goal of the eENVplus Portuguese pilot is to create an application to monitor land cover changes between different dates for an area defined by the user and to develop a prototype integrating web services for data used to build indicators and monitor urban dynamics. With this pilot we intend to evaluate the fitness of available datasets to monitor the pattern of urban growth and the adequacy of these datasets to evaluate urban growth sustainability combined with socio-economic evolution and environmental pressures.

The SmartOpenData pilot addresses available relevant official public data integration to understand impacts in water quality of land use/cover transitions and relate them to land use planning efficiency. The rationale is that land use/cover changes have impacts in water quality degradation that need to be understood. Thus, it is fundamental to access the changes over time occurring mainly in watersheds enclosing water bodies used for public supply. The study area covers the Zêzere watershed which is part of the larger international Tagus river watershed.

The datasets harmonized for the eENVplus pilot were the Portuguese land cover datasets for 1995, 2007 and 2010, administrative units and land use dataset.

The datasets harmonized for the SmartOpenData pilot include the Corine Land Cover datasets and administrative units but data also includes several environmental variables used to monitor water quality evolution over time.

The methodology used in the harmonization process for each dataset comprises the following steps:

- Appropriate Inspire theme selection and data specifications study.
- Creation of a matching table establishing correspondences between the entities and attributes for the dataset being harmonized with the inspire data specification.
- Data transformation to create the final GML dataset.
- Validation of the transformed dataset.

Finally, the problems found for the different selected themes are described and the contribution for the harmonization of the official reference datasets for these themes in Portugal is discussed.