INSPIRE Training and Capacity Building

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LINKVIT

Leonardo da Vinci Transfer of Innovation project

21 Modules linked to the INSPIRE Directive

Project aims

- **LINKVIT deals with "Digital Competence"** as defined in the Key competences for Lifelong Learning- A European Framework.
- **Competences in geo-information** are crucial in the new European context to be operational in the assignments of the INSPIRE Directive.
- LINKVIT will aim at creating such competences through **a set of training modules developed in different European initiatives**.

The modules are classified into:

a) Context Knowledge for INSPIRE
b) Advanced technical Modules
c) Modules addressed to the stakeholders of Nature Conservation
d) Modules addressed to the stakeholders of Geology and Civil Protection
e) Technological trends and innovative solutions

Modules

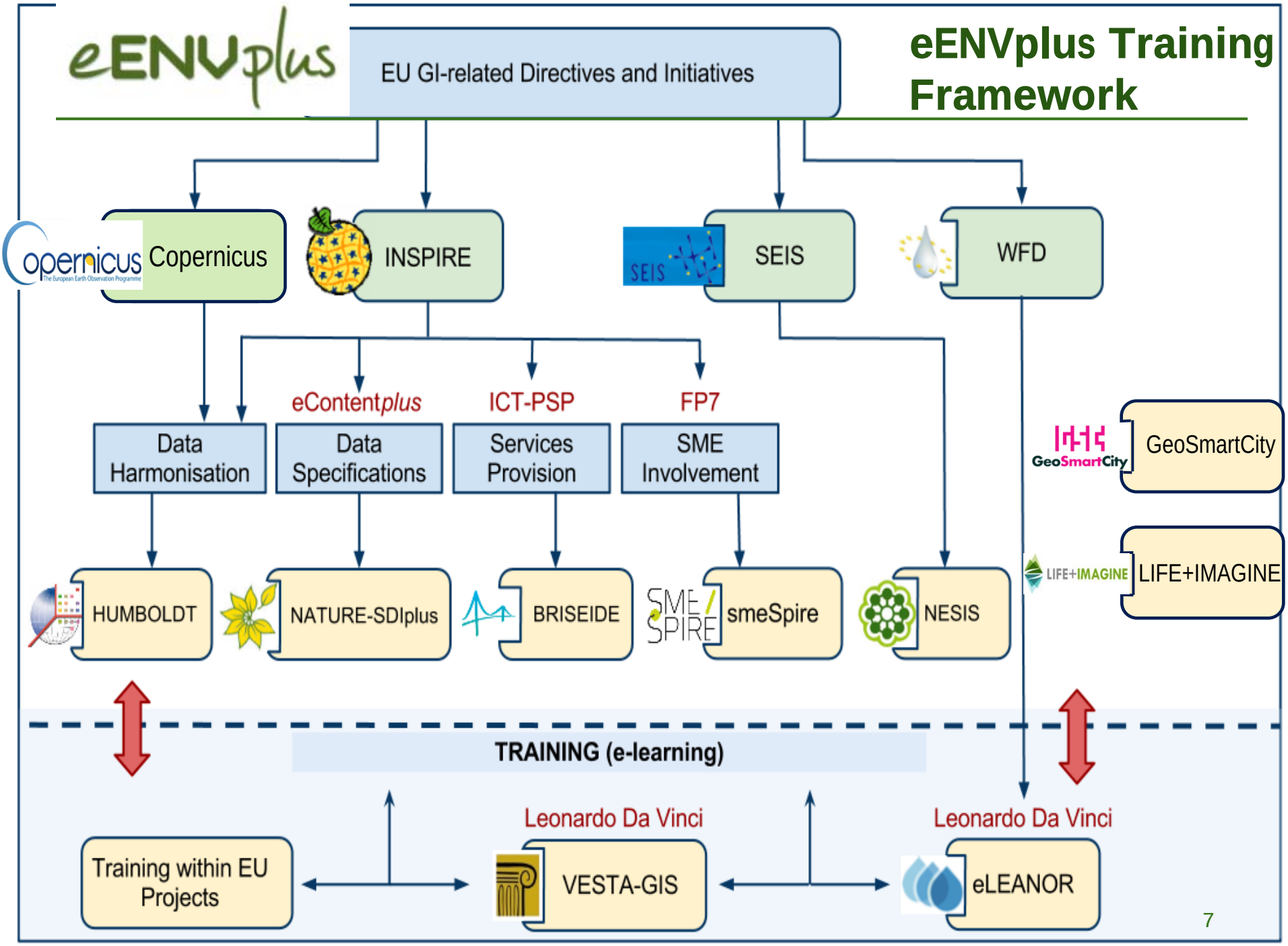
Levels	Titles
A - Context knowledge for INSPIRE	1. Introduction to INSPIRE
	2. European Geospatial Portals as SDI User Interfaces
	3. Basics of INSPIRE Data and service sharing
	4. Basic concepts of XML and GML
	5. Basics of INSPIRE Data Specifications
	6. Data Quality
	7. Basics of INSPIRE Network Services
	8. Data Harmonisation
B - Advanced technical Modules	9. INSPIRE advanced
	10. Metadata and Catalogue Services
	11. INSPIRE Network Services advanced
	12. Procedures for Data and Metadata Harmonization
	13. Examples of Data Transformation
	14. Metadata and Data validation for INSPIRE
C - Modules addressed to the stakeholders of Nature Conservation	15. Nature Conservation & Natura 2000 Network
	16. Nature Conservation & INSPIRE
D - Module addressed to the stakeholders of Geology and Civil Protection	17. Risk Management
	18. Geological data harmonization
E - Technological trends and innovative solutions	19. Introduction to Linked data
	20. Linked Data Advanced
	21. Introduction to Sensor Web enablement

Target groups

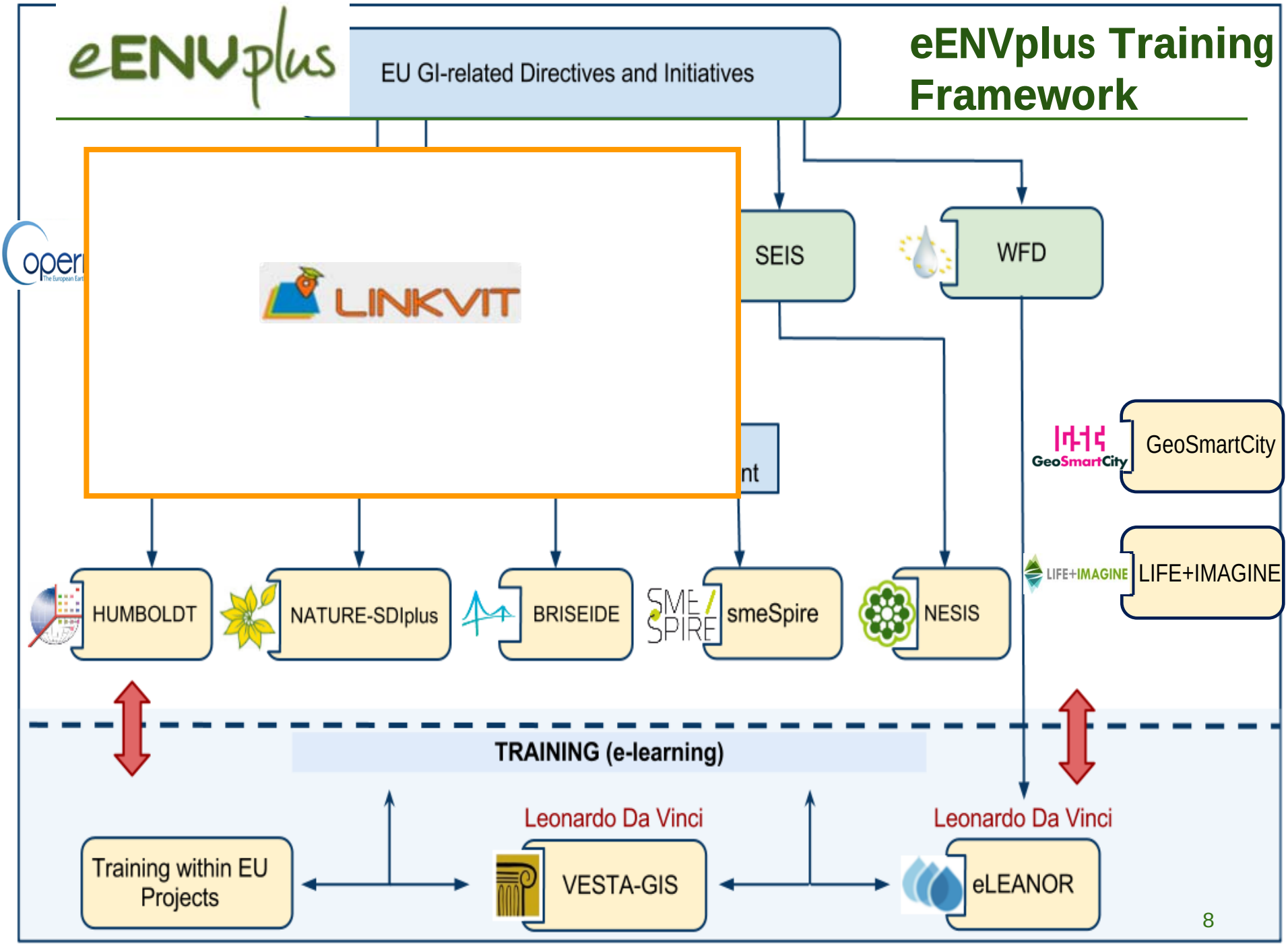
Already existing learning material is leveraged and reframed to provide end-user oriented modular learning to:

- **Employed people** to be re-qualified on new competence required by INSPIRE
- **Postgraduates**, for easier access to GI-labour market with a post-degree specialization
- **Professional profiles** within public and private sector (**technicians and decisions makers**)

eENVplus Training Framework



eENVplus Training Framework



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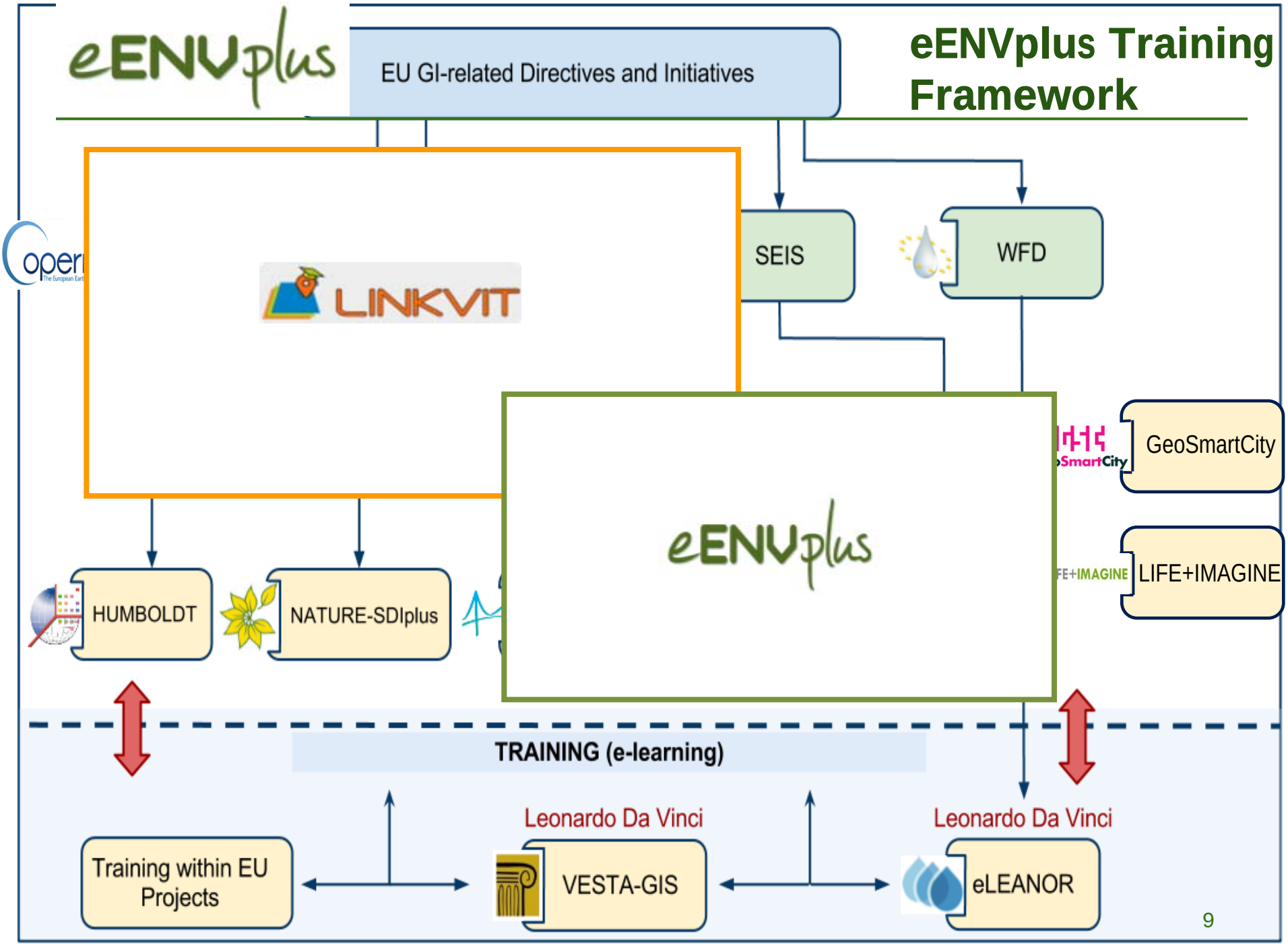

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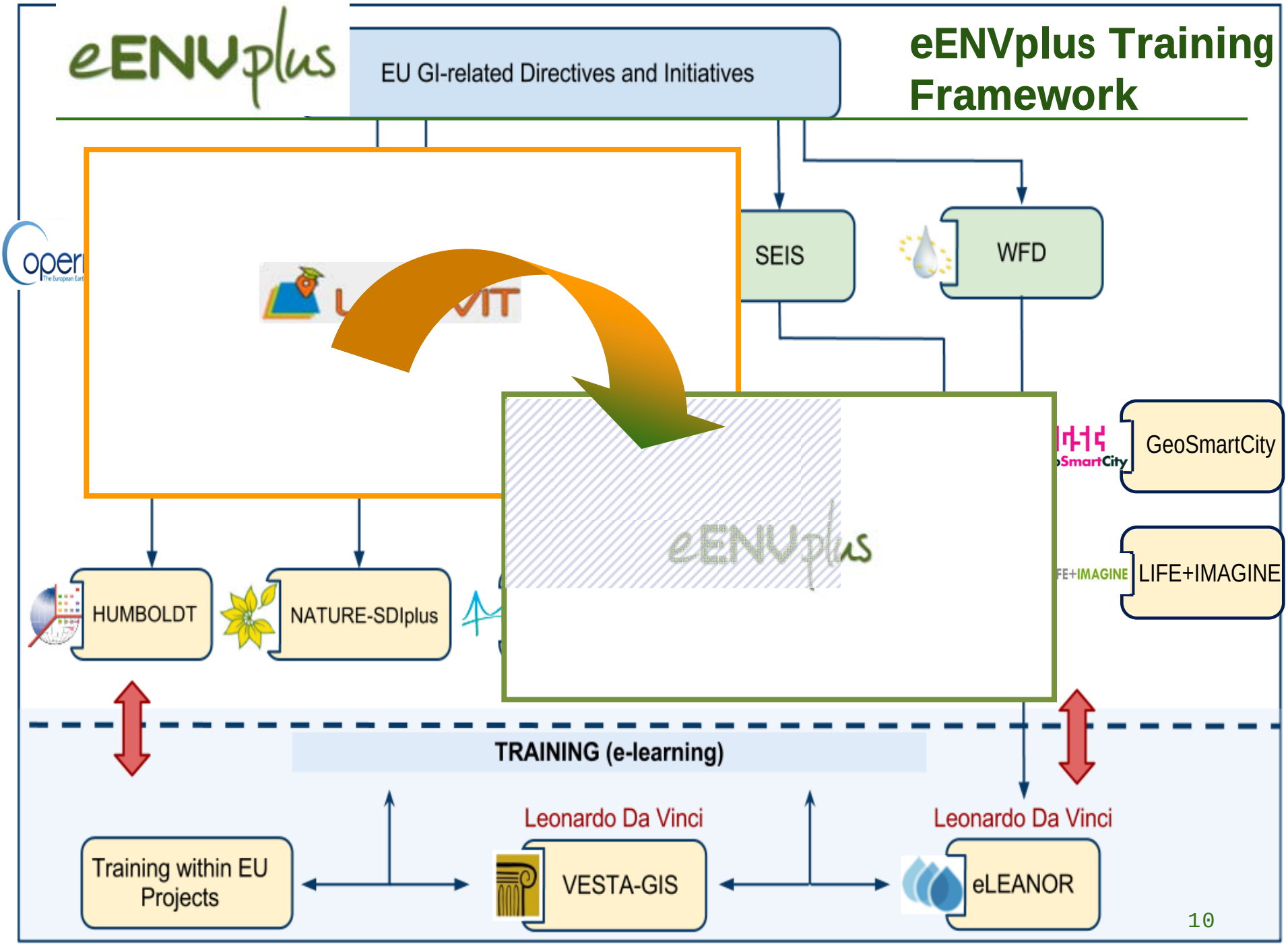

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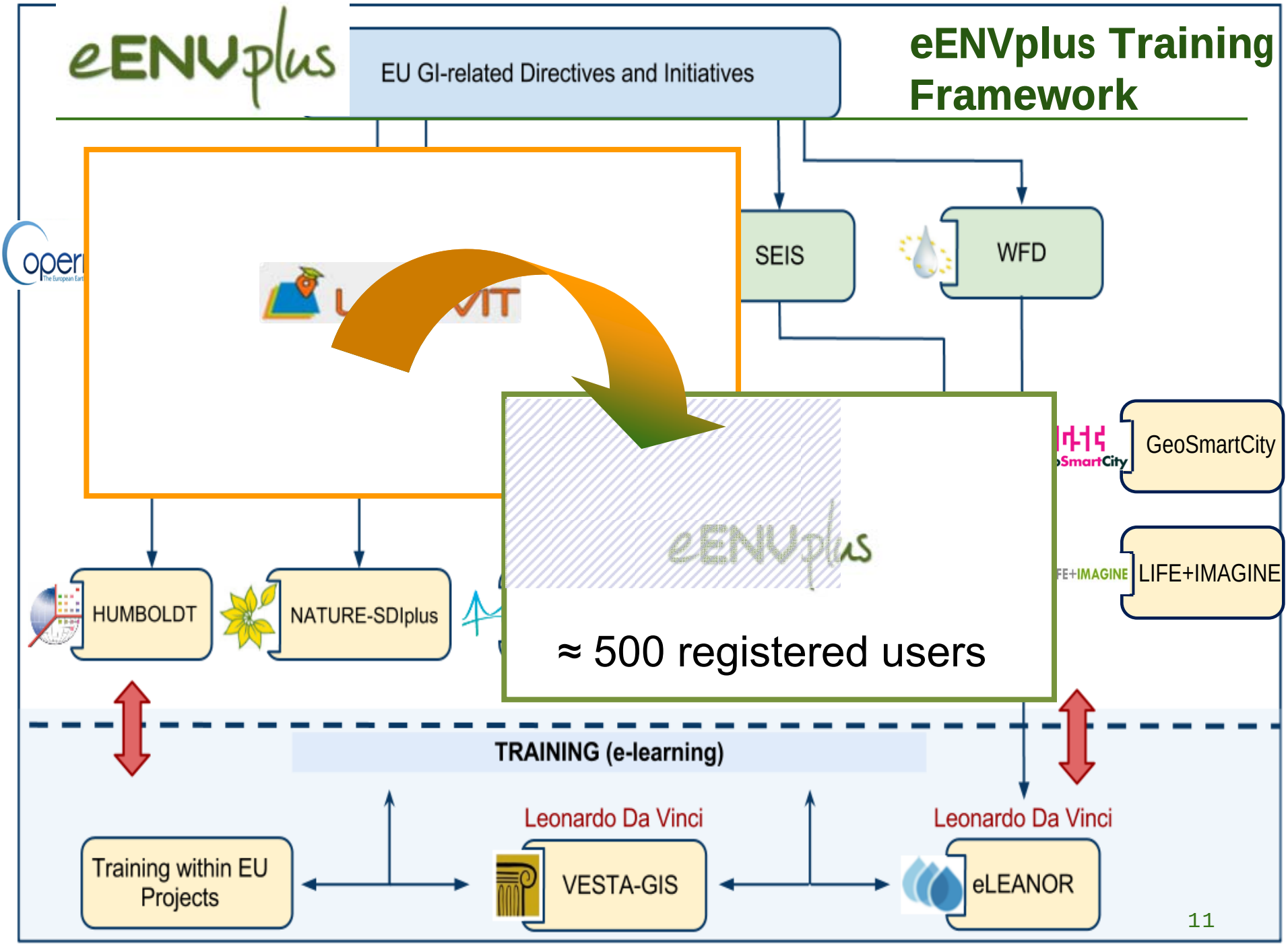
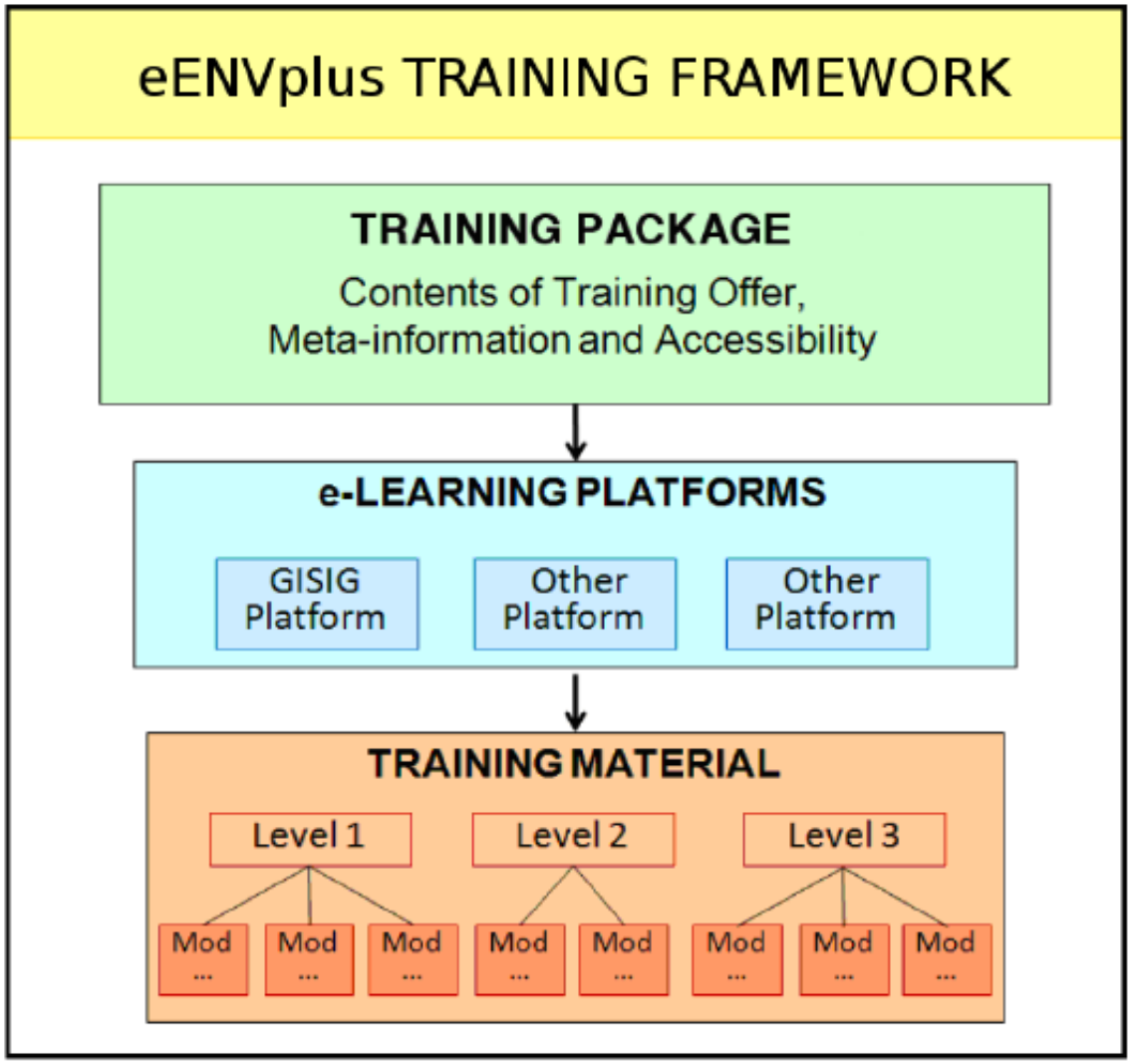
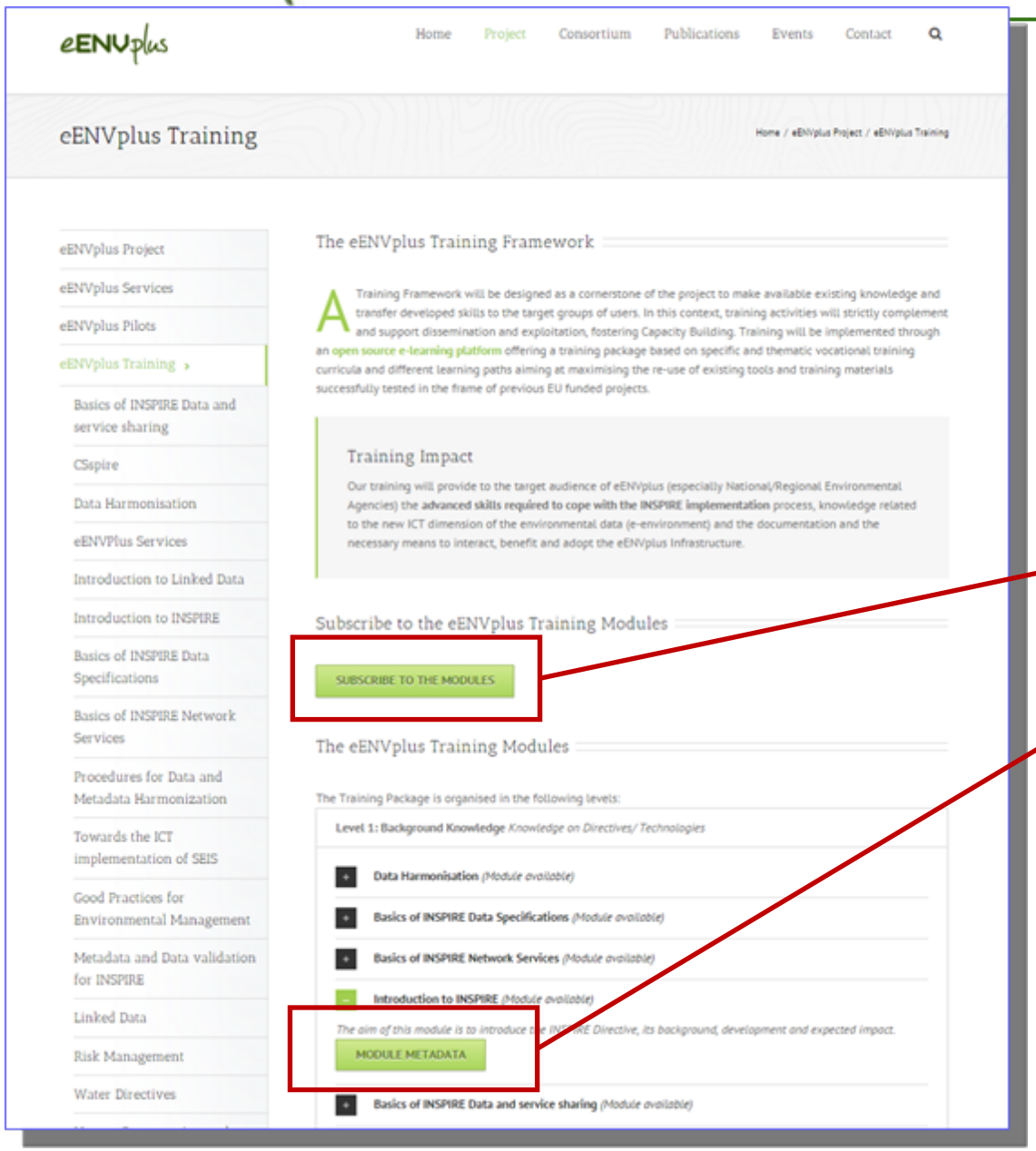



eENVplus TRAINING FRAMEWORK
TRAINING PACKAGE
Contents of Training Offer,
Meta-information and Accessibility
e-LEARNING PLATFORMS
GISIG Platform
Other Platform
Other Platform
TRAINING MATERIAL
Level 1
Level 2
Level 3
Mod ...
Mod ...
Mod ...
Mod ...
Mod ...
Mod ...
Mod ...
Mod ...

E- learning Platform (s)

- Costitute the infrastructure(s) hosting the training modules and training material.
- Estabilished by widely diffused open source e-learning tools.
- 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.

Training modules access

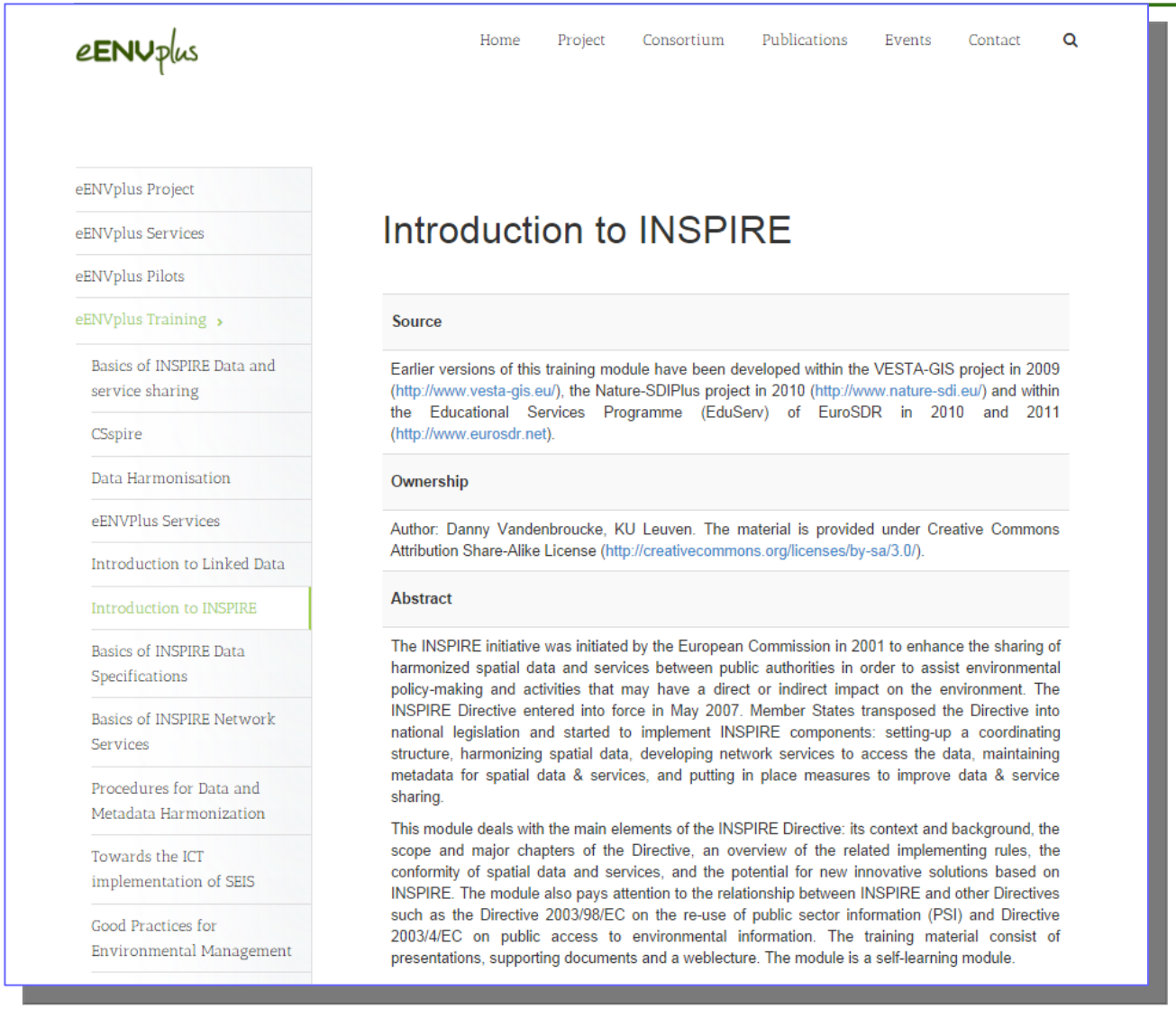


eENVplus website:

Training section

- Access to the Module list
- Access to the e-Learning Platform
- For each module access the Metadata

Training modules Metadata

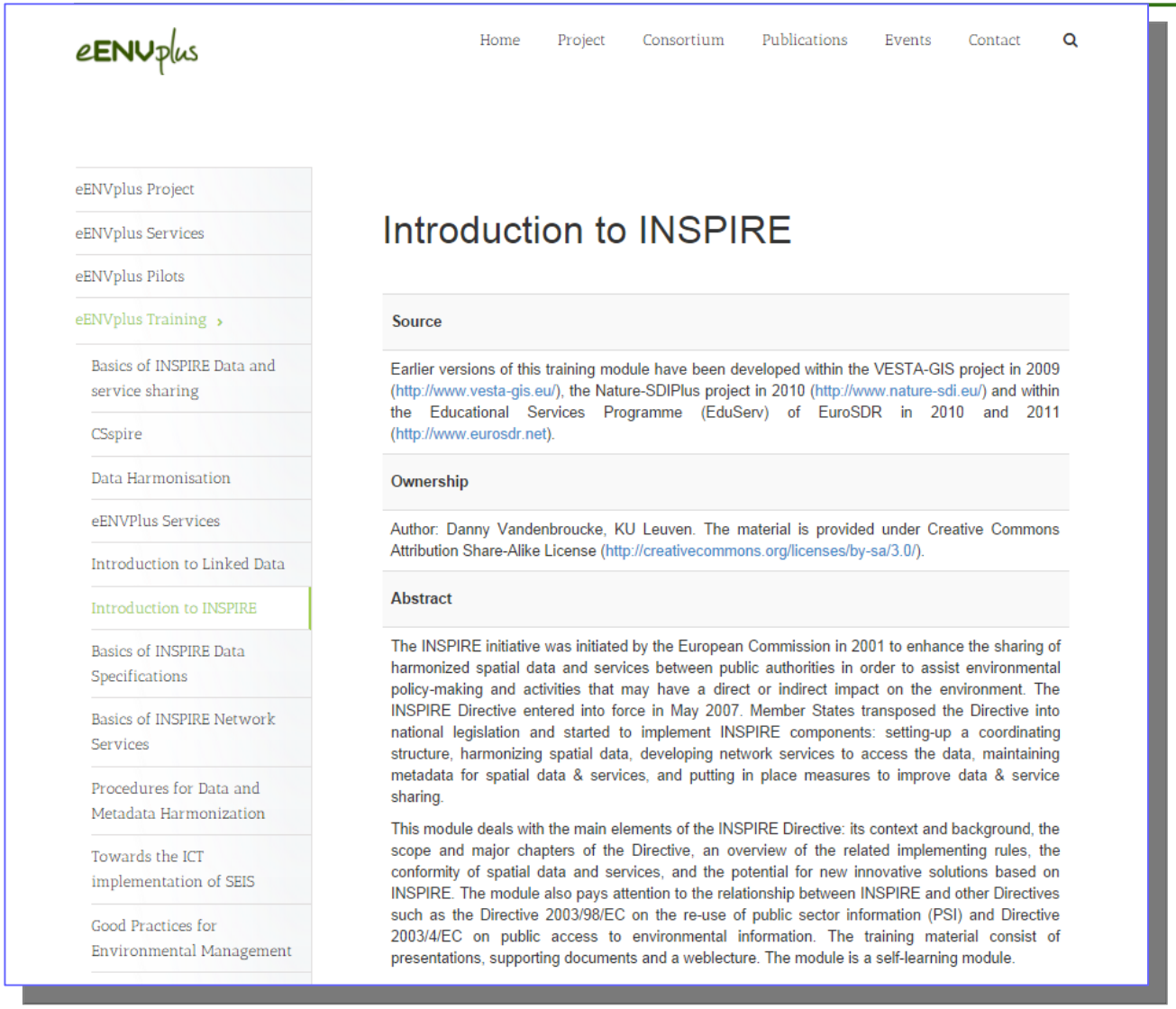


Common Metadata template

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

- Format
- Expected workload

Training modules Metadata



Each Training Module must be detailed with metadata:

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

Training Framework

The Training Framework is structured in 4 levels:

- Level 1: **Background Knowledge** *(Knowledge on Directives/ Technologies)*
- Level 2: **Thematic Knowledge** *(Knowledge on specific related knowledge areas)*
- Level 3: **The eENVplus Infrastructure** *(Knowledge on the technical outcomes of eENVplus)*
- Level 4 – **eENVplus scenarios** *(These modules will be available in a later stage of the project)*

Training Framework

Level 1: Background Knowledge (Knowledge on Directives/ Technologies)	
1.1	Introduction to INSPIRE
1.2	Basics of INSPIRE Data and service sharing
1.3	Basics of INSPIRE Data Specifications
1.4	Basics of INSPIRE Network Services
1.5	Data Harmonisation
1.6	Procedures for Data and Metadata Harmonisation
1.7	**Towards the ICT implementation of SEIS**
1.8	**Good Practices for Environmental Management**
1.9	Introduction to Linked Data

Modules from the LINKVIT Training Framework

Training Framework

Level 2: Thematic Knowledge (Knowledge on specific related knowledge areas)	
2.1	Water Directives
2.2	Nature Conservation and Natura 2000 Network
2.3	Nature Conservation and INSPIRE
2.4	Risk Management
2.5	Geological Data Harmonisation

Modules from the LINKVIT Training Framework

Training Framework

Level 3: The eENVplus Infrastructure (Knowledge on the technical outcomes of eENVplus)	
3.1	Examples of Data Transformation
3.2	Metadata and Data validation for INSPIRE
3.3	The eENVplus Architecture
3.4	The eENVplus Thesaurus Framework
3.5	The eENVplus services
	Components of the eENVplus services Modules: **View service** **Download service for vector** **Ingestion service** **Web processing service** **Notification service**
3.6	eENVplus catalogue and connection to operational infrastructures
3.7	Mobile Mapping and advanced visualisation

Modules from the LINKVIT Training Framework

Training Framework

Level 4 – eENVplus scenarios	
4.1	Implementation of a SEIS for air quality data
4.2	Providing INSPIRE-compliant access to utility services: the case of sewage networks in Flanders
4.3	CSspire
4.4	Natural Areas INSPIRE Compliance Toolbox
4.5	Forest Fire Management Scenario
4.6	Window on the Protected Areas – Mobile Conservation Map (WMA MCM)
4.7	NLSI - Mobile application for Nature Conservation (INSPIRE Geoportal)
4.8	Geological Map Harmonization
4.9	Urban Landuse Planning: INSPIRE'd land use planning Indicators to monitor good urban planning practices

Learning Paths

eENVplus considered different professional profiles:

- **Managers**
- **Professionals**
- **End Users**

For each professional profile suggested «Learning paths» are provided, with different modules, recommended and optional, for each profile.

eLearning Training actions have been also organised, at country level, involving INSPIRE Stakeholeders

Profiles Managers

Recommended core training modules	Optional modules
Context knowledge	
1.1 Introduction to INSPIRE	1.3 Basics of INSPIRE Data Specifications
1.5 Data Harmonization	1.4 Basics of INSPIRE Network Services
1.9 Introduction to Linked Data	1.7 Towards the ICT implementation of SEIS
	1.8 Good Practices for Environmental Management
	Level 2 Modules, according to the thematic interest
Project specific	
3.3 The eENVplus Architecture	Other modules of Level 3
	Level 4 Modules, according to the thematic interest

Profiles Professionals

Recommended	Optional
Context knowledge	
1.1 Introduction to INSPIRE	1.9 Introduction to Linked Data
1.2 Basics of INSPIRE Data and service sharing	Level 2 Modules, according to the thematic interest
1.3 Basics of INSPIRE Data Specifications	
1.4 Basics of INSPIRE Network Services	
1.5 Data Harmonization	
1.6 Procedures for Data and Metadata Harmonisation	
Professional modules	
3.1 Example of Data Transformation	1.6 Towards the ICT implementation of SEIS
3.2 Metadata and Data validation for INSPIRE	1.7 Good Practices for Environmental Management
3.3 The eENVplus architecture	Level 4 Modules, according to the thematic interest
3.4 The eENVplus Thesaurus Framework	
3.5 The eENVplus services	
3.6 eENVplus catalogue and connection to operational infrastructures	
3.7 Mobile Mapping and advanced visualisation	

Profiles End users

Recommended	Optional
Context knowledge	
1.1 Introduction to INSPIRE	1.3 Basics of INSPIRE Data Specifications
	1.4 Basics of INSPIRE Network Services
	1.8 Good Practices for Environmental Management
	Level 2 Modules, according to the thematic interest
Project specific	
3.3 The eENVplus architecture	Other modules of Level 3
3.5 The eENVplus services	Level 4 Modules, according to the thematic interest
3.7 Mobile Mapping and advanced visualisation	