

Exploitation and Sustainability Plan

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Task 6.4 - Exploitation and Sustainability Plan

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Description of the project (Annex I to the Grant Agreement)

Short Description:

The Exploitation and Sustainability Plan defines the main guidelines to ensure sustainability of project outcomes. It is developed in parallel with the definition of the branding, communication and marketing strategies.

The document is intended for both internal and external readers. Its dissemination level is Public.

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Executive summary

This document presents the exploitation plan of the LINKVIT project. The aim of the Plan is to create the conditions for the successful exploitation of the project results both during the project lifetime and especially after the project conclusion. It starts with a brief introduction of the project's objectives and planned results.

Next, it analyses the results and their addressed stakeholders and the project perspectives after the end of the project duration. It discusses the options for exploitation during and after the project period and the actions required during the lifetime of the project.

A successful exploitation is essential in order to achieve long term sustainability of the LINKVIT results. As a consequence, it is one of the key objectives of the project. The exploitation plan analyses suitable activities for exploiting the project results, in particular the LINKVIT Training Framework, such as discovering the needs of the stakeholders, a first analysis of the fit between the project results and those needs and requirements, and the exploitation models. Additionally, since the exploitation plan will stepwise mature as the project progresses, activities will be developed on the basis of how we expect to gain further insights in the forthcoming years and how we plan to gain the attention of and get in contact with the main stakeholders and potential alliances.

The Exploitation plan is based on the communication and dissemination strategy elaborated by WP6 - Dissemination and Exploitation, adopting the most appropriate dissemination tools and channels developed so far in order to exploit the results achieved during the project implementation.

The objective of the exploitation plan is to specify the actions for bringing the results into long term use. The exploitation plan includes activities aimed to:

- establish and maintain mechanisms for effective exploitation,
- inform stakeholders of the project development and encourage interactions/ networking,
- coordinate all levels and types of exploitation of the knowledge produced by the project,
- ensure that information is shared with the appropriate audiences on a timely basis and by the most effective means.

The main focus is set by the “open source and open licence” policies adopted by the consortium to enable a maximum spread of and access to the results of the project.

The starting point for the exploitation plan is then the Common Creative Licence (CC BY-SA) model for the training modules and an open source eLearning platform. All results will be freely available to both the scientific community and the public administrations, and in general to the interested stakeholders.

The target audience can be summarised in three groups:

- Technicians in Public administrations and Companies, for a daily use of learnt techniques and tools;
- Decision makers, for a vision of how a sound use of the proposed techniques and tools can help in the planning and decision making processes;
- Postgraduates, for faster access to job opportunities.

The distribution models identified can be roughly characterised as follows:

- A (straight forward) distribution model based on the open sharing principles, following a specific common consortium license (The Creative Commons Attribution-ShareAlike license, or CC BY-SA¹). It implies that all results should be easily accessible, documented, with guidance material and possibly with access to some trial applications.
- A community driven model, possibly including a revenue model for generating the necessary funding to support the community.



This document will be enriched with the forthcoming project's achievements and contributions from all partners.

The plan will be then updated after 12 months and another time at the end of the second year, when the final version will be issued to be used as the basis for the partners' sustainability actions beyond the project period.

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1. Introduction

The objective of this document is to present the first version of the exploitation plan and its planned activities for the next period. This plan starts with an enumeration of all core products. It continues with a SWOT analysis, a diversification of the target groups within the global audience and concludes with a listing of activities to undertake, in order to reach the optimal target audience for each product at the right time. These activities spread the results within the internal and external community, to ensure the sustainability during activities and after the official end of the project. A specific session devoted to the exploitation plan by project partners at a local and national level is also included.

While dissemination activities have been performed from the founding period of LINKVIT project onwards, the exploitation strategy indicates how to exploit the project results during the last phase and afterwards to reach sustainability after the project's end.

According to DG Education and Culture, the term **exploitation** should be read as twofold:

- **Mainstreaming**, as the planned process of transferring the successful results of the project to appropriate decision-makers in regulated local, regional, national or European systems;
- **Multiplication**, as the planned process of convincing individual end-users to adopt and/or apply the results of the project.

Multiplication is strictly linked to **sustainability** that should be read, in our meaning, as ensuring that the developed products are used as the basis for further activities:

- by their own partners;
- by new projects and/or in connection with complementary projects and networks;
- by policy makers;
- by public administration staff;
- by researchers.

Sustainability also means ensuring that these services/products are used just in time in real learning contexts.

This document therefore aims to create a common view for all LINKVIT partners to the exploitation activities. It states how the outcomes should be promoted to support their adoption and their use in different academic, educational and commercial environments.

2. LINKVIT expected results

Specific skills are required **for a successful implementation of the INSPIRE Directive, such as** data management and harmonization, web service development, application of standards, as well as **knowledge about** methods, procedures and tools for INSPIRE compliancy. These are key issues in all the public and private organizations working in GI and its wide applications.

In this framework several training modules will be customised from training material produced in the context of other European projects and constituting the “LINKVIT product”, as detailed below.

2.1. The LINKVIT Product

It is constituted by the **LINKVIT Training Framework** which includes a package of 21 training modules streamlined into four different categories:

- **Context Knowledge for INSPIRE**
 - *Data Harmonization* : Basic concepts of data harmonisation with respect to data modelling and data conversion, attention is paid to schema translations and the data harmonisation components according to the INSPIRE Models.
 - *Data Quality*: Concepts of geospatial data quality and how the concepts are applied for specifying geospatial data quality according to international standards.
 - *Basic of INSPIRE Data Specifications*: Introduction to the INSPIRE data specifications and generic conceptual model which is based on the ISO 19100 series of standards in detail and provides examples of UML class diagrams for some of the INSPIRE data themes.
 - *Basic of INSPIRE Networking Services*: Concepts of the World Wide Web and the Service Oriented Architecture, then illustrates the 5 types of INSPIRE network services (discovery, view, download, transformation and invoking) and explains the link to existing standards of ISO and OGC.
 - *Introduction to INSPIRE*: 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.

- *Basic concepts of XML and GML*: Concepts of XML, GML and UML class diagrams and how they are related to each other.
- *European Geospatial Portals as SDI User Interfaces*: Concept of the infrastructure behind a portal is presented in order to help the importance of standards, distributed architectures and data/services documentation.
- *Basics of INSPIRE Data and service sharing*: State of the art on data and service sharing, Open Data, data sharing in a services environment and Digital Rights management.

- **Advanced technical Modules**

- *INSPIRE Networking Service Advanced*: Introduces to the implementing rules for network services and provides some guidelines based on best practices throughout Europe to set-up a conformant and performant network service (how to set-up a WMS, a WFS and a CSW).
- *INSPIRE Advanced*: Deals with how INSPIRE can become a key enabler in e-Government business processes. It places the INSPIRE initiative in the context of other initiatives and broader technological developments. The module explains INSPIRE potential future developments and its maintenance programme.
- *Procedures for Data and Metadata Harmonisation*: Introduces the principles of validation, as a necessary step to check/claim the compliance of the harmonized data and/or metadata to the relevant specification.
- *Examples of Data Transformation*: shows the use of the matching table as useful tool to document the mapping process between the elements of the source dataset and the INSPIRE data model elements and explains how to identify and solve some common matching problems.
- *Metadata and Data validation for INSPIRE*: Shows how to assess the degree of conformity to the requirements specified by Commission Regulation (EU) No 1089/2010 relevant to a GML dataset belonging to INSPIRE Annex II/III data themes. Conformity is assessed through an Executable Test Suite (ETS).
- *Metadata and Catalogue Services*: Describes what metadata is and how important it is for data access within a distributed computing environment.

- **Stakeholders of application domains**

- *Nature Conservation and Nature 2000 Network:* Overview of the most significant policies relevant to nature and biodiversity conservation, and protected sites management.
- *Nature Conservation and INSPIRE:* The role of the INSPIRE Directive in the field of nature conservation, providing a brief introduction to the four INSPIRE themes.
- *Risk Management:* the state of the art and main strategies and knowledge on Risk Management; examples of Geohazard map into INSPIRE.
- *Geological data harmonization:* Specific definition of geological data into INSPIRE and GeoSciML standard, describes a wrapper that map and transform data coming from web services to standards.

- **Technological trends & innovative solutions**

- *Introduction to Linked Data:* The principles of Linked Data and Semantic Web technologies (RDF, OWL, SKOS, SPARQL, etc.).
- *Introduction to Sensor Web enablement:* Overview of the world of sensors and Sensor Web Enablement. (SensorML); examples of implementations will be given such as SWE implementation for Air Quality monitoring.
- *How to Publish and use Linked Data:* Introduction on how data can be published and how linked data can be consumed, and what are the possible use cases and benefits.

2.2. The eLearning platform for the access to the training modules

One of the most important elements of the LINKVIT Training Framework is the eLearning platform.

A comparative testing and analysis of tools and procedures of several LMS (Learning Management System) to match the LINKVIT didactic approach has been made in the context of the deliverable no. 6 “Infrastructure technical specifications”.

The final aim of that deliverable was the choice of the most suitable tool for the project needs.

The evaluation of LMS has been based on technical reports, analysis of functionalities and also the practical experience of the partners UNIGIS and GISIG using LMS (in this case Blackboard 9.1, Moodle 2.0, Dokeos e-learning suite and Google applications).

Among others, the following are key functional and innovative aspects being considered as requirements for the chosen LMS:

- A preference for Open Source Learning Management Systems (LMS);
- User experience, usability aspects, intuitive user management and personalization;
- Support and community: documentation and user-based support;
- Flexibility: customizable and adaptable technological solutions to the project requirements;
- Mobile Learning: to guarantee a training experience without spatial or temporal constraints;
- E-learning specifications: support to standards such as SCORM and compatibility with popular authoring tools;
- Availability of advanced and innovative learning features.

For LINKVIT the chosen solution will be the use of Moodle (<https://moodle.org>). Moodle is a free software e-learning platform, with its first release in 2002, designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments.

Moodle is one of the most popular open-source systems in use today with 68.900 registered sites offering more than 7,7 million courses to 73 million users worldwide.

Moodle is primarily developed in Linux using Apache, MySQL and PHP.

Moodle has the advantage being supported by a huge community, ensuring regular updates and offering additional functions based on an open-source solution.

3. SWOT Analysis

In order to utilize the full potential of the entire consortium, an analysis of the consortium as such and the products being developed is made. This analysis is made with respect to its strengths, weaknesses, opportunities and threats (SWOT).

The strengths and weaknesses are related to the current situation within the partnership. This means that the partnership has the possibility to further act on this, in order to exploit the strengths and to remove the weaknesses.

The opportunities and threats are on the other hand related to future external developments, of which the partnership has limited influence. Since the outcome of these opportunities and threats are uncertain, in terms of magnitude and timing, they have an impact on decisions on what actions to do and when to enforce each action. If, for instance, an opportunity has a high impact on the success, it might be worth waiting to do a major investment until that opportunity reaches a higher degree of certainty.

It should also be added that each opportunity has a corresponding threat (opportunity will not happen) and vice versa. This dualism is not explicitly mentioned in the analysis below.

The analysis carried out following the SWOT criteria is summarized as following.

3.1. Strengths

The consortium consists of leading organizations in the countries represented in the project.

Some partners of the consortium have worked together and set up informal procedures about how to cooperate.

The Consortium consists of scientific and academia partners and SMEs, as well as training providers, and the cooperation is focused on the creation and re-use of GI & INSPIRE training material and experiences from different educational sectors (universities, vocational etc).

The project results are based on needs individuated within the trainees target groups.

The participation of different European countries adds a multi-national dimension and experience on one hand and the possibility of the transfer of best practices and avoidance of previous mistakes.

3.2. Weaknesses

The existing training offer covers only a part of the needs related to INSPIRE and SDI development so an effort on the update and adaptation of contents based on the current needs and demands of the professionals of geo-information is needed, as foreseen within the LINKVIT project.

Most of the European Public Administrations at the regional and local level should implement the INSPIRE Directive requirements in the next seven years. The greater part of staff with different skills has not enough background to engage the entire process needed, also in this case as foreseen in the LINKVIT project.

3.3. Opportunities

Potential partners in other countries may be attracted by the consortium and LINKVIT results.

The support to INSPIRE related training actions at European as well as national levels, will increase as INSPIRE is getting more operational.

Based on the LINKVIT Training Framework planned development, new courses can be added by the LINKVIT consortium, regarding new knowledge areas or training requirements not yet addressed.

LINKVIT could become the reference portal at European level for training on INSPIRE implementation, thanks to the liaison with the ARE3NA initiative (a Reusable INSPIRE Reference Platform, <https://joinup.ec.europa.eu/community/are3na/>), driven by EC-JRC. ARE3NA supports collaboration, identification of best practices, guidance and the sharing of components relate to various aspects of INSPIRE, providing guidance around INSPIRE, its technology and assets in relation to e-government

3.4. Threats

The market of training services may evolve becoming weaker than expected.

The technological developments are going very fast. The available courses may expire or being not updated as often as necessary.

4. Relevant Target Groups of the Project Results

The main target groups are: Public Administration bodies, scientific, developer and user communities, postgraduates and finally the LINKVIT consortium itself and other complementary projects.

Within these target groups we can identify different professional profiles, according to the **Business processes** and **Job Profiles** defined along the Analysis and organization of training material (within the WP2) and the potential learning paths that will be available and defined by the project (see also D4 Learning Paths specifications). They are:

Business Processes

BP1 – Managing and reporting INSPIRE implementation

BP2 – Transforming data and metadata

BP3 – Creating and managing access mechanisms (services)

BP4 – Access, bind and use of spatial data (through services)

Job Profiles

1. Manager (BP1)
2. Data Expert (BP2)
3. Service Expert (BP3)
4. Service Consumer (BP4)

4.1. Researchers, Technicians and Decision makers

Technicians in Public administrations and private companies, for a daily use of learnt techniques, tools and to make more informed decisions about the resources underlying Europe are among the project's target groups. The communication with these groups follows the normal roads for any academic exchange of thoughts and ideas, namely papers, presentations, discussions and workshops at scientific conferences, symposia or in academic journals and books. On-site seminars focusing on specific topics of interest for the technicians can be organized as well.

The universities and institutions of higher education are potential customers of the LINKVIT products.

Decision makers, for a vision of what a sound use of techniques and tools can lead to are another target. The communication with these groups will be based on their involvement in major events and conferences.

Postgraduates can experience a faster access to job opportunities. These users will provide the project with valuable feedback and are important as supporters to open the broader market for LINKVIT. Ideally, they need to be addressed individually with a customization to their special needs and requirements.

4.2. LINKVIT consortium

The background of the partners is quite different, covering multiple disciplines and languages, and having multiple educational and IT oriented people in their organisation. All partner institutions are involved in educational settings which makes them the first circle of potential users of the LINKVIT product.

The partners are also part of broader scientific communities and some belong to developer communities. The links with specific networks depends heavily on the concerned background. Moreover, ISPRA and most of the consortium partners, manage specific networks with other public administrations or are part of such networks. They can therefore use those networks to exploit the project and to offer the LINKVIT training package to the different target groups.

The LINKVIT consortium then plays a very important role for a continuation of the project and the exploitation of its results.

4.3. Networking with other projects

Other projects are also important for LINKVIT exploitation, especially for the possibility to exchange experiences and ideas. The background of the individual partners of the other projects is even more diverse than that of LINKVIT. That would allow to extend the group of projects mentioned in the dissemination plan; the main institutions involved in these projects, could then be part of the LINKVIT target groups, individuating within them those ones potentially interested in geoinformation and the INSPIRE Directive.

We refer in particular to the following projects:

Name of the project	Web site	Kind of connection	Partner responsible for the link
Geographic Information Need to Know (GI-N2K)	http://www.gi-n2k.eu/	GI-N2K is developing a new version of the Body of Knowledge for GIScience & Technology and related tools – LINKVIT is using a similar approach and relies on the BoK for curriculum development	KU Leuven
European Location Framework	http://www.elfproject.eu/	ELF Project deliver a pan European cloud platform and web services to build on the existing work of the INSPIRE Directive could be share experience and training material	ISPRA, GISIG, KU Leuven
IMPULS	N/A	The project deals with NSDI development in Western Balkan (formerly Yugoslavia and Albania). The project is lead by Lantmäteriet and financed by Sida. A list of LINKVIT modules has been sent to the project and IMPULS have shown great interest.	Novogit AB
eENVplus	http://www.eenvplus.eu	Collaboration in sharing training material and development of related learning paths on operational implementation requirements for sharing environmental information according to the European ICT policy context	GISIG, ISPRA
smeSpire	http://www.smespire.eu	Liaison already formalised the 31-01-2014 to share training material and learning path	EPSIT
LIFE+IMAGINE	http://www.life-imagine.eu	Liaison already formalised to share training material and learning path	GISIG, ISPRA
GeoSmartCity	http://www.geosmartcity.eu	Collaboration in sharing training material and development of training paths related to Linked Open Data, the SMART City paradigm, PSI and INSPIRE and related technical issues.	GISIG, EPSIT
PRAXIS	http://www.praxisnetwork.eu	Mutual exploitation for training actions and project/internships	GISIG

5. Exploitation at partners and national level

The LINKVIT partners will allocate the human resources necessary to maintain the Training Framework as part of their institutional activity. The Training Framework and the Training Infrastructure beyond it will be maintained as the tool for training actions and for developing new initiatives, also started by the partners as integration into their existing learning and training environments. In addition to the analysis of the LINKVIT products, each partner made an analysis for exploitation actions at national level using their own networks, their resources and involving the groups of professionals they wish to target with the project. In fact, the expected impact on the different target groups addressed by the project is ensured by the different roles of the LINKVIT partnership.

The results of this preliminary assessment are given below.

GISIG

GISIG (www.gisig.it) is a sectoral non-profit association on Geographical Information Systems (GIS) and on Geographical Information (GI). Its member organisations (from more than 20 EU Countries) operate on territorial and environmental subjects. As far as training actions are concerned, GISIG has been active since its constitution in 1992 as a sectoral UETP (University-Enterprise Training Partnership) in the GIS technologies within the former European COMETT Programme.

GISIG will establish a LINKVIT Secretariat to support the “Training on INSPIRE” line of activities within the Association, according to its mission of innovation and technology transfer in GI.

GISIG is carrying out other INSPIRE-oriented projects (quoted in the table on Page 15) and organising training initiatives and workshops to support them. LINKVIT Training Framework is in fact expected to be profitably exploited in such a context, providing a reference framework for the training on GIS, INSPIRE and its application domains.

All these projects are coordinated/participated by GISIG and some other LINKVIT partners, so that to guarantee an effective exploitation of project results towards other communities of stakeholders.

In particular, the possibility to collaborate with the ARe3NA initiative driven by EC-JRC (A Reusable INSPIRE Reference Platform) could support the process for LINKVIT to become the European reference portal for training on INSPIRE implementation, one of the main strategic goals for LINKVIT sustainability.

ISPRA

ISPRA is the Institute for Environmental Protection and Research (Istituto Superiore per la Protezione e la Ricerca Ambientale). It carries out scientific and technical activities in the national interest to protect the environment, fields of energy, soil, geology, inland and marine waters, natural hazards, metrology, biodiversity, forests, agriculture, urban environment and is integrated into a network-type system, the Environmental Agency System, which today includes 21 Regional (ARPA) and Provincial (APPA) Agencies. ISPRA is responsible for the links with the Italian regional Authorities and Local Public Administration and it is also available for the support in the organization of training actions in Italy on the INSPIRE themes as Land Cover, Geology, Environmental Monitoring Facility and Natural Risk Zones. Its role in the project will mainly consist in being responsible for Work Package 6 "Dissemination and Exploitation", also with the organisation of a Training Workshop.

ISPRA will use the Sinanet Network (the official link with the Environmental regional Agencies) and Regional Geological Committee (representing the body which informs all the Regional Department working on the Geology theme), to disseminate the content of courses produced by the project and to identify the end-users within the Public sector.

The benefit of the LINKVIT Training Framework will be highlighted also during the official institutional events of ISPRA, which is also the Italian technical coordinator for INSPIRE, with a significant positive impact on the different actors of the Italian Administrations involved in the different INSPIRE Data Themes, improving the skills needed in the data conversion process for a wider sharing system, according to the INSPIRE requirements.

EPSIT

Epsilon Italia srl is an independent SME established in 1996 in Mendicino (CS), Southern Italy. The company provides the end users with innovative and technologically advanced solutions in the following fields:

- Geographic Information (GIS, WEBGIS, Spatial Data Infrastructures, GI standards, INSPIRE implementation)
- Satellite Remote Sensing (marine and terrestrial applications)
- Planning and Society (territorial planning, sustainable development, SEA – Strategic Environmental Assessment, civil protection)

The company provides technical support and vocational training to Local Public Administrations and to private entities. Thanks to the well established technical experience of its human resources, Epsilon Italia is actively involved in Research & Development activities, carried out either on its own or in partnership with national and international Universities and Research Centres.

EPSIT will contribute to the exploitation of the LINKVIT results toward the private sector and in particular toward SMEs, in Italy as well as in Europe. EPSIT will leverage mainly on the smeSpire Network, counting more than 600 members in 28 EU countries, as a result of an FP7 Support Action – led by EPSIT – aimed at supporting EU SMEs in the INSPIRE implementation processes. LINKVIT will contribute to empower the personnel employed in the private sector and particularly in SMEs, to adapt to new developments and to manage changes introduced by the INSPIRE implementation, increasing their competitiveness not only in Italy but also at European level.

IUAV

The University Iuav of Venice is a higher education establishment, one of the 2 situated in Venice, with three faculties (Architecture, Design, Planning), 11 undergraduate and graduate degree programmes and a limited number of students. Even if it is small in size, it has its own specificity that makes it stand out from other Italian universities: that of being a theme-specific university. IUAV will guarantee the LINKVIT impact at Italian academic level through the promotion of a Master in INSPIRE and of the INSPIRE Driver's License in Italy.

The need to adapt existing VET – Vocational Education and Training - systems in the GI field or to reconfigure them will create a new workforce for the INSPIRE compliance and will give people greater control over their individual learning experiences, contributing to transparency of qualifications according to ECVET policies and making easier and more attractive people mobility among countries

PLUS

The Interfaculty Department of Geoinformatics - Z_GIS (www.zgis.at) with 70 staff at Paris Lodron University Salzburg (PLUS), is dedicated to applied research, outreach activities, professional education and training in the domain of GIScience. As experts for the spatial view Z_GIS focuses on innovative uses of new technologies through interoperable GIS usage, spatial modelling, satellite remote sensing, image analysis, digital cartography and GI-based communication.

In Austria, PLUS will make available the LINKVIT results to a wide professional audience.

Access to vocational education is warranted by cooperation with adult learning institutions (Wifi, BFI), intra-institutional lifelong learning in public (governmental) institutions and with academic Summer Schools and promoted through the Austrian Umbrella Organization for Geographic Information-AGEO. The impact will be also worldwide, throughout UNIGIS (www.unigis.net) as a worldwide network of universities offering distance learning programmes in GIS.

KU Leuven

The Spatial Applications Division Leuven (SADL) is one of the interdisciplinary R&D divisions of KU Leuven (15 staff) and hosted in the Geo-Institute (230 staff). The mission of SADL is the realization of applied research, consultancy and training in SDI, geomatics, GIS and Earth observation in various domains: transport & mobility, spatial and urban planning, soil and water, forest, environment, nature and landscape, agriculture, energy, tourism and statistics. SADL and other departments of KU Leuven are very active in the field of INSPIRE implementation and training at the Belgian and European level.

Activities of KU Leuven-Spatial Applications Division will be organised as part of the life-long learning programme of the University. As part of the exploitation actions, KU Leuven will organize training actions and workshops (face-to-face) in Belgium of which the material will be made available as e-learning material, in particular in the form of web lectures and webinars.

Several stakeholders of the INSPIRE community in Belgium including the INSPIRE national committee, the National Mapping Agency (NGI) and AGORIA, the association representing the (geo-)ICT industry in Belgium, have expressed their interest in the LINKVIT activities. This is part of a broader demand from the sector to have a consistent vocational training offer with respect to the topics tackled in LINKVIT. Through its active role in the Association of Geographic Information Laboratories in Europe (AGILE), KU Leuven will also be able to extend the impact of LINKVIT by promoting the activities and invite other university laboratories in the GI field to cooperate on similar vocational training offers, also thank to the synergies with the ERASMUS Network GI-N2K.

Novogit

Novogit is a small enterprise acting in the field of Geographic Information Technology. It is, through its founder professor A Östman, well established in the Swedish GI sector. Novogit has also

provided Training actions on INSPIRE and SDI in countries outside Sweden, such as Serbia, Ireland and Ethiopia.

Novogit will contribute to exploitation in the Swedish and international context through its connections with the Swedish geodata secretariat (the Swedish INSPIRE implementation office), which indicates a need for INSPIRE related training actions also in Sweden. The geodata secretariat has expressed great interest in using the LINKVIT project results. In addition, ULI (the Swedish GI Association) have expressed similar interest.

6. Exploitation actions

The exploitation models identified for LINKVIT can be divided into 2 categories:

A (straight forward) distribution model based on the open source principles. It implies that all results should be easily accessible, documented, with guidance material and possibly with access to some trial installation. To this purpose, the Creative Common License Attribution-ShareAlike (CC BY-SA) has been selected for the 21 training modules.

A community driven model, based on the creation of a community of practice, possibly including a revenue model for generating the necessary funding to support the community.

6.1. Exploitation models

In order to ensure a successful and sustainable exploitation of LINKVIT results, the exploitation plan will be implemented at a National and European level.

The main LINKVIT tools and channels of dissemination (already described in details by deliverable D.14 - Dissemination and Communication Plan) that have been or will be established during the project implementation shall be used for the purpose of exploiting project results (Web site, newsletter, events, press releases, links exchange, dissemination materials, social networks, publications, training sessions and workshops, etc.)

At a national level, the project will be exploited through two main actions: the web and networking partners' communication and the workshops. These actions have been described in detail in deliverable D.14 "Awareness and Dissemination Plan". The workshops will directly address the main project target groups and will promote the use of the LINKVIT Training Framework by Italian

Public Administration and geospatial experts, also in the private sector, as detailed in the section below.

At European level, the main exploitation actions are carried out along the INSPIRE Network channels (i.e. INSPIRE Forum, INSPIRE MIG mailing list, INSPIRE NCP representatives, etc.), the project and partners social channels (i.e. LINKVIT LinkedIn Group, ISPRA Twitter channel, etc.) and presenting the project in several Conferences or technical workshops.

Finally, the INSPIRE Directive being rolled out in EU countries and beyond at a rapid rate, means there is more of a demand for good quality distance learning. CEN/TC 287 Geographic information is committed to support vocational training through distance learning and the link between CEN/TC 287 and LINKVIT will be assured by Giacomo Martirano (EPSIT) and Danny Vandembroucke (KU Leuven), being vice-chairman and WG 5 convenor of TC 287, respectively.

6.2. Italian National Workshop

To ensure the maximum visibility in the Italian national and local context, the Consortium will organize a specific event to exploit the training modules content and the platform used to deploy them. The national workshop will be organized during the main important technical-scientific Italian Conference, ASITA 2014, where most of the local and regional Authorities and Italian SMEs will participate. A specific media campaign will be conducted by ISPRA and other national partners, using social channels, press offices and geospatial magazines.

The selection of that national conference has been determined also from the location where it will take place in 2014; in fact, it will be in Florence, central Italy, where most of participants will have easily options to come and the project could be particularly highlighted.

7. Sustainability plan

The Sustainability plan takes in consideration the long-term aim of all exploitation activities within the Consortium partnership to guarantee the sustainability of the project outputs arising from the LINKVIT learning paths and to become a reference point for the INSPIRE Directive implementation along the national programme, building and animating a community of practice open to all the possible stakeholders.

The Sustainability analysis identifies several elements to improve the knowledge and exploit the training modules and relate paths as far during the project activities as in the long-term objectives:

- Define a Regional point of reference network;
- Define a copyright or common license;
- Define a final critical analysis.

7.1. Stakeholders network

To improve the exploitation and dissemination actions that are taking place, which are well described in the dissemination plan, we have also identified some elements that could give more effort to project and training promotion:

- Identify a list of Italian Public Organisations at different level in national, regional and local contexts and for each one a list of reference contact points, in order to involve such administrations in different skills and thematic domains that are relevant to improve the INSPIRE knowledge.
- Identify a list of professional people also in the private companies (with focus on but not limited to SMEs) to be involved in the dissemination actions (i.e. Workshop, Conference or Social channel).

The Regional points of reference, which represent the main contact persons regarding the INSPIRE Directive, will be considered as main stakeholders to involve and to promote the project activities and will be managed as Regional Point Network (RPNe) to guide the future actions, also to ensure that the project remains “alive”.

7.2. Training modules License

An internal and partially external consortium discussion about the best transfer model to share project products has been done also to be sure about the sustainability and continuity of the project in a short and long term. Starting from the open sharing concept we analysed the state of art in the licensing trends for the public sector information and educational material, following the PSI EU Directive or used in common way by geospatial communities to ensure use and re-use of modules.

The main definition driven by the PSI Directive² and community is the re-use of products, defined as: the use or re-use of public sector documents *“for commercial or non-commercial purposes other than the initial purpose within the public task for which the documents were produced. Exchange of documents between public sector bodies purely in pursuit of their public tasks does not constitute re-use”* (article 2.4 of the PSI Directive).

The license modules taken into consideration have been those provided by The Creative Commons Licenses (CCL – <http://creativecommons.org>) that are the most common and used licenses available for the digital material, otherwise we could use the Open License. The CC selection is driven by the flexibility it offers by a Series of ‘baseline rights’, with attribution (CC-BY) as a core requirement, together with three other ‘license elements’ that can be mixed and combined to obtain six main customized license types (figure 1) through a point – and – click web interface moving from more open to restrictive.

² PSI Directive (Directive 2003/98/EC - 31 December 2003) The Directive on the re-use of public sector information provides a common legal framework for a European market for government-held data (public sector information). It is built around two key pillars of the internal market: transparency and fair competition. <http://ec.europa.eu/digital-agenda/en/european-legislation-reuse-public-sector-information>

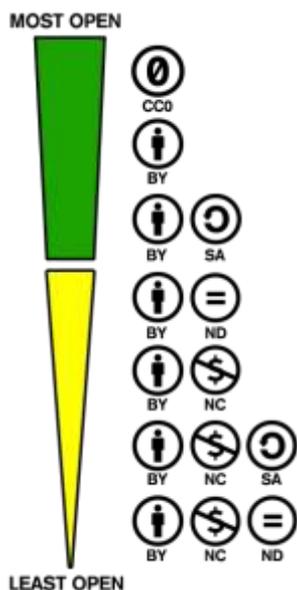


Figure 1. Common Creative licenses open-restrictive spectrum (image takes from Common Creative web site)

In order to ensure the maximum sharing and reuse of project material the Non-commercial combinations are leaved, and the three options available are:

Type of license	Name	Main description
	CC BY Attribution	<i>This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation.</i> <i>Recommended for maximum dissemination and use of licensed materials.</i>
	CC BY-SA Attribution Share-Alike	<i>This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms.</i> <i>All new works based on yours will carry the same license, so any derivatives will also allow commercial use.</i>

	<p>CC BY-ND</p> <p>Attribution No Derivatives</p>	<p><i>This license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you.</i></p>
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According to the above schema, all project partners have agreed to use CC BY-SA license model. Therefore in all the presentations, documents, video or any other material produced by LINKVIT project, the information in the box below should be exposed as well.

	<p>LINKVIT, 2014</p> <p>2014 by LINKVIT project Consortium. Policies are made available under Creative Common Attribution Share-Alike 3.0 License (International). http://creativecommons.org/licenses/by/3.0/</p>
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7.3. Final critical analysis

The strategic approach for evaluating the sustainability in a long-term at the end of project will perform an analysis to identify criticalities and bottlenecks in the implementation process, taking into account the following strategic elements:

- Awareness of the project identity and of its output;
- Target users and project stakeholders;
- Hypothetical future scenarios and perspectives;
- Available resources and existing constraints;
- Available tools and instruments;
- Critical factors in project development;
- Strengths and weaknesses.