CONSORTIUM:

Gobierno de Navarra

tracasa

GOBIERNO DE ESPAÑA · MINISTERIO DE FOMENTO · INSTITUTO GEOGRÁFICO NACIONAL

AGI

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TEHNOLOĢIJU ATTĪSTĪBAS FORUMS

CEIT
CENTRAL EUROPEAN INSTITUTE OF TECHNOLOGY

CEIT ALANOVA
Institute of Urbanism, Transport, Environment and Information Society

ISOCARP

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ICTPSP

HLanData

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

A European Project on Land Use and Land Cover Databases harmonization

2010-2013

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Objectives

The HLANDATA project, lead by the Government of Navarre and TRACASA, 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.

Land Cover is referred to the physical, chemical, ecological or biological categorization of the earth surface. The **Land Use** is referred to the categorization of the territory based on its current and future planned socio-economic purpose. Land Use and Land Cover are amongst the most important geographic information themes today.

This project is fully aligned with the INSPIRE European Directive (Land Use and Land Cover themes are included in its annexes II and III) and it follows the line of the European Directive 2003/98/EC on the reuse of public sector information.

Within the project, with 36 months duration and a budget of 3.405.601 Euros, the following specific objectives have been defined:

- Assessment of the relevant information related to the harmonization of the Land Use and Land Cover Datasets:
  - Previous harmonization initiatives and related results.
  - Types of users and users' real needs (from the point of view of the applications).
- Harmonization proposal of the Land Use and Land Cover datasets.
- Development and optimization of common data sharing infrastructure based on web services.
- Implementation of 3 pilot projects providing value-added service to end users.
- Validation of the project results by the target users.
- Creation of an experts' network composed of producers and users of this information.

Users

Target users of the proposed services are Land Use/Land Cover information users, particularly intermediate-level users, which need functionalities such as visualization, overlay of own information to other sources, spatial and temporal analysis and downloads of the data in different formats. This mainly includes technicians of the Public Administrations; private companies; Universities; architects and engineers.

The Three Pilot Projects

Pilot 1: LC/LU Data Analysis System for intermediate-level users.
A system allowing users to make advanced analysis (advanced viewing, overlaying different layers, spatial and temporal analysis, downloads, data maintenance (for producers), E-learning tool etc.) of the Land Use and Land Cover datasets with information coming from different sources at a European level will be developed.
Partners involved: Gobierno de Navarra, TRACASA, IGN/CNIG, TDF and CEIT.

Pilot 2: National Land information systems (sub-pilot 2.1: Czech Republic and sub-pilot 2.2: Lithuania)
The existence of reliable spatial information of LC/LU, are the pre-condition for effective informed territorial management and spatial planning in general. There is a strong need for harmonization of both Core Mapping Services and Downstream (added-value services) activities so that the results on content and service level are comparable between the countries as well as at European level (in line with INSPIRE principles). Partners involved: AGI and GISAT.

Pilot 3: Stratification of waste dumps
In Slovakia long-term waste disposal on landfills is still the most frequent method of municipal waste handling (76 %) despite the efforts to decrease the number of official landfills with regard to national and European law. The main objective of this pilot is the stratification and control of waste dumps in Slovakia through an interactive mapping service including the following geographic information layers: land use and land cover, settlements, population and waste production.
Partners involved: SEA and CEIT.

Technology

HLANDATA will create value-added services for the spatial and temporal analysis in the different pilots, integrating open source developments and own developed software.

Services freely accessible through the web will be developed, assessing the different existing solutions but also guaranteeing the use of standard services (Web Map Services – WMS, Web Processing Services – WCS, Web Features Services – WFS).

HLANDATA will provide access to the services of the developed pilots in the context of the project through a Geo-gateway which will put together the project information with the access to its achieved results.