

Newsletter



H LanData

HARMONIZATION OF EUROPEAN
LAND USE AND LAND COVER DATABASES
FOR THE CREATION OF VALUE ADDED SERVICES

Contents

The H LanData project aims to demonstrate the feasible European level harmonization of the Land Use and Land Cover datasets taking into account both the data categorization and the data models, for any of their possible uses and users, through the development of user-oriented value-added services.

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ICTPSP

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Towards a harmonized land use and land cover geographic information

After the diagnosis phase (WP1), HLandData has been entirely immersed in the past months in the proposal for the harmonization of the Land Use and Land Cover geographic information. Related to this, the project partners already proposed two data models, one for Land Use and another one for Land Cover. These data models have been tested by all partners in order to assess the adequateness to fit the different data models used through Europe, and proposed modifications if necessary.

Several HLandData partners are involved in the INSPIRE Thematic Working Groups of Land Use and Land Cover; the progress on the definition of the specifications of the Directive and the solutions provided by the project were therefore well coordinated.

This task is being carried out within the Work Package 2 – Harmonization of LU/LC Data and Development of the Baseline LU/LC Data Sharing Infrastructure, lead by **TRACASA** (Spain).

Conclusions of the Task 2.1 - Harmonization proposal

The proposal development has been strongly influenced by the involvement of HLandData partners as experts in the INSPIRE Thematic Working Groups (TWG) of Land Cover and Land Use. The process of data harmonization is addressed to make the information shared by the different data providers in the HLandData project interoperable. This process is defined according to INSPIRE Directive principles, with the aim to meet its objectives of harmonizing, maintaining, and sharing information.

The involvement in the development of the LC and LU Data Specifications (DS) allowed HLandData partners to have a privileged overview of the European current situation regarding LC and LU; it guarantees the adequacy of the HLandData proposal to the INSPIRE perspective and requirements.

The document delivered is based on the HLandData WP1 results, together with other previous harmonization initiatives such as EURADIN, NATURE SDI+ and SIOSE among others and INSPIRE, keeping in mind as further horizon the development within the project of a harmonized data sharing infrastructure.

The HLandData project has chosen to collaborate actively in the DS v 1.0 - 2.0 development. HLandData provided its LC - LU related perspective and users' requirements knowledge compiled during the WP1.

This close relationship allowed HLandData project to have the opportunity to use DS LC – LU v 2.0 as targeted harmonized data model. HLandData will participate actively in the coming months in the testing and consultation phase of the DS.

HILUCS **nomenclature** will be used as the minimum common LU nomenclature and CLC nomenclature for LC. This last nomenclature is not included in DS LC v. 2.0 but is the most accessible European LC layer.

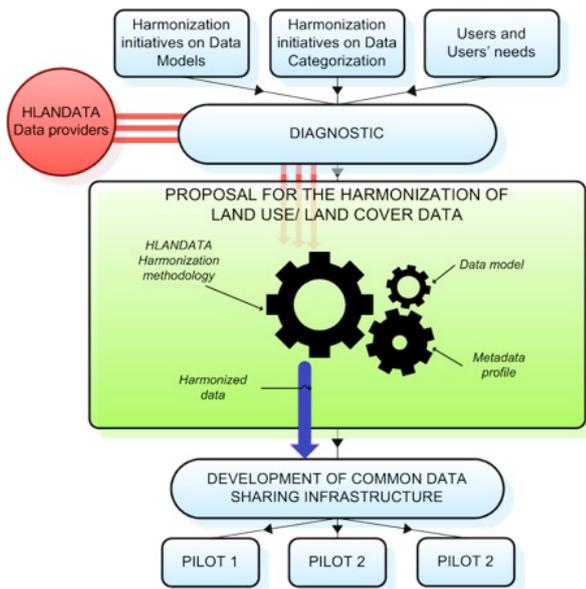
Regarding **metadata**, HLandData data will reuse Plan4all knowledge by using its metadata profile. The harmonization of data sets and metadata profiles into a common model, will offer several benefits to the data providers and users of HLandData information, among others, the possibility to access information from different sources and to combine these data in a common viewing. This is the aim of HLandData, to provide INSPIRE/HLanData compliant datasets and metadata from the different partners on the HLandData common data sharing infrastructure, the first stage in the building of HLandData Pilots.

Now that tools and processes are established, the remodelling will take place in task 2.2, by data providers.

First conclusions of Task 2.2 - Design, development and validation of the harmonized data sharing infrastructure

Taking as starting point the different formats and data model used by the HLandData data providers the HLandData methodology will start by guiding the transformation and remodelling of this data into harmonized LU/LC data. This part of the harmonization will be called HLandData Harmonization Process. It includes also the harmonization of the metadata into the HLandData metadata profile.

The HLandData harmonization methodology will allow the creation of an accessible repository of harmonized data. The final objective is to be able to share HLandData and/or INSPIRE compliant datasets and metadata from the different partners on the harmonized common data sharing infrastructure.



The HLANData harmonization process

Launch of WP3 on Pilot projects design and implementation

HLanData has switched into the development phase. Results from the harmonization phase (WP2) start to have concrete form to start the development of the Pilot projects. The key phase of WP3 is the **design of the Pilot projects**. There are 3 Pilot projects (one of them including 2 sub-Pilots). Each Pilot project is developed by different partner or group of partners from various EU countries addressing different users and usages each, but based on the same concepts and framework. Each Pilot project design will be carried out based on the results of WP2, i.e. on the harmonized data.

The starting point of the development phase will be the adaptation and optimization of the generic web services developed in WP2 to the concrete value-added services offered by the Pilot projects. In each one of the Pilot project, these generic services will be extended with new web services and functionalities, allowing the validation of the proposed harmonization at a European level.

All four Pilot projects should be finalized by Spring 2012, and they include:

Pilot 1: LC/LU Data Analysis System for intermediate-level users. Partners: GN, TRACASA, IGN/CNIG, TDF and CEIT.
Pilot 2: National Land information systems (Sub-Pilot 2.1: Czech Republic and Sub-Pilot 2.2: Lithuania). Partners: AGI and GISAT.
Pilot 3: Stratification of waste dumps in Slovakia. Partners: SEA and CEIT.

The final phase of WP3 is the validation of the Pilot projects, which will be carried out on the basis of the registered data regarding the behavior of the end users on the value-added services implemented by such Pilot projects. End users involvement is necessary in this task in order to provide an adequate feedback on the results of the project. In most of the cases, the content providers themselves also correspond to the end users of the information (e.g. public administrations).

The developments to be carried out in order to create value-added services for the spatial and temporal analysis in the different Pilot projects will as far as possible integrate open source developments and own developed software. ISO and OGC standards will be adequately regarded. The developed services will be freely accessible through the web, and their implementation will assess the different existing solutions, also guaranteeing the use of standard services (WMS, WPS, WFS).



HLanData at the INSPIRE CONFERENCE 2011 in Edinburgh

The INSPIRE Conference 2011 took place from 27th June to 1st July 2011 in Edinburgh, Scotland. The theme of this year's edition was „INSPIRED by 2020 - Contributing to smart, sustainable and inclusive growth“. In 2010, the European Union renewed its commitment to knowledge-based sustainable development by putting forward three mutually reinforcing priorities in the Europe 2020 Strategy. This edition of the INSPIRE Conference offers an opportunity to explore INSPIRE's contribution to Europe's 2020 strategic goals and to root it's further implementation and development in the EU 2020 follow-up programmes.

HLanData organised a Workshop on the theme of „Land Cover/Land Use Data model commonalities - HLANData project user's perspective“ on Monday, 17th June 2011. Vanda Lima (JRC) and Maria Cabello (TRACASA) were the moderators of the workshop; Vanda Lima presented the INSPIRE framework, as well as the collaborative perspective among projects and themes and LC/LU testing process. Nuria Valcarcel (IGN) presented the Land Cover DS, Isabel Goñi (TRACASA) the Land Use DS, and finally Isabel Goñi and Maria Cabello presented the harmonization methodology and practical applications.

Newsletter



Gobierno de Navarra (GN)

GISAT

Trabajos Catastrales S.A. (TRACASA)

Technology Development Forum (TDF)

Instituto Geográfico Nacional (IGN) –
Centro Nacional de Información Geográfica (CNIG)

Slovak Environmental Agency (SEA)

CEIT ALANOVA

Institute of Aerial Geodesy (AGI)

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