

LINKVIT Business Plan

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

Short Description:

The Business Plan defines the main aspects about the market analysis of the LINKVIT outcomes and the feasibility of the maintenance of the Training Framework developed by the LINKVIT Consortium. The document describes as well the strategy for medium-long term sustainability and the general purpose for potential commercial investigation and re-use of the LINKVIT Training Framework.

The document is confidential for internal Consortium use.

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Business Plan, sustainability, open source, license, media, website, audiences, target groups.

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Executive summary

This document describes the Business Plan that represents an extension of the Exploitation and Sustainability Plan. It is focused on the market aspects and on the feasibility of the commercial exploitation and the possible funding streams.

In this context, the LINKVIT outcomes are analysed as a product made from a mixture of training services and support linked to a portfolio of training resources and its related technological platform.

The document presents the business strategy of the LINKVIT Consortium and brands as well the products from a commercial viewpoint. In order to better specify some of these aspects, an analysis of LINKVIT products and their evolution in the future has been carried-out, together with a comparative market study, in order to have a clear vision of the market size and competition.

The project Consortium, on the basis of the key values of the LINKVIT products and their sustainability in the INSPIRE framework, has also set-up a feasible roadmap for the next 5 years. That in order to ensure that the outcomes will be updated and the framework will be maintained as a reference platform on the web.

1. Introduction

The Business Plan describes the methodology used to analyse user needs and to acquire the requirements to set-up a mid-term sustainability strategy in the project Consortium contest. As an integral part of the Business Plan, the draft version of the Cooperation Agreement is also included, in which the partnership has specified the obligations and rights to ensure the next 5-year sustainability of the framework developed.

In the first part, the scope of the Business Plan and the role of each LINKVIT Consortium partner in the maintaining and updating activity are defined. Moreover, the document intends to specify the potential role of each partner in the exploitation and in the future extension of the business activity to be carried-out in relation to the LINKVIT products.

1.1. Mission and goals

The mission of the LINKVIT Consortium is to develop, maintain and deploy e-learning services related to Spatial Data Infrastructures (SDI) and the implementation of the INSPIRE Directive. The deployment includes an e-learning web solution, as well as tutoring and consultancy services related to training actions. The ambition is to help people become more conscious about the potential of geospatial information to support public organisations to providing geospatial data and services according to international standards. That using the training services derived by the outcomes of the project, also in view to contribute to further improve the learning material.

2. LINKVIT partners and their role

This chapter describes the partners involved in the Business Plan and their role in the Consortium. The internal analysis for exploitation and sustainability has identified two main groups of Consortium partners; those partners that maintain their modules and those who, other than maintaining their modules, will provide business training services, as better defined below. In terms of material provided or used in the modules, it could be that some third party organisations are involved as well.

Members of the LINKVIT Consortium are characterized as follows:

- GISIG, who provides the e-learning services (courses, material and e-learning tools) through the LINKVIT e-learning platform and tutoring services
- Universities (KU Leuven, PLUS, IUAV), who provide tutoring services and module development and maintenance services
- ISPRA Public Administration who provides module development maintenance services
- Private companies (Epsilon Italia, NOVOGIT AB and GISIG), who also provide tutoring services and module development and maintenance services.

All the LINKVIT partners might also carry out activities which results could be incorporated in the platform (e.g. new modules developed in the context of service requests or other European projects).

The following “indirect” partners could be also involved:

- Organisations that contributed to the development of the training material in the past (e.g. Ordnance Survey, 52° North, OneGeology-Europe Consortium, etc.)
- Organisations that might contribute in the future in the development of new modules
- European Commission (DG ENV, EEA and JRC) as providers of current information about INSPIRE; other DG's

3. LINKVIT Product

In order to exploit the full potential of the entire Consortium, an analysis of the Consortium itself and the products developed has been made.

LINKVIT provides educational services related to INSPIRE aiming at supporting public sector, and private and academic players acting on their behalf, in their efforts to implement INSPIRE.

The LINKVIT main products are mainly two:

- The setup of an operational e-learning platform
- 21 training modules on knowledge related to the INSPIRE Directive

In order to guarantee potential added value and business activity on these products, the maintenance of these assets is considered an integral part of the sustainability plan, but also an essential part of potential business activities.

3.1 Products and Services description

The LINKVIT products can be summarised as follows:

- LINKVIT offers a portfolio of INSPIRE related e-learning modules based on an open CC BY-SA license. The modules form a kind of baseline on top of which the LINKVIT partners and other suppliers of INSPIRE training can create added-value services or derive other training material 'on-demand'.
- LINKVIT offers a free access-learning platform based on the Open Source software Moodle that can be freely used by learners aiming to receive training in the field of INSPIRE. This platform is used by the Consortium partners as the main tool to organize their training offer and services.

The LINKVIT Consortium might offer the following services based in the aforementioned products.

- e-learning services, where online courses are provided to trainees through the LINKVIT platform. These services are aimed at trainees that have the need to acquire "INSPIRE Knowledge" and are able to follow the on-line courses in its current form. Access to the courses is free upon registration to the e-learning platform.
- e-learning services where e-learning material is provided to tutors through the LINKVIT platform. These services are aimed at tutors who wish to use the LINKVIT training material, with or without adaptation, in their own courses. These services are free.

- Tutoring services, where trainees are getting additional support from a tutor. In cases where the current version of the LINKVIT courses are not sufficient, additional tutoring services, such as answering questions, tailoring of existing training material, and on-site workshops may be provided. These services are paid by an organisation to the authors of the courses for which tutoring services will be required in the context of bilateral agreements. In case the e-learning platform is used in the provision of courses, the partner GISIG as host of the Training Framework, will take part on the agreement.
- The LINKVIT partners might also offer comprehensive INSPIRE training programmes 'on-demand' or in the context of the preparation of European projects for which a broad knowledge base is required and a series of skills to cover all aspects of INSPIRE implementation.
- Module development services, where organizations can request the development of additional modules. In cases where the current portfolio of LINKVIT courses is not sufficient, new modules may be developed. These services are paid by the organizations requesting the development to each of the authors in the context of bilateral agreements.
- Help-desk, offering consultancy services related to INSPIRE implementation issues. These services are paid by the organizations requesting the consultancy to each of the authors in the context of bilateral agreements.

Developing derived modules based on baseline modules, tutoring or other services:

Here below we can find a list of agreements and actions related to the development of new products / services based on the LINKVIT results.

- Partners within the Consortium are allowed to create derived products from the available modules for free (e.g. translation of modules in local language, combining two existing modules into one, developing exercises with data from the client). They are obliged to inform the rest of Consortium partners about these activities. In case these new modules can add a value to the current training offer they should be added to the curricula.
- Partners are encouraged to involve other Consortium partners in the creation of new, added value commercial services involving the creation of new training material, tutoring services or other actions related to the results of LINKVIT.
- Partners are encouraged to involve other Consortium partners in the establishment of new initiatives (such a new European projects) involving the creation of new training material, tutoring services or other actions related to the results of LINKVIT.

- Partners are encouraged to use the e-learning platform as the main technological tool supporting the creation of new added value services. The details of such services will be established in bilateral agreements between the partner responsible for the maintenance of the platform and the partners willing to use it.
- Stakeholders that are not part of the Consortium have open access to the material available in the e-learning platform. This material is based on the CC-BY-SA¹ license. PDF versions are available for download for all the developed Modules but access to the original source material (PPT presentations) is not allowed. The possibility of use the original material should be discussed in the context of bilateral agreements between the author and the stakeholder interested. In case the Consortium partners create new modules from scratch related to INSPIRE/SDI and related topics, they are encouraged to add that new modules to the LINKVIT platform under the license CC-BY-SA.

3.2 Products update procedure

The maintenance of the baseline modules, which are the English version of the training modules developed and reviewed in the project, is an essential part of the sustainability strategy of LINKVIT. To ensure that this update procedure will be reliable, a schema of agreements and actions in the Consortium has been defined:

- If one of the partners is updating a baseline module, then it is an obligation to put the updated module on the platform;
- The up-date of the Italian version of the modules is also encouraged, even if priority must be given to the baseline modules in English.
- If any of the other partners wants to update a baseline module, this partner is allowed to do so, and has the same obligations as the original responsible for the module. The partner that wants update to the module must inform the partner that originally developed the module about the intention to update/modify it.

¹ 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. This license is often compared to “copyleft” free and open source software licenses. All new works based on yours will carry the same license, so any derivatives will also allow commercial use. This is the license used by Wikipedia, and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects.

- For the sake of clarity, each partners updating a baseline module will be asked to create a change history document and specify in the material itself the current version and the date in which the updated module has been created.

Each partner has the right to have full access to all the baseline modules developed during the project in the required format, whether that are PDF, PPT, DOC or other files.

4. Market Analysis Summary

4.1 Market Segmentation

The LINKVIT product is designed mainly for a user base, with the need to learn about INSPIRE. Potential users are involved in the INSPIRE implementation process, both from the legal/policy aspects and to the technical aspects.

The LINKVIT key user profiles are delineated in the following list:

- Mapping and Cadastre Agencies
- Environmental Agencies
- Agencies covering other INSPIRE Data themes
- ICT companies
- EC bodies
- Employees at INSPIRE mandated public agencies
- Employees at organizations responsible for developing SDI's
- Employees at organizations participating in SDI's
- Consultants supporting any of above
- University students
- Other profiles
 - Organisations from External EU Member States that are interested to know the implementation and harmonization processes
 - Organisations from EFTA Countries that need to start the implementation of INSPIRE

Beyond this general characterization of potential users, each LINKVIT partner has a specific strategy to address target users based on its established relations with their own local, regional and national institutions, especially those responsible for the INSPIRE implementation.

4.2 Market competition analysis

The following competition analysis is based on a survey made by the Consortium partners in the European and national context. The results of this analysis have as main outcome the conclusion that “there is a lack of general GI courses and specially Spatial Data Infrastructure courses where the INSPIRE Directive aspects (both from the political and technical prospective) are covered in sufficient depth and professionalism”.

In detail, each Partner has been asked to provide a detailed overview of the market for each of the countries the LINKVIT partners belong to.

4.2.1 Market Analysis on European framework

The objective of this section is to describe the European market for training and education in SDI and to analyse the potential of the LINKVIT products in the European marketplace.

The GI-N2K project map of GIS&T education offer in Europe:

The GI-N2K project ²has provided a static time map aiming at the geolocation of the current educational GI technology offer in Europe (the beta version of the map is available at: <http://www.gi-n2k.eu/home-test/>).

The map is based on a database of 430 courses on Geographic Information Science and Technology (GIS&T) in Europe.. Ku Leuven has made an analysis on the database elements and identified that only a few of these courses are fully focus on the SDI and in most of them INSPIRE Directive represents a marginal aspect, the table below shows a synthetic picture of these.

Course name	Course provider	Type of course	Language of course
Design of Infrastructure for Spatial Information	University of Warmia and Mazury, Olsztyn (PL)	EQF5_6, 5 ECTS	Polish
Geospatial Infrastructures	University Jaume I, Castelln (ES)	EQF7 , 1 ECTS	English

² <http://www.gi-n2k.eu/>

SDI Services Implementation	University of Salzburg, Salzburg (AT)	EQF7 , 6 ECTS	English
Spatial Data Infrastructure	Aalborg University, Copenhagen and Aalborg (DK)	EQF7 , 5 ECTS	English
Spatial Data Infrastructure	Universidad Politecnica de Madrid, Madrid (ES)	EQF5_6, 6 ECTS	Spanish

The GI-N2K project survey on GIS&T demand:

Also in the context of this European project it was carried out a major effort to assess the current workforce demand in GIS&T in Europe.

435 professionals active in the GIS&T domain in Europe were asked to evaluate the relevance of the different knowledge areas in their professional work. It was interesting to see how the three main sectors – public administration, private organisations and academia – evaluated the BoK Knowledge Areas congruently. ‘Geospatial data’ and ‘Cartography and Visualization’ were considered as the most relevant BoK knowledge areas, whereas advanced ‘Geocomputation’ received the lowest rating. In addition to the evaluation of the relevance of existing knowledge areas, respondents were also asked which topics and competences they expected to gain important in the next five years. About one third of the keywords mentioned by the respondents are absent in the GIS&T BoK.

One of the four key topics that are expected to gain importance although not or only partly covered in the current BoK is SDI. Some important skills and areas of knowledge mentioned by the respondents are geoportals, data harmonization and INSPIRE. The three other hot topics are programming, WebGIS and data acquisition. The topic of data acquisition also includes several skills and areas of knowledge directly or indirectly related to SDI and INSPIRE, such as open data, crowd sourcing and VGI and sensor web.

It is interesting to see how the LINKVIT training programme covers several of the knowledge areas and topics that are expected to become more important in the future. Topics such as SDI, INSPIRE, geoportals, data harmonization and open data are thoroughly addressed in one or more of the LINKVIT modules. It should also be noticed that the LINKVIT training programme covers the Organizational and Institutional Aspects of geospatial data, an area that is not covered in most of the existing education and training courses.

4.2.2 Market analysis in Belgium

The analysis has been carried out considering professional training in Belgium.

The latest version of the 'GEO-ICT Business Guide' of AGORIA, federation for the technology industry, presents 32 companies in the domain of geo-ICT in Belgium. The list of companies was used as a starting point for the analysis of the professional training offer on SDI in Belgium. This analysis has summarised in the following table as well.

Company	Training offered	Link
1Spatial (it has offices in Liege and Ghent)	It provides regular training courses on FME, Geocortex and other 1Spatial products	http://1spatial.com/products-services/training
GIM	It has training on several GI-related topics in Dutch and French.	http://www.gim.be/en/gis-training
	SDI related trainings include INSPIRE Directive part.	http://www.gim.be/nl/training/inspire-richtlijn
	GeoServer Advanced	http://www.gim.be/nl/training/geoserver-advanced
	Data transformation in line with INSPIRE	http://www.gim.be/nl/training/dataconversie-volgens-inspire
	Introduction to Open GIS Webservices	http://www.gim.be/nl/training/introductie-open-gis-web-services
	GeoNetwork	http://www.gim.be/nl/training/geonetwork
	Introduction GML	http://www.gim.be/nl/training/introductie-gml

Conclusions

The findings from the GI-N2K are of great interest as demonstration the lack of INSPIRE knowledge in the current training offer in GI across Europe. The KU Leuven training action in Belgium demonstrated the relevance and applicability of LINKVIT material in context of an academic master (see report on training action). The LINKVIT sustainability strategy should take into account the future/potential contribution of LINKVIT offer to the academic education.

4.2.3 Market Analysis on Sweden

The objective of this section is to describe the Swedish market for professional training in GIS and to analyse the potential of the LINKVIT products in the Swedish marketplace.

Methodological approach for the analysis:

The survey of providers of GIS training in Sweden is carried out as a desk survey. Web sites of major universities, GIS software vendors, GIS consultants and major authorities are visited and information about training offers are gathered.

In this survey, only GIS training offers for professional training is considered. This means that longer educational programs such as university courses are excluded. The training courses of interest should here be maximum 2 weeks long.

For each training offer, the following information is requested: Training provider, Name of training course (content), Target group, Estimated work load per trainee, Mode of training (on site, at provider, e-learning, ...), Price and INSPIRE related (Y/N).

Results of the analysis:

- *Professional training at universities*

The training offers at KTH (Stockholm), Luleå University of Technology, University of Gävle, University of Gothenburg and Lunds University have been reviewed. For the time being, there are no professional training courses in GIS given at these universities. There are several university course of 7.5 ECTS given (corresponding to 5 weeks of full-time work) available for professionals. As mentioned, these courses are not considered to be included in this market analysis.

- *Professional training given by main software providers*

The software providers being investigated are ESRI and Cartesia.

A few years ago, ESRI acquired GeoSecma, a company specialized in solutions for municipalities. GeoSecma have migrated their products to the ArcGIS platform but they provide training related to

their products under the umbrella of ESRI. ESRI offers 24 GIS training courses and GeoSecma offers 11 courses. The price for ESRI courses are 4.5 kSEK for a one-day course, 9.2 kSEK for a two-day course and 12.9 kSEK for a three-day course. The price for the GeoSecma courses are 5 kSEK per day (1 – 3 days per course). All courses are given at the vendor’s location as a standard. Onsite training may be given on special request.

The INSPIRE-related training courses offered by ESRI are mainly related to web publishing and FME. So they are not directly targeting INSPIRE, instead they target tools by which INSPIRE issues may be addressed. INSPIRE-related training offers by ESRI are shown in table below.

Title	Workload
ArcGIS 4	2d
FME Basic	2d
FME Adv	2d
FME Server	2d

Cartesia is the main supplier of solutions based on MapInfo software. They provide 36 training courses in the GIS field, where but no course address INSPIRE issues. The pricing is 6450 - 7250 SEK for a 1-day course, 8295 - 10395 SEK for a 2-day course and 11700 SEK for a 3-day course. Their courses shorter than a half day (1 – 3 hours) are not priced. All courses are given at the vendor’s location as a standard. Onsite training may be given on special request.

- *Professional training given by main consultancy companies*

The consultancy companies being investigated are Sweco Position and Metria. These two companies dominates the Swedish market on providing INSPIRE-related services

Sweco Position AB provides 2 courses on FME. Their pricing is 6500 SEK for a 1-day course and 8900 SEK for a 2-day course.

Metria do not provide any scheduled training in GIS, although they are marketing FME solutions for INSPIRE quite heavily.

- *Professional training given by authorities*

The authority being investigated is Lantmäteriet (the Swedish Mapping, Cadastral and Land Registration Authority). Lantmäteriet has a long record of providing professional training. However, during the recent years, these activities has been reduced and they are now only giving training for

own personnel. On occasion, there are some exceptions. In late October 2015 for instance, a training session was given to the INSPIRE authorities on schema transformation. The HALE software was used for this occasion and the LINKVIT training material was also used.

On an irregular basis, Lantmäteriet is also giving training within international collaboration projects, for instance financed by Sida, the Swedish agency for foreign aid and international development. Also in these training sessions, the LINKVIT material is increasingly being used.

Conclusions:

The main part of the professional training in GIS in Sweden is provided by the two main software vendors ESRI and Cartesia (MapInfo). They most often provide their training at their own offices and they do not provide any e-learning solutions at all. Most of their trainings are related to the software products they sell. Only a small part of the training offers are INSPIRE-related and here we talk about training courses in FME.

The pricing of the training offers is around 4500 SEK per day (corresponds to around 460 € a day).

The LINKVIT training offer is based on e-learning, freely available training material and paid tutoring services. Considering the limited competition on training in topics related to INSPIRE and the price levels of other professional trainings in the GIS fields, the LINKVIT training offer is very competitive. This is also realised by Lantmäteriet, who is now increasingly using the Linkvit training material and the tutoring services offered by the LINKVIT partners, in the first place Novogit AB.

References:

Cartesia training offers. <http://www.cartesia.se/tjanster/utbildning/>

ESRI training offers. <http://www.esri.se/Utbildning/Start>

Sweco Position AB. <http://www.sweco.se/sv/Sweden/Tjanster/IT-for-samhallsutveckling/>

Metria AB. <http://metria.se/Vara-erbjudanden/>

Lantmäteriet. <http://www.lantmateriet.se/sv/>

4.2.4 Market Analysis in Italy

The market analysis conducted in Italy focused on GIS training courses, in absence of offers of INSPIRE/SDI training courses.

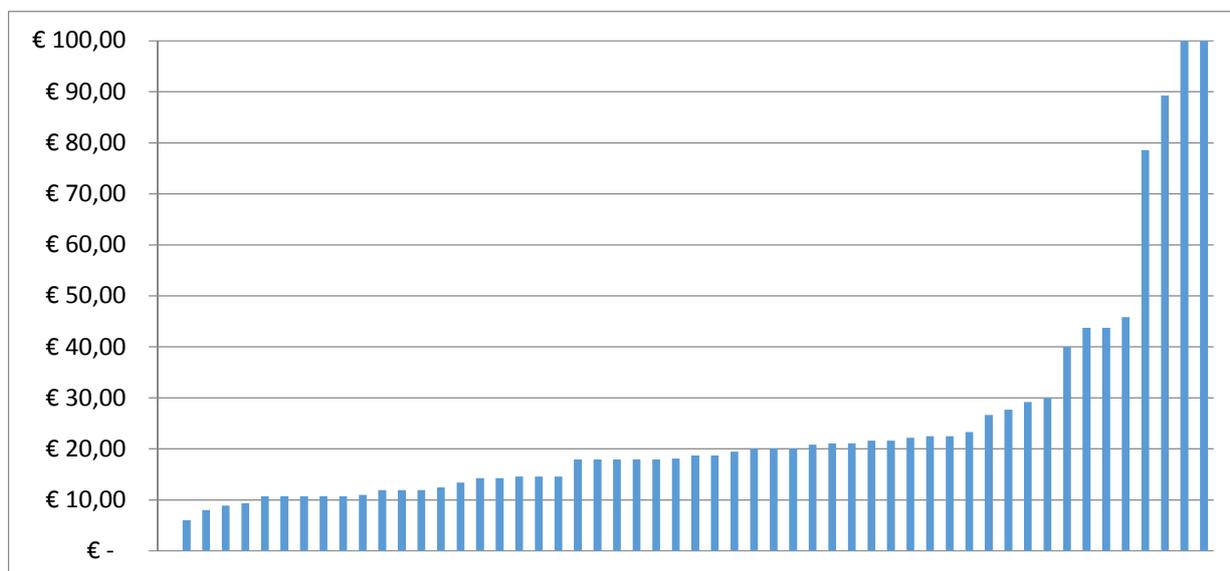
Searching on the web for GIS related courses offer, 58 training courses have been identified and the following information has been collected in an excel file: hosting organization, course title, course program, target beneficiaries, prerequisites, cost, duration, date and place.

Regarding the typologies of the 15 different hosting organizations, 3 of them are Public Authorities, 1 University and 11 private companies or associations.

Analysing the 51 courses which provided information about their program, 20 of them covered basic or introductory courses and 31 more advanced topics.

Regarding the target beneficiaries, some of the courses explicitly mentioned categories of professionals, even though most of the courses indicated generic target beneficiaries.

In terms of costs, for the 54 training courses for which costs and duration was provided, an hourly cost has been derived and the corresponding values are shown in the following figure:



Conclusions

The Italian market does not currently include any direct training reference related to the INSPIRE Directive. Of course this makes the LINKVIT training offer very competitive in a market where there is a growing interest regarding INSPIRE and therefore a need for training resources.

Being the LINKVIT model based on the provision of free courses and paid tutoring services, the competitive advantage is very relevant. For sure, the fact that the LINKVIT partner ISPRA is the Italian Public Administration responsible for the INSPIRE implementation in ITALY is also a big advantage for the exploitation of the LINKVIT results in this country.

4.2.5 Market Analysis in Austria

The market analysis in Austria reflects the results of an internet search and provides a short summary of the current GI related courses with a focus on university education and professional training provided by commercial operators. The information regarding organizer/training provider, course name and content, duration, price, place and language is presented below.

University education

In Austria, there are four university sites offering academic education in the field of GIS. The University of Salzburg offers an international master in “Applied Geoinformatics” with a duration of two years and a Doctoral College in GIScience with a duration of 3 years. As a global network of higher education institutions UNIGIS is the world’s premier distance education initiative offering masters and diploma programmes in Geographical Information Science and Systems (GISc).

The Carinthia University of Applied Sciences offers a German-language Bachelor’s programme and an international Master’s programme in “Spatial Information Management”.

The Technical University of Vienna provides a Bachelor’s programme in “Geodesy and Geomatics Engineering” and a Master’s programme in “Surveying and Geoinformation”. In addition, the University of Vienna offers a German-language Master’s programme in “Kartographie und Geoinformation”.

The Technical University of Graz offers a Master’s programme in “Geo-Spatial-Technologies”, with a duration of 2 years.

Commercial providers:

Besides the academic education in the field of GIS, there are several companies specialized in GIS training and practice. One example is the FOSS Academy, offering 17 courses with a duration between two days and one week. Another company providing GIS training in Austria is Axmann Geoinformation, offering 1-day courses with content relation to INSPIRE. The pricing for a FME INSPIRE workshop is € 1.490,00, for a 1-day INSPIRE consulting training € 990,00.

SynerGIS (ESRI Austria) as a national software provider offers 38 training courses, which last from 1 up to 3 days. The prices are not public.

The most relevant information on GI related training in Austria is summarized in the following table.

Organizer	Courses / content	Duration	Price
FOSS Academy (EU) / R3GIS (Austria)	17 courses	2-5 days	course-specific
UNIGIS Salzburg	UNIGIS MSc and UNIGIS Professional	2 years (MSc) and 1 year (Professional)	€ 9.800 / € 5.400
SynerGIS (ESRI Austria)	38 courses	1-3 days	?
PLUS	International Master "MSc Applied Geoinformatics"	2 years	study fees
PLUS	Doctoral College GIScience	3 years	depends on funding
Carinthia University of Applied Sciences	Bachelor "Geoinformation und Umwelttechnologien" and Master "Spatial Information Management"	3 years (Bachelor) / 2 years (Master)	?
TU Vienna	Bachelor programme "Geodesy and Geomatics Engineering" and Master programme "Surveying and Geoinformation"	3 years / 2 years	study fees
University of Vienna	Master "Kartographie und Geoinformation"	2 years	study fees
TU Graz	Master "Geo-Spatial-Technologies"	2 years	study fees
Eduvision	Introduction to ArcGIS	4 days	€ 1.999
Boku - University of natural resources and life sciences Vienna	GIS basics	5 days	€ 1.200
Axmann Geoinformation	FME INSPIRE workshop / INSPIRE consulting day	1 day	€ 1490 / € 990
Wifi	AutoCAD und GIS - AutoCAD Map 3D	2 days	€ 390
ZGIS - Project "GeoSPS"	Geo-enabled smart processes and services	9 modules, each 5 days	company and project funding

Conclusions:

Professional training in GIS in Austria is provided mainly by University programmes and private institutions. In all the analysed cases the training offer is subject to fees. Therefore, as for the case of Sweden, the LINKVIT training offer has a high competitive value in this context.

5. Strategy and Implementation

5.1 Marketing Strategy

The partners of the Consortium agree on having the freedom to adopt a specific marketing strategy according to the legal framework of their own organisation. In the context of this flexible schema, all the partners agree to a specific Collaboration Agreement (CoA) to regulate the basic service after the end of project (see Annex I).

Based on the partner key role and organisation mandate, different strategies have been identified to ensure the LINKVIT products sustainability and maintenance, but also to explore and set-up the development of the LINKVIT Brand.

The basic services as described in section 3, take care of the baseline modules updating and maintenance. For the Brand and commercial activity the general purpose is to maintain open for each Consortium partner the possibility to explore their business opportunity at national and

international level, but encouraging the involvement of other Consortium partners as much as possible in commercial activities defined in specific bilateral agreements. It's also encouraged to use and promote the existing LINKVIT e-learning platform as the basic framework to access to the modules and support the training actions.

Therefore, the main distribution channel of the project results will remain the LINKVIT e-learning platform. Additional distribution channels are on-site, direct to the customers.

All LINKVIT partners might also perform activities from which the results might be incorporated in the platform (e.g. new modules developed in the context of service demand or other European projects).

Find below a list of key activities and related responsible established in the Collaboration Agreement (CoA):

- Sales of training services carried out by each partner or joint initiatives defined in bilateral agreements between partners.
- Marketing carried out by each partner.
- Development of new modules
- Updating of existing modules by each module developer

The following sustainability activities are agreed to be supported by the project partners, at their own cost:

- Maintenance of INSPIRE baseline modules carried out by each module developer
- Hosting and maintenance of Moodle platform guaranteed by hosting partner
- Preparation of training offers to interested organisations and continuous market survey for potential customers
- Agreement on the need of a continuous and active marketing and communication strategy by each of the partners of the Consortium
- Promotion of the visibility and the use of the e-learning Platform and training offer in the relevant online channels and physical events participated by the partners
- Encourage the use of LINKVIT results in different networks participated by the Consortium Partners

5.2 Sales definition

The general sustainability model of LINKVIT is based on the commercial provision of specialised and tutored services developed upon a free offer of training modules.

This schema is based on the definition of commercial agreements between a member or a group of members of the LINKVIT Consortium and an organisation out of this Consortium. The financial details of such agreements and the exact role of each of the partners is out of the scope of this document.

6. Management Issues

6.1 Staff plan for tutoring

The tutoring services are mainly provided by the Universities, GISIG, EPSIT and Novogit; all the other partners could be involved by the tutor service manager and will be evaluated as external expertise based on the specific requests.

It is expected that each partner providing tutoring services will develop their own staff plan for executing these services.

6.2 Staff plan for development

The development of new modules and the maintenance of existing modules are expected to be carried out by all the partners of the Consortium. Since these are fairly costly activities, their costs needs to be covered by other contracts or engagements. As an example, KU Leuven tries to integrate this type of activities within project proposals or call for tenders. Otherwise, the costs for updating of modules may be covered by in-kind resources.

Also in the case of the development of new modules, the partner that are not directly involved could provide external expertise related to the customer requests.

7. Financial and sustainability Plan

Some general assumptions regarding financial sustainability are detailed below

- As a general rule, all the partners are free to use their own modules in any initiative, including commercial operation, out of the LINKVIT Consortium.
- If a request of interest for a training service (tutored action, face to face training, specific support, etc.) comes from the LINKVIT site, GISIG will notify the owners of the concerned modules.
- If a request of service involves the use of the e-Learning platform, GISIG as the partner responsible for hosting the platform, will be involved in the commercial operation, in order to cover the costs of use and maintenance of the infrastructure
- If a single partner receives a request to use its module(s) and also the one(s) from other authors, this partner might involve the other author(s) in the commercial operation.
- The costs of updating the training material (modules, exercises, etc.) are funded by the module author. The author is committed to send for free a copy of the updated course to maintain the LINKVIT “mother course” always updated.
- The costs for uploading updated courses, maintaining the online infrastructures (site + platform) are funded by GISIG.
- Additional costs from GISIG on specific features for the e-Learning platform should be discussed between GISIG and the partners and are not granted for free.
- If a client requires specific performance parameters on the e-learning platform, they can be granted through a specific Service Level Agreement with GISIG.
- GISIG is committed on maintaining the website updated and the e-learning platform up and running at anytime. During active actions GISIG will inform the partners involved on any aspect that might affect the courses delivery.
- There is no joint marketing strategy, each partner disseminate the courses at their own costs. But each partner promotes the LINKVIT brand when and where appropriate.
- If a partner is not interested any more in updating its module(s), other partners can do it, but then the partner can use the updated course without involving the original author in any future initiatives. In any case, each partner is free to edit and adapt the courses of other

partners, even for commercial purposes, but informing the original author and respecting the original CC license.

8. Conclusions

The Business Plan described above represents a strategic schema for the medium-long term sustainability of the LINKVIT Framework.

To enforce the sustainability assumptions and strategies, all the project partners agree to subscribe an agreement to support the platform life and the modules up-to-date for the next 5 years. This period is defined taken into account the INSPIRE Directive Timetables deadline, where a clear implementation phase is designed for all the Public Administration.

All the obligations and rights related to the LINKVIT Framework, and maintenance and modules updating are described in the section 3 of this document; anyway a Cooperation Agreement, (CoA, see Annex I) has been set-up and it is an integral part of the Business Plan.

The partners agree to sign the CoA as soon possible and not more than six months after the project end.

With that agreement, it has been also decided that a detailed financial part is not included in the Business Plan, mainly because the complex composition of the partnership leads to difficulties in the identification of a unique pricing system and needs a deeper financial analysis on a case-by-case basis.

The final agreement reflects a flexible schema and rules enabling the practical functioning of possible commercial initiatives or partnerships between the Consortium partners after project end, avoiding restrictions/barriers as much as possible and always respecting the intellectual property of each partner contribution.

Annex I. LINKVIT Cooperation Agreement

LINKVIT COOPERATION AGREEMENT

between:

GISIG (Coordinator)
Via Piacenza, 54
16138 Genova (Italia)

and the LINKVIT Core Partners:

ISPRA - Istituto Superiore per la
Protezione e la Ricerca Ambientale
Via Vitaliano Brancati , 48
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Italy
Mr. Stefano Laporta

Paris-Lodron Universität Salzburg
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– Z_GIS
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Via Pasquali, 79
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Mrs. Alessandra Vercillo

Katholieke Universiteit Leuven
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Prof. Dr. Rik Torfs, rector,
Acting on behalf of SADL, represented by
Prof. Dr. Jos Van Orshoven

Università IUAV di Venezia
S. Croce,191
30135 Venezia
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Prof. Amerigo Restucci

Novogit AB
Klarälvsvägen 3,
12844 Bagarmossen
Sweden
k.a. Prof. Anders Ostman

Related to the Transfer of Innovation Project N° 2013-1-IT1-LEO05-04046 entitled
LINKVIT

Leveraging Inspire Knowledge into Vocational Innovative Training
Under the European Lifelong Learning Programme – Sub-programme Leonardo da Vinci

WHEREAS

1. The Parties have promoted and are participating in a project entitled "LINKVIT" (Project No 2013-1-IT1-LEO05-04046) submitted to the Italian Leonardo da Vinci Agency (hereinafter referred to as "the Agency") in the framework of the European Lifelong Learning Programme (LLP),
2. The contractual conditions for the project were established between the Agency and the Contractor on one side, and between the Contractor and the Core Partners on the other side,
3. The Parties wish to define in this agreement their rights and obligations with respect to the LINKVIT Training Framework and project results exploitation after the LINKVIT project has come to an end (31/10/2015).

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

Article 1- Definitions

In this Cooperation Agreement (CoA), unless the context otherwise requires:

1. "Parties" shall mean the Consortium Partners of the LINKVIT project.
2. "EU Contract" shall mean the main agreement for the above-mentioned Project signed between the Contractor and the Agency with number 2013-1-IT1-LEO05-04046, concluded on 31/10/2015, a copy of which Contract has been provided to each of the Parties.
3. "Annex I" shall mean Annex I to the EU Contract (Project Description).
4. "LINKVIT Developers" shall mean the project Partners that have developed the project Training Framework.
5. "LINKVIT Brand" is represented by the name "LINKVIT" referring to the source of the products and services developed during the project.
6. "LINKVIT Community" shall mean the potential users of the Training Framework and potential customers of the related services.

Article 2 - Purpose and Scope

The scope of this Cooperation Agreement is to specify the main principles, rights and duties of the parties for the sustainability of the project's Training Framework and related training content. The agreement refers mainly to the maintenance of the framework, its up-to date in the long-medium term as well as the initiatives to guarantee their sustainability.

This CoA does not establish legally binding obligation on the part of any of the involved Parties; neither the Parties shall incur or be bound to any legal obligation or expense hereunder to the other Parties.

For any other matters not explicitly mentioned in the present CoA, the provisions stated in the main EU Contract and its Annexes will apply.

Article 3 – LINKVIT exploitation strategies

The Parties agree on recognise a high potential of joint exploitation of the Training Framework rather than moving standalone since the project products are built on complementarity of partners' skills.

Therefore the Parties agree on the importance of becoming after the end of the contractual period a consolidated working group under the common umbrella of the "LINKVIT Developers".

To pursue this objective, Parties agree to set-up flexible rules and guidelines enabling the practical functioning of the "partnership" after the project end, avoiding restrictions/barriers as much as possible.

This fact can be understood as an agreement that guarantees, from one side the freedom and independence of each of the partners and on the other hand the maintenance and update of the project products.

This strategy is detailed in the document "LINKVIT Business plan" (D20) of the project. In that document it is clearly stated that the adopted approach for the general sustainability will be based on providing the access to the developed resources for free (training modules and training platform) and design an offer of professional services based on these resources. The commercial exploitation of these services is subject to specific collaboration agreements to be defined and is out of the scope of this Cooperation Agreement.

Article 4 –Ownership, Exploitation

1. Each Party remains owner of its own background knowledge and material made available to achieve the LINKVIT results, to which access is granted on fair and reasonable conditions.
2. According to Article 3.1 of Part A "General Conditions" of the Leonardo da Vinci Agreement No 2013-1-IT1-LEO05-04046 governing the LINKVIT project, the ownership of the project results, including IPRs, shall be vested in the Parties, as defined in Article 1.
3. Each Party will be free to undertake any initiative, even commercial ones, devoted to the exploitation and valorisation of knowledge/results of the LINKVIT project, provided that evidence is always given to the LINKVIT project, which generated such knowledge/results.
4. LINKVIT offers a portfolio of e-learning modules based on a CC BY-SA license. This license allows re-distribution and re-use of a licensed work on the conditions that the creator is appropriately credited and that any derivative work is made available under "the same, similar or a compatible license". Each Party agrees on the need to promote the LINKVIT brand and the establishment of new actions and initiatives related to the LINKVIT topics at a national, European or international level, by the LINKVIT Partnership, by a group of members or by a single member.

Article 5 – Duration

The present CoA has a duration of 5 years, after that period the LINKVIT Developer might re-define the terms as well as the scope of this Cooperation Agreement.

In this CoA all Parties commit to maintain during this period the operativeness of the Training Framework technical infrastructure and its training modules. This will be reflected in a set of actions related to maintenance and update as defined in the LINKVIT Business Plan.

Article 6 – Operativeness of the LINKVIT Training Framework

The sustainability strategy of the LINKVIT Training Framework is grounded on the effectiveness of the networking activity of the LINKVIT Partners and their proven ability on the promotion of new initiatives.

The partner GISIG, as host of the LINKVIT technological platform and the LINKVIT online resources, and according to its training and educational line of activity, is committed to maintain these resources operative for period specified in Article 5.

The Parties therefore agree to give a mandate to GISIG to run and maintain the LINKVIT Training Framework and act as the main point of contact to external stakeholders. Being so, GISIG will keep informed the Parties about any possible expression of interest received.

The updating and maintenance of the training modules remain under the responsibility of their respective authors.

Article 7 – Withdrawals

A Party can withdraw its participation in this Agreement by giving a written notice explaining the reason of its decision. The withdrawal is accepted upon condition that access to the LINKVIT Training Framework and content is not affected for the other Parties. The withdrawing Party will lose the right to promote training services under the LINKVIT Brand.

The withdrawal will take effect after 3 months from its notification.

Article 8 - Settlement of Disputes

1. In case of dispute or differences between the Parties arising out or in connection with this Cooperation Agreement, the Parties shall first endeavour to settle it amicably.

Article 9 - Language

This CoA is drawn up in English which language shall govern all documents, notices and meetings for its application and/or extension or in any other way relative thereto.

Article 10- Entire Agreement - Amendments

Amendments or changes to this CoA shall be valid only if made in writing and signed by an authorised signatory of each of the Parties.

In WITNESS whereof, the parties hereto have caused this Cooperation Agreement to be executed by their duly authorised officers as of the day and the year written below.

GISIG

Signature _____

Name and Title Giorgio Saio - Coordinator (Legal Representative)

Genova, Italy,

(one page for each Party)

PARTNER

Signature _____

Name and Title _____

This Agreement is made in two copies.

Place and date,