



D 4.1.2 : Pilot Methodology

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Partners



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1. INTRODUCTION

The challenge of developing cross-border Living Labs should be seen as incremental with respect to the “conventional”, single country, Public-Private-People Partnerships that are currently populating the ENoLL community¹. In other words, the benefits of transnational networking should be additional, or multiplicative, to the “plain vanilla” Living Lab approach being pilot experimented in a local community on any predefined domain.

The (CIP ICT-PSP) Apollon project², first in order of time to explore cross-border collaboration of EU Living Labs in support to SME innovation, identified four main configurations of transnational pilots, namely:

- An existing solution already piloted in a local Living Lab is being transferred to another (cross-border) one.
- A common technology platform is piloted in each of the Living Lab communities belonging to a transnational network.
- A single service is experimented in a cross-border user environment (made up of multiple local Living Lab communities).
- Different components are locally tested in different Living Labs in the network, in order to build an integrated solution.

These four actually belong to a wider array of possible combinations of the following variables:

- (x) **The Living Lab community:** a single, cross-border user environment (like in case C. above) or many country testbeds in a row (like in cases B. and D.) or simply one additional foreign community (like in case A.);
- (y) **The service, platform, or solution:** being tested across the national borders in its entirety (as in cases A., B. or C.) or by individual components (as in case D.) or by early prototypes and even design ideas (not available).

¹ For the most recent figures see www.openlivinglabs.eu

² More information: www.apollon-pilot.eu

The next table helps clarify the range of possibilities at hand.

	Single foreign Living Lab community (in addition to a national one)	Many foreign Living Lab communities in a row	One integrated (national and foreign) Living Lab community
Fully blown service, technology platform, or solution to be tested as such	Case A. (Focus on replication)	Case B. (Focus on transfer)	Case C. (Focus on benchmarking)
Individual components to be tested independently or subsequently	=	Case D. (Focus on integration)	=
Preliminary research being done on early prototypes or even design ideas	(*)	(*)	(*)

(*) Key: not available in Apollon, being focused on innovation and demonstration

Table 1 – Available options for cross-border Living Labs development (from: Apollon project, 2011)

Each of the above configurations (as well as any other that can possibly be imagined) develops itself according to a well-defined pathway, which is represented as per the following picture:

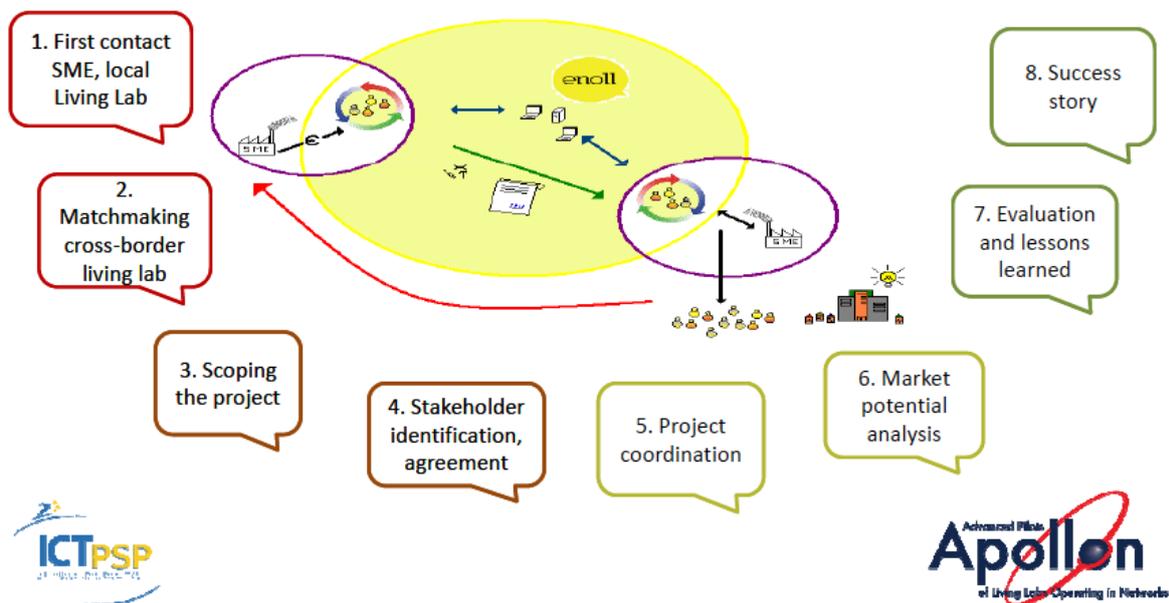


Figure 1 – Cross-border Living Lab pilot implementation scenario (Apollon project, 2011)

While the Apollon project focuses on EU SMEs and the opportunity given to their internationalisation and business expansion by the adoption of one of the transnational networking models outlined in the table above, CentraLab takes on a different perspective, namely that of regional and local innovation stakeholders (such as policy makers, public agencies, business incubators, research institutions, and other intermediaries, also belonging to the private sector). This makes the issue of defining, adopting and implementing an operational methodology for the start-up and piloting of a cross-border Living Lab a simpler and more complex task at the same time. A simpler one because, as we can assume, it is easier for especially a public authority to leverage on existing networks of cooperation, both within and outside the national borders, in order to create meaningful alliances and communities of interest before getting to the actual implementation of the Living Lab approach. A more complex one because, in addition to the operational procedures for pilot implementation, a preliminary governance problem has to be tackled with, as determined by the nature and scope of the same networks of cooperation the Living Lab "owner" already belongs to.

Luckily enough, with a few months' advance, another strategic project named Alcotra Innovation³, led by the Regional Government of Piedmont (also a partner in CentraLab), has started to deal with much similar issues in relation to the envisaged establishment of multi-regional Living Labs at the two sides of the Alpine border (Italy-France). At the date this introduction is written, the Alcotra Innovation project has delivered a complete set of guidelines for Regional Governments wanting to implement cross-border Living Labs in four thematic domains: Intelligent Mobility, Smart Energy, e-Health and Creative Industries, holding several overlapping points to the CentraLab pilot domains. Such practical methodology, known as the "LEADERS Approach", has been positively evaluated by the partnership of CentraLab as a good opportunity for capitalisation, and is now also being adopted in our own pilots.

Before arriving at this, however, the Consortium has followed a gradual and careful strategy, based on the following steps:

- Internal distribution of a descriptive document, outlining the key contents of the LEADERS Approach, and showing the advantages and disadvantages of its extension from the Alcotra Innovation to the CentraLab pilots;
- On the occasion of the Karlsruhe consortium meeting (December 2011), a more detailed presentation of the LEADERS Approach to the partnership, under the care of its inventor, Mr. Francesco Molinari;
- Between the Karlsruhe and the Kosice meeting (March 2012), each partner was asked to prepare a SWOT analysis of the hypothetical application of the LEADERS Approach in their respective territory and community. To this end, a dedicated ICT platform was created and maintained (<http://leadersapproach.wikispaces.com>);

³ More information: www.alcotra-innovation.eu

- After the Kosice meeting, it was made clear that no major impediment had emerged that could jeopardise the LEADERS Approach implementation in any of the ten pilots foreseen in CentraLab;
- As a result, this document contains – in sections 2 thru 4 – a summary of the proposed Approach and – in section 5 – a wrap-up report of the SWOT analysis carried out at the level of individual partners and of the consortium as a whole.

1.1. Preliminary SWOT analysis

The following table summarizes the Strengths, Weaknesses, Opportunities and Threats outlined at an early stage of the CentraLab project, when it was still controversial whether the LEADERS Approach was worth extending its scope and application from bilateral (Italy-France) to multilateral (CEE level) cooperation.

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • The LEADERS Approach has been developed after a careful revision of comparable and alternative Living Lab implementation methodologies that already exist and are fairly well documented. • It has, however, been designed with the specific and dedicated aim of supporting cross-border Living Lab establishment and improvement, adopting the perspective of a Regional government or other “third party” holding legal competences on territorial development. • It covers all the possible instances and variations of the main theme, including the creation of a regional Living Lab first, and then its “federation” with other existing experiences in the same or other thematic domain. • Some of the thematic domains of the Alcotra Innovation Living Lab pilots (e.g. Creative Industries, eHealth, Smart Energy, Smart Mobility) coincide with those prioritized in CentraLab. 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • The LEADERS Approach as such has never been fully implemented before, as the actual timelines of the Alcotra Innovation and CentraLab projects mostly overlap each other. • There are differences in the way CentraLab intends to capitalise the experience of cross-border Living Labs towards the creation of a single, “pan-CEE” Living Lab. These mostly refer to the institutional learning and convergence process that was developed in the MED project MedLab (which nevertheless holds similarities to the Alcotra Innovation process). • In particular, the number of European countries involved in the cross-border pilot experiments of CentraLab is considerably higher than in Alcotra Innovation, where only France and Italy are represented (although the actual number of countries involved in each single pilot is no more than 2 or 3 in CentraLab as well, while the actual administrative Regions that will be participating in the Alcotra pilots may well be more than one per country).
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • While designed for a bilateral cooperation case, the LEADERS Approach can now be fruitfully extended to wide multilateral cooperation. • The only competing methodology at the moment comes from the APOLLON CIP project, where the territorial development dimension is not so prominent as in the Alcotra Innovation and CentraLab cases. 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Given its immature stage of development, any design imperfection or mistake in the current methodology will have to be corrected on the fly. To this end, the LEADERS Approach already includes a well defined performance evaluation stage, which has to be properly configured upfront.

Table 2 – Preliminary SWOT analysis of the LEADERS Approach

2. ALTERNATIVE DESIGN AND GOVERNANCE OPTIONS

In this section, we investigate two main options for creating and managing a cross-border Living Lab, focusing our initial attention on the governance rules and operational procedures, then moving on to the evaluation aspects: of course, we must pay attention to the fact that some degree of localization is always required, depending on the one side on the conditions and features of the socio-economic territorial system, and on the other side on the involved stakeholders' nature and propensity to interaction.

2.1. The Federation Approach

Within the organizational options to realize a cross-border Living Lab, the so-called Federation approach, which implies the existence of several, independent, thematic Living Labs that are spontaneously growing up inside each participant country border, and are then brought to unity by means of the creation of cross-country links, clusters and multi-location experiments.

Piloting of Living Labs network: Multi-location experiments

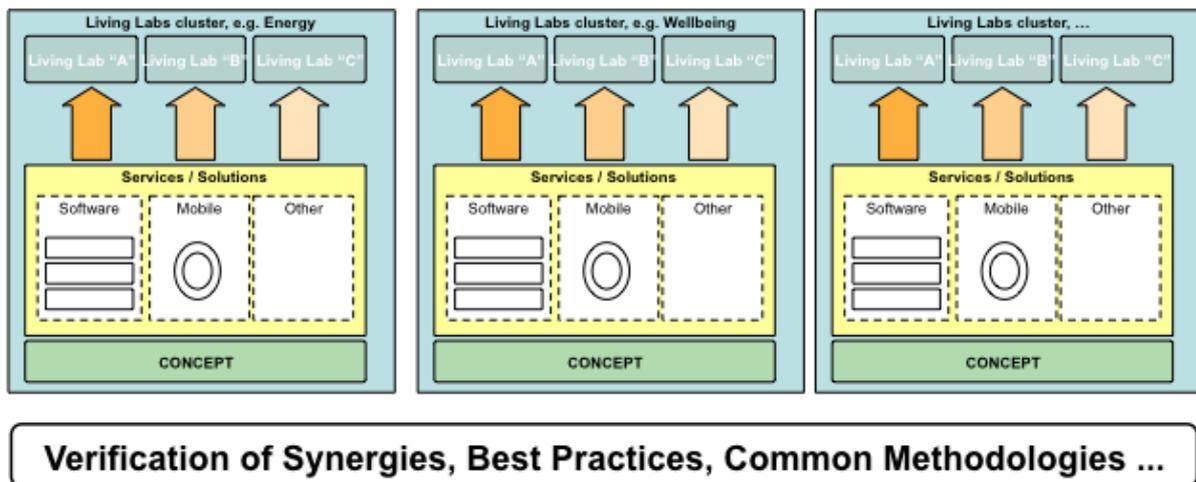


Figure 2 - Cross-border Living-Labs: The Federation approach (Alcotra Innovation, 2012)

The big advantage of this approach is that it is not centrally managed nor governed, thus it can be coherent with several Living Lab's birth and growth models, leaving the door open to sharing all or some of the respective key assets (local communities, ICT infrastructures, methodologies etc.) in the perspective of cross-border collaboration. In that respect, a learning process can also be possibly activated, between the "newly born" and "mature" Living Labs, either belonging to the same or to a different country or region.

Indeed, the practical feasibility of the Federation approach requires the existence of a number of consolidated Living Lab experiences in the participant countries to the CentraLab project (each marked with a different capital letter, from "A" to "C"... in the above picture) and a relative lack of thematic specialization, which could allow the same national Living Lab to be represented in several transregional clusters through the deployment of independent and "parallel" technology trials. Apparently, this would not be the best option for CentraLab, given the situation of most consortium members, who did not host any Living Lab at the beginning of the project's life, or were not fully mapping in terms of existing Living Lab experiences the specific thematic domains identified as targets in relation to the various project priorities.

2.2. The Umbrella Approach

Thus, as an alternative option to realize a cross-border Living Lab, we propose to adopt the so-called Umbrella approach developed in Alcotra Innovation, which implies the presence of a central ("light") management entity that is in charge of facilitating the deployment of trials inside a unique transregional Living Lab. This, in turn, is built upon several local "chapters" – one per participant region – that are shaped in the form of "traditional" Living Labs.

In more detail, we think about an overarching structure, composed by representatives of all the regional "chapters" of the cross-border Living Lab, in charge of defining common guidelines, assessment tools and monitoring systems: these assets are delivered to the local stakeholders, who will be left free to set up one or more pilot actions in their respective region, on a range of thematic domains, yet according to a common methodological approach.

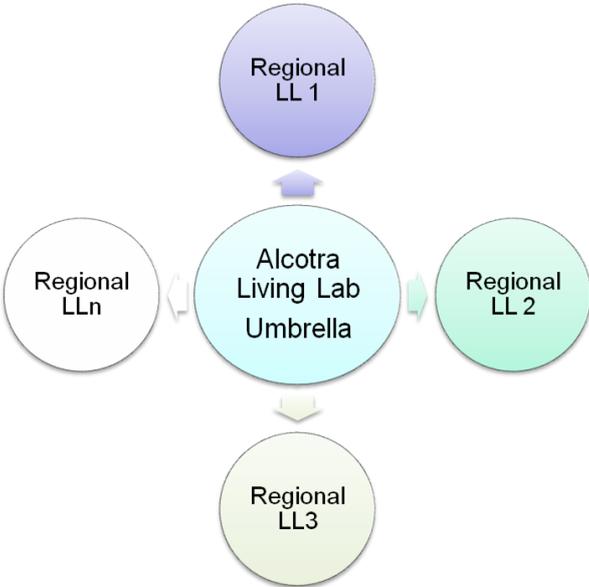


Figure 3 - Cross-border Living-Labs: The Umbrella approach (Schumacher, 2011)

This model does not imply that there must be a 1:1 correspondence between a regional Living Lab and a thematic domain of specialization. Actually, the most important features of the Umbrella approach are the unique governance framework and a common repository of methods, tools and experiences between all the regions involved in the pilot actions. However, there is no prescribed implementation pathway or set of rules for the cross-border trials, which can well be defined by the spontaneously emerging interests and the converging requirements of the various national actors involved. In this sense, the Federation and the Umbrella approach turn out to be quite alike in the very end.

2.3. Living Lab Governance Rules

Having given preference to the Umbrella approach for the realization of a single, cross-border Living Lab, the Alcotra Innovation project designed a flexible set of rules in order to ensure the appropriate governance of pilot actions in the participant countries and regions as well as a fruitful exchange of the know how created in the respective thematic domains. To this end, the focus was set on the creation of four cross-border working groups, one for each thematic domain, coordinated by the specific partner that has been assigned the leadership of that respective domain and participated by all the remaining ones with a supporting function. Thus, each working group is governed by a single leader and supported by the collaboration of partners from all the participant regions. In CentraLab, the definition of these working groups should be dictated by the already defined Living Lab pilots, which are reproduced as follows:

	EZVD	UNMB	KTP	CF	CCSS	INTN	CTTC	TUKE	PDMT	FHV
Energy	H									
Environment & Education					H					
eHealth									H	
Climate change						H				
Media & Creativity				H						
Micro-SME networks			H							
Waste management							H			
Rural development								H		
Mobility										H
Eco-tourism		H								

 Partner is Hosting the pilot
 Partner participates in the pilot
 Base: Each CE EU-8 participates in at least one NMS pilot and vice versa

Figure 4 - CentraLab LL pilots and project partner's roles

The working groups composition should be slim, with a small number of members (possibly integrated by a few external experts), in order to be able to manage and run their operations in an effective and efficient way.

Specific Guidelines have been defined for the involvement of local stakeholders in the Living Lab's establishment, which are presented in the next section under the common header of "LEADERS Approach". These Guidelines belong to the methodology and evaluation side of

the process, thus they should be kept distinct from any (self-defined or superimposed) governance rule for the cross-border working groups under discussion here.

A proposal for the operational role of the thematic leader inside a cross-border working group could be the following one:

- coordinates the cross-border working group in its entirety;
- initiates the working group's activities on the basis of the results of regional policy mapping, the direct interviews and workshops held with the regional stakeholders, in close collaboration with the thematic supporters;
- ensures a unitary management of the pilot experimentation process, especially in its cross-border aspects;
- supervises the thematic implementation of the methodological Guidelines distributed (both for experimentation and evaluation purposes);
- proposes additional partnerships for the cross-border pilot actions;
- prepares interim and final reports for the overall working group activities.

Conversely, the thematic supporter of a cross-border working group should be in charge of the following tasks and responsibilities:

- supports the thematic leader in the adaptation of the methodological Guidelines to the selected domain;
- provides feedback on the regional workshop(s) carried out, including the contacts with relevant stakeholders or players that have been engaged at local level;
- identifies relevant partnerships outside the own region following leader's orientation and advice;
- coordinates the activities in the own region for the planning and start up of the pilot actions;
- collaborates with the thematic leader in the preparation of interim and final reports for the overall working group.

As far as other organizational issues are concerned, we can think about some suggestions, in order to contribute to make each working group as efficient, smart and coordinated as possible:

- members should work and communicate via email, intranet, and A/V conference;
- formal working group meetings should be held (at least) every second month via A/V conference;
- each member should be autonomous and free in the choice of the best way to animate and coordinate the thematic activities in the region, including the early involvement of well identified local innovation actors (enterprises, user associations...) in the design and implementation of the pilot actions;
- each member should remain open to suggestions and ideas coming from these local innovation actors and report to the working group leader about any project relevant result and outcome from the thematic activities in the region.

3. OPERATIONAL PROCEDURES FOR LIVING LAB ESTABLISHMENT

After a general definition of the governance rules, we can now go on by trying to define some operational procedures for Living Lab establishment and to apply them to the partners of the CentraLab project. In so doing, we will now turn our attention from the working groups and pilot actions described in the previous subchapter in the framework of a single thematic domain, to the creation (from scratch) or enforcement (if existing) of regional Living Labs, the “building blocks” of the Umbrella approach that we have selected before – as described in the corresponding picture.

Keeping in mind the definition of Living Lab approach, we can imagine the **following steps**:

1. Localise and identify your stakeholders;
2. Establish a Living Lab PPP (Public Private Partnership);
3. Assess the relevance of « cross border » issues;
4. Deploy an ICT infrastructure;
5. Establish a local and/or « cross border » PPPP community (PPP+People);
6. Run one or more User Driven, Open Innovation pilots;
7. Summarise and evaluate the results,

which taken together, represent the so-called “LEADERS” approach (from the initials of the headlines used to define the seven steps). In terms of timing, the proposed approach covers the full spectrum covered by the project, as the following **Gantt chart** shows:

	II-11	III-11	IV-11	I-12	II-12	III-12	IV-12	I-13	II-13	III-13	IV-13
Localise and identify your stakeholders											
Establish a Living Lab PPP											
Assess the relevance of “cross border” issues											
Deploy an ICT infrastructure											
Establish a local and/or “cross border” PPPP											
Run one or more Living Lab pilots											
Summarise and evaluate the results											

Figure 5 - CentraLab LEADERS approach Gantt chart

3.1. Localise and identify your stakeholders

In Alcotra Innovation, this task has been the first to initiate and was accompanied by geo-referencing. However, it can well happen in the normal practice that the promoter or maintainer of the Living Labs has already completed this mapping activity beforehand.

Suggestions for Centralab partners:

- be as open and inclusive as possible at this stage (there will be time to handle the withdrawals);
- consider the following items:
 - the thematic domain(s) targeted in the cross-border pilots;
 - the Regional policy priorities, which can lead e.g. to specify the thematic sub-domains or lines of intervention, or to differentiate the ways of financing the local pilots (see #6 below);
 - the « cross border » Living Lab model selected (“federated” or “unitary”) that has some impact on the design and implementation of the overall approach;
 - the aims of the whole initiative (your vested interest in doing all this);
 - other...

There is an obvious need for communication and publicity at this stage. All project partners in Alcotra Innovation have adopted the tactics of running individual, direct interviews to selected stakeholders (particularly for the sake of the e-Atlas) and one or more public workshops, also aimed at initiating the segmentation of stakeholders according to the thematic domains selected. Again in support to awareness raising and dissemination, but also with an eye to the following steps (e.g. #3 and #6-#7), some Regional governments in Alcotra have launched an informal, non-engaging call for expressions of interest, to be published on their institutional website. The proposals received will contribute to a better definition of the research and innovation scenario in the area(s) of interest.

3.2. Establish a Living Lab PPP (Public Private Partnership)

This should emerge as output of the previous phase, at least in terms of candidatures to being part of the Living Lab community. A formal partnership agreement (e.g. to be signed by going to a notary) is not strictly required.

In most Alcotra Innovation regions, where other infrastructures exist in support to research and innovation policy – such as the Innovation Poles, or the Technology Districts, or similar examples – the tactics has been adopted of leveraging these infrastructures as “embryos” of the desired PPP community. This approach has the merit of being parsimonious in terms of avoiding the creation of new entities in the already crowded panorama of local actors and institutional players. However, it also places an additional burden of responsibility on the regional government, being the only to ensure visibility and access to the Living Lab PPP all along the process.

Suggestions for CentraLab partners:

- do not limit the publicity effort to the initial stage, be always visible and open anyway – as more stakeholders may want to jump in later;
- create mechanisms for governance and engagement of Living Lab stakeholders, e.g.:
 - a general assembly and/or management board;
 - individual working groups (e.g. one per thematic domain the Living Lab takes part in);
 - periodic consultation mechanisms (e.g. frequent stakeholder workshops and an ICT forum – see step #4);
 - external communication items (e.g. portal, newsletter, webinars).

3.3. Assess the relevance of « cross border » issues

It is quite important to tackle this matter upfront, with the best possible clarity and level of definition, as the ultimate goal of the CentraLab project is not simply to establish one or more regional Living Labs, but a single cross border one. Technically speaking, it cannot be taken for granted that in all the thematic domains selected, and/or in all of the participant regions, “going cross border” is viewed as relevant from the perspective of the stakeholders involved. Furthermore, this discussion is also affecting the monitoring and evaluation step (#7), which requires an early initialisation with respect to the pilots’ execution (#6).

Suggestions for CentraLab partners:

- involve your stakeholders in this assessment;
- include, where possible, selected “champion” users in the same task on a peer (not agency or dependency) basis;
- consult with other project partners, domain experts and especially the thematic leaders;
- compliance with the current Regional policy setup is helpful - but not mandatory in this case. Otherwise, what would this whole exercise be for?
- this approach based on experimentation is also an advantage: no firm commitment, lower level of accountability for results.

3.4. Deploy an ICT infrastructure

Every known Living Lab can count on such an infrastructure for both internal communication and experimentation purposes. At basic level, it can well be a (permanent) online forum attached to the Regional government’s portal. Best would be a (freely accessible, geo-localised, always-on) mobile platform, which is possibly the best way to involve and engage individual persons (citizens, entrepreneurs, other stakeholders and decision-makers) in the

Living Lab establishment and the PPP community. An intermediate solution can be the one of creating regional sub-sections in the CentraLab project portal.

CentraLab partners should take care of:

- user anonymity (by default) and profiling (with privacy protection) especially for the sake of pilot execution;
- language differences, leaving the opportunity to participate in the local debates using any of the spoken languages of the participant communities;
- structuring (and perhaps moderating) the discussions in the forum at working group level, to limit off-topic interventions and avoid the useless and dangerous “noise”, as it happens in most social networks;
- alternating on- and off- line initiatives that can bring more users into the platform, by spreading the awareness on its existence, scope and purposes;
- documenting pilot results on the platform itself in a timely manner;
- integrating the parallel activities that are ongoing within and across the borders on the same thematic domain under the care of other Alcotra Innovation Partners;
- monitoring traffic on a daily basis and keeping contents up to date – as much as it is possible.

3.5. Establish a local and/or « cross border » PPPP community (PPP+People)

The strength and impact of regional Living Labs is measured by the existence of a community of people (P) that integrates the one of local stakeholders (the PPP), leading to the 4P model, which is essential to activate operationally whenever this is required by the organisation of a Living Lab trial (or pilot). In CentraLab like in Alcotra Innovation, this community could and should take on the additional aspect of being (wholly or partly) transregional. This suggests splitting the task above in three consecutive steps:

1. Create a local community in your region, cutting across the thematic domain(s) selected.
2. Merge your local community with those established in the other CEE regions.
3. Activate a subset of community members in relation to the goals and methods of the pilot to be setup in the selected thematic domain.

Given the early stage of Living Labs establishment in some of the CentraLab partner regions, it is presumed that this task will have to be initiated from scratch and performed iteratively and accumulatively – in other words, the community of people will grow up over time, in parallel to the successful execution of local and/or cross border pilots.

CentraLab partners should take care of:

- being as inclusive as possible (one thing is to be nominally part of the community, another is to actively take part in a pilot);
- alternating on- and off- line initiatives to promote engagement (see step #4 above);
- providing incentives to individual participation in the pilots (like small value prizes and awards);
- segmenting the community, as long as it is established according to people's skills, preferences and wishes as well as to the nature of prospective pilots (thematic domain, etc.);
- the language divide, as basic issue in a « cross border » environment.

A number of tools can be attached to the Living Lab's ICT platform to enhance the power and impact of social innovation, e.g. for

- crowd sourcing of ideas;
- preference aggregation;
- matchmaking;
- IPR tracking;
- feedback provision at the point of experience

which heavily depend on the specialisation and thematic orientation of the Living Lab and its pilots, thus cannot be fully described at this stage or in this part of the document.

3.6. Run one or more User Driven, Open Innovation pilots

This step is the most heavily dependent on the needs analysis carried out by each regional partner of CentraLab on its own territory (see steps #1 and #3 above) and its specific results in terms of identification of local requirements and interested actors for the prospective pilots. Also, the availability of side financing (both within and outside the CentraLab budget) may make a lot of difference in defining the best possible way to practically implement this phase.

In principle, every regional Living Lab or the supporting regional government might evaluate the opportunity to issue a call for proposals (or a tender for public procurement, if feasible) having the following characteristics:

- aimed at the development/deployment of an innovative solution to satisfy local needs, of either technical or socio-economic nature;
- whereby the Living Lab approach is adopted as method for engaging people (citizens, end users) in the execution of the pilot;
- and with the specific requisite that testing and validation activities take place "across the borders" of the CEE/CentraLab regions, for a precise (technical or commercial) reason that has to be clarified and motivated by the pilot proposers;

- in this context, priority in evaluation can be assigned to proposals formulated by local actors (regional Living Lab stakeholders) - always taking into account the principles of non discrimination and parity of access that are mandatorily enforced in any public procurement procedure.

As alternative options to regional calls, one may imagine the following:

- the CentraLab project as a whole launches a (series of) call for proposals, merging some of the budget resources available at individual partner level;
- the Regional government involved mobilizes alternative resources to fund (some of) the upcoming calls;
- activities in this phase stop at the level of definition of suitable pilots (e.g. after the results of an informal call for expressions of interest, followed by a direct negotiation between the Regional government and the proposers) waiting for future availability of dedicated funds.

Here, as well as in the following step (#7), the role played by the Regional government has to be differentiated, from promoter and animator of the previous stages of the process, to supervisor and “director” of the tendering process, as well as guarantor of the concrete execution of the cross border Living Lab experiment(s).

In the former role, key suggestions are to:

- assign goal and content leadership to the stakeholders themselves (e.g. SMEs, larger enterprises) prior to the definition of the call for proposals;
 - here the instruments of the public workshops and thematic working groups are particularly suitable to the purpose;
- be aware of the IPR aspects and their implications (both in the AS IS and the TO BE scenario);
 - it is not necessarily true that the adoption of an “Open Innovation” approach positively contributes to the protection of rights on background and foreground knowledge created;
- make sure that end user engagement occurs since the early stages of the process ;
 - otherwise, it would not be a Living Lab approach;
 - a number of social research methods and tools can be useful to this purpose (e.g. ethnographic observation, facilitation of small group discussions, Delphi, EASW, direct deliberation etc.);
- make sure that cross border aspects have relevance;
 - otherwise, it would not be coherent with the CentraLab purposes.

In the latter role, the public procurement regulations should be exploited to ensure:

- openness / transparency of the whole process;
- documentation and reporting (periodic and final);
- transfer of benefits from innovation to the local community as a whole

3.7. Summarise and evaluate the results

Whatever the implementation pathway carried out in the previous step, the pilot action under way at regional (and/or cross border) level will be subject to periodic assessment at the level of the overarching structure composed by the representatives of the regional partners of the "Umbrella" Living Lab. In order to facilitate this, a monitoring and evaluation system is to be established (and embedded) upfront and used at a later project stage under the care of the CentraLab coordinator and/or of each regional partner in charge.

Basic targets of the evaluation should be:

- community building and proper functioning;
- user driven, Open innovation methodology implementation;
- pilot outputs (and outcomes);
- stakeholder satisfaction;
- cost / benefit analysis;
- reuse / transferability potential;
- policy impact of trials.

Particular care should be taken of:

- the added value of the « cross border » aspect.

4. FOLLOW-UP AND EX-POST EVALUATION

To appreciate the added value and the degree of sustainability of the cross border Living Lab approach in relation to the objectives of CentraLab, it is important to define a grid of indicators that should be measurable and measured both in the preparatory stage, right after the regional Living Lab's first time establishment, and in the pilot execution stage, both for monitoring and post project evaluation purposes.

The proposed grid of indicators should be common to (and thus accepted by) all the partners involved in the project, with the only possible qualification deriving from the specificities of the thematic domains selected. This would avoid the risk of heterogeneity (if not discretion) in the evaluation approaches naturally followed by partners with different cultural and technical background, domain experience and expertise. In case a common grid of indicators and a common template for textual reporting were not defined, a second level control of the individual evaluation sheets should be foreseen, with the aim of making them as "comparable" as possible – both in terms of normalization of the quantitative indicators, and alignment of qualitative analyses between each other and with the respective numerical values. Of course, this procedure would be extremely time consuming, while at the same time bringing no guarantee of adequate performance.

After reaching an agreement on indicators and reporting templates, the CentraLab partnership should decide if the monitoring should be carried out by each single partner on the Living Labs and pilots of direct competence (territorial and thematic) or by a team of external experts, through remote means (web based) and site visits. Joining remote evaluation to site visits allows speeding the process, running more activities in parallel and saving time by the automation of certain procedures, including the return of results.

It is then advisable to prepare a simple evaluation form, made available on the project's web portal, allowing the upload of information by each single partner, the automatic aggregation of data pertaining to the same cross border pilot, the feeding of project indicators and their visualization by an appealing graphical layout, easily understandable by non technical people. By acting in this way, it would be possible to spread the knowledge about the evaluation results to a much wider audience, in line with the principles of Open Innovation that are connatural to the Living Lab approach.

In this framework, our proposal, which derives from step #7 of the LEADERS approach, is to focus on the following evaluation targets:

- community building and proper functioning;
- user driven, Open innovation methodology implementation;
- pilot outputs (and outcomes);
- stakeholder satisfaction;
- cost / Benefit analysis;
- reuse / Transferability potential;

- policy impact of trials;
- the added value of the « cross border » aspect;
- miscellaneous.

In association to the above, we present the following grid of indicators, scores and action items – naturally open to discussion with the CentralLab partners.

Evaluation target	Indicator name	Nature	Value and Range	Action Item	Source of information
1. Community building and proper functioning	1.1. Number of stakeholders involved in the Living Lab PPP	Process indicator (quantitative)	Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	Internal to the PA
	1.2. Number of citizens involved in the Living Lab PPPP	Process indicator (quantitative)	Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	Internal to the PA
	1.3. Stakeholder categories represented in the Living Lab PPP (out of a given list, e.g. business associations, R&D and TT centers, public agencies, SME's, consumer associations etc. – to be prepared in advance)	Process indicator (semi-quantitative)	For each category Yes = 1, No = 0	Self-evaluation. In case a category is not represented, explain the rationale and potential impact on Living Lab functioning	Internal to the PA
	1.4. Formal establishment of a Living Lab partnership	Process indicator (semi-quantitative)	Protocol of intent = 1, New entity created = 0, No such thing = -1	Self-evaluation. Please motivate the choice and confirm its validity over time	Internal to the PA
	1.5. Number of stakeholder workshops held	Process indicator (quantitative)	Integer > 0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	Internal to the PA
	1.6. Community ICT infrastructure	Process indicator	Dedicated = 1, Dual use	Self-evaluation. Please motivate	Internal to the PA

		(semi-quantitative)	= 0, No such thing = -1	the choice and confirm its validity over time	
2. User driven, Open Innovation methodology implementation	2.1. Collection of tools used in the Living Lab trials, e.g. for <ul style="list-style-type: none"> •Crowdsourcing of ideas •Preference aggregation •Matchmaking •IPR tracking •Feedback provision at the point of experience •Other 	Process indicator (semi-quantitative)	For each tool Yes = 1, No = 0	Self-evaluation. In case a tool is not used, explain the rationale and potential impact on Living Lab functioning	Internal to the PA
	2.2. Collection of methods used in the Living Lab trials, e.g. for <ul style="list-style-type: none"> •Ethnographic observation •Facilitation of small group discussions •Delphi •EASW •Direct deliberation •Other 	Process indicator (semi-quantitative)	For each method Yes = 1, No = 0	Self-evaluation. In case a method is not used, explain the rationale and potential impact on Living Lab functioning	Internal to the PA
	2.3. Online participation rates, e.g. in terms of <ul style="list-style-type: none"> •Registered users •Number of visits •Number of posts •Number of threads •Number of up/downloads •Number of votes •Other 	Output indicator (quantitative)	For each item Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance (possibly scaled by the number of Internet users in the region)	Internal to the PA
	2.4. Offline participation rates, e.g. in terms of <ul style="list-style-type: none"> •Number of events organized •Number of attendees •Number of letters sent •Number of replies •Number of technical proposals received •Other 	Output indicator (quantitative)	For each item Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance (possibly scaled by the adult population in the region)	Internal to the PA
3. Pilot outputs (and outcomes)	3.1. Number of trials activated	Output indicator (quantitative)	Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in	Internal to the PA

				several points of time to monitor performance	
	3.2. Number of thematic domains represented in the trials	Output indicator (quantitative)	Integer >0 (actually between 1 and 4)	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	Internal to the PA
	3.3. Number of new and/or innovative products, processes and services experimented	Output indicator (quantitative)	Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	External to the PA (e.g. pilot leaders)
	3.4. Number of joint ventures, strategic alliances, Newco's and business plans launched	Outcome indicator (quantitative)	Integer >0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	External to the PA (e.g. pilot leaders)
4. Stakeholder satisfaction	4.1. Feedback received during interviews on a variety of predefined items (to be specified – basically taken out of this grid of indicators, but in qualitative terms)	Outcome indicator (semi-quantitative)	Likert scale (2 = very satisfied, 1 = satisfied, 0 = neutral, -1 = not satisfied, -2 = very unsatisfied)	Self-evaluation. In case of poor results, justify the most likely causes and potential impact on Living Lab functioning	External to the PA (e.g. citizens, SMEs etc.)
	4.2. Online feedback from surveys on the same items as above	Outcome indicator (semi-quantitative)	Likert scale (2 = very satisfied, 1 = satisfied, 0 = neutral, -1 = not satisfied, -2 = very unsatisfied)	Self-evaluation. In case of poor results, justify the most likely causes and potential impact on Living Lab functioning	External to the PA (e.g. citizens, SMEs etc.)
	4.3. Number of stakeholders globally involved in the trials (consortia)	Output indicator (quantitative)	Integer > 0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	Internal to the PA
	4.4. Number of stakeholders involved in more than one trial (consortium)	Output indicator (quantitative)	Integer > 0	Self-evaluation. In case of unexpected results, be ready to interpret or	Internal to the PA

				find the most likely causes and potential impact on Living Lab functioning	
5. Cost / Benefit analysis	5.1. Global funding available to the trials	Input indicator (quantitative)	Integer > 0	To be normalized later on (e.g. scaled by no. of trials, pilot outputs and outcomes)	Internal to the PA
	5.2. Number of trial proposals submitted	Output indicator (quantitative)	Integer > 0	Self-evaluation. Helps estimate the administrative burden.	Internal to the PA
	5.3. Average time before trial start-up (in months)	Process indicator (quantitative)	Integer > 0	Self-evaluation. Helps estimate the administrative burden.	Internal to the PA
	5.4. Average duration of funded trials (in months)	Output indicator (quantitative)	Integer > 0	To be normalized later on (e.g. scaled by no. of trials, pilot outputs and outcomes)	Internal to the PA
6. Reuse / Transferability potential	6.1. Number of follow-up projects activated	Outcome indicator (quantitative)	Integer > 0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	External to the PA (e.g. pilot leaders)
	6.2. Number of new markets approached	Outcome indicator (quantitative)	Integer > 0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	External to the PA (e.g. pilot leaders)
	6.3. Number of new collaborations activated with external entities	Outcome indicator (quantitative)	Integer > 0	None. As the Living Lab is normally created from scratch, this indicator will be used in several points of time to monitor performance	External to the PA (e.g. pilot leaders)
7. Policy impact of trials	7.1. Collaboration level of the Living Lab with existing entities and infrastructures (e.g. technology districts, innovation poles etc.)	Output indicator (semi-quantitative)	High = 1, Fair = 0, Critical = -1	Self-evaluation. Please motivate the choice and confirm its validity over time	Internal to the PA

	7.2. Need to revise existing priorities, action lines, budget allocations etc. after the trials	Outcome indicator (semi-quantitative)	No = 1, Perhaps = 0, Yes = -1	Self-evaluation. Please motivate the choice and confirm its validity over time	Internal to the PA
8. The added value of the cross border aspect	8.1. Number of cross border stakeholders involved in the trials (consortia)	Output indicator (quantitative)	Integer > 0	Self-evaluation. In case of unexpected results, be ready to interpret or find the most likely causes and potential impact on Living Lab functioning	Internal to the PA
	8.2. Number of cross border citizens involved in the trials (community members)	Output indicator (quantitative)	Integer > 0	Self-evaluation. In case of unexpected results, be ready to interpret or find the most likely causes and potential impact on Living Lab functioning	External to the PA (e.g. pilot leaders)
9. Miscellaneous	9.1. Global employment created during the trial phase	Output indicator (quantitative)	Integer > 0	Self-evaluation. Helps estimate the economic impact	Internal to the PA
	9.2. Female employment created during the trial phase	Output indicator (quantitative)	Integer > 0	Self-evaluation. Helps estimate the gender parity factor	Internal to the PA
	9.3. Youth employment created during the trial phase	Output indicator (quantitative)	Integer > 0	Self-evaluation. Helps estimate the social impact	Internal to the PA

Table 3 – Proposed grid of evaluation indicators (source: Alcotra Innovation, 2012)

5. LOCALISATION ACTIVITIES

As already stated in the Introduction, each CentralLab partner has been requested to prepare a SWOT analysis of the hypothetical application of the LEADERS Approach in their respective territory and community. To this end, a dedicated ICT platform was also created and maintained at the following address: <http://leadersapproach.wikispaces.com>. This section reports in detail about the results of the aforementioned activity.

5.1. SWOT Analysis results - By partner

5.1.1. CCSS (Environment and Education)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Large stakeholder group (public, GIS experts, spatial planners, teachers etc.), experiences with stakeholder group.	W = Indefinite stakeholder group (it could be too large). The user group does not have concrete requirements.	O = Chance to gain new costumers, chance to communicate and discuss with new experts not directly focused on GIS and geospatial technologies	T = Results could be too general and not oriented to concrete stakeholders
Establish a Living Lab PPP (Public Private Partnership)	S = Existing methodology, support of other LLs	W = LL approach is often connected with complicated communication	O = Expansion to the new markets	T = LL approach is quite often just "empty word".
Assess the relevance of « cross border » issues	S = The environment education is mostly international (universal).	W = Not all customers are able to use English materials (the pilot can not be focused on translation).	O = Chance to communicate and transform new information and knowledge (domain and GIT)	T = The result (catalogue of educational materials) could not fulfil all national specifics.
Deploy an ICT infrastructure	S = CCSS has a huge number of experiences and implementations of deployment of ICT in education as well as environmental sector (projects like Habitats, Metaschool, Humboldt, SDI-EDU...)	W = CCSS ICT solution is focused mainly on experts	O = Extend the knowledge and information about environment, geospatial technologies as well as standards and trends.	T = The power of CCSS solution (Metadata system) could be not fully exploited.
Establish a local and/or « cross border » PPPP community (PPP+People)	S = Cooperation, new information and knowledge, sharing of costs	W = PPPP community is not very effective (lengthy communication and decisions)	O = Find new partners for other projects.	T = General ignorance or concern about PPPP community
Run one or more User Driven, Open Innovation pilots	S = Interconnection with real users.	W = Pilots could be focused just on one specific group. It is connected to worse market opportunities.	O = Find to new and unusual solution.	T = Users are not often to define their requirements specifically and factually.

Summarise and evaluate the results	S = Cooperation, experiences with existing projects and ICT solution, large stakeholder group, LL methodology	W = Some sub-tasks (e.g. communication) are not effective. CCSS ICT products are focused mainly on experts not so much on public.	O = New information, knowledge and experience. Chance to extend out market.	T = PPPP and LL approaches are often just an "empty words" or buzzwords. The main threat is risk to lapse into mere talking and discussions.
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5.1.2. CF (Media and Creativity)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Direct contact with stakeholders (research, usability experts) as well as potential users	W = Stakeholders need funding in order to elaborate and run the pilot	O = Stakeholders work already together in some fields	T = Some of the stakeholders will have to be replaced if no funding possible
Establish a Living Lab PPP (Public Private Partnership)	S = Contacts already existing for a long time - > trust, experienced in collaboration & cooperation	W = Public administration / authorities act / react too slowly -> loss of time	O = New services for the IT branch	T = Identified area for first testing of the pilot is not appropriate -> wrong results for refining the pilot
Assess the relevance of « cross border » issues	S = Software for pilot is based on Cloud Computing -> can be used everywhere in Europe even without the mobile lab component	W = Different languages, different testing behaviour	O = Transnational partnership can help to avoid weakness - > multilanguage tools	T = Additional work for partners - > additional funding needed?
Deploy an ICT infrastructure	S = Platform for collaboration will be implemented. Information for everybody interested in usability testing will be available	W = Not always partners use platforms vividly. So do visitors.	O = Platform as information & contact center	T = Platform built, but more or less useless because of lacking users.
Establish a local and/or « cross border » PPPP community (PPP+People)	S = "normal" People (that means no IT-professionals) as testers for usability	W = People that are not used to use computers can distort usability results -> here we have to think about measures	O = Broad variety of results (culture-specific, age-specific etc.)	T = How to get the users to evaluate software / webpages? Incentive schemes necessary
Run one or more User Driven, Open Innovation pilots	S = User centered results of usability testing	W = No interest in "cooperating" (users) -> wrong results	O = Testing a user driven trans-national Living Lab	T = Results not appropriate
Summarise and evaluate the results	S = Our Living Lab as a trans-national testbed	W = No experience in this "large scale non-professional user-testing"	O = Perhaps we will gain completely new results concerning usability	T = Approach has to be adopted according to the results gained during first testing phases -> lack of money

5.1.3. CTTC (Waste Management)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Wide network of partners from various fields.	W = No direct experience in waste management.	O = Creates pool of new ideas and also a basis for valorising ideas.	T = Hard to motivate and involve possible stakeholders in an economically unsecure situation.
Establish a Living Lab PPP (Public Private Partnership)	S = Organizations coming from different sub-sectors and thematic fields can create a vivid palette of ideas.	W = Can be hard to focus diverse experiences and interests to one specific issue.	O = Can be basis for other kind of collaboration too.	T = Personal interests can be too diverse and strong to create a good partnership.
Assess the relevance of « cross border » issues	S = Wide network of international partners.	W = Hard to find those foreign ideas, partnerships and synergies that can be used efficiently.	O = Find ideas, partnerships and synergies with projects from other countries.	T = Concentration on cross border issues may distract from local problems.
Deploy an ICT infrastructure	S = Impressive experience in creating innovative ICT platforms for demands of modern life.	W = Lack of human and other resources to bring platform to perfection.	O = Can be a unique selling point of the project output.	T = ICT implementation may distract from taking other aspects of complex problem into consideration.
Establish a local and/or « cross border » PPPP community (PPP+People)	S = Waste management is an issue that involves all citizens, i.e. it's a good topic to involve people.	W = Waste management is an issue that involves all citizens, i.e. it's hard to correctly define target groups.	O = Large community gives a wide pool of different user needs, i.e. makes developed applications more specific.	T = As a result of target group being too large, it can be hard to keep community together, find lead users and involve them into effective participation.
Run one or more User Driven, Open Innovation pilots	S = Users mean a direct access to identifying problems, finding solution ideas and distribution channels for solutions.	W = Can be hard to motivate people to join.	O = Bringing a better understanding of user needs for organizations. Also, a better understanding of large scale waste management issues for users.	T = Misunderstandings and unfriendly stance of different stakeholders and users against each other.
Summarise and evaluate the results	S = If done right, results can be impressive, leading to spreading and transfer of innovation.	W = Due to being a topic involving a large group of users, it may be hard to correctly measure and evaluate results.	O = Creating synergies with possible solutions of other issues of modern society.	T = Results may be hard to bring to national policy making level.

5.1.4. EZVD (Energy)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Database of key stakeholders with direct contact	W = No interest from selected stakeholders. Small market-little stakeholder choice	O = Opens possibility to establish a fruitful partnership	T = Key stakeholders may deny their involvement
Establish a Living Lab PPP (Public Private Partnership)	S = Creation of testing environment for key stakeholders	W = Different interest of key stakeholders within a LL group	O = Formation of entity that will collect data and create common bill	T = NA
Assess the relevance of « cross border » issues	S = Connecting countries, regions, local communities and establish a transnational partnership	W = Different national policies-different national interest - not necessary positive	O = Creation of transnational partnership (mentoring country) and consequently big interest of end-users in cross-border country	T = Restrictive policy of cross-border country banks, post offices (smaller provisions)
Deploy an ICT infrastructure	S = Visibility of LL for end-users and creation of living environment - forums, survey,...	W = Not enough money to build a proper platform (ICT)	O = Creation of LL live community, giving their opinion, suggestion,...	T = NA
Establish a local and/or « cross border » PPPP community (PPP+People)	S = NA	W = Certain stakeholders like elderly & people who are computer illiterate are not familiar with e-services, may not use them	O = To test and prove positive effects - great savings for everyone	T = NA
Run one or more User Driven, Open Innovation pilots	S = NA	W = Small participation to organized events	O = Small amount of money for external speakers	T = Testing idea for positive/negative effects responses
Summarise and evaluate the results	S = Monitoring on positive effects on the economy at national level	W = NA	O = Greater savings for end-users as well as companies by establishing common bill	T = Banks and post-offices charging the provision will not allow this pilot to live

5.1.5. FHV (Mobility)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Stakeholders are to find in Vorarlberg (citizens of Vorarlberg; Vorarlberger Landesregierung --> Energy Future Vorarlberg as a (potential) partner; long range through cooperation with the ÖAMTC)	W = no explicit and consolidated database with direct contacts to stakeholder;	O = spread the trial (e.g. Austria, CH; GE; LI); Most people in Vorarlberg are depending on individual mobility. Vlotte helps to open the region (public transport is not efficient enough).	T = the stakeholder cannot be identified and contacted; no interest of stakeholders; no acceptance of the product by the stakeholder; several stakeholder as e.g. the federal government of Vorarlberg may deny their involvement
Establish a Living Lab PPP (Public Private Partnership)	S = Create a sustainable ecosystem for innovation in the e-mobility sector in the Vorarlberg region	W = unknown	O = data collection; exchange platform; new development ideas	T = different interest of key stakeholder within a LL
Assess the relevance of « cross border » issues	S = the region of Vorarlberg is at the border to Liechtenstein, Switzerland and Germany - to set up a crossnational partnership would be easy	W = CH and LI are no EU members; different national interest	O = set up an international partnership; spread the pilot project across the borders; Creation of transnational partnership and consequently big interest of end-users in cross-border country	T = no interest of potential partners or countries;
Deploy an ICT infrastructure	S = As a possibility the ICT infrastructure could be deployed in cooperation with the VKW or the federal government of Vorarlberg	W = not all people may have access e.g. only few elderly people are using internet; cost intensive	O = Creation of LL live community, giving their opinion, suggestion,...; a possibility for involvement of individuals, Visibility of LL for end-users and creation of living environment	T = no or only few active community members
Establish a local and/or « cross border » PPPP community (PPP+People)	S = A sustainable ecosystem for innovation in the e-mobility sector in the Vorarlberg region is created; brings together public and private interests for leasing, buying and renting electric cars	W = unknown	O = direct communication with the people; test and prove positive effects - great savings for everyone; new product ideas may rise; end-users needs can be collected;	T = no interest of people, so important information cannot be collected
Run one or more User Driven, Open Innovation pilots	S = FHV has extensive experience with the Living Lab Vorarlberg initiative	W = FHV has to get the stakeholders more actively involved in the pilots	O = Spread the concept of user driven, open innovation pilots in the region and involve more and more stakeholders and citizens in the process	T = unknown
Summarise and evaluate the results	S = Establish a new cross-border e-mobility ecosystem	W = E-mobility must be undergo a significant awareness-raising	O = monitoring positive and negative effects and have a chance to react	T = It is a risk to miss important results and to lose chance to react on negative trends

5.1.6. INTN (Climate Change)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Public Institutions are well identified and some of them are already part of the Trentino as a Lab Living Lab (TASLAB)	W = Any stakeholder sees itself as the owner of the topic	O = Take advantage from the knowledge and collaboration among the stakeholders (mainly public institutions and research centres)	T = Tendency to drive all the initiatives toward research projects
Establish a Living Lab PPP (Public Private Partnership)	S = Even the methodology and the mission of living labs is not so well known from any stakeholder - actually they already act as members of living lab	W = Tendency to search opportunities mainly at local level	O = Presence of some public institutions (like BIM = Bacini Imbriferi Montani) that have in their mission the role to match the issues and needs of different stakeholders.	T = Difficulty to perceive the difference between real and perceived needs
Assess the relevance of « cross border » issues	S = Creation of a community of "local" public institutions that will become glocal (think global - act local)	W = Lack of time from the public institution to dedicate to international level projects. Lack of language competencies	O = Use the consortium of mountain towns (BIM Adige) as a focal point for around 223 municipalities - it could act as information router about the Central European Living Lab activities	T = Risk of
Deploy an ICT infrastructure	S = Opportunity to involve a big community into the project	W = Necessity rise more funding to deploy a pilot that can exploit its opportunities for all stakeholders	O = Define a partnership with the Italian node of the EIT Kic ICT Labs	T = Partnerships among public and private institutions take long time to be formally realized
Establish a local and/or « cross border » PPPP community (PPP+People)	S = All the actors are already present and well identified at local level: - public institutions: BIM Adige / Towns, - research: Trento Rise / Createnet, - companies: tbd among a pool of companies, - people: involved throughout the municipalities	W = Trentino as a Lab is not yet identified as the point of reference and aggregation for the creation of a PPP+P	O = Make the most from Centralab activities to make TASLAB a point of reference for PPP+ P at local level throughout the collaboration with other project partners - develop a common communication and "marketing" tools among all Centralab partners	T = Time consuming prescriptions of the National and EU rules and laws regarding public and private partnerships
Run one or more User Driven, Open Innovation pilots	S = Local pilots is based on a real need: necessity of all the municipalities to define a new plan and roadmap for the renewal of public lighting systems in order to reduce energy consumption and lighting pollution	W = Regulation of public lighting management is strictly regulated by many laws that favour the monopolist company that manages most of public lighting infrastructures	O = Take advantage from a national law that make it mandatory to define a new plan for public lighting to define a cross border model for ESCO companies that operate into the public lighting market	T = Risk to be overcome by big companies (facility management companies - escos).
Summarise and evaluate the results	S = NA	W = different stakeholders with different targets and evaluation criteria	O = define a common measurement method for the outcomes of the pilot	T = Main interest is on savings on electricity bills

5.1.7. KTP (Micro-SME Networks)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Existing base of Micro-SMEs. Direct contact with potential stakeholders, local authorities, experts, NGOs etc.	W = Lack of funding to motivate the group of stakeholders to work more actively with each other.	O = Subsidies from the EU, possibility to establish effective partnership - network of Micro-SME.	T = No interest of stakeholders, lack of funding to set up and maintain the Micro-SME network.
Establish a Living Lab PPP (Public Private Partnership)	S = A friendly environment for cooperation between local authorities with private sector.	W = Regulations and law that set up PPPs. Lack of experience in LL methodology.	O = Participating in CentraLab project.	T = Lack of understanding from government and private sector about the methodology of LL.
Assess the relevance of « cross border » issues	S = Well prepared KTP offer for international partners/investors according to complex support for companies.	W = Lack of permanent network of international partners.	O = Establishing partnership with similar projects from other countries.	T = No interest of potential partners from other countries.
Deploy an ICT infrastructure	S = KTP has a great number of experienced companies (KTP tenants) from ICT branch of industry.	W = Limited amount of money to create an effective ICT platform for Micro-SMEs.	O = A great interest of stakeholders about ICT platform, active participation of all users in deploying the ICT platform.	T = Lack of interest of the ICT platform end-users, important information cannot be collected.
Establish a local and/or « cross border » PPPP community (PPP+People)	S = KTP experience in participating in different projects involving the local authorities, private sector and local community.	W = Difficulties in motivating community to collaborate with public and private sectors.	O = Finding new partners, setting up new cooperation networks also for other projects.	T = The treat is to many regulations and laws regarding the PPP in Poland and lack of trust in this kind of initiative.
Run one or more User Driven, Open Innovation pilots	S = Connections and cooperation between end-users and stakeholders and knowing their basic needs.	W = No experience in LL methodology.	O = The LL methodology and gaining different kind of knowledge from experienced project partners.	T = Limited possibilities to cover all defined needs of end-users. Risk of failure.
Summarise and evaluate the results	S = Experienced team of KTP. Open for innovative ideas.	W = KTP is not the LL. Lack of funding.	O = New perspectives for development of Micro-SMEs and dissemination of KTP offer.	T = No interest of public authorities, companies and local community.

5.1.8. PDMT (eHealth)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = We already have direct contact with stakeholders	W = Stakeholders often need dedicated funding, which we don't have	O = Taking advantage from the knowledge and collaboration among the stakeholders	T = Misunderstanding the LL approach from the stakeholders.
Establish a Living Lab PPP (Public Private Partnership)	S= possible connection (for private sector stakeholders) with public institutions	W = lack of interest	O = sharing platform	T = different approach to market
Assess the relevance of « cross border » issues	S= exchange of experiences	W = different economic and social background	O = critical mass towards new global challenges	T = The results do not fulfil all regional specifics.
Deploy an ICT infrastructure	S= sharing of costs	W = duplication of other existing ICT infrastructure	O = multilateral approach as added value	T = duplication of procedures
Establish a local and/or « cross border » PPPP community (PPP+People)	S= exchange of experiences	W = different economical and social background	O = critical mass towards new global challenge	T = The results do not fulfil all regional specifics.
Run one or more User Driven, Open Innovation pilots	S= possible funding measures	W = lack of public money	O = regulatory framework/funding programmes	T = not well addressed funding programmes
Summarise and evaluate the results	S= easiness in evaluation of results	W = correctly measure and evaluate results	O = define a common measurement method	T = False data feedback from end-users

5.1.9. TUKE (Rural Development)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Direct contact with potential stakeholders and end users – relative strong interest in the area of rural development.	W = Lack of knowledge and insufficient funding for stakeholders.	O = Establishing LL. Potential funding from European funds.	T = Misunderstanding the LL approach from the stakeholders.
Establish a Living Lab PPP (Public Private Partnership)	S = D/K	W = Slow reaction of the PAs, bureaucratic process for establishing the partnership.	O = No LLs in the Slovak republic, therefore opportunity to start up the process for establishing LL.	T = Enforcement of single stakeholder's interests.
Assess the relevance of « cross border » issues	S = Connecting cross border regions with similar infrastructure, demography and self-governance.	W = Lack of languages skills, lack of knowledge and interest for cooperation.	O = New perspective and view on local development problems, new ways of solving these problems and new practises.	T = Users and stakeholders should refuse cross border cooperation.
Deploy an ICT infrastructure	S = Platform for rural development actors will be developed.	W = Insufficient ICT skills, esp. at the rural area.	O = Sharing knowledge (forums, real time discussion), best practices.	T = End users should deny exploitation of the platform.
Establish a local and/or « cross border » PPPP community (PPP+People)	S = D/K	W = Lack of knowledge and insufficient funding.	O = Bringing together new partners, establishing new cooperation networks also for other projects.	T = Bad experience with PPP projects in Slovakia (end users should consider LL as a new bad practice and they should deny cooperation).
Run one or more User Driven, Open Innovation pilots	S = Cooperation with end users and stakeholders.	W = No Living Lab established in the Slovakia. Stakeholders cannot share knowledge of establishing and running LL. Lack of knowledge of LL approach.	O = Receiving information from the end users, with several iterations, and convert usually established top down approach.	T = Lack of interest: from the side of PA (self governing region) – because they have to refuse top down approach; From the side of end users – increased demand on ICT skills and communication.
Summarise and evaluate the results	S = Establishing a Living Lab in Slovakia, developing an ICT platform for end users, sharing knowledge of LL approach.	W = Lack of knowledge and funding, Lack of interest for international cooperation, Weak language skills from the side of end users.	O = Bringing a new perspective and processes for rural development, Sharing international best practices and knowledge.	T = Misunderstanding of LL approach, Enforcement of individual stakeholder interest (PAs should try to use LL as a tool for their top down approach).

5.1.10. UNIMB (EcoTourism)

	S = Strengths	W = Weaknesses	O = Opportunities	T = Threats
Localise and identify your stakeholders	S = Direct contact with key stakeholders-tourist organizations. Interest of population for tourism development. Safe, family and friendly holiday destinations	W = Low response from stakeholders. No visibility in the market. Unresponsive local residents. Poor connection of local and regional offers	O = Possibility to establish a fruitful partnership. Funding from the European funds. Community Sites. Increasing Popularity of ecotourism	T = Lack of tourism itineraries from stakeholders. No attraction for tourists to participate in a co-creation process. Rigid laws
Establish a Living Lab PPP (Public Private Partnership)	S = Creating an experimental environment for stakeholders. Favourable conditions for the development of ecotourism	W = Lack of stakeholder interests. Lack of LL concept understanding. Difficult to integrate the system of monitoring and directing tourists. Mainly locally organized	O = Creation of new tourist products and services based on the usage of modern ICT. Established web based platform (mobile, web technology), which provides the basis for the development of new marketing tools for co-creation of new products and services	T = There is no prescribed methodology for the creation of tourist destinations. Sticking to their own rules may lead to less innovative thinking. Lack of information and data
Assess the relevance of « cross border » issues	S = Connecting cross border regions with similar tourist thematic products and services related with ecotourism	W = Language differences and lack of knowledge of behaviour of tourists from multicultural environments	O = Increasing popularity of country destinations and ecotourism services from Slovenia. Creation of transnational partnership resulting in big interest of end users	T = Different national policies and interests. Unknown touristic destinations in a country. Impossible to reach tourists cross-border. Possible replacement of the name of the country (Slovenia with Slovakia) – unrecognized country
Deploy an ICT infrastructure	S = Creation of web based platform for promotion of ecotourism itineraries. A quick and comprehensive access to environmental information. Platform enables involving users in a co-creation process of new tourist information and offer (using of mobile and web based technologies). Improving of the	W = Requires an appropriate and challenging knowledge (finding the right partners). Lack of resources to cover broad range of mobile devices	O = Creation of web based platform with higher added value services. Increase in B2C e-commerce. Increasing use of the Internet and e-services	T = Lack of development resources to develop end user friendly platform. Low confidence in IT. Exclusion of older tourists

	competitiveness of local touristic companies and cross border joint itineraries.			
Establish a local and/or « cross border » PPPP community (PPP+People)	S = New tourist e-services. Involving users in a co-creation service creation. Very good information sharing and interpretation of the natural and cultural heritage by the users	W = Some tourists who are computer illiterate may not use the web based platform and will not be able to participate in a co-creation process. The conflict between private and public interests in the establishment of a tourist destination	O = Most visitors – modern tourists are mainly digitally literate and are used to plan their trip in advance using internet services. Increased cross border tourist services exchange	T = Lack of finances for the whole community PPPP establishment. Rigid laws (National law with some obstacles). Not enough interest to maintain the community
Run one or more User Driven, Open Innovation pilots	S = New approach to develop new tourist products and services – co-creation process enabled by using of modern mobile and web based technologies (Web 2.0, social media, etc ...). Enrichment of database of tourist destinations in local, regional and cross-border perspective	W = Lack of finances, resources and interest from tourist services providers. Filling the database with incorrect or poor information about tourist destinations – need for centralized approach	O = Testing the Living Lab concept in a local and cross-border perspective. Feedback from other users, partners from different countries	T = Environment with administrative obstacles. Low connection between tourist organizations and tourists as the end users
Summarise and evaluate the results	S = Useful set of data. Regional development. Discovering the effects of Living Lab methodology on development of local and cross-border tourism e-services	W = New approach with fewer experiences. Not enough experiences of stakeholders involved. Lack of information and research	O = New tourist services and products, new cross border cooperation. Higher quality of information due to stakeholders involvement and commitment. Connecting people of different countries	T = Many stakeholders with different interests, no improvement in local and cross-border tourism. False data feedback from end-users. The information about different destinations are not updated fast enough

5.2. SWOT Analysis results - By process step

5.2.1. Localise and identify your stakeholders

S = Large stakeholder group (public, GIS experts, spatial planners, teachers etc.), experiences with stakeholder group.	W = Indefinite stakeholder group (it could be too large). The user group does not have concrete requirements.	O = Chance to gain new costumers, chance to communicate and discuss with new experts not directly focused on GIS and geospatial technologies	T = Results could be too general and not oriented to concrete stakeholders
S = Direct contact with stakeholders (research, usability experts) as well as potential users	W = Stakeholders need funding in order to elaborate and run the pilot	O = Stakeholders work already together in some fields	T = Some of the stakeholders will have to be replaced if no funding possible
S = Wide network of partners from various fields.	W = No direct experience in waste management.	O = Creates pool of new ideas and also a basis for valorising ideas.	T = Hard to motivate and involve possible stakeholders in an economically unsecure situation.
S = Database of key stakeholders with direct contact	W = No interest from selected stakeholders. Small market-little stakeholder choice	O = Opens possibility to establish a fruitful partnership	T = Key stakeholders may deny their involvement
S = Stakeholders are to find in Vorarlberg (citizens of Vorarlberg; Vorarlberger Landesregierung --> Energy Future Vorarlberg as a (potential) partner; long range through cooperation with the ÖAMTC)	W = no explicit and consolidated database with direct contacts to stakeholder;	O = spread the trial (e.g. Austria, CH; GE; LI); Most people in Vorarlberg are depending on individual mobility. Vlotte helps to open the region (public transport is not efficient enough).	T = the stakeholder cannot be identified and contacted; no interest of stakeholders; no acceptance of the product by the stakeholder; several stakeholder as e.g. the federal government of Vorarlberg may deny their involvement
S = Public Institutions are well identified and some of them are already part of the Trentino as a Lab Living Lab (TASLAB)	W = Any stakeholder sees itself as the owner of the topic	O = Take advantage from the knowledge and collaboration among the stakeholders (mainly public institutions and research centres)	T = Tendency to drive all he initiatives toward research projects
S = Existing base of Micro-SMEs. Direct contact with potential stakeholders, local authorities, experts, NGOs etc.	W = Lack of funding to motivate the group of stakeholders to work more actively with each other.	O = Subsidies from the EU, possibility to establish effective partnership - network of Micro-SME.	T = No interest of stakeholders, lack of funding to set up and maintain the Micro-SME network.
S = We already have direct contact with stakeholders	W = Stakeholders often need dedicated funding, which we don't have	O = Taking advantage from the knowledge and collaboration among the stakeholders	T = Misunderstanding the LL approach from the stakeholders.
S = Direct contact with potential stakeholders and end users – relative strong interest in the area of rural	W = Lack of knowledge and insufficient funding for stakeholders.	O = Establishing LL. Potential funding from European funds.	T = Misunderstanding the LL approach from the stakeholders.

development.			
S = Direct contact with key stakeholders-tourist organizations. Interest of population for tourism development. Safe, family and friendly holiday destinations	W = Low response from stakeholders. No visibility in the market. Unresponsive local residents. Poor connection of local and regional offers	O = Possibility to establish a fruitful partnership. Funding from the European funds. Community Sites. Increasing Popularity of ecotourism	T = Lack of tourism itineraries from stakeholders. No attraction for tourists to participate in a co-creation process. Rigid laws

5.2.2. Establish a Living Lab PPP (Public Private Partnership)

S = Existing methodology, support of other LLs	W = LL approach is often connected with complicated communication	O = Expansion to the new markets	T = LL approach is quite often just "empty word".
S = Contacts already existing for a long time -> trust, experienced in collaboration & cooperation	W = Public administration / authorities act / react too slowly -> loss of time	O = New services for the IT branch	T = Identified area for first testing of the pilot is not appropriate -> wrong results for refining the pilot
S = Organizations coming from different sub-sectors and thematic fields can create a vivid palette of ideas.	W = Can be hard to focus diverse experiences and interests to one specific issue.	O = Can be basis for other kind of collaboration too.	T = Personal interests can be too diverse and strong to create a good partnership.
S = Creation of testing environment for key stakeholders	W = Different interest of key stakeholders within a LL group	O = Formation of entity that will collect data and create common bill	T = NA
S = Create a sustainable ecosystem for innovation in the e-mobility sector in the Vorarlberg region	W = unknown	O = data collection; exchange platform; new development ideas	T = different interest of key stakeholder within a LL
S = Even the methodology and the mission of living labs is not so well known from any stakeholder - actually they already act as members of living lab	W = Tendency to search opportunities mainly at local level	O = Presence of some public institutions (like BIM = Bacini Imbriferi Montani) that have in their mission the role to match the issues and needs of different stakeholders.	T = Difficulty to perceive the difference between real and perceived needs
S = A friendly environment for cooperation between local authorities with private sector.	W = Regulations and law that set up PPPs. Lack of experience in LL methodology.	O = Participating in CentraLab project.	T = Lack of understanding from government and private sector about the methodology of LL.
S = possible connection (for private sector stakeholders) with public institutions	W = lack of interest	O = sharing platform	T = different approach to market
S = D/K	W = Slow reaction of the PAs, bureaucratic process for establishing the partnership.	O = No LLs in the Slovak republic, therefore opportunity to start up the process for	T = Enforcement of single stakeholder's interests.

		establishing LL.	
S = Creating an experimental environment for stakeholders. Favourable conditions for the development of ecotourism	W = Lack of stakeholder interests. Lack of LL concept understanding. Difficult to integrate the system of monitoring and directing tourists. Mainly locally organized	O = Creation of new tourist products and services based on the usage of modern ICT. Established web based platform (mobile, web technology), which provides the basis for the development of new marketing tools for co-creation of new products and services	T = There is no prescribed methodology for the creation of tourist destinations. Sticking to their own rules may lead to less innovative thinking. Lack of information and data

5.2.3. Assess the relevance of « cross border » issues

S = The environment education is mostly international (universal).	W = Not all customers are able to use English materials (the pilot can not be focused on translation).	O = Chance to communicate and transform new information and knowledge (domain and GIT)	T = The result (catalogue of educational materials) could not fulfil all national specifics.
S = Software for pilot is based on Cloud Computing - > can be used everywhere in Europe even without the mobile lab component	W = Different languages, different testing behaviour	O = Transnational partnership can help to avoid weakness -> multilanguage tools	T = Additional work for partners -> additional funding needed?
S = Wide network of international partners.	W = Hard to find those foreign ideas, partnerships and synergies that can be used efficiently.	O = Find ideas, partnerships and synergies with projects from other countries.	T = Concentration on cross border issues may distract from local problems.
S = Connecting countries, regions, local communities and establish a transnational partnership	W = Different national policies-different national interest - not necessary positive	O = Creation of transnational partnership (mentoring country) and consequently big interest of end-users in cross-border country	T = Restrictive policy of cross-border country banks, post offices (smaller provisions)
S = the region of Vorarlberg is at the border to Liechtenstein, Switzerland and Germany - to set up a crossnational partnership would be easy	W = CH and LI are no EU members; different national interest	O = set up an international partnership; spread the pilot project across the borders; Creation of transnational partnership and consequently big interest of end-users in cross-border country	T = no interest of potential partners or countries;
S = Creation of a community of "local" public institutions that will become glocal (think global – act local)	W = Lack of time from the public institution to dedicate to international level projects. Lack of	O = Use the consortium of mountain towns (BIM Adige) as a focal point for around 223 municipalities - it could	T = Risk of

	language competencies	act as information router about the Central European Living Lab activities	
S = Well prepared KTP offer for international partners/investors according to complex support for companies.	W = Lack of permanent network of international partners.	O = Establishing partnership with similar projects from others countries.	T = No interest of potential partners from other countries.
S= exchange of experiences	W = different economic and social background	O = critical mass towards new global challenges	T = The results do not fulfil all regional specifics.
S = Connecting cross border regions with similar infrastructure, demography and self-governance.	W = Lack of languages skills, lack of knowledge and interest for cooperation.	O = New perspective and view on local development problems, new ways of solving these problems and new practises.	T = Users and stakeholders should refuse cross border cooperation.
S = Connecting cross border regions with similar tourist thematic products and services related with ecotourism	W = Language differences and lack of knowledge of behaviour of tourists from multicultural environments	O = Increasing popularity of country destinations and ecotourism services from Slovenia. Creation of transnational partnership resulting in big interest of end users	T = Different national policies and interests. Unknown touristic destinations in a country. Impossible to reach tourists cross-border. Possible replacement of the name of the country (Slovenia with Slovakia) – unrecognized country

5.2.4. Deploy an ICT infrastructure

S = CCSS has a huge number of experiences and implementations of deployment of ICT in education as well as environmental sector (projects like Habitats, Metaschool, Humboldt, SDI-EDU...)	W = CCSS ICT solution is focused mainly on experts	O = Extend the knowledge and information about environment, geospatial technologies as well as standards and trends.	T = The power of CCSS solution (Metadata system) could be not fully exploited.
S = Platform for collaboration will be implemented. Information for everybody interested in usability testing will be available	W = Not always partners use platforms vividly. So do visitors.	O = Platform as information & contact center	T = Platform built, but more or less useless because of lacking users.
S = Impressive experience in creating innovative ICT platforms for demands of modern life.	W = Lack of human and other resources to bring platform to perfection.	O = Can be a unique selling point of the project output.	T = ICT implementation may distract from taking other aspects of complex problem into consideration.
S = Visibility of LL for end-users and creation of living environment - forums, survey,...	W = Not enough money to build a proper platform (ICT)	O = Creation of LL live community, giving their opinion, suggestion,...	T = NA

S = As a possibility the ICT infrastructure could be deployed in cooperation with the VKW or the federal government of Vorarlberg	W = not all people may have access e.g. only few elderly people are using internet; cost intensive	O = Creation of LL live community, giving their opinion, suggestion,...; a possibility for involvement of individuals, Visibility of LL for end-users and creation of living environment	T = no or only few active community members
S = Opportunity to involve a big community into the project	W = Necessity rise more funding to deploy a pilot that can exploit its opportunities for all stakeholders	O = Define a partnership with the Italian node of the EIT Kic ICT Labs	T = Partnerships among public and private institutions take long time to be formally realized
S = KTP has a great number of experienced companies (KTP tenants) from ICT branch of industry.	W = Limited amount of money to create an effective ICT platform for Micro-SMEs.	O = A great interest of stakeholders about ICT platform, active participation of all users in deploying the ICT platform.	T = Lack of interest of the ICT platform end-users, important information cannot be collected.
S= sharing of costs	W = duplication of other existing ICT infrastructure	O = multilateral approach as added value	T = duplication of procedures
S = Platform for rural development actors will be developed.	W = Insufficient ICT skills, esp. at the rural area.	O = Sharing knowledge (forums, real time discussion), best practices.	T = End users should deny exploitation of the platform.
S = Creation of web based platform for promotion of ecotourism itineraries. A quick and comprehensive access to environmental information. Platform enables involving users in a co-creation process of new tourist information and offer (using of mobile and web based technologies). Improving of the competitiveness of local touristic companies and cross border joint itineraries.	W = Requires an appropriate and challenging knowledge (finding the right partners). Lack of resources to cover broad range of mobile devices	O = Creation of web based platform with higher added value services. Increase in B2C e-commerce. Increasing use of the Internet and e-services	T = Lack of development resources to develop end user friendly platform. Low confidence in IT. Exclusion of older tourists

5.2.5. Establish a local and/or « cross border » PPP community (PPP+People)

S = Cooperation, new information and knowledge, sharing of costs	W = PPPP community is not very effective (lengthy communication and decisions)	O = Find new partners for other projects.	T = General ignorance or concern about PPPP community
S = "normal" People (that means no IT-professionals) as testers for usability	W = People that are not used to use computers can distort usability results -> here we have to think about measures	O = Broad variety of results (culture-specific, age-specific etc.)	T = How to get the users to evaluate software / webpages? Incentive schemes necessary
S = Waste management is an issue that involves all citizens, i.e. it's a good topic to involve people.	W = Waste management is an issues that involves all citizens, i.e. it's hard to correctly define target groups.	O = Large community gives a wide pool of different user needs, i.e. makes developed applications more specific.	T = As a result of target group being too large, it can be hard to keep community together, find lead users and involve them into effective participation.
S = NA	W = Certain stakeholders like elderly & people who are computer illiterate are not familiar with e-services, may not use them	O = To test and prove positive effects - great savings for everyone	T = NA
S = A sustainable ecosystem for innovation in the e-mobility sector in the Vorarlberg region is created; brings together public and private interests for leasing, buying and renting electric cars	W = unknown	O = direct communication with the people; test and prove positive effects - great savings for everyone; new product ideas may rise; end-users needs can be collected;	T = no interest of people, so important information cannot be collected
S = All the actors are already present and well identified at local level: - public institutions: BIM Adige / Towns - research: Trento Rise – Createnet - companies: tbd among a pool of companies - people: involved throughout the municipalities	W = Trentino as a Lab is not yet identified as the point of reference and aggregation for the creation of a PPP+P	O = Make the most from Centralab activities to make TASLAB a point of reference for PPP+ P at local level throughout the collaboration with other project partners - develop a common communication and "marketing" tools among all Centralab partners	T = Time consuming prescriptions of the National and EU rules and laws regarding public and private partnerships
S = KTP experience in participating in different projects involving the local authorities, private sector and local community.	W = Difficulties in motivating community to collaborate with public and private sectors.	O = Finding new partners, setting up new cooperation networks also for other projects.	T = The treat is to many regulations and laws regarding the PPP in Poland and lack of trust in this kind of initiative.
S= exchange of experiences	W = different economical and social background	O = critical mass towards new global challenge	T = The results do not fulfil all regional specifics.
S = D/K	W = Lack of	O = Bringing together	T = Bad experience with PPP

	knowledge and insufficient funding.	new partners, establishing new cooperation networks also for other projects.	projects in Slovakia (end users should consider LL as a new bad practice and they should deny cooperation).
S = New tourist e-services. Involving users in a co-creation service creation. Very good information sharing and interpretation of the natural and cultural heritage by the users	W = Some tourists who are computer illiterate may not use the web based platform and will not be able to participate in a co-creation process. The conflict between private and public interests in the establishment of a tourist destination	O = Most visitors – modern tourists are mainly digitally literate and are used to plan their trip in advance using internet services. Increased cross border tourist services exchange	T = Lack of finances for the whole community PPPP establishment. Rigid laws (National law with some obstacles). Not enough interest to maintain the community

5.2.6. Run one or more User Driven, Open Innovation pilots

S = Interconnection with real users.	W = Pilots could be focused just on one specific group. It is connected to worse market opportunities.	O = Find to new and unusual solution.	T = Users are not often to define their requirements specifically and factually.
S = User centered results of usability testing	W = No interest in "cooperating" (users) -> wrong results	O = Testing a user driven trans-national Living Lab	T = Results not appropriate
S = Users mean a direct access to identifying problems, finding solution ideas and distribution channels for solutions.	W = Can be hard to motivate people to join.	O = Bringing a better understanding of user needs for organizations. Also, a better understanding of large scale waste management issues for users.	T = Misunderstandings and unfriendly stance of different stakeholders and users against each other.
S = NA	W = Small participation to organized events	O = Small amount of money for external speakers	T = Testing idea for positive/negative effects responses
S = FHV has extensive experience with the Living Lab Vorarlberg initiative	W = FHV has to get the stakeholders more actively involved in the pilots	O = Spread the concept of user driven, open innovation pilots in the region and involve more and more stakeholders and citizens in the process	T = unknown
S = Local pilots is based on a real need: necessity of all the municipalities to define a new plan and	W = Regulation of public lighting management is strictly regulated by many laws that favourite the monopolist company that manages most of public lighting infrastructures	O = Take advantage from a national law that make it mandatory to define a new plan for public lighting to define a cross border model for ESCO companies that operate into the public lighting market	T = Risk to be overcome by big companies (facility management companies - escos).

roadmap for the renewal of public lighting systems in order to reduce energy consumption and lighting pollution			
S = Connections and cooperation between end-users and stakeholders and knowing their basic needs.	W = No experience in LL methodology.	O = The LL methodology and gaining different kind of knowledge from experienced project partners.	T = Limited possibilities to cover all defined needs of end-users. Risk of failure.
S= possible funding measures	W = lack of public money	O = regulatory framework/funding programmes	T = not well addressed funding programmes
S = Cooperation with end users and stakeholders.	W = No Living Lab established in the Slovakia. Stakeholders cannot share knowledge of establishing and running LL. Lack of knowledge of LL approach.	O= Receiving information from the end users, with several iterations, and convert usually established top down approach.	T = Lack of interest: from the side of PA (self governing region) – because they have to refuse top down approach; From the side of end users – increased demand on ICT skills and communication.
S = New approach to develop new tourist products and services – co-creation process enabled by using of modern mobile and web based technologies (Web 2.0, social media, etc ...). Enrichment of database of tourist destinations in local, regional and cross-border perspective	W = Lack of finances, resources and interest from tourist services providers. Filling the database with incorrect or poor information about tourist destinations – need for centralized approach	O = Testing the Living Lab concept in a local and cross-border perspective. Feedback from other users, partners from different countries	T = Environment with administrative obstacles. Low connection between tourist organizations and tourists as the end users

5.2.7. Summarise and evaluate the results

S = Cooperation, experiences with existing projects and ICT solution, large stakeholder group, LL methodology	W = Some sub-tasks (e.g. communication) are not effective. CCSS ICT products are focused mainly on experts not so much on public.	O = New information, knowledge and experience. Chance to extend out market.	T = PPPP and LL approaches are often just an "empty words" or buzzwords. The main threat is risk to lapse into mere talking and discussions.
S = Our Living Lab as a trans-national testbed	W = No experience in this "large scale non-professional user-testing"	O = Perhaps we will gain completely new results concerning usability	T = Approach has to be adopted according to the results gained during first testing phases -> lack of money
S = If done right, results can be impressive, leading to spreading and transfer of innovation.	W = Due to being a topic involving a large group of users, it may be hard to correctly measure and evaluate results.	O = Creating synergies with possible solutions of other issues of modern society.	T = Results may be hard to bring to national policy making level.
S = Monitoring on positive effects on the economy at national level	W = NA	O = Greater savings for end-users as well as companies by establishing common bill	T = Banks and post-offices charging the provision will not allow this pilot to live
S = Establish a new cross-border e-mobility ecosystem	W = E-mobility must be undergo a significant awareness-raising	O = monitoring positive and negative effects and have a chance to react	T = It is a risk to miss important results and to lose chance to react on negative trends
S = NA	W = different stakeholders with different targets and evaluation criteria	O = define a common measurement method for the outcomes of the pilot	T = Main interest is on savings on electricity bills
S = Experienced team of KTP. Open for innovative ideas.	W = KTP is not the LL. Lack of funding.	O = New perspectives for development of Micro-SMEs and dissemination of KTP offer.	T = No interest of public authorities, companies and local community.
S = easiness in evaluation of results	W = correctly measure and evaluate results	O = define a common measurement method	T = False data feedback from end-users
S = Establishing a Living Lab in Slovakia, developing an ICT platform for end users, sharing knowledge of LL approach.	W = Lack of knowledge and funding, Lack of interest for international cooperation, Weak language skills from the side of end users.	O = Bringing a new perspective and processes for rural development, Sharing international best practices and knowledge.	T = Misunderstanding of LL approach, Enforcement of individual stakeholder interest (PAs should try to use LL as a tool for their top down approach).
S = Useful set of data. Regional development. Discovering the effects of Living Lab methodology on development of local and cross-border tourism e-services	W = New approach with fewer experiences. Not enough experiences of stakeholders involved. Lack of information and research	O = New tourist services and products, new cross border cooperation. Higher quality of information due to stakeholders involvement and commitment. Connecting people of different countries	T = Many stakeholders with different interests, no improvement in local and cross-border tourism. False data feedback from end-users. The information about different destinations are not updated fast enough

6. CONCLUSIONS

At first sight, the current state of application of the LEADERS approach may seem to vary significantly according to local conditions and in particular on circumstances that are too specific to the individual partner profiles as to have any broader significance. On the other hand, we can identify “determinants” (local conditions that may or may not be present in the pilot contexts) which influence the outcomes of the SWOT analysis for each phase in a similar way.

This allows us to draw some preliminary conclusions that take the form of recommendations to partners for pilot implementation, that are derived from a reading of the impact of each of these determinants on the specific process stage in question. At present, this is just a preliminary assessment to be validated in the course of the pilot implementation phases, but it does appear to provide some useful suggestions for the successful application of the LEADERS approach for cross-border Living Labs.

Determinant (LEADERS process stage)	S	W	O	T	Conclusions
1 (L). Stakeholders A pre-existing stakeholder group	Can accelerate the development of the Living Lab on the condition that the pre-existing group is built on previous “network capital”.	A pre-existing stakeholder group can give the illusion of completeness and consensus. It is usually the case that once an initiative is defined the need is felt to bring in new stakeholders. In addition, a stakeholder group formed around a previous initiative may not have the same consensus as before.	A pre-existing group can be a reservoir of on-going experiences and network relations of individual members. This provides the opportunity to keep the partnership open to new stakeholders, points of view, and contributions.	Stakeholder with no particular role in the group (only there due to previous experience) can undermine group cohesion.	<i>Building a cross-border Living Lab can benefit from the presence a pre-existing stakeholder group but only on the condition that they have previously engaged in co-design processes. If not, then the definition of the group should be kept very open allowing for graceful exits and new entries.</i>

<p>2 (E). Partnership establishment Purpose: the existence of one concrete project with a common goal.</p>	<p>The strength of identifying a concrete initiative of interest to all is that different stakeholders can more easily identify their specific contribution and role and recognize the roles of others in the group.</p>	<p>The common purpose must be identified together with the stakeholders, require an innovative solution and different contributions, and be “emblematic” of the type of activity the partnership aims to engage in. A pre-defined project runs the risk of satisfying only the objectives of some stakeholders.</p>	<p>Among the stakeholders there are likely to be different on-going projects that can benefit from the enlarged partnership, especially if they can be linked up with the top-down defined project. The partnership can thus align its purpose with on-going initiatives and thus broaden participation as well.</p>	<p>Trying to force a partnership agreement without first having validated shared purpose risks collapsing the local network.</p>	<p><i>It is difficult to form a local PPP only to “become” a Living Lab; in order to gain commitment a shared purpose must be found, and this is most easily done through engaging in one or more concrete initiatives that bring immediate benefits to partners while validating the terms of cooperation.</i></p>
<p>3 (A). Cross-border issues Identification of the appropriate level (ie technologies, platforms, methods, policies) at which cross-border collaboration is relevant.</p>	<p>The identification of the appropriate level of collaboration allows to focus exchange where it is most effective.</p>	<p>The identification of the appropriate level of collaboration cannot be identified a-priori and apparent opportunities (especially at the technology level) can be misleading.</p>	<p>An open and exploratory approach towards establishing cross-border collaboration enriches the self-understanding of the Living Lab process, as it identifies the different dimensions open to collaboration and their relationships. The “discovery” of opportunities strengthens the partnership.</p>	<p>Insisting on an inappropriate level of cross-border collaboration can jeopardize the whole initiative and build frustration among partners.</p>	<p><i>The level at which cross-border collaboration is most beneficial to stakeholder groups is not obvious and can vary according to the specific nature of the issue, the technology platform, normative frameworks, etc. An open, exploratory approach should be adopted and finding the right level should be set forth as an important part of the process.</i></p>

<p>4 (D). Deploy the ICT infrastructure Identifying and understanding the different roles ICT can play in supporting the purpose of collaboration.</p>	<p>ICT can not only provide functional support for specific goals (eg smart lighting), it can also act as: a platform for collaboration, the object of service co-design, a “change agent” empowering actors and shifting balances of power, etc.</p>	<p>Focusing on only one aspect of the role of ICT can lead to a lack of proper governance of network dynamics among the stakeholders.</p>	<p>The contribution of ICT towards the shared purpose can be a multiple one, with different aspects bringing greater added value to different stakeholders.</p>	<p>If ICT becomes an object of contention rather than a shared resource then there is the risk of alienation of stakeholders.</p>	<p><i>One should be careful in not confusing ICT with the broader purpose of the Living Lab partnership. ICT can play different roles in supporting different actors, especially in a cross-border context, and coordination should openly support this multiplicity.</i></p>
<p>5 (E). Local and Cross-border PPPP Whether the fourth P has been at the centre of the purpose all along or just an add-on at the end of the process.</p>	<p>The central role of citizens and users is the main strength of the Living Lab approach, as it guarantees the relevance of the stakeholder commitments and plans.</p>	<p>As some preparatory work is generally required before engaging users in co-design processes (ie steps 1-4), it is easy to underestimate the impact of the user-centred approach at the partnership building and planning stages.</p>	<p>Citizens and businesses can be informally engaged in the Cross-border LL development process even before the time comes for their structured participation. Most stakeholders have some sort of representative function and can engage their own constituencies in the previous stages to ensure user-centricity from the start.</p>	<p>A token participation of users in a cross-border Living Lab subtracts the benefits of co-design and the added value to stakeholders.</p>	<p><i>Although it may not be feasible to directly involve citizens and end users from day one, user centricity as an operational principle should guide all the steps of building a cross-border Living Lab. This will make the shift from PPP to PPPP a smooth one, bringing added value from user engagement in line with expectations.</i></p>

<p>6 (R). Run pilots Openness to emergent ideas.</p>	<p>Openness to the emergence of new ideas for products and services means capturing the real added value of the Living Lab approach.</p>	<p>User engagement in co-design processes will likely lead to unexpected deviations from the planned pilot activities.</p>	<p>Capturing and reinforcing emergent ideas from pilot processes not only brings innovative products and services, but also reinforces the engagement of citizens and users and the perceived added value of the cross-border collaboration.</p>	<p>Changes from original plans can jeopardise the support of policy-makers and investors looking to meet planned outputs.</p>	<p><i>Only be opening up to emergent ideas and insights that come from the co-design process can the full benefits of the Living Lab approach be reaped. This requires flexibility and an open mind on the part of all involved, and keeping the focus on broader objectives more than expected outputs.</i></p>
<p>7 (S). Impact assessment Clarity of goals and success criteria, balance between competitive and collaborative benchmarking.</p>	<p>Impact assessment (esp. if planned well ahead of the pilots start-up) is fundamental to provide concrete evidence of the added value of the Living Lab approach.</p>	<p>Measuring the impact of generative social innovation is very difficult, and can lead to either precise measurements of outputs with limited scope or generic qualitative assessments of limited value.</p>	<p>The need to identify new impact assessment approaches for social innovation processes such as Cross-border Living Labs is felt in a broad range of disciplinary and policy spheres. Any contribution in this direction will be well-received even if only based on preliminary hypotheses.</p>	<p>Reductive, superficial, and generic impact assessment techniques can do more damage than harm, by misaligning expectations and betraying the original nature of the shared purpose.</p>	<p><i>One should be aware of the lack of instruments for effective impact assessment, and consider this an important task that however needs to be carried out in an exploratory fashion. The best resources here are the actual stakeholders involved and their own criteria for success.</i></p>

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