eENVplus

Exploitation towards Thematic Communities, Training Framework and stakeholders involvement

Giorgio Saio
GISIG

National workshop Athens, 1 October 2014

Exploitation prospects

eENVplus ➔ **virtual framework of components** allowing deployment and creation of new and innovative applications

- **Harmonisation and validation services**: to guarantee the openness of eENVplus to be integrated into a system of systems infrastructure
- **Added-value specialised** services: to compose the base overlay for building advanced environmental application in order to provide an operational shared environmental information infrastructure
- **Thesaurus framework**: to improve the European competitive position in a multilingual digital market through the provision of better services to citizens and businesses
- **eENVplus Training Framework**: to support the EU policy related to GI, also sustained by the liaison with CEN/TC287 (WG6 Education and training)

Expected impact

"Low cost availability of harmonized, public GI datasets"

The geographic information datasets made available by eENVplus will be:

- Public: they are owned by the participating National Agencies
- Harmonised: they will be harmonised and validated against the relevant INSPIRE Data Specifications (which set data models common across the whole Europe for each specific data theme)
- Available: any user can access them through one of the eENVplus services according to the standards

Expected impact

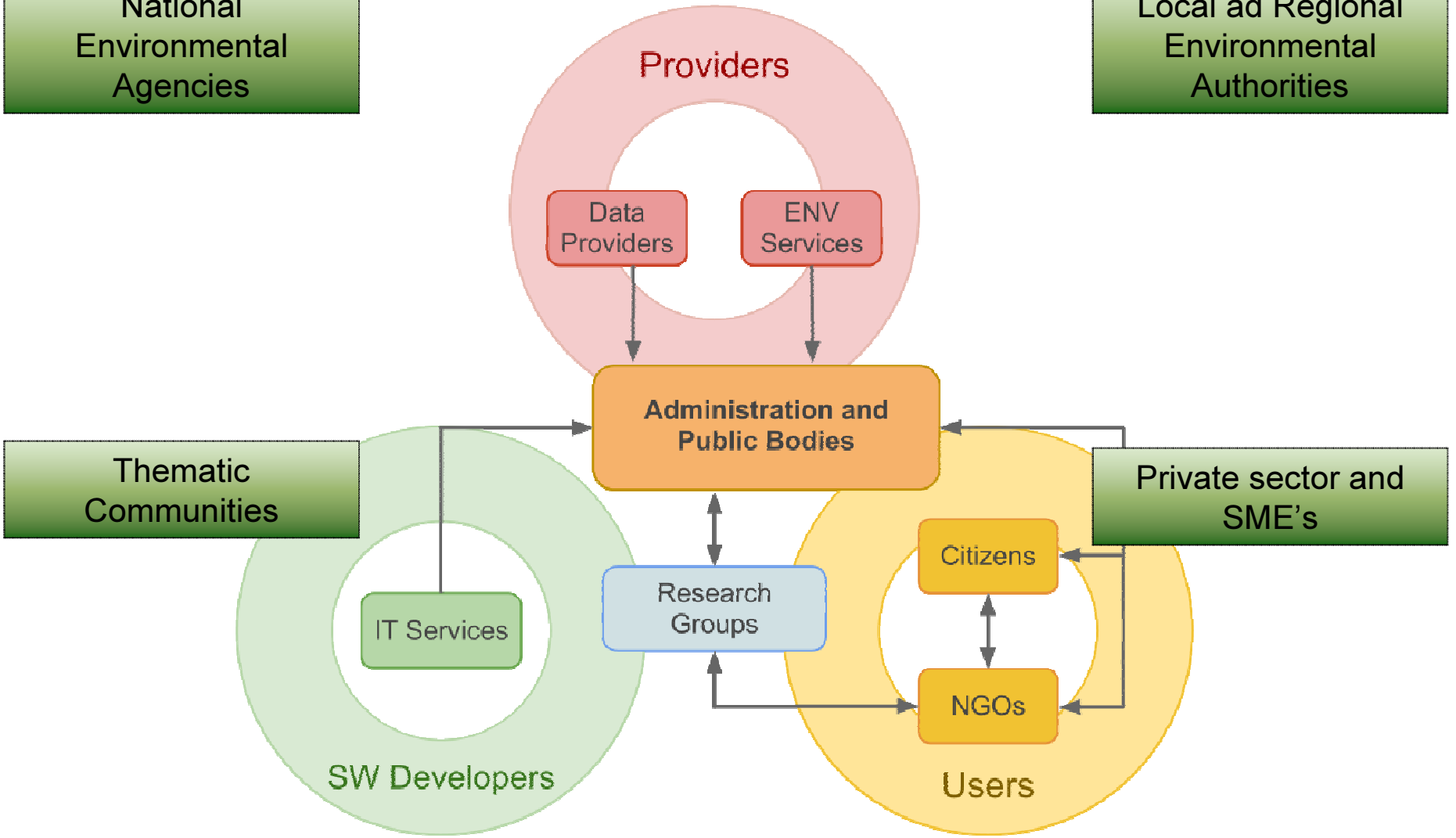
"Innovative value-added services allowing users to identify, access, use and reuse spatial data from local to European level"

- **eENVplus** is an **open** infrastructure exposing services on a single or in an aggregated base
- customised or "as-is"
- easily exploitable by public/private sector to create added value services for new businesses, based on the identification, access, use and **reuse** of spatial data
- the **eENVplus** services can be easily used to make accessible, usable and reusable spatial data coming form any part of Europe, from local to European level

Target Groups

National Environmental Agencies

Local ad Regional Environmental Authorities



eENVplus Target Groups

- **administrations and public bodies/agencies** at different levels, from national to local, both **as providers** of environmental data and information, thanks to improved availability of tools and good practices, and **as users** of such data and information for planning, management and reporting
- **providers of environmental services**, both **as users** of data for processing and **as creators** of new data layers and information
- **providers of IT services**: eENVplus will create a set of tools able to stimulate the IT industry in developing new applications
- **research groups** needing **open** and easy access to environmental information, not only for **study and research** but as well for **educational** and demonstration activity
- **NGO's** **as "browsers"** and as voluntary **providers** of environmental information
- **citizens**, for an easier **access** to information

Communities and Stakeholders involvement

stay tuned with us by looking at….

Leaflet

The project is funded by European Commission under CIP-ICT-PSP Pilot A grant No. 325232

eENVplus

www.eenvplus.eu

eEnvironmental services for advanced applications within INSPIRE

Project Fact Sheet

January 2013

The eENVplus project aims to unlock huge amounts of environmental data, managed by the involved national and regional environment agencies and other public and private environmental stakeholders, through the integration and harmonisation of existing services. These data are not only collected to answer reporting obligations on the environment to the European Union, but also to support national and local policies and actions.

The project does not design new services but rather, starting from the results of previous European experiences (funded projects, best practices, EU and national and local experiences), it integrates existing infrastructures into an operational framework able to overcome cross-border and language barriers. eENVplus provides not only the ICT infrastructure but also the description and the support to make this infrastructure operational and profitable through the provision of an organisational model and a tutored training framework.

eENVplus interoperable infrastructure provides Member States and Geographic Information Communities with:

- A comprehensive, open and scalable infrastructure able to integrate existing infrastructures according to the INSPIRE requirements, open standards and interoperable innovative services;
- A common Environment Thesaurus Framework, supporting the integration of existing thesauri relevant for the environmental sector via Linked Data and providing added-value services for its integration and exploitation in pilot applications
- A comprehensive toolkit with procedures, guidelines and examples for data harmonisation and validation supporting Member States during INSPIRE implementation;
- A set of innovative on-line added-value interoperable services aiming to facilitate the development of innovative environmental applications;
- A Training Framework to support, with eLearning tools, the development of the necessary capacities and knowledge to implement INSPIRE, to develop a SEIS and to keep this new adapted infrastructure operational.

Start date: 1 January 2013
Duration: 36 months
Web site: www.eenvplus.eu

eENVplus Office (office@eenvplus.eu)
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eENVplus

Project Fact Sheet

January 2013

eENVplus provides tools addressing multi-level interoperability stack

Systems of systems interoperability	through a comprehensive open, scalable infrastructure able to link to existing infrastructures developed through international or national-level initiatives (e.g. the INSPIRE portal)
Application-level interoperability	through a set of software components that allow communication, through interoperable standards, between existing legacy applications and the eENVplus service ecosystem
Inter-service interoperability	through development of daisy-chained services to allow creation of high-level functionalities from interconnection of interoperable lower-level services
Service interoperability	through a set of innovative on-line pre-built services facilitating the development of innovative applications
Semantic interoperability	through a Common Environment Thesaurus Framework, supporting via Linked Data the integration of existing Thesauri for environmental application, which facilitates data sharing through a common understanding of the meaning of terms and concepts
Data interoperability	through a comprehensive toolkit with guidelines and examples for data harmonisation and validation to support the Members States in the application of the INSPIRE implementation rules

Pilot Applications

In order to exploit the implementation of the eENVplus outcomes in a variety of situations with different user needs, it is intended to implement 9 environmental scenarios in 10 pilots. The pilots with their scenarios will allow to better streamline the tools available to the project into the main flow of INSPIRE compliance, with evident implications on interoperability among existing or planned applications.

List of pilots/scenarios

- Implementation of a SEIS for air quality data, pilots in Belgium and Italy
- Providing INSPIRE-compliant access to utility services: the case of sewage networks in Flanders, pilot in Belgium
- CSspire - Everyday life issues connected to Environmental aspects in Czech Republic and Slovakia, cross-border pilot
- Natural Areas INSPIRE Compliance Toolbox, pilot in France
- Forest Fire Management, pilot in Greece
- Window on the Protected Areas - Mobile Conservation Map in Hungary and Slovakia, cross-border pilot
- INSPIRE Geoportal - Nature conservation data in Iceland, pilot in Iceland
- Geological Map Harmonization in Italy and Slovenia, cross-border pilot
- Urban Landuse Planning: INSPIRE'd land use planning Indicators to monitor good urban planning practices

Target Groups

eENVplus is addressed to a community of technical and non-technical stakeholders:

- administrations and public bodies/agencies at different levels
- providers of environmental services
- providers of IT services
- research groups needing access to environmental information
- Non-Governmental Organisations (NGOs)
- Citizens

The exploitation of the project outcomes is addressed to:

- National Environmental Authorities (National Environmental Agencies, EIONET, Environment authorities at EU level)
- Local and Regional Environmental Authorities (starting from partners' networks)
- Thematic Communities (European Topic Centers, INSPIRE National Contact Point, etc.)
- Private Sector and SMEs

eENVplus Newsletters

- Foreseen to be published electronically periodically (6 months)
- Will highlight the progress of eENVplus, providing insight into the research, development, innovation and Pilots activities.
- The newsletter is managed by a Email Marketing and Email List Manager (Mailchimp).
- This will assure a complete and accurate management of the email campaigns and subscribers.
- All issues will be publicly available online and also downloadable through the eENVplus website.

eENVplus Newsletter issue #3

eENVplus

eEnvironmental services for advanced applications within INSPIRE
www.eenvplus.eu

Newsletter No. 3 (July 2014)

Special Edition INSPIRE 2014

Dear <<First Name>>, at half way of the eENVplus project, the first results are coming out, shaping the eENVplus infrastructure, services and pilots.

These results and the working progress have been largely presented at the INSPIRE Conference 2014 within the workshop "*A clustering approach to eENVironmental Services for advanced applications and capacity building within INSPIRE and SEIS*" organized on 17/06/2014 and in various thematic sessions of the Conference by the eENVplus partners, according to the different aspects addressed by the eENVplus components.

In the eENVplus project, there is a specific pilot that has the scope to highlight the importance of harmonised geological data to support the risk management analyses and to support the Geohazard mapping production. Starting from OneGeology-Europe project results and unsolved problems we have defined a first analysis based on a comparison of the two geological maps provided by the neighbouring countries.The Italian and Slovenian Geological Surveys involved in the pilot will discuss the problems highlighted during this phase.
The main target of Geological Surveys however is to produce data and web services compliant with the wider international schema but still in line with INSPIRE technical requirements.

Access the project web site for all the material:

INSPIRE 2014 Conference sessions presentations

eENVplus receive during the INSPIRE Conference the CEN/TC 287 Award for Excellence and Innovation

For more information on the award visit the eENVplus project website

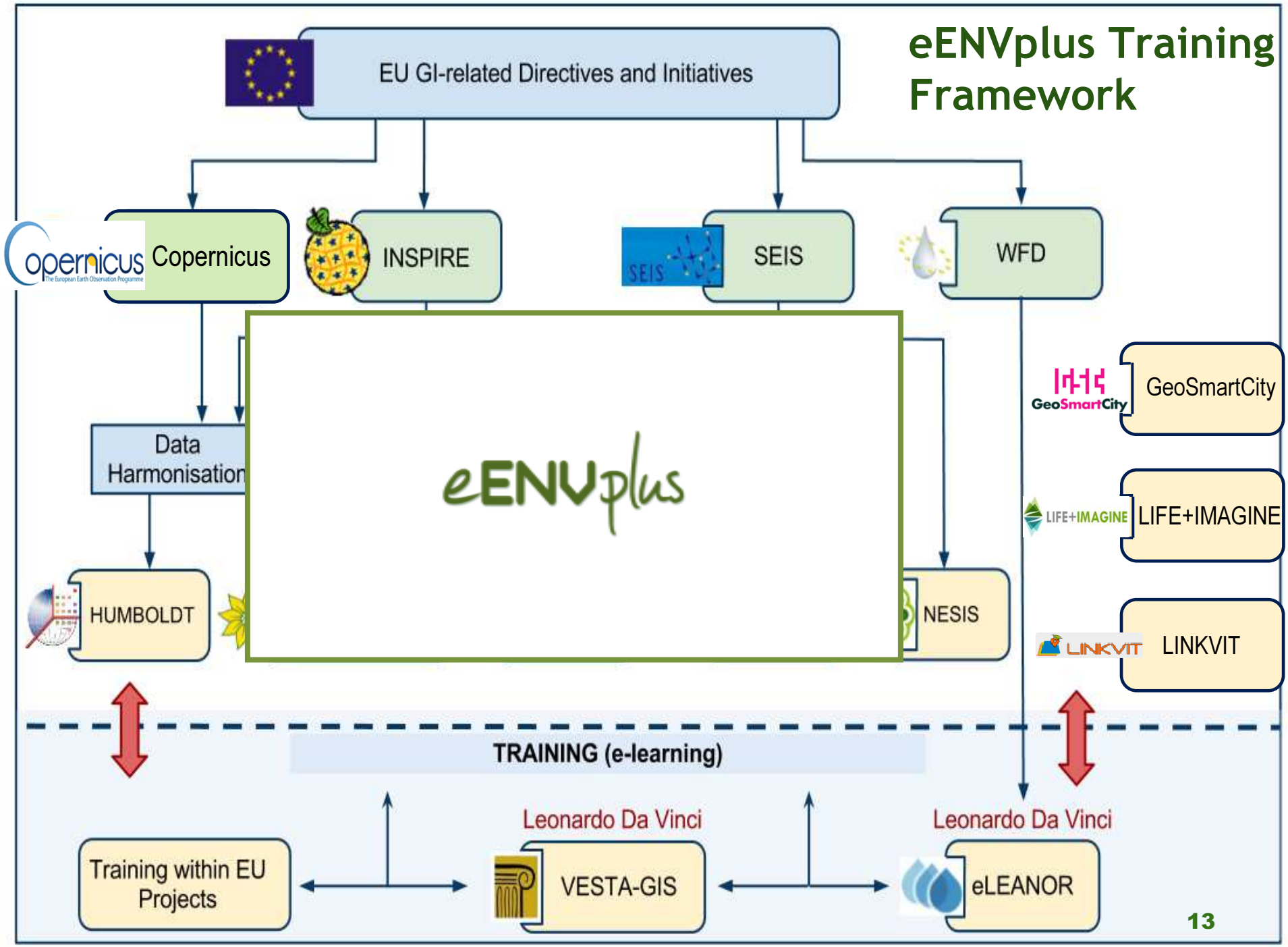
eENVplus website (www.eenvplus.eu)

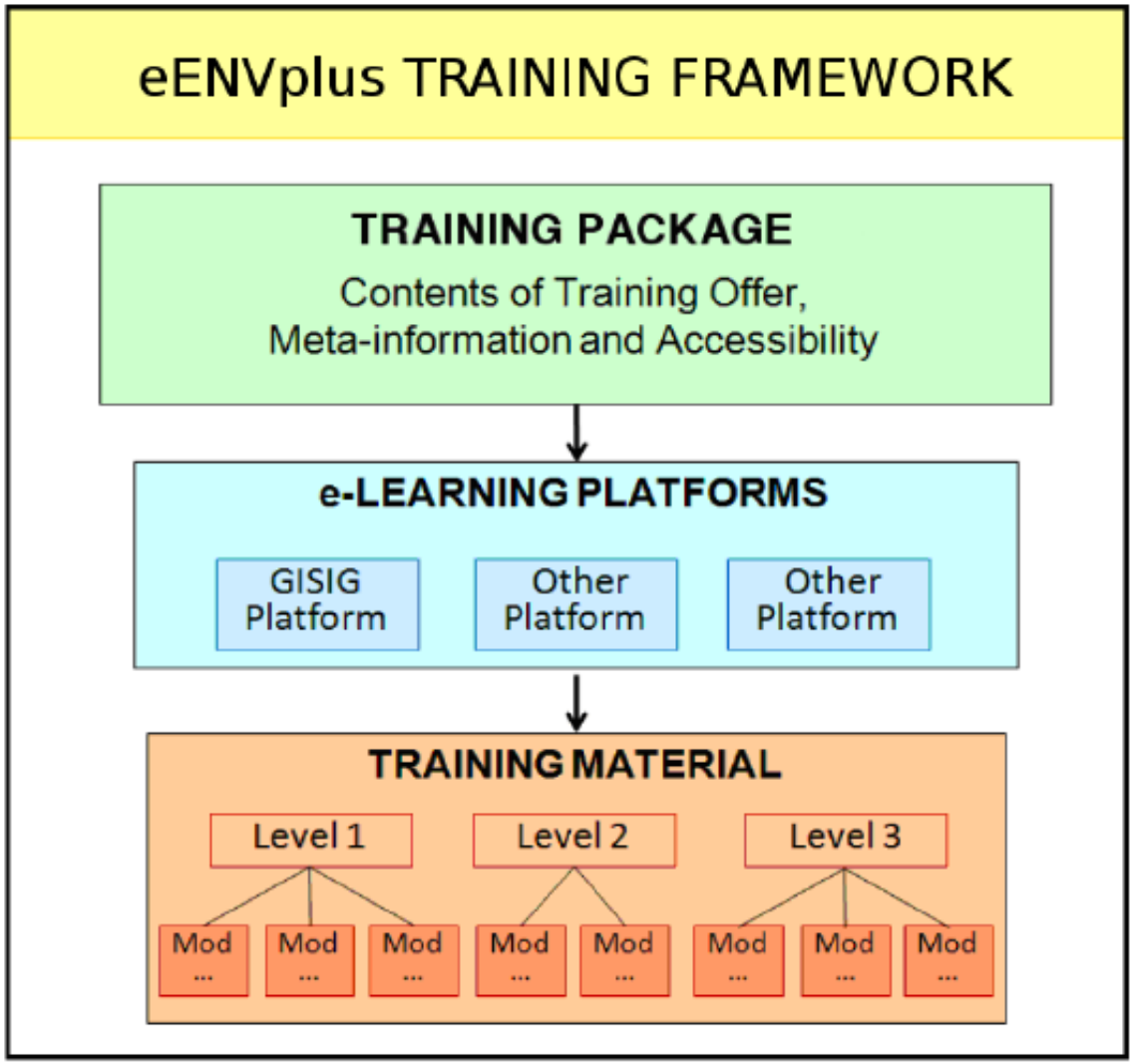
Among the features:

- A subscription mechanism has been set up to permit visitors to receive email newsletters on the status and progress of the project
- For each Pilot a dedicated section has been created
- A section will be dedicated to the eENVplus Training Framework

eENVplus website (www.eenvplus.eu)

eENVplus Training Framework




eENVplus TRAINING FRAMEWORK
TRAINING PACKAGE
Contents of Training Offer,
Meta-information and Accessibility
e-LEARNING PLATFORMS
GISIG Platform
Other Platform
Other Platform
TRAINING MATERIAL
Level 1
Level 2
Level 3
Mod ...
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List courses

1 – Background Knowledge

Knowledge on Directives/ Technologies

- Data Harmonisation
- Basics of INSPIRE Data Specifications
- Basics of INSPIRE Network Services
- Introduction to INSPIRE
- Basics of INSPIRE Data and service sharing
- Procedures for Data and Metadata Harmonisation
- Towards the ICT implementation of SEIS
- Good Practices for Environmental Management
- Introduction to Linked Data

List courses

2 - Thematic Knowledge

Knowledge on specific related knowledge areas

- Risk Management
- Water Directives
- Nature Conservation and Natura 2000 Network
- Nature Conservation and INSPIRE
- Geological Data Harmonisation

List courses

3 - The eENVplus Infrastructure

Knowledge on the technical outcomes of eENVplus

- Examples of Data Transformation
- Metadata and Data validation for INSPIRE
- The eENVplus Architecture
- The eENVplus Thesaurus Framework
- The eENVplus services
  - eENVplus Web Processing Services
  - eENVPlus Crowdsourcing Services
  - eENVPlus Ingestion service
  - eENVPlus Notification service
  - eENVPlus Data access services
  - eENVPlus Validation service
- eENVplus catalogue and connection to operational infrastructures
- Mobile Mapping and advanced visualisation

List courses

4 - eENVplus scenarios

These modules will be available in a later stage of the project.

- Implementation of a SEIS for air quality data
- Providing INSPIRE-compliant access to utility services: the case of sewage networks in Flanders
- CSspire
- Natural Areas INSPIRE Compliance Toolbox
- Forest Fire Management Scenario
- Window on the Protected Areas - Mobile Conservation Map (WMA MCM)
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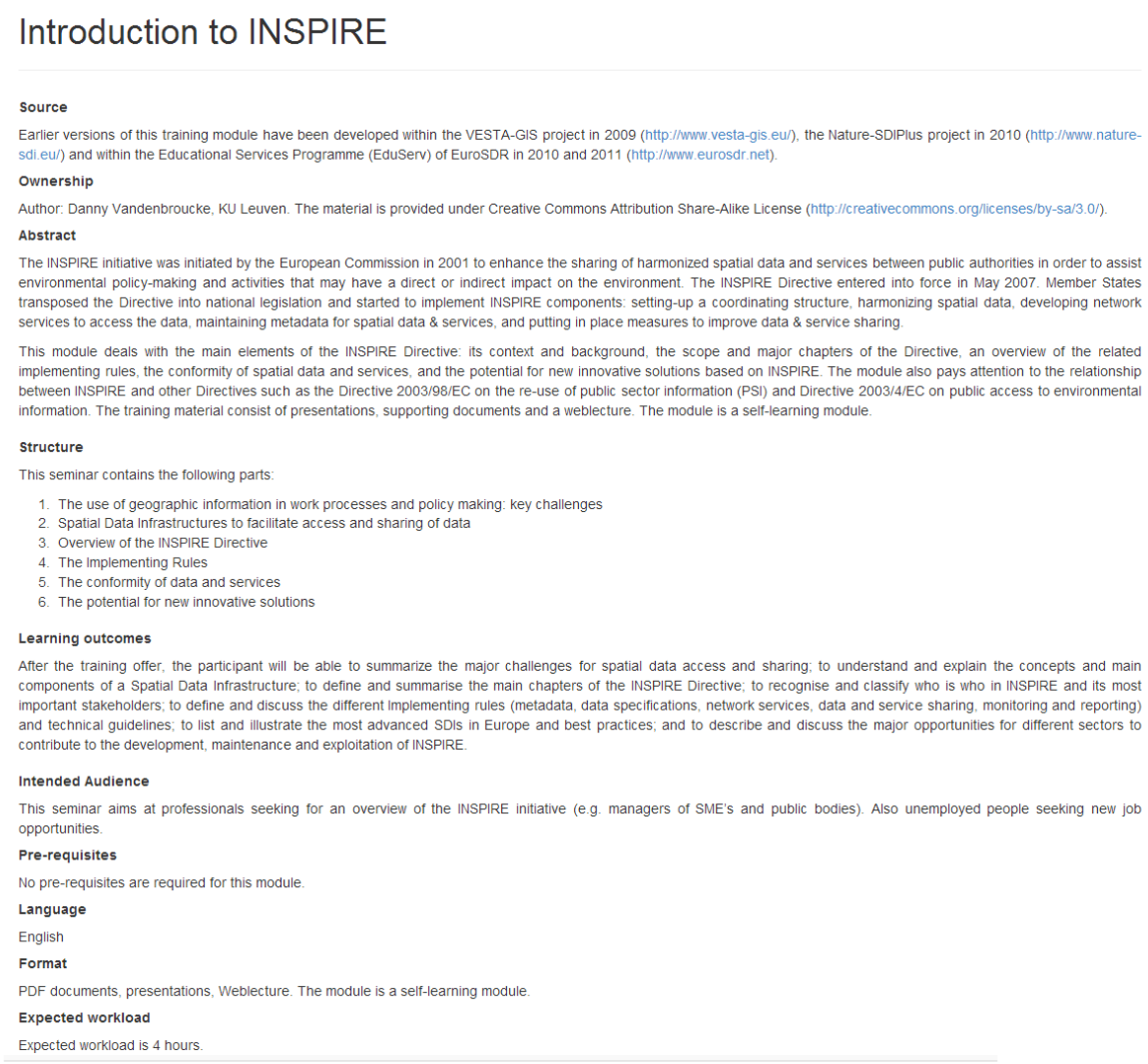
Common Metadata template

Structured in a clustering training perspective to allow interoperability of training modules within different project Training Frameworks.



Introduction to INSPIRE

Source

Earlier versions of this training module have been developed within the VESTA-GIS project in 2009 (http://www.vesta-gis.eu/), the Nature-SDIPlus project in 2010 (http://www.nature-sdi.eu/) and within the Educational Services Programme (EduServ) of EuroSDR in 2010 and 2011 (http://www.eurosdr.net).

Ownership

Author: Danny Vandenbroucke, KU Leuven. The material is provided under Creative Commons Attribution Share-Alike License (http://creativecommons.org/licenses/by-sa/3.0/).

Abstract

The INSPIRE initiative was initiated by the European Commission in 2001 to enhance the sharing of harmonized spatial data and services between public authorities in order to assist environmental policy-making and activities that may have a direct or indirect impact on the environment. The INSPIRE Directive entered into force in May 2007. Member States transposed the Directive into national legislation and started to implement INSPIRE components: setting-up a coordinating structure, harmonizing spatial data, developing network services to access the data, maintaining metadata for spatial data & services, and putting in place measures to improve data & service sharing.

This module deals with the main elements of the INSPIRE Directive: its context and background, the scope and major chapters of the Directive, an overview of the related implementing rules, the conformity of spatial data and services, and the potential for new innovative solutions based on INSPIRE. The module also pays attention to the relationship between INSPIRE and other Directives such as the Directive 2003/98/EC on the re-use of public sector information (PSI) and Directive 2003/4/EC on public access to environmental information. The training material consist of presentations, supporting documents and a weblecture. The module is a self-learning module.

Structure

This seminar contains the following parts:

1. The use of geographic information in work processes and policy making: key challenges
2. Spatial Data Infrastructures to facilitate access and sharing of data
3. Overview of the INSPIRE Directive
4. The Implementing Rules
5. The conformity of data and services
6. The potential for new innovative solutions

Learning outcomes

After the training offer, the participant will be able to summarize the major challenges for spatial data access and sharing; to understand and explain the concepts and main components of a Spatial Data Infrastructure; to define and summarise the main chapters of the INSPIRE Directive; to recognise and classify who is who in INSPIRE and its most important stakeholders; to define and discuss the different Implementing rules (metadata, data specifications, network services, data and service sharing, monitoring and reporting) and technical guidelines; to list and illustrate the most advanced SDIs in Europe and best practices; and to describe and discuss the major opportunities for different sectors to contribute to the development, maintenance and exploitation of INSPIRE.

Intended Audience

This seminar aims at professionals seeking for an overview of the INSPIRE initiative (e.g. managers of SME's and public bodies). Also unemployed people seeking new job opportunities.

Pre-requisites

No pre-requisites are required for this module.

Language

English

Format

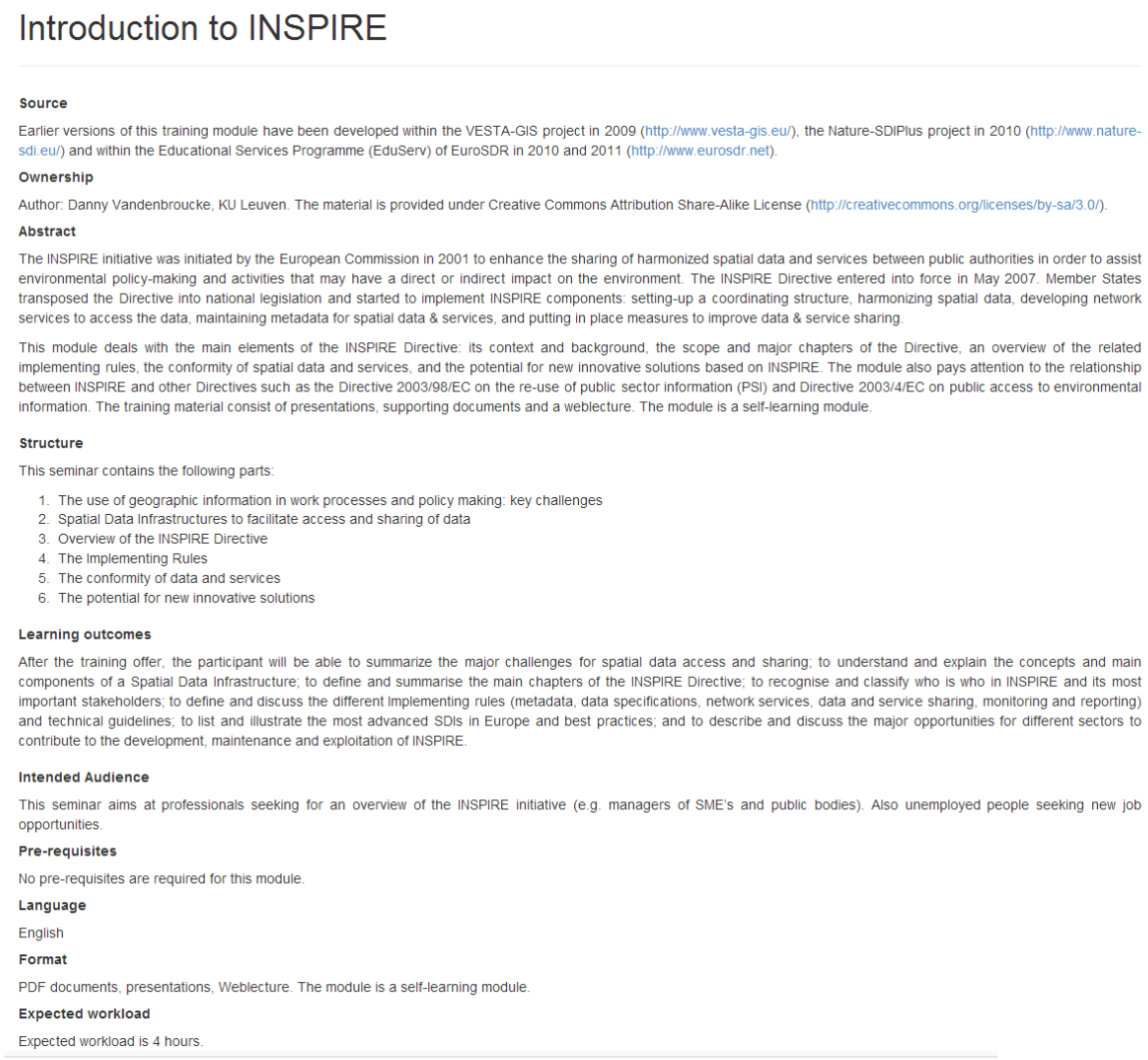
PDF documents, presentations, Weblecture. The module is a self-learning module.

Expected workload

Expected workload is 4 hours.

Each Training Module must be detailed with metadata:

- Module name
- Source
- Ownership
- Abstract
- Structure
- Learning outcomes
- Intended audience
- Pre-requisites
- Language
- Format
- Expected workload



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E- learning Platform (www.gisig.eu/platform)

- Costitute the infrastructure(s) hosting the training modules and training material.
- Estabilished by widely diffused open source e-learning tools Moodle, the most popular open-source Learning Management System).
- Open to the project members and (open registration) to the users Communities.
- Once subscribed to the Module (or Modules), the user is redirected to an e-learning platform with personalized access.
- Decentralised: Training Material is hosted in different platforms.
- Training material developed on a variety of formats: Presentations with voice, screencasts, plain text lectures, exercises, etc.
- Allows monitoring the user progress and students/ teachers interaction.

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Full course description

Access the training material:

Slides presentation

Introduction to INSPIRE

Author: Danny Vandenbroucke (SADL/KU Leuven)

Presentation: 111 pages

Weblectures

Introduction to INSPIRE (Part 1)

Author: Danny Vandenbroucke (SADL/KU Leuven)

Run time: 59 minutes

Introduction to INSPIRE (Part 2)

Author: Danny Vandenbroucke (SADL/KU Leuven)

Run Time: 64 minutes

Module evaluation

Introduction to INSPIRE

Self-learning material in different formats:

- Presentations
- Text Lectures
- Audio presentations
- WebLectures
- VideoLectures
- Exercises

Training actions:

- This afternoon (h 16) in the Training session "Data Harmonization and Validation": **The eENVplus Harmonization and Validation toolkits** *(Giacomo Martirano, EPSILON Italia srl)*

- During 2015: organised e-learnig traning actions.
  You will receive invitations!

Thank in advance for your active participation in the eENVplus network