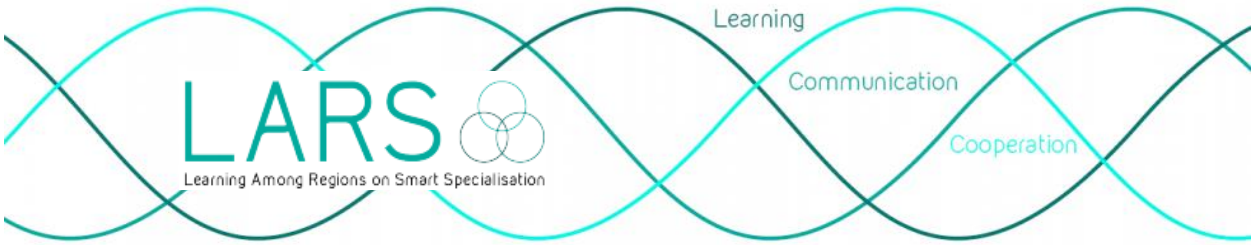

Pilot implementation

LARS WP6 Report

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Contents

1. Introduction

The report from Work Package 5 described the process of selecting and translating a good practise from one region to another. The process was organized through networks between specific pairs of regions who "have something to learn from each other" that could bridge an identified gap. In the report the selection process was presented along with the barriers and challenges. One conclusion – passed further to the work to be carried out in WP 6 was that regions are different; hence it is good that partners have different focuses or scales for good practices. Some partners are able to go more along the original good practice ideas and some need to adjust their implementation to go alongside existing regional activities; this indicates that transnational learning is possible to do but requires some thought.

This report presents the outcomes from WP 6.1 and WP 6.2. In the first section - WP 6.1 - the schemes for implementation are drafted – the selected good practises are presented and a road map for implementation is outset, including objectives, actions, roles and responsibilities.

So, while WP 6.1 shows the plans, step-by step, for how to transfer the chosen good practice, the next section - WP 2 - presents the results of the implementation process, the experiences and the lessons learnt in the process.

This report presents a summary of the working papers from all partners, one by one. The results from WP 6.1 is followed by the results from WP 6.2 and in a concluding chapter the joint conclusions are presented along with some reflections on the process.

2. Output 6.1. Pilots definition

2.1 Guidelines

Work package 6.1 is entitled “Pilots definition”. Partners are here asked to draft the pilots in their regions based on the findings of focus group meetings on benchmarking the good practices of other regions (WP5 outputs). The aim has been to move from a translated good practice towards a pilot implementation. A pilot is defined as entrepreneurial discoveries of new business, policy or innovation system opportunities within and/ or across the topics. Enabled by the sessions of transnational learning and good practice analysis carried out in earlier stages, these discoveries may be made within partners, based on learning from others, or they may be made as cooperative projects between partners.

The questions for WP 6.1 are the following:

1. Background about your translated good practice – based on the findings in WP5 describe your translated good practice

a) What good practices from other regions did you identify as your match? – Short description about the good practise
b) Describe your status quo in your region and the problem to be solved with the translated good practise.
c) What is the status quo that your region wants to overcome? How can this good practise help you to overcome this gap/status quo? Explain the factors of that can lead to success and help your region to achieve higher regional connectivity and innovation potential.

2. Mapping of domains within and across topics and regions (Domains are related forms of knowledge which are applied in different sectors.[1] **When mapping a domain, please identify scientific, technological, craft-based disciplines or other areas if interest across sectors and partner regions)**

a) How does the translated good practice fit your Smart Specialisation Strategy?

b) What are your regions domains/strengths that can/will help you to implement the translated good practise?

3. Mapping of future opportunities - goals and roadmaps/ A vision of the solution

a) What kind of the opportunities and scenarios can lead to success and future opportunities implementing this good practice from the other regions? What are the expected results for the pilot?

[1] According to the Smart Specialisation Platform (RIS3 Platform 2017a), a smart specialisation domain is an “R&D or innovation area characterised by distinctive knowledge”. There are several definitions of “domain” in dictionaries, but the most fitting in our context is the description of a domain as “a specified sphere of activity or knowledge” (Oxford English Dictionary 2016) or as “an area of interest” (Cambridge Dictionary 2017)

b) What is the goal/vision of implementing good practice? – describe a main vision and objectives

c) Address key challenges - Explain the hinders that can lead to failure of implementing this good practice in other regions – make a short summary from WP5 “mapping of barriers”

4. A roadmap, explaining how the region may move from status quo to the solution

a) Identify and formulate priority commitments to realize the vision and achieve the objectives

b) To implement the commitments, identify and describe concrete activities to achieve the objectives? Do you need some preparation before you can start the change? Include this as well.

c) Is it something that is needed to be able to start the process of change? Political decisions? Change in the governance structure?

d) Clarify how the process of change should start and what actor is responsible

5. Milestones along the road, with clear expected results and a defined time frame. Develop a plan of the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

a) Define milestones for the pilot for implementing the objectives/goals

b) Define a timeframe for the implementation and activities - when are you planning to do the activities?

c) Describe the main partners/stakeholders that is expected to follow the roadmap – describe how will they be engaged in the process?

d) Define the stakeholders that have responsibilities to implement the pilot/activities and how they will engage them in the process.

e) Who will be responsible for the roadmap and activities?

f) Who will be responsible for the monitoring of implementation?

g) Clarify how the change-related decisions will be made in the pilot

The following template was offered for partners to present an overview of the roadmap for implementing the pilot:

Objectives	Activities	Expected results	Impact	Timeline	Responsible

In the following presentation each partner’s report are briefly summarised one by one.

2.2 Results from partners

In the following presentation each partner's report are briefly summarised one by one.

2.2.1 Hamburg

Short description about the good practise identified as the match

There are at least two good practices from which Hamburg can learn. Based on the input and on the story behind the good practise from the WP4 report we choose the good practise from Ostrobothnia as a practise to learn from. Even though the good practise from Ostrobothnia seems not to be the perfect match, it has some important similarities with the Hamburg case. The highest match according to the analysis from WP5 is considered to be the good practise from Päijät-Häme. This is a company driven good practise, where the engagement of universities is missing. In Hamburg, there is a lack of involvement from companies and the universities are very active. However, the companies in Päijät-Häme are active because they are motivated to improve their situation and because they are in a problematic situation. Companies in Hamburg are still in a comfortable situation and don't see the need for change.

Description of the status quo in the region and the problems to be solved with the translated good practise

The gap analysis in WP4 showed, that the innovation system for circular economy in Hamburg is still fragmented. No big gaps were identified by the gap analysis, but the motivation for cooperation is low. Expectations in cooperation is low and if experience with cooperation is low as well, there are no big gaps identified, but never the less cooperation between different parts of the innovation system is not well developed. Universities and NGOs are quite active to promote and improve circular economy in Hamburg, but public authorities and more importantly many companies are not willing to change for a circular approach. In Hamburg's smart specialisation strategy circular economy is yet not a cluster.

To improve circular economy public administration is needed as a facilitator. More motivation for cooperation of companies with the other actors of the innovation system is necessary. The good practise from Ostrobothnia has developed a university driven approach to engage and attract companies to cooperate. From the good practise from Päijät-Häme Hamburg could learn something about what could motivate companies to try actively to change their way of action.

Success factors for achieving higher regional connectivity and innovation potential

The most important factor of success in the Hamburg case would be a common goal. To get all stakeholders on board a common goal must be developed to get all different groups of

stakeholders on board, the senate chancellery of Hamburg should lead the initiative, ministry of environment and energy and the ministry of economy and development (responsible for the Smart Specialisation Strategy) should be engaged.

Mapping of domains within and across topics and regions

The Smart Specialisation Strategy "Regionale Innovationsstrategie 2020 der Freien und Hansestadt Hamburg" eight already existing clusters are designated. Circular economy is not a cluster so far. For the future development, circular economy was identified as a future field. Future fields are to be understood as areas in which, in view of global megatrends, the expansion of an already existing market or the emergence of a new one can be expected and in which Hamburg already has innovation potential or forward-looking unique selling points. These future fields form an important component of the innovation strategy. The future fields shall be strengthened by strategic initiatives in cluster policy, targeted networking-oriented industry initiatives and activities in Hamburg's specific cross-sectional topics. Therefore, the translated good practise will help to develop the future field of circular economy.

Circular economy is a cross sectoral topic, interesting for nearly all other already existing clusters in Hamburg.

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

To join forces and to integrate the different initiatives and actors a forum for exchange, knowledge sharing, capacity building across different topics, skills, and disciplines as in cross-cutting thematic teams or departments could foster the development. A forum is needed where collaborative, supportive, and an empowering environment could be created to enable a culture of inclusion and participation for all different stakeholders along the value chains and across the innovation system and start to build up a CE cluster in Hamburg.

The main vision is to develop a forum for circular economy in Hamburg, where interested stakeholder can find information, existing activities, cooperation partner and support for planning and developing circular economy initiatives in Hamburg. The objectives of the good practise are:

- find a public administration, which will host, moderate and organize the forum
- attract stakeholder from universities, public administration, NGOs and economy to participate
- develop a common vision for the forum
- develop activities which will improve CE in Hamburg

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions:

- Lack of trust: there is a lot of mistrust between the different stakeholders in the Hamburg case side. This is also reflected in the gaps. If there is no sufficient information about other stakeholders' goals and motivation, there is no motivation for cooperation, but a willingness to secure the own position. In Hamburg for example companies do not have much trust in universities.
- Ongoing low motivation of companies for cooperation
- Different Cultures: Public organisations, NGOs, universities and companies are working differently, have different goals and different ideas of engagement
- Insufficient communication: goals, communication and cooperation need to be well communicated to change something on the long run and to keep all stakeholders engaged it needs a sufficient and organised communication
- No common goal, companies cannot see a benefit for more engagement
- Backward-looking view, no willingness for change, "we've always done it this way"
- Quadruple helices stay fragmented, lack of cooperation

A roadmap, explaining how the region may move from status quo to the solution

Priority commitments and concrete activities to realize the vision and achieve the objectives

- Commitment of public administration for developing and moderating the forum
- Commitment of CE stakeholder to participate
- Development of common vision and goal
- Interest and inform CE stakeholder
- Start with a survey about activities for CE forum

Political decisions, changes in the governance structure or other things needed in order to start the process of change?

- Commitment of public administration
- Commitment of policy to make CE a political priority
- Engage with the responsible public administration for Smart Specialisation

Clarification on how the process of change should start and what actor is responsible

- Haw Hamburg will contact Senat Chancellery of Hamburg and State Ministry for Environment and Energy to inform them and to interest them in the pilot
- HAW Hamburg will contact the State Ministry for Economy to get in contact with the responsible person for S^3
- HAW Hamburg will contact universities involved in CE research to discuss their interests
- HAW Hamburg will develop and perform a survey among CE stakeholder

Milestones along the road, with clear expected results and a defined time frame

Objectives and time frame - see Figure 1 below

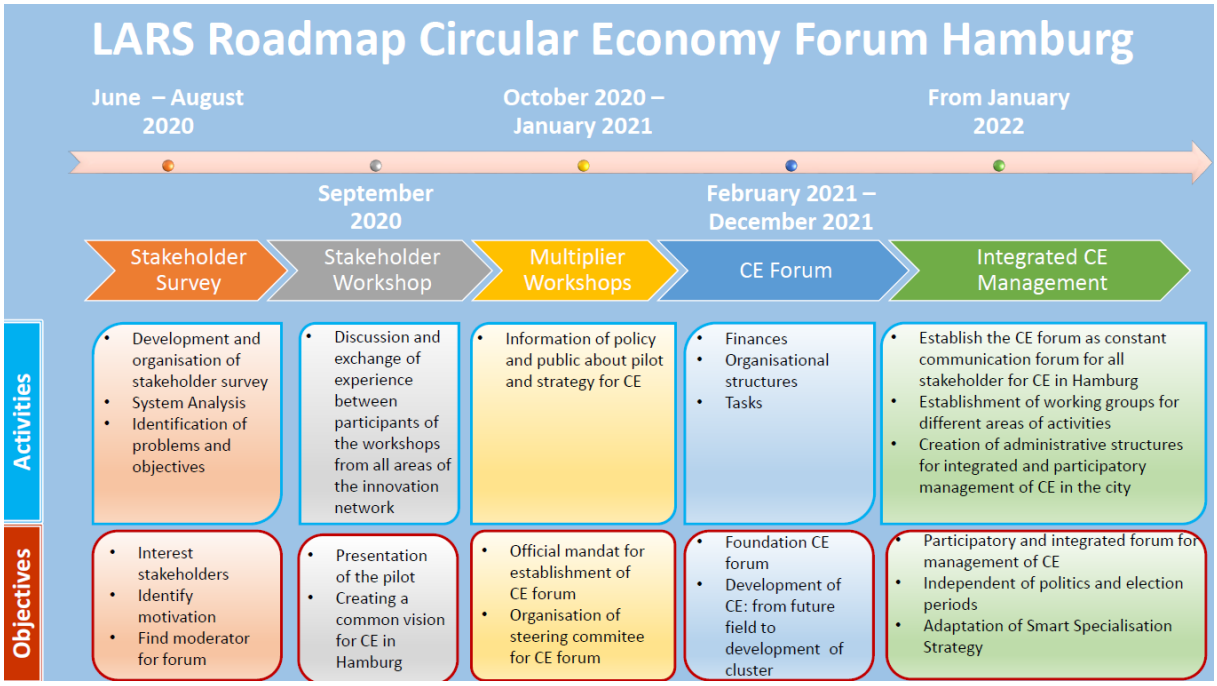


Figure 1: LARS Roadmap for Circular Economy Forum in Hamburg

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

HAW Hamburg will engage Senat Chancellery, State Ministry of Environment and Energy and Economy, Universities doing CE research (HCU, TUHH).

The stakeholder survey and the stakeholder workshop will be organized by HAW Hamburg. One of the public administrations involved should cooperate for the multiplier workshops and take over the responsibility for the pilot and organize the foundation of the CE forum.

In the beginning Haw Hamburg will be responsible for the roadmap and the activities, then a public administration has to take over. Haw Hamburg will be responsible for the monitoring of the implementation.

Policy and public administration have to prepare the way for the implementation. As soon as the CE forum has established the steering committee it should take over the decision making.

2.2.2. Innlandet

Short description about the good practise identified as the match

According to the gaps we need to bridge in Innlandet, we find the good practice from Ostrobotnia of special interest, and as an addition to what we do today. We find the story behind the platforms established in Ostrobotnia very similar to the situation in Innlandet. In many ways, the dialogue between the companies and universities are improving as a result of the different activities. To further improve this dialog based on the results from the survey, we find the platform-based approach from the University of Vaasa a good practice.

This kind of platform as a door opener to the universities, can be a good supplement to FORREGION. FORREGION is the good practice from Innlandet to the LARS-project.

Description of the status quo in the region and the problems to be solved with the translated good practise

There are large gaps between expectations and experiences between universities and especially the companies and in some degree to the public organizations. This means that the universities' expectations for these helixes are not fulfilled. The companies view the universities as less important partners than the other way around. Nevertheless, there are small gaps between expectations and experiences on the part of the companies, but at the same time they consider the universities to be less important and relevant as partners.

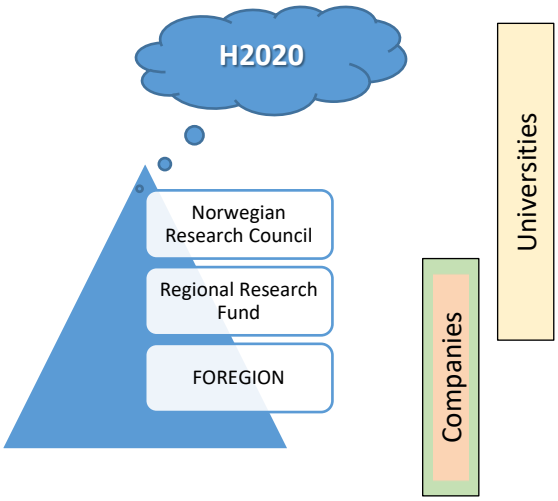
Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

Several companies believe that the universities have little or no form of work adapted to the needs of the companies, and that the universities are too cumbersome and bureaucratic. They also believe that researchers do not understand that the companies' primary task is profit, and that research must have this in mind. The research communities, in turn, believe that the companies do not set aside enough time, or are patient enough with regards to the time it takes to plan and implement research projects.

It seems that the universities have an "image problem" and they realize that there are misunderstandings according to what the universities can offer and how they can contribute. They say that all the university's activities rely on cooperation and interactions with the businesses.

The universities are often too complicated and ambitious in their dialogue with the companies. While the universities are focusing on the desire for large international projects, the companies' needs are often practically directed toward a concrete need for further development and innovation. As shown in the figure below, the companies are focusing on

the lower side of the research hierarchy while the universities are aiming for the top. The first step seems to be levelling the expectations.



Another explanation is that the SMEs often lack capacity and competence in purchasing R&D. To establish relevant project the companies need some R&D competence in their own organization.

The companies' innovation is often company-specific and often occur within their own value chain and in a customer-supplier relation. In this context, the universities are not considered relevant.

The Norwegian Wood Cluster have compiled a similar survey as this among their members, and the conclusion is that they need to be more involved in R&D, and they need a higher utilization of public schemes and funding. In their words, it is "a code that must be broken". They are aware of the need for a closer cooperation with the universities.

Mapping of domains within and across topics and regions

Innlandet does not have its own S3, but the regional planning strategy is similar. Due to the regional reform in Norway the new regional political level in Innlandet is in the process of developing a new planning strategy, which will serve as the master plan for the next four years. According to discussions and earlier strategies, better cooperation and connectivity is one of the criteria for success.

The following strengths will help us implement the good practise:

- The regional planning strategy is in process
- A cluster organization is established

- There is a solid base in the FORREGION project with competence brokers and public funding for R&D
- One might build on existing initiatives such as different Technology Transfer Offices and the Norwegian Catapult Centre
- There is a strong political will at the regional level

Further, we have a strong cluster within light-metal manufacturing, SINTEF Raufoss Manufacturing (SRM), that holds the status of a National Centre of Expertise. This is a successful cluster establishment that has helped the threatened metal industry to recover and is now a world leader in manufacturing for the European car industry

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

In order to succeed, we need:

- Sufficient resources, both financial and personal
- Partnerships across sectors and helixes
- The courage to prioritize
- Implementation ability
- Evaluation of the actions and measures

The vision and goal must be established trough the planning strategy process in cooperation with important stakeholders which will be important in the realisation of the goals.

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions

One of the challenges is that the universities involved in this project operates at a national and international level. It can be challenging to get them involved in regional priorities, especially when there are different priorities between the regions. In addition to our own strategies, we must also keep an eye on other regions' priorities and national priorities.

Other challenges can be:

- Lack of resources among the companies, especially the SMEs, to involve in R&D&I
- New initiatives can be perceived as threats to existing organizations
- Stakeholders finds the process regarding regional plans of less relevance
- Lack of continuity in the organization. Turnover of key personnel
- Lack of adequate access to financial instruments
- Lack of coordination with other instruments and initiatives

A roadmap, explaining how the region may move from status quo to the solution

The identification and formulation of priority commitments to realize the vision and achieve the objectives must be done through the work on the Regional plan for innovation, value creation and expertise (see below.

The process of change will start with the adoption of the Regional planning strategy in September/October 2020. There is no need for any further political decisions or changes in governance structure to start the process. Actions are specified in milestones below.

Milestones along the road, with clear expected results and a defined time frame

Milestone 1: Sept/oct 2020

Adoption of the Regional Planning Strategy. This strategy sets the priorities for the next four years and points out the priority areas for regional development. It can be loosely defined as a smart specialization strategy. The basis for the plan is a precondition for an interdisciplinary approach and participation, based on the four focus areas: Citizens, Infrastructure, Innovation and Inclusion. Based on this master plan, four regional plans will be elaborated, one of which will be the Regional plan for innovation, value creation and expertise

Milestone 2: December 2021

Prepare and adopt a Regional plan for innovation, value creation and expertise. The plan will be worked out in close cooperation with the different stakeholders and representatives from the different helixes. This work is important for the identification of the challenges and relevant instruments. The process will also mobilize the stakeholders and anchoring the work that must be done in implementing the action plan.

Milestone 3: December 2021

Adoption and implementation of the action plan. This plan must include a clear definition of responsibility added to the various stakeholder. Establishing the platform-based dialogue between the universities and the companies will hopefully be one of the actions.

Milestone 4: Winter 2022

Establishing the platform for cooperation between universities and companies. A dedicated resource group will be appointed to this end.

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

The main partners/stakeholders are

- The County Council – adopt the plans that forms the basis for the implementation and will be responsible for the roadmap and the activities

- University – Responsible for the platforms
- Norwegian Wood Cluster – Represents the companies
- Innovation companies and Competence brokers

There must be a steering committee for the establishment of the platform, and they will also be monitoring the implementation.

The first decisions are political adoption of strategic plans and actions carried out in close cooperation with the stakeholder. Then, the leaders at the university must adopt the establishment of the platform as a part of their strategy.

The following table gives an overview of the roadmap for implementing the pilot:

Objectives	Activities	Expected results	Timeline	Responsible
Analyses	Regional planning strategy	Knowledge base Anchoring status	Autumn 2020	Regional political level
Priorities	Regional plan on value creation	Mobilizing Definition Prioritisation	Autumn 2021	Regional political level
Implementation	Action plan on value creation	Implementation Support system	Autumn 2021/ winter 2022	Regional political level/ R&D sector
Establishment	Resource group	Platform established	Winter 2022	University

2.2.3. Latvia

Short description about the good practise identified as the match

As our match and the transferable good practice, we identified university platforms from Ostrobothnia/University of Vaasa.

Vaasa Energy Business Innovation Centre or VEBIC: brings together know how from the research and business communities responding to the global needs of efficient energy production, energy business and sustainable societal development.

The Digital Economy platform of the University of Vaasa: an open research platform for interdisciplinary research on innovations enabled by new technology as well as their impact on individuals, organisations and society.

Innovation and Entrepreneurship InnoLab: a phenomenon-based, multidisciplinary open research platform with focus on open and user innovation, entrepreneurship, and public sector innovation and renewal. InnoLab also encourages the application of citizen science, open science, and design thinking.

Description of the status quo in the region and the problems to be solved with the translated good practise

The chosen good practice fills the gaps we have between companies and universities and which we want to bridge. The main goal of the platform – to create an innovative and unique research and applied research - very well corresponds to the need of our region. The idea is that this platform is like a tool for the active involvement of companies is the idea which we need in our region. Also, the open-door approach is something that we could transfer to our region. These points are very crucial for our region so for sure we can conclude that the story behind the good practice is relevant to our region.

Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

The status quo at the moment is that on the one hand stakeholders at the regional level want to cooperate but on the other hand they lack some common sense on how to do that and they lack helpers as well. This good practice can help us in the way that it reveals the main aspects of cooperation to be successful – the main goal is to create innovative and unique research and the way to do it is through active involvement of companies. This good practice can be led to success because it has an open-door policy, but at the same time, there are responsible persons.

Mapping of domains within and across topics and regions

The translated good practice fits our Smart Specialization Strategy. At the moment we have one strategy for the whole country and there are no specific strategies for the regions, but the trends are that regions want to develop their own strategies.

The preconditions are that regional actors (planning regions) have done similar activities before. Mostly these activities are done on a project basis so this good practice could establish such initiatives on a permanent basis. At the moment there is an urgent need for such a cooperation platform. The outcomes of the LARS project can help to bridge the gaps and to find the best way to implement good practice.

The translation process showed that the idea and concept of cooperation platforms don't need to be narrowed just to certain sectors or domains. It can be applied to mostly every domain.

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

The potential for implementing good practice is at a high level. Local municipalities can be as demander (buyer) of innovative products, but they can also be the supporter of companies, providing the needed infrastructure in order to have efficient use of regional resources. The expected results are to establish a cooperation mechanism at the regional level.

The goal is to establish and to develop regional innovation, science, and technology transfer platform (regional innovation and knowledge platform) or system between the main stakeholders from all four helices. The aim of such a platform is to foster the sustainable development of economic activity and to improve entrepreneurial and innovation environments at the regional level. With the help of this platform, at least one pilot project in every region to create innovative products and services should be implemented. The pilot project will be as a result of cooperation activities between universities, companies, and civil society and the public sector will be the driver. Also, the aim of this platform will be to organize other activities such as regional clusters and internationalization.

The Key challenge is to find and establish the appropriate cooperation mechanism for our region. But it is important not just to have this platform working at the regional level but for it to be connected with the activities at the national level.

A roadmap, explaining how the region may move from status quo to the solution

To realize the vision, the first commitment is to have a leader (driver) for these activities. For our case, the driver should be the public organization – planning region. The planning region is a derived public person that has been established in accordance with the Regional Development Law and its activity has been financed from the state principal budget. The aim

of planning regions is to ensure the planning and coordination of regional development, and co-operation between local government and other state administrative institutions.

The first step should be the preparation – to identify the actual needs, development potential, and opportunities for every region and scoping of the smart specialization areas. To have some commitment the relevant stakeholders should be identified but not just saying regional universities and companies but to mention specific organizations with specific contact persons as well. The main step before organizing some collaboration events and "real action" is to establish the mechanism of cooperation between all stakeholders and this will be the responsibility of the driver.

As this activity is already included in the Regional policy strategy 2021-2027 which is adopted by the Cabinet of Ministers, we can say that there is a political decision on it. Severe changes in governance structure are not needed.

The responsible actors that should start the process are the planning regions with the support and help of the Ministry of Environmental Protection and Regional Development (MoEPRD).

Milestones along the road, with clear expected results and a defined time frame

The main milestones for the pilot are:

- Preparation activities (described above);
- To Identify the existing and needed support schemes for participants of the platform;
- To make workshops, ideas, and other activities in order to create real projects;
- Move the product or service to the market – marketing activities, international exhibitions, finding partners abroad, clustering, etc.
- To emphasize the role of formal and informal education and to connect the educational system at the region level with the needs of economics

Cooperation mechanism (preparation activities) should be established until the year 2023 and the real products/services should be created and moved to the market until the year 2030. So it means that the LARS project can be as a kick-starter for these activities but after LARS project activities should be implemented on a permanent basis.

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

The main partners/stakeholders are the planning regions because they will be the drivers. The responsibility of MoEPRD is to give common guidelines and provide a starting point as well as monitor the implementation. Some workshops and brainstorming with the MoEPRD and planning regions should be carried out.

Other relevant stakeholders such as regional universities, companies, public organizations, and NGOs will be involved by planning regions in the next phase of the pilot.

The decisions will be made at the regional level as a common work of MoEPRD and planning regions. Decisions should result in a clear roadmap not only for overall activities (provided by the LARS project) but for activities for every planning region.

This roadmap below is provided for the LARS project. As the deadline for implementing the platform is the year 2023 and for the next steps – the year 2030, during the LARS project only the first steps (preparation activities) could be done:

Activity	**Expected results & Impact**	**Timeline**	**Responsible**
Making guidelines for establishing the coordination and communication mechanism for the platform	Clear guidelines for planning regions	July&August 2020	MoEPRD
Organizing workshop with the planning regions	Clear understanding among all planning regions	September 2020	MoEPRD and planning regions
Overview of the existing situation (1)	Defining the current needs of the region, identifying possible developments, identifying opportunities, scaling up the areas of smart specialisation (scoping) and their strategic development at the regional level	End of the year 2020	Planning regions and MoEPRD
Overview of the existing situation (2)	Identification of competences, needs, and objectives, identification of stakeholders (private sector, academic and research community, educational institutions, civil society groups, public administrations), involvement and division of responsibilities;	June 2021	Planning regions and MoEPRD

2.2.4. Lithuanian Institute of Agrarian Economics (LIAE)

Short description about the good practise identified as the match

Based on the previous results to assess good practices proposed by LARS project, the Västerbotten practice for the Lithuanian case in circular bio economy - Alanta Scool of Technology and Business was selected. From the interviews done in previous stages it was observed, that the greatest collaboration gaps in the field of the selected area of intervention for smart specialization development – circular bio economy (biogas production from manure and wastes), are in collaboration with governments, universities and NGOs. Accordingly, Västerbotten practice demonstrates good collaboration experiences regarding similar area of intervention, i.e. bio economy, and the gaps observed in Lithuania in developing bio economy as smart specialization.

Description of the status quo in the region and the problems to be solved with the translated good practise

Lithuania suffers from the passive role of government and NGOs in the selected area of intervention in circular bio-economy. According to the implemented research in previous project stages, the greatest issue in the field was to start collaborating among helixes in a very simple way – start talking together on the questions that cannot succeed when decisions are taken by a sole helix or only particular lobby group of stakeholders.

The driver, in this case, should be necessarily placed in government helix, which currently holds the highest power, urgency, and legitimacy by composing working groups on national and regional development strategies, which further are aligned into national strategies and its implementation mechanisms locally.

Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

Public authorities responsible for implementation of bio-economy strategy in Lithuania, want to find a solution how to boost bio-economy in Lithuania. The existing governance structure, however, is too static and strictly hierarchic. The existing hierarchy should be necessary to change into a more flexible collaborative network, in which representation of interests in the area of intervention would be fair and professional in terms of helixes stakeholders.

Västerbotten practice looks suitable by proposing good conditions for transnational learning of how to close the observed gaps in Lithuania, using their collaboration experiences, since their gaps are significantly smaller in the areas which are vibrant in the Lithuanian case. Västerbotten practice demonstrates the sound collaboration success, in a form of networking. Thus the form of organization, i.e., networking via various types of platforms

and others, in Lithuania are recognized as crucial success factors for closing the collaboration gaps for developing the Smart specialization in bio-economy. Västerbotten practice proposes, how their collaboration experiences help improve public policy in terms of regional strategies and make them work.

In most cases, the Lithuanian structures and bodies that are responsible for the field of bio-economy do not network, do not communicate, moreover – do not know or don't want to know each other for some subjective reasons. Just after a few first focus groups after LARS tasks, the positive direction regarding the will to collaborate was observed. The trust among helix stakeholders start increasing, the potential is high. After good practice transfer from the sending region(s), it is expected to make the collaboration through networking open, live and acting, and this would help to close the observed gaps in Lithuania.

Mapping of domains within and across topics and regions

Selected area of intervention of Västerbotten good practice is in the same area – bio-economy. Västerbotten practice is implemented in the forest sector, it holds the same ambitions as Lithuania in the circular bio-economy field (biogas from manure and waste). Main strategic plan of Lithuania linked to innovation (including innovations in agri-food sector) is the RIS3 strategy for Lithuania 2014–2020 (RIS3 strategy Lithuania, 2014).

One of six selected top-notch fields are "Energy and sustainable environment". One of the priorities of this field are at the focus of LARS project: "Energy and fuel production using biomass/waste and waste treatment, storage and disposal".

In the 2019 Smart Specialization Program was updated based on interim evaluation report of the implementation of the Smart Specialization Strategy for Lithuania. Instead of 6 broad fields and 20 priorities, there are 7 key priorities, one priority being energy and sustainable environment. Also "agro-innovation and food technology" as well as "novel production processes, materials and technologies" are relevant priorities for our selected scope.

Research, performed in previous LARS stages, issued that there was a lack of collaboration for biogas as part of bio-economy field development in Lithuania, especially from the government side. Focusing this concern, particular domains had been created throughout the LARS implementation activities by connecting the 'right people' from the 'right places' with sufficient power, urgency, and legitimacy to make change in selected field of intervention. Human resources are already organized into an informal network in the selected area of intervention to make change by good practice transfer. Sufficient trust had been built among stakeholders from all helixes and currently all key actors hold common interest in the field of bio-economy development. This forms favourable conditions for implementing the translated good practice.

Further, as far as other domains are concerned, it is worth mentioning that general focus of climate change in a form of the EU Green Deal fosters the general understanding on the importance to make progressive changes in all helixes.

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

The greatest opportunities for success to start to implement the activities are related to already identified strengths. Right people from the right places with sufficient power, urgency, and legitimacy to make change are already connected into an informal network in the selected area of intervention. Here exists sufficient trust among stakeholders from all helixes and all of them hold common interest in the field of bio-economy development. Good communication skills of good practice-transfer organizers in the receiving region will add to the success.

New goal is creation of network of public authorities (Ministry of Economy and Innovation of the Republic of Lithuania, Ministry of Agriculture of the Republic of Lithuania, Ministry of Energy of the Republic of Lithuania, Ministry of Environment of the Republic of Lithuania) to continue work on implementation of one of the RIS3 priority on bio-economy development in Lithuania.

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions

The key risks of failure to start implementing the proposed change model are mostly related to the external weaknesses and threats. The already observed in previous research and other political change processes passive and isolated role of government may cause unwillingness to change. At the same time, there might occur insufficient interest to get deeper into the good practice of receiving region, to understand it from the roots and to learn from it. Limited perceptual abilities to see the holistic picture of change and its benefits may disturb putting the proposed change model into practice. Among the key hindering factors unfavourable political processes - changes in human resources in Ministries (political-confidence posts after elections), which are already in the network with goodwill might be observed. There is also spectated big focus on lobby groups in the field of bio-economy development instead of the pure will to serve the public interest. All of these might result in rejection of the proposed change model from the government to include bio-economy-related changes into National and regional development strategies, programmes and action plans.

The listed obstacles might be overcome with the use of already created strengths, namely, the already existing informal network of bio-economy stakeholders, formed through LARS activities, gained expertise and skills in the field and people with excellence and big ambitions to make the change.

A roadmap, explaining how the region may move from status quo to the solution

Västerbotten good practice has provided successful road for boosting bio-economy in the region. This good practice also can help to close gaps identified for Lithuania on bio-economy between public authorities and private sector. As the process for boosting bio-economy activities has stopped between public authorities, new goal is creation of network of public authorities to continue work on implementation of one of the RIS3 priority on bio-economy development in Lithuania.

Lithuanian Institute of Agrarian Economics, based on project results, will provide recommendations for the Government of Lithuania how this process can be developed in Lithuania with focus to (1) new learning methods, (2) new working practices connecting the Quadruple helix, (3) individual learning and development of own competencies.

The following activities are planned to implement commitments:

1. Focus group meeting with project stakeholder (Ministry of Agriculture of the Republic of Lithuania) to identify (1) main challenges for closing gap between public and private institutions in Lithuania for bio-economy (biogas from manure); (2) discuss ideas and proposal for roadmap for boosting bio-economy in Lithuania.
2. Preparation of recommendations to the Government of Lithuania that would help to move from status quo to the solution for bio-economy in Lithuania with focus to 4 key areas:
    i. encouragement cooperation and new working practices/procedures connecting *all actors of the Quadruple helix* involved in the smart specialization process: private companies, academia, public authorities and NGOs.
    ii. Encouragement of *new learning methods* based on *international cooperation* and *good practices*.
    iii. Implementation of innovative *networking tools* that help the development of smart specialization.
    iv. *individual learning and development of own competencies*.

We do not need any special tools to start the process of change.

Recommendations can be starting point for change for updating working principles for one of the RIS3 priority on bio-economy development in Lithuania.

Lithuanian Institute of Agrarian Economics will be responsible for content of recommendation and advisory body for implementation of it.

Government of Lithuania will be responsible on continuation of the process to boost of bio-economy in Lithuania. Supporting institutions: Ministry of Economy and Innovation of the Republic of Lithuania, Ministry of Agriculture of the Republic of Lithuania, Ministry of Energy of the Republic of Lithuania, Ministry of Environment of the Republic of Lithuania.

Milestones along the road, with clear expected results and a defined time frame

Milestone 1: Focus group meeting; May – June 2020

Milestone 2: Preparation of recommendations; July – August 2020

Milestone 3: Submission of recommendation to the Government of Lithuania; September 2020

Milestone 4: Implementation of actions proposed in the recommendations; October 2020 – ongoing in 2021

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

Lithuanian Institute of Agrarian Economics will be responsible for content of recommendation and advisory body for implementation of it.

Government of Lithuania will be responsible on continuation of the process to boost of bio-economy in Lithuania. Supporting institutions: Ministry of Economy and Innovation of the Republic of Lithuania, Ministry of Agriculture of the Republic of Lithuania, Ministry of Energy of the Republic of Lithuania, Ministry of Environment of the Republic of Lithuania.

This table summarises activities, timelines and responsibilities:

Objectives	Activities	Timeline	Responsible
	Focus group meeting	May-June 2020	LIAE
	Preparation of recommendations	July-August 2020	LIAE
	Submission of recommendation to the Government of Lithuania	September 2020	LIAE
	Implementation of actions proposed in the recommendations	October 2020 – ongoing in 2021	Government of Lithuania and supporting institutions

2.2.5. Lithuanian Innovation Centre (LIC)

Short description about the good practise identified as the match

The good practice presented by Päijät-Häme region – Lahti Regional Development Company (LADEC) was selected as the relevant one for Panevėžys region. LADEC works as a one-stop-shop for companies that want to cooperate with other actors and need any kind of support: from funding to internationalization issues.

Description of the status quo in the region and the problems to be solved with the translated good practise

A lot of companies in Panevėžys region struggle to find an appropriate partner that would be reliable and help them with a specific problem by offering some kind of R&D services. On the other hand, regional R&D institutions have a brilliant know-how in various fields, but they are unaware of how they can offer it as a product for SMEs and other actors. This is becoming a big challenge for the regional value chain as connections between two most important helixes is pretty weak. Thus, the region really needs a connecting part that would work as an intermediary between these helixes and would disseminate information about fields of expertise of R&D centre and demands from the SMEs. Panevėžys region lacks a one-stop-shop for business and other innovation actors that could coordinate all relevant actors and projects in the region.

Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

There is a significant need in Panevėžys region to establish a new regional development agency, that would have enough expertise and resources two establish new ties between different regional actors and help to create an entrepreneurial and cooperative culture among all innovation actors. We want to learn from Päijät-Häme region about the main functions of LADEC and its organizational structure in order to secure a successful transfer of selected good practice. Panevėžys city is rich with talent, engineering competences, scientific community that is very strongly focused on robotics and mechatronics – skills that can be applied locally, regionally and internationally. Panevėžys region has one missing part – a coordinating organization

One of the most important factors that could lead to success of transferring this good practice, is the support and willingness of Panevėžys council which has an ambition to become a regional hotspot of industry 4.0.

Mapping of domains within and across topics and regions

Panevėžys region has selected its own priority area – the advanced manufacturing and robotics – where they identified a competitive advantage, thus they want to concentrate their resources, policy, entrepreneurial and innovation capacity on this area. The region has developed its own Industry 4.0 strategy. However, the region lacks the central actor that would ensure the coordinated implementation of the measures required for the development of Industry 4.0 ecosystem.

The advantage of Panevėžys region is that it has a long-time tradition in engineering. Thus, it has a know-how that could be applied in new high-tech companies that is and would be established in this region. In addition to this, the educational and research institutions operating in the Panevėžys region have knowledge that is necessary for the development of Industry 4.0. Most of the regional companies also have a willingness to cooperate on R&D projects, as for them the process of automation and digitization is or will be extremely important in the period of 3-5 years.

As a result, there is a high potential to encourage the collaboration between helices and facilitate the development of regional smart specialization strategy, by establishing a coordinating agency.

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

The success of Panevėžys region advanced manufacturing sector will depend on their cooperation, dedication, and willingness to take advantage of all those opportunities that are currently open for them. Therefore, regional development agency would be an essential part in the ecosystem that could be a facilitator of new initiatives and collaboration.

A vision: A competitive Industrial 4.0 ecosystem of Panevėžys region has been developed, creating high added value and based on close cooperation between business, education, science and the public sector.

The main goal that we would want to achieve is to improve conditions for business creation and development in Panevėžys region. This could be achieved by establishing a regional development agency and which have a budget, competences and clear functions how it could support local businesses.

The main objectives that a regional development agency will have are:

1. To promote the implementation, development and commercialization of advanced technological solutions;
2. Carry out research and analysis of the business environment;
3. To develop a system of retraining and professional development of specialists that meets the needs of Industry 4.0;
4. Create favourable conditions for attracting specialists and retaining them;
5. Develop a start-up-friendly ecosystem.

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions

Currently, one of the main challenges is finding the way how to structure a governance system in order to distribute the leadership in regional development agency, that it won't be too much dependent on one source of income – Panevėžys municipality. Further there is a risk inn a small region that a change of staff, e.g. by retirement, will have a negative impact of the implementation process

In addition, the mindset of business owners could occur as another significant challenge, as for a long period of time the main competitive advantage for Lithuanian manufacturing sector was a lower price based on low costs of labour force. Therefore, we would need to put additional effort to change a mindset of regional business owners by explaining how R&D based business model could be more sustainable and profitable.

A roadmap, explaining how the region may move from status quo to the solution

In order to implement the good practice – establishing a regional development agency, it is very important to have a clear division of roles and responsibilities between stakeholders. A suggestion was to have a three-tier model consisting of:

1. Decision making and formatting tier
2. Coordination tier of decision management
3. Executive tier of decision implementation

That will allow to effectively manage and implement the regional strategy. The regional development agency will be responsible for the coordination of decisions made by strategic advisory board.

The agency coordinating the development of Industry 4.0 in the region will be a non-profit institution. It will create a reliable network of multifaceted cooperation, knowledge sharing, mentoring services. All parties and stakeholders interested in the development of Industry 4.0 in Panevėžys region will be able to become a port of this new network. The Agency's activities will be based on the strategic decisions formulated by the Strategic Advisory Board, the implementation of which will be coordinated by the Agency.

It was decided that regional development agency will replace the Panevėžys tourism information centre and have a broad range of activities mainly related to the improvement of conditions for business in Panevėžys region. Thus, first of all it is important to restructure the whole organization: hire new employees, set new objectives, task and confirm new budget for the implementation of each task.

The establishment of regional development agency must be approved by Panevėžys municipality that will be the main shareholder. There will be a new governance structure in Panevėžys region and the regional development agency will have its own budget.

The whole process will be initiated by Panevėžys municipality which with the support of experts have to decide on the activities of Regional development agency and the budget assigned to those activities. The realisation plan with concrete milestones and actions should be confirmed by the strategic advisory board.

Milestones along the road, with clear expected results and a defined time frame

Specific measures and action plans are needed to implement the good practice. Earlier we have identified main objectives that Panevėžys region would like to achieve by establishing regional development agency. Each of those objectives have concrete assigned activities that would help to achieve the commitments. All activities that are indicated below are planned to be implemented until 2023:

Objectives	**Activities**	**Expected results**	**Responsible**
1. To promote the implementation, development and commercialization of advanced technological solutions	1.1. create and develop a platform for companies to share good practices with each other or with other partners and take joint initiatives in Industry 4.0. 1.2. to provide business with information on the opportunities and benefits of advanced technological solutions 1.3. Provide business with information on national and international funding sources for technology deployment and development. 1.4. To increase the number of companies that have performed technological audits. 1.5. To optimize the process of granting tax benefits for support to promote cooperation between science and business.	Increased number of: 1. new R&D initiatives and proposals 2. business counselling sessions. 3. technology audits	Regional development agency; Lithuanian innovation centre; Agency of science, innovation and technology; Lithuanian robotics association; Mechatroniics centre.
2. Carry out research and analysis of the business environment;	2.1. Carry out regular researches to assess the technological progress of companies, the needs for the implementation and development of advanced technologies. 2.2. Collect, store and provide information about Industry 4.0 resources and services in Panevėžys region.	1. Methodology to carry out researches; 2. Increased number of analysis made. 3. Established database of regional business information.	Regional development agency, Panevėžys Chamber of Commerce, Industry and Crafts, Enterprise Lithuania.
3. To develop a system of retraining and professional development of specialists that meets the needs of Industry 4.0;	2.1. To facilitate a professional development program for employees of industrial enterprises. 2.2. Facilitate a series of seminars on Industry 4.0 in order to raise the professional qualification of industrial managers.	Increased number of: 1. trained or reskilled employees. 2. trained or reskilled managers.	Regional development agency; Panevėžys professional training centre; Kaunas University of Technology; Association of Panevėžys region industrialists; Robotics academy;
4. Create favourable conditions for attracting specialists and retaining them;	4.1. Create and implement a system of incentives for potential employees of companies in the region.	1. Increased number of employees that used support initiatives.	Panevėžys municipality; Invest Lithuania; Enterprise Lithuania.
5. Develop a start-up-friendly ecosystem.	5.1. To perform a competitive analysis of the activities of the science and technology park and to refine the niche in the market for services for start-ups	1. A new package of support instruments for start-ups. 2. Increased number of new start-ups	Regional development agency; Lithuanian innovation Centre, Start-up Lithuania, Enterprise Lithuania, Robotics Academy, Kaunas University of

	5.2. To create a package of measures to increase the efficiency of the technology park. 5.3. Facilitate digital business consultations, practical mentoring sessions, business education training, hackatons, networking and other events relevant to start-ups.	established in the region 3. Increased number of counselling sessions and events for start-ups and young entrepreneurs.	Technology, Panevėžys science and Technology park.

In general, Panevėžys regional development agency is the main institution that will be responsible for the development and establishment of all these new activities and structures. After this organization will be established and the new executive will be hired, it is going to coordinate, communicate and involve every new stakeholder that could help to implement all those activities. Meanwhile, Panevėžys city municipality together with the strategic advisory board will be responsible for monitoring the progress of regional development agency, also these two organizations will decide which activities are worth to continue and what kind of new services might be provided by the regional development agency or stakeholders that will be involved into the network.

2.2.6. Ostrobothnia

Short description about the good practise identified as the match

Forregion from Oppland was recognised as most relevant good practise. Forregion is a project based on the idea that public organisations provide funding for knowledge brokers, who visit SMEs and help them in getting into contact with useful research actors. They also provide some funding for the first mutual development project, and thus allow companies to experiment collaboration in R&D.

Description of the status quo in the region and the problems to be solved with the translated good practise

Status quo relates to the SMEs and how they are unable to participate on the mutual development activities due to time limits. Similar exercises have demonstrated that these previous activities have lacked the commitment which the knowledge brokers in Forregion seem to have. The main difference is the willingness and activity of the knowledge brokers to enter the SMEs and invite themselves in; in order to figure out how they could help. Previous innovation agents seem to have been more passive as focus has been more on providing information on funding opportunities etc. This is the issue which the pilot is trying to solve.

Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

One of the recognised gaps was the collaboration between SMEs and universities, as well as collaboration between public organisations and universities/companies. There is a need to reach out to SMEs and to the wider public and show that universities provide relevant knowledge and skills for SMEs.

Factors leading to potential success are based on the already active collaboration between Quadruple Helix actors in the region, as well as many initiatives to open the universities through platforms etc. The aim is to transform the region Ostrobothnia into more open innovation community and now effort is needed to get SMEs to join on as well.

Mapping of domains within and across topics and regions

Ostrobothnian smart specialisation has 4 focus areas: Bio-economy, Energy technology, Digitalisation and Automation solutions. As interviews have been conducted in energy technology field, one might say that enhancing collaboration in the field will benefit the whole region, as many companies are also working on automation or digitalisation solutions. Besides the thematic focus, enhancement of collaboration should have positive effect on the

regional collaboration networks and most likely will enhance the knowledge flows between universities and companies, which benefits the whole region.

Existing collaboration networks and initiatives to enhance innovation activities will support the implementation. As an example, the global company Wärtsilä will open its own smart technology campus to enhance collaboration in the region and beyond. This sort of open mentality will transform the region and more and more actors think how to get involved in the smart technology hub of Wärtsilä.

Forregion is based on wood building cluster, but the core principle should be transferrable to the region.

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

Unfortunately, the region does not have similar resources as Forregion has, but the central idea behind it, the active participation can be achieved through volunteering.

So, the scenario is based on this; University of Vaasa will organize a “research month”, during which researchers are encouraged to meet with SMEs, and also other organisations in order to learn from practical challenges and help in solving them. The idea is to encourage researchers themselves to take activity and approach the organisations in order to see how they function and to form new contacts. This will also help in bringing the university research closer; in a more active way.

Expected results are some study visits between university researchers and regional organisations, as well as public visibility for the initiative and thus for university research. It is difficult to evaluate how many researchers are interested to participate, but regardless of this, it is an opening for more active take on R&D collaboration in the region.

The vision is “Enabling different types of companies and entrepreneurs to use science in their development activities”. This suggestion will be discussed with university stakeholders.

Objectives are:

1) Highlight active attitude for developing the region
2) Raise awareness of the research being done in the region
3) Raise awareness of the talents which is available in the region
4) Discover solutions to practical challenges
5) Allow opportunity for networking
6) Enhance innovation capabilities of companies, especially SMEs

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions

One key challenge will be how to inspire researchers to take up this pilot and make it a big event. It might also be a challenge to spread knowledge of the event/pilot to regional actors, so that they might benefit from the opportunity.

A roadmap, explaining how the region may move from status quo to the solution

Commitment from university leadership, especially platform leaders, directors of doctoral programmes and staff from communication are required. First discussion with platform leaders will be held in 27.5. At the next meeting of leaders of doctoral programs 8th June, the initiative will be introduced.

The concrete steps are as follows:

1. Contact all platform leaders and leaders of doctoral programs; inform the leadership of University of Vaasa; as well as all development agencies so that they can advertise the opportunity
2. after their comments/suggestions set a date for the research exchange
3. create guidelines for knowledge brokers; what will their report be like etc.
4. start advertisement and recruitment of doctoral students as well as companies and other organisations
5. encourage doctoral students to actively contact and make matches with the companies and organisations they are interested with
    - this interest might be very general; perhaps the knowledge broker is just wanting to know how the company/organization works and what it does
6. train the knowledge brokers about funding opportunities, relevant activities which are done in the university etc. Idea is that the knowledge broker knows a lot already, when entering the company or organization. In this the new university innovation expert might help as well.
7. Wait for results and reports
    - both companies/organisations and researchers themselves are asked about the experience and whether or not they are eager to continue the cooperation or would recommend it to others etc.
8. Final report

The process of change will start with a meeting with the platform leaders, which is followed by planning of the timetable and communication strategy, as well as explanation messages to university leadership and media. There may also be events in autumn for sharing the idea.

Milestones along the road, with clear expected results and a defined time frame

The milestones are:

1) Event will be noticed in the media

2) Researchers will have successful and thought-provoking study visits
3) Some SMEs get help for their innovation strategies/activities
4) New contacts will be formed

The time frame is:

1) Plans for implementation should be done before august 2020.
2) Marketing should start in November/December in 2020
3) Suggestions for study visits and reporting of the exchanges should be done in April 2021 at the latest.
4) May 2021 will be the time to implement the pilot.
5) Final reporting of the pilot in august 2021.

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

Main partner is University of Vaasa and they are engaged throughout the process, by first engaging the platform leaders for their ideas and after that the doctoral programme leaders and possibly other university management; as well as communications team.

The main method of engagement is mutual online or live meetings in order to come up with plans for the implementation and different practices.

University platforms and UVA team from LARS, will be engaged by meetings and mutual planning activities.

UVA Team and a new innovation expert by the university of Vaasa, who will be recruited by the university will be responsible for the roadmap and the activities. UVA Team will also monitor the implementation with the help from Vaasa university.

The following table gives an overview of the roadmap for implementing the pilot:

Objectives	**Activities**	**Process**	**Timeline**	**Responsible**	**Expected results**
1) Have an active take for developing the region	1. Contact all platform leaders and heads of doctoral programs; inform the leadership of University of Vaasa; as well as all development agencies so that they can advertise the opportunity	Preparation	May-June 2020	University management, UVA Team	1) Event will be noticed in the media
2) Raise awareness of the research being done	2. after their comments/suggestions set a date for the research exchange	Planning	May-June 2020	UVA Team	2) Researchers will have study visits

in the region							
3) Raise awareness of the talent which is available in the region		3. create guidelines for knowledge brokers; what will their report be like etc.		August 2020	UVA Team		3) Some SMEs get help
		4. start advertisement and recruitment of phds as well as companies and other organisations	Preparing for pilot	November 2020	University communi-cations, UVA Team, innovation expert		
4) Discover solutions to practical challenges		5. encourage phd students to actively contact and made matches with the companies and organisations they are interested with		November 2020-april 2021	UVA Team, innovation expert		4) New contacts will be formed
5) Allow opportunity for networking		6. train the knowledge brokers about funding opportunities, relevant activities which are done in the university etc.	Implemen-tation	January-April 2021	UVA Team, innovation expert		5) event is considered useful
		7. Wait for results and reports		May-June 2021	UVA Team		
		8. Final report	Reporting	August 2021	UVA Team		

2.2.7. Päijät-Häme

Short description about the good practise identified as the match

Vaasa university has been successful in creating an interesting cooperation model, open innovation platforms, between university, companies, public authorities and NGO's. This model was identified as the most relevant match for our region.

Innovation and Entrepreneurship InnoLab is a phenomenon-based, multidisciplinary open research platform with focus on open and user innovation, entrepreneurship, and public sector innovation and renewal.

Vaasa Energy Business Innovation Centre or VEBIC is a research and innovation platform hosted by the University of Vaasa. It brings together expertise from the research and business communities responding to the global needs of efficient energy production, energy business and sustainable societal development.

Description of the status quo in the region and the problems to be solved with the translated good practise

Our region also needs new, systematic ways to bring companies and researchers together. That is why we chose Vaasa Open innovation platform as a good practise to apply to our region. The problem is that companies that benefit from the university cooperation are often large, leading companies. Smaller companies do not feel that they benefit as much. Our region needs models to increase companies' awareness about university services. The understanding of universities and public actors must also be increased in relation to the needs of companies.

Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

Open university platform could bridge gaps that we have in cooperation between SME's and universities. Model could give us ideas of what kind of activities we need to lower boundaries for companies, NGOs, authorities and civil society to get in contact with universities (open-door policy). Stakeholders in Päijät-Häme hopes that LUT university could take a more proactive role in regional development too.

Factors that can lead to success are:

- **Stronger and coordinated cooperation** between different regional universities, universities of applied sciences and vocational education and regional developers
- Creating **common clear brand** of what services universities are offering to companies
- **Increased understanding** about companies needs

Mapping of domains within and across topics and regions

Open innovation platforms fit good to our regional smart specialisation strategy. Model can give several good examples for developing university – company cooperation.

Päijät-Häme has three Smart Specialisation spearheads; Circular Economy, Design and Spots and Events. Each spearhead has / will have a roadmap, that will be the tool to guide and give goals for development actions and 4(5) helix cooperation.

All three spearheads have expertise, knowledge and competence regionally in university and company level. Specially, circular economy is based long term development actions and cleantech expertise in companies.

Design is based in long history in education, research and university-company cooperation in our region. Combination of Design and circular economy creates great opportunities in green and sustainable business. Lahti as a centre of Päijät-Häme region, is the European Green Capital in year 2021. This status helps region to keep its forerunner status in the future. European green capital year will be perfect "platform" to LARS pilot in practise.

Grain cluster and grain industry is very innovative business in our region. Innovations from oat and other grain side streams have been successful. Bigger cluster companies have been done close cooperation with universities and can be good example for SMEs.

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

Opportunities for implementing this practise will be good. Aims of the LARS project and Vaasa Open Innovation Platforms have been all interesting for our region's stakeholders widely.

Expected results are:

- ✓ Actors belonging in regional innovation system will be recognisable and their role are clear to other actors and especially to companies.
- ✓ The key players in the process speak the same language and the aims for the development of the region are the same and clear
- ✓ There will be more arenas and events for meeting others (research – companies), innovate and create common understanding for future directions

The vision/goal is that Päijät-Häme open innovation platform combines research and companies to create green business.

Research and expertise will have faces. SME's must have easy access to use universities expertise and student work in their development processes.

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions:

- Platform is too university led – can companies really get value from platforms?
- Business environment in PH are quite different than Ostrobothnia
- Universities are competing same funding resources and students - will the cooperation between universities succeed?
- Lack of interest to go international
- Are the regional development goals same as we think than what our politicians think?
- Lack of regional competence leading the change
- Universities doesn't offer the expertise that companies need
- If the results of platform action/pilot cannot be measured, it will not bring enough value to the development

The business environment in Päijät-Häme is quite different than in Vaasa region. Further the Corona situation may lead to the need, that we must give priority to other development actions than developing innovation processes. It is also possible that we can't get companies to join testing platform.

A roadmap, explaining how the region may move from status quo to the solution

The priority commitments to realise the vision are the following:

- Action plan is done in LARS project
- Collecting existing regional practices in company - university cooperation
- Collecting existing university platforms, services and events for combining universities and companies
- Looking for situations where universities should engage in more or new forms of collaboration
- Pilot – Launching thematic Päijät-Häme open innovation platform will in in Green Capital year 2021. Theme is green, sustainable business.

Universities, Regional Development company and Regional council have already agreed about cooperation to create model and brand that helps companies get contact to universities.

Lahti University Campus has taking leading role in collecting information from universities and from business developers. The University Campus interacts with the wider community and promotes regional development.

The Lahti University Campus specialises in research and development that support the growth and progress of urban environments and related business and industry. The themes shared by the universities in Lahti include the environment and sustainability as well as entrepreneurship.

Development projects (LARS – RC Päijät-Häme, TwinInno- LAB University, Gradukiihdyttämö – Lahti University Campus) joined forces and jointly made a survey to companies on the needs of cooperation, especially related to the accessibility of universities.

Roles and responsibilities for starting the process of change are the following

Action plan is done in LARS project – Päijät-Hämeen liitto

- Collecting existing regional practices in company - university cooperation – Lahti University Campus
- Collecting existing university platforms, services for companies and events for combining universities and companies – Universities, business developers and RC Päijät-Häme
- Looking for situations where universities should engage in more or new forms of collaboration - universities
- Pilot – Launching thematic Päijät-Häme open innovation platform will in in Green Capital year 2021. Theme is green, sustainable business. – All

Milestones along the road, with clear expected results and a defined time frame

May 2020

Action plan

June – September 2020

Collecting existing models and needs of the companies (how lower boundaries), defining roles of each actor in action plan

September – Dec 2020

Creating universities common brand of Päijät-Häme open innovation platform (target group SME's).

2021

Launching in Lahti Green Capital year 2021 – Goal: Make green business in Lahti – with the help of Green research.

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

The main partners and their engagement are:

- All universities – creating common message and brand about how universities can help companies, communication
- Lahti City - communication
- Häme Chamber of Commerce – communication and participating companies
- Regional development company LADEC - communication and participating companies

The stakeholders in the implementation process are:

- Lahti University Campus – collecting and sharing information, communication activities
- LAB University of Applied Sciences – collecting company services - branding
- LUT University – collecting company services - branding
- Regional Development Company Ladec – collecting services - branding
- Päijät-Häme Regional Council – action plan – monitoring, branding (linking pilot objectives to SS strategy objectives)
- Lahti City – boosting university cooperation, offering thematic arenas in Green Capital year 2021

The responsible partner for the roadmap and the activities will be RC Päijät-Häme, Lahti University Campus, LAB University of applied sciences. The Regional Council will be responsible for the monitoring. The implementation will be part of actions that will be included in our Smart Specialisation strategy.

The following table gives an overview of the roadmap for implementing the pilot:

Objectives	**Activities**	**Expected results**	**Timeline**	**Responsible**
Action Plan	Writing action plan and presentations	Action plan Roles of actors	May 2020	RCPH
Collecting information	Each stakeholder collects their services to companies	up-to-date information on the services of various actors for businesses	June – Sept 2020	All
Branding	Creating common message and brand about company services	Clear message targeted specially for SME	Sept – Dec. 2020	All
New events	Thematic events (Energy, green deal for Comp. Green capital)	New thematic arenas where companies and research can meet	Sept. - Dec. 2020	
Launching Päijät-Häme open innovation platform			2-5/2021	Universities, Lahti City, RCPH, Ladec

2.2.8. Region Västerbotten

Short description about the good practise identified as the match

According to the gaps between companies and Universities in Västerbotten, we fund the platform-based approach from the University of Vaasa as of special interest.

The Ostrobothnia case was considered a priority as the method bridges the biggest gaps for Västerbotten, can be transformed to the region, and that it strengthens the long-term continuity of collaboration between companies and universities and was considered relevant to strengthen collaboration in specific S3 areas. Västerbotten's process to revise the region's smart specialization strategy was also considered as a relevant time to test the Ostrobothnia method.

This kind of platform as a door opener to the universities, can be a good supplement to develop our Smart Specialisation Strategy as well as our clusters such as Swedish regions for a bio-economy. Swedish regions for a bio-economy is the good practice contribution from Västerbotten to the LARS-project.

Description of the status quo in the region and the problems to be solved with the translated good practise

There are large gaps between expectations and experiences between universities and especially the companies and in some degree to the public organisations.

- The SMEs in Västerbotten does not invest in R&D and innovation and not in capacity building, due to long distances between the actors
- The universities lack of knowledge about the SME:s needs
- There is a need for a long-term cooperation (from project based to strategic innovation management)
- Need to strengthen the ties to our ongoing processes, such as an update of our Smart Specialisation Strategy, the Regional Forest strategy and the Regional Development Strategy

Explanation of the factors of that can lead to success and help the region to achieve higher regional connectivity and innovation potential

- Strengthen the co-operation between the universities and the companies, but also expand and strengthen cooperation within the whole Quadruple helix
- Increased knowledge about the real needs for the actors
- Create an arena for innovation actors to meet
- Build capacity for strategic innovations
- Strengthen the capacity for cooperation at EU-level, e.g. with the H2020

Ostrobothnia shows how open doors policy in Universities could create new networking opportunities for all innovation actors and spark new project ideas in the specific fields. By considering these learning Västerbotten sees that we could establish more active relations between research institutions and entrepreneurs to initiate collaboration among different helixes; new discoveries can often be found through the combination of different mind-sets and disciplines (cross-sectoral approach), lower the organisational barriers and open doors for the wider society. The platforms allow for implementing the open-science concept, a rising trend in the global research field.

Mapping of domains within and across topics and regions

The good practise from Ostrobothnia fits very well, it says that meeting places / regional nodes should strengthen focus areas within smart Specialization and that long-term collaboration between key players should be strengthened.

Västerbotten smart specialization strategy is particularly suited to the platform thinking about Life Science, Digitization, Sustainable Energy and Environmental Technology and Experience Industries.

As the project has mainly looked at bio-economy, we believe that the thinking with the platform and the strengthened collaboration will benefit the entire region and increase knowledge between universities, the public sector and companies.

Processes that will help to implement the best practise are the fact that the regional planning strategy and S3 are in process and in addition to this we are part of a regional innovation partnership together with the four northernmost regions in Sweden.

Other relevant players that will be useful and necessary to involve:

- There are three universities in the region and a co-operation between them would be very interesting, there is an existing network for the arctic universities already
- Actors such as Science Hubs, innovation facilitators and clusters within the defined areas/sectors

Mapping of future opportunities - goals and roadmaps/ A vision of the solution

In order to succeed, we need:

- Partnerships across sectors and helixes
- Knowledge sharing and better understanding of all sectors need for innovation
- Better Implementation ability
- Better Knowledge sharing
- Better long-term cooperation with other actors
- Internationalisation and better cooperation with actors and processes at the EU-level

Good examples of collaboration similar to the Vaasa platform already exist today, but to strengthen collaboration, Umeå University and the Västerbotten Region have entered into a

strategic partnership in 2019. Together we plan an event where researchers and students and the business community on why we have a partnership and what opportunities it brings with it.

The Västerbotten region has developed a number of current challenges in the region that will be discussed with the university's researchers. The expected result will be that new collaborations to meet these challenges will be formed and be part of the development of the Regional Development Strategy and the innovation strategy.

The vision is that companies in Västerbotten should invest more in research and innovation and strengthen the cooperation between key actors to develop our innovation potential.

The vision and goal must be established trough the planning strategy process in cooperation with important stakeholders.

Key challenges - the hinders that can lead to failure of implementing this good practice in other regions

One of the challenges is that the universities involved in this project operate at a national and international level. It can be challenging to get them involved in regional priorities, especially when there are different priorities between the regions. In addition to our own strategies, we must also adapt to new initiatives and strategies in other regions and to the national level.

Other challenges, identified in previous analysis, can be:

- Engaged organisations have no high power or legitimacy
- It is possible that platforms will fail, if collaboration culture is not strong enough
- SMEs can’t be motivated; the more dominant companies will influence the direction so that smaller companies will be left out
- Different ambition and needs; While the universities are focusing on the desire for large international projects the companies’ needs are often practically directed towards concrete actions for further development and innovation.
- Expectations of the platform are too ambitious in the beginning and hence less understanding for an “open process”
- Stakeholders find the process regarding regional plans of less relevance

A roadmap, explaining how the region may move from status quo to the solution

The region has the regional development responsibility where innovation development is a part. RV is developing a new revised S3 strategy that will prioritize important focus areas for the region that have a large bearing on the regional actors. Through the new partnership between the University and RV, we can focus on common needs to strengthen the regional development where the platform method can be discussed and then realized.

This requires mostly commitment from the regional developer actors together with the university leadership, especially platform leaders. First discussion with University will be held in September.

Concrete steps are as follows:

1. Contact the university of Umeå though the partnership - inform the leadership for the University of the S3 strategy process and the need for a better cooperation between actors through a platform thinking
2. After their comments/suggestions set a date for an exchange
3. Create challenges to address with a stronger innovation focus with the University
4. Start advertisement and recruitment of doctoral students as well as companies and other organisations
5. Organise a partnership day in November 2020 to address challenges and opportunities
6. Final report on conclusions that can be feed in to the innovation strategy

The process of change will start alongside the process of the Regional innovation strategy in sept/oct 2020. No political decisions or changes in the governance structure are needed in order to start the process.

Milestones along the road, with clear expected results and a defined time frame

Milestones for the event:

1) Event will generate knowledge of the challenges

2) Researchers will have successful and thought-provoking study visits

3) Some SMEs get help for their innovation strategies/activities

4) New contacts will be formed

Milestones for the innovation process:

Milestone 1 December 2020

Adoption of the Regional Planning Strategy. This strategy sets the priorities for the next 10 years and points out the priority areas for regional development. The basis for the plan is a precondition for an interdisciplinary approach and participation, based on the vision that Västerbotten should be a place inclusive, attractive and sustainable region

Milestone 2: September 2021

Prepare and adopt a Regional plan for innovation, value creation and expertise. The plan will be worked out in close cooperation with the different stakeholders and representatives from the different helixes. This work is important for the identification of the challenges and relevant instruments. The process will also mobilize the stakeholders and anchoring the work that must be done in implementing the action plan.

Milestone 3: December 2021

Adoption and implementation of the action plan. This plan must include a clear definition of responsibility added to the various stakeholders. Establishing the platform-based dialogue between the universities and the companies will hopefully be one of the actions.

Milestone 4: August 2022

Establishing the platform for cooperation between universities and companies. A dedicated resource group will be appointed to this end.

Plan for the organisation of the partners (governance, responsibilities) expecting to follow the roadmap

The main partners/stakeholders that expected to follow the roadmap are:

- The County Council – adopt the plans that forms the basis for the implementation
- All Universities – Responsible for the platforms
- Cluster – Represents the companies
- Innovation companies and Competence brokers

Region Västerbotten and the university will be responsible for the establishment of the platform. The region will be responsible for the roadmap and activities. The implementation of the pilot will be part of actions that will be included our Smart Specialisation strategy. The Regional Council will be responsible for the monitoring.

As far as decisions will be made the first decisions are political adoptions of strategic plans and actions carried out in close cooperation with the stakeholder. Then, the leaders at the university must adopt the establishment of the platform as a part of their strategy.

The following table gives an overview of the roadmap for implementing the pilot:

Objectives	Activities	Expected results	Timeline	Responsible
Analyses	Regional planning strategy	Knowledge base Anchoring status	December 2020	Regional political level
Priorities	Regional innovation strategy	Mobilizing Definition Prioritisation	Autumn 2021	Regional political level
Implementation	Action plan on value creation	Implementation Support system	Autumn 2022	Regional political level/ R&D sector
Establishment	Resource group	Platform established	Winter 2022	University

3. Output 6.2: Pilot implementation and stakeholder involvement

3.1. Guidelines

Work package 6.2 is entitled “Pilot implementation and stakeholder involvement. The plans for implementation described in WP 6.1 are here presented in terms of outputs and outcomes. What has been done, what are the results and the lessons learned. The project application states that the chosen pilot should find its place in receiving region, develop links to other parts of the system, and make itself useful in the new context; it might mean institutional change or emergence of something new.

As discussed before, implementation of best practice, however well “translated”, is not an easy task and a full implementation cannot be the question here. The time span is also too short. What is asked for in this chapter of the report the processes that might have started, the new perspectives and the lessons learnt and how these will be visible. What has been done to facilitate and encourage this and what has been possible to see so far in terms of outcomes, new ideas and actions to discuss and link to the existing networks and processes.

The aspiration is that the efforts made will serve as an inspiration and fresh impetus to the region in the continuous development of smart specialization work, adding also an interregional approach to the strategies.

These questions are to be answered in the report:

1) Please describe the organizational part of the focus group.
   When did it occur? How many stakeholders were there? What did they represent?
2) What actions were taken to inspire the implementation of the plan in your region?
3) Describe how the plan for implementing was planned - what actions were taken to commit and to inspire the public administration.
4) Were there any cases of negative surprises in any of these actions and steps? Please describe?
5) What was the outcome and the impact? Did the change occur immediately, or can it be seen that we have started a process and if that is the case how can this claim be justified
6) What is the long-term goal for implementing the pilot
7) What have you learnt from the process of implementation and can this be compared with previous experiences?
8) Rate how the pilot has improved your skills/knowledge how to implement best practice from other regions:

	Neutral	Higher	Comment
Organization’s own innovations skills to supported development of changes			
Stakeholder involvement			
Political knowledge and involvement for S3 and interregional innovation			
Contributed to better analytical capacity or know-how			
Mobilized the political and stakeholder engagement			

9) Conclusions and the reflections on the whole process

3.2. Results from partners

In the following each partner's presentation is briefly summarized.

3.2.1. Hamburg

Description of the focus group meeting: organisation, time, representation

Due to the COVID-19 pandemic, we have developed an online stakeholder survey to create interest among stakeholders, identify their motivations and find a moderator for the CE Forum Hamburg. The survey ran from 13.09.2020 until 27.09.2020 and gathered 16 responses. 4 of the companies answering the survey (25%) have between 10 and 49 employees. Only 1 respondent had less than 10 employees. 3 respondents had between 50 and 250 employees, 3 had more than 250.

8 respondents (50%) feel they are well informed on the topic circular economy for electronic devices, while 5 (31,25%) answered that they do not.

To the question "in which areas would you like to see more cooperation?", the answers were as follows: cooperation with companies (5), cooperation with public institutions (4), cooperation with universities (3), cooperation with associations (6),

To the question "does Hamburg need a strategy for the circular economy in the city?", the answers were: yes (9), no (1), I cannot answer (1) and "other" (2).

When asked what the tasks of a forum to contribute to the circular economy in Hamburg should be (multiple answers were possible), the answers were: improving cooperation (10), exchange of information (9), initiation of cooperation (9), development of a strategy for recycling management (8), identification of business models (5), and "other" (1).

When asked "is there anything else you consider important on the subject of recycling management for electronic appliances?", we have received some interesting answers:

- Product design: the exclusive use of recyclable materials, the identification of the individual parts (numbers, code) and the easy disassembly of the electrical appliance.
- Strengthening information to commercial and private end users about the importance of returning old equipment.
- Reuse and product returns. Companies should only be able to choose the "ways" of reuse under clearly defined guidelines.
- Leasing instead of selling electrical appliances.
- The take-back by the manufacturers, who will thereby better eco-design their products.
- The promotion of any change that provides economic incentives for the ecological sustainability of electrical appliances.

Those answers were taken into account when planning for the stakeholder workshop. Topics such as reuse and product design were highlighted, and many mentioned legal standards and regulations as important drivers of recycling management of electronic devices.

Actions taken to inspire the implementation in the region

We have engaged with the European School of Sustainability Science and Research as well as Ernst and Young to organize the event "Hamburg Sustainability Session #2: Towards a Circular Economy". The stakeholder workshop was held online in English on 05.11.2020.

In the event, three keynote speakers provided diverse perspectives on progress of the Circular Economy, discussing how the EU's Circular Economy strategy is reflected in distinctive approaches, research activities and inspiring corporate practices.

Some highlights from the presentations were:

- the Green Deal as a lever towards a Circular Economy
- the initiative for a digital product passport.
- bioplastics in food packaging,
- a smart green transition through Urban Industrial Symbiosis.

107 participants subscribed to join the event, mostly from public administration, universities and companies. This event attempted motivate cooperation of companies with the other actors of the innovation system. The most important factor of success in Hamburg case would be a common goal.

The goal of the workshop was to support discussion and exchange of experience between participants, informing and creating a common vision for CE in Hamburg. Stakeholders became acquainted with the importance of the Circular Economy in current EU strategies. The intention behind the event was informing CE stakeholders and motivating them to echo the EU vision locally. We hope that stakeholders which were present in the event decide to learn more about CE.

Actions taken to commit and to inspire the public administration

We have elaborated a roadmap for the creation of the Circular Economy Forum Hamburg, which includes the organization of Multiplier Workshops between October 2020 and January 2021 to inform policymakers and the public about CE. The objective is obtaining an official mandate for establishment of CE forum and organising a steering committee. However, this action led to no official commitment.

In addition, we have engaged HAW Hamburg's network, advertising EU Green Deal calls and trying to gather stakeholders (universities, companies and public administration) to cooperate. We have identified specific calls within European Union's Green Deal as an opportunity for stakeholders to gather and submit proposals together. We also identified and reached out to partners to develop joint activities and establish relationships.

Negative surprises in these steps

There is still no official commitment to the Roadmap by the local public administration.

Outcome and impact. Immediate or long-term changes and how these can be justified

It is hoped that a process has been started, but the already observed characteristics of the local stakeholders have not changed (i.e., lack of motivation and experience with cooperation). The public administration has taken a more cautioned view to new projects and non-essential activities, due to the ongoing COVID-19 pandemic, It can be said that stakeholder engagement has benefited from the stakeholder event. Many stakeholders joined the event and actively participated in discussions. For many, it was the first opportunity to directly address a European Commission official.

Many stakeholders were also interested in seeking out funding opportunities from the EU Green Deal call after hearing the presentation.

Long-term goal for implementing the pilot

The CE Forum would take place from February 2021 to December 2021, to develop a CE cluster in Hamburg. The long-term goal of the pilot is establishing the Integrated CE Management in Hamburg, from January 2022. The CE forum would then be constant communication forum for all local stakeholders, establishing working groups for different areas and creating administrative structures for integrated and participatory management of CE in the city. The objective of the forum is supporting a participatory and integrated management of the CE which is independent of politics and election periods and can adapt the Smart Specialisation Strategy.

Lessons learnt from the process and how they can be compared with previous experiences

The transition towards a circular economy requires systemic transformations along entire value chains from design, production and consumption phases, to materials and waste recovery, which must be supported by sound and tailored governance structures and processes.

As the gap analysis in WP4 showed, the innovation system for circular economy in Hamburg is still fragmented. Motivation, expectations and experience for cooperation are low. Universities and NGOs actively promote circular economy in Hamburg, but public authorities and companies are not willing to change to a circular approach.

It will not be possible to advance in this effort without having the “right” persons in place. A person or department from a public institution should moderate the process of change towards a circular economy. This person should be well known in the community and widely accepted by all different stakeholder groups.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes	x		
Stakeholder involvement		x	Even though their motivation level is low, gathering different stakeholders in joint activities is beneficial inasmuch it could lead to lowering their mistrust levels by means of interaction.
Political knowledge and involvement for S3 and interregional innovation	x		
Contributed to better analytical capacity or know-how	x		
Mobilized the political and stakeholder engagement		x	Even without formal commitments, it is necessary to start somewhere. Regularly engaging with public authorities and institutions should increase the chances of developing a common goal, which is necessary for boosting Hamburg's circular economy.
Understanding of interregional co-operation in terms of getting access to new knowledge		x	

3.2.2. Innlandet

Description of the focus group meeting: organisation, time, representation

We are sorry to say that we have not been able to hold a focus group meeting for several reasons. Due to COVID-19, it has been a challenge to be able to gather the participants. In addition, our project leader for LARS left the organization, leaving us with a very strained capacity. For this, we are deeply sorry.

Actions taken to inspire the implementation in the region

We have implemented the plan in several ways. Our Regional Master Plan is focused on innovation and sustainability. We have elaborated our own bio-economy strategy, with an action plan for wood and forestry. We are bringing this plan into another Interreg project we participate in, with regions from Sweden and Norway (The Bio-economy Region). This project focuses on SMEs and the use of wood in both countries.

Actions taken to commit and to inspire the public administration

We are committed to implementing the use of wood and building with wood in all our plans. We also have a project called “Tree Drivers”, in which the goal is to ensure the implementation of wood use in all public entities.

Negative surprises in these steps

We have no negative surprises to report. Rather, we see a high and increasing participation both from public bodies and the business community and other organizations.

Outcome and impact. Immediate or long-term changes and how these can be justified

We are working to implement all the work being done into the new merged county, consisting of the two old counties of Oppland and Hedmark. We believe this has enabled us to increase the effort to apply more research-based innovation. Our projects FORREGION and Regional Research Fund have increased their focus on wood-based industries. We also see increased coupling between our university (NTNU – Norwegian University for Science and Technology) and the business community. The business community has increased their mobilization efforts, and this has led to new projects with the Interreg family. There has also been an increased research capacity in our own organization.

Long-term goal for implementing the pilot

The long-term goal is to increase research-based innovation in the region.

Lessons learnt from the process and how they can be compared with previous experiences

We hope that the work we are doing with the implementation and the experience we bring with us can improve our work with innovation, and this is in line with much of our previous work.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes		x	
Stakeholder involvement		x	
Political knowledge and involvement for S3 and interregional innovation	x		
Contributed to better analytical capacity or know-how		x	
Mobilized the political and stakeholder engagement	x		
Understanding of interregional co-operation in terms of getting access to new knowledge		x	

3.2.3. Latvia

Description of the focus group meeting: organisation, time, representation

Focus group meeting was organised on 23 October 2020 in the premises of the Ministry of Environmental Protection and Regional Development (hereafter – MoEPRD). In the meeting 11 stakeholders from all 5 planning regions participated (part of them online, part of them on the spot). From the MoEPRD participated 2 persons. Stakeholders from planning regions mainly were experts working in region business centres, some of them were project experts and one person was head of planning region administration.

Actions taken to inspire the implementation in the region

MoEPRD decided to implement pilot (regional innovation and knowledge platform) which was inspired by Vaasa University – Vaasa Energy Technology Innovation Centre. Pilot is already included in the Regional Policy Guidelines for 2021-2027 and actions are planned to ensure its implementation.

Already now some of regions, for example, Vidzeme planning region and Zemgale planning region) are quite active promoting innovation and cooperation between quadruple helix actors, but actions depend on their own initiative and good will, as a part of some international projects. And when projects finish, these initiatives stop without continuation.

To summarize – first, the planning regions have been inspired just by seeing regional innovation and knowledge platform being included in Regional Policy Guidelines for 2021-2027, which is a clear signal from policy developers that platform is recognized as important

tool for regional development and planning regions are seen as important actors promoting innovation and cooperation at regional level. Second, planning regions have inspired themselves.

Actions taken to commit and to inspire the public administration

Since MoEPRD develops regional policy instruments in Latvia to ensure long term sustainable development in all regions it was quite logic that MoEPRD as a project LARS partner will be able to inspire public administration with the pilot.

In implementation of WP5 already some preparation work was done by MoEPRD, organizing focus group meeting with planning regions and also meetings with other involved public institutions. Involved stakeholders were informed and explained, also introduced with project partner good practice examples. At the same time MoEPRD developed Regional Policy Guidelines for 2021-2027. To summarize, MoEPRD did actions to formalize intention to implement the pilot, cooperating and explaining intentions to all involved stakeholders and could say that it was perceived as a positive initiative.

There was also valuable proposition from one planning region regarding how to inspire public administration to commit with pilot. Vidzeme planning region is about to talk directly with minister of MoEPRD and convince the need for political declaration or memorandum which will be agreed between core institutions (ministers and heads of the councils of planning regions – political level) which are responsible for innovations and would state that civil servants will cooperate with platform on daily basis, for example, will share information and ensure feedback. It is agreed that important is political gesture when platforms will start their work.

Negative surprises in these steps

In 2020 in Latvia administrative territorial reform took place and new law “Law on Administrative Territories and Settlements” was approved by Parliament of Latvia in order to make local municipalities larger – in place of 119 local municipalities starting from 2021 June there will be only 42 local municipalities. It means that for existing planning regions new functions and status will be decided. This means that the future for this pilot is on question and depends on political willingness.

Outcome and impact. Immediate or long-term changes and how these can be justified

Outcome has not been reached yet but existing planning regions have an opportunity to impact the outcome. Now MoEPRD is responsible for elaborating informative report and Cabinet of Ministers will approve it. In informative report final draft version there are included several functions for administrative regions. At this point regional innovation and knowledge platform is not included as one of functions because of political decisions. Soon this

informative report will be available for public consultations where everyone, including existing planning regions, can submit proposals for it.

Long-term goal for implementing the pilot

The goal for implementing the pilot – a regional innovation and knowledge platform – set focus on sustainable entrepreneurship and innovation development in regions. Platform must be self-sufficient, and it need to be able to react on changing environment and trends. And important that all changes should be driven by all interested stakeholders together. The long-term vision is that the platform can work strategically, focusing on each region strengths and resources. It must implement multidisciplinary approach in its daily work and be able to create local and international network.

Important is also normative regulation of regional innovation and knowledge platform – it must set up a secretariat with certain functions which show other involved institutions that it is duty for all institutions to cooperate, not only get involved on a voluntary basis.

Lessons learnt from the process and how they can be compared with previous experiences

Process of pilot implementation has learnt MoEPRD as a policy developer that we can learn a lot of new ideas to support our own policy decisions. Partners best practice can serve as an important tool for policy justification. Process of identifying stakeholders and discuss new initiatives with involved stakeholders has happened also before. Pilot implementation process this time has been result-oriented.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral / the same	Higher / improved	Comment
Organization's own inn ovations skills to supported development of changes		x	Pilot implementation has strengthened capacity and knowledge for MoEPRD personnel who were involved in project LARS activities.
Stakeholder involvement		x	If before stakeholder involvement was more formal, and MoEPRD sometimes organized meetings, but more focused on e-mail communication, then with this pilot implementation in addition to e-mail communication, we have individual meetings, all involved stakeholder meetings/ focus group discussions with aim to inform each other, get to know each other opinions.
Political knowledge and involvement for S3 and interregional innovation		x	Some stakeholders – planning regions – already are active innovation promoters without specific mandate in their regions, but some regions now are keen to realize

			innovation promotion and foster cooperation between quadruple helix actors.
Contributed to better analytical capacity or know-how		x	Definitely contributed to better know how. Analytical capacity is a competence which is not constant and is absolutely dependent on personnel working in organization.
Mobilized the political and stakeholder engagement		x	It has mobilized stakeholder and MoEPRD expert level personnel engagement. Under discussion is whether it mobilized also political stakeholder engagement.
Understanding of interregional co-operation in terms of getting access to new knowledge		x	Project LARS has strengthened our understanding and knowledge of interregional cooperation in terms of getting access to new knowledge and new policy instrument insights.

3.2.4. Lithuanian Institute of Agrarian Economics (LIAE)

Description of the focus group meeting: organisation, time, representation

Focus group for pilot implementation was organized on May 26, 2020. There were six stakeholders in the focus group meeting from all Quadruple Helix parties:

- 2 stakeholders were from public organizations (the Ministry of Agriculture of the Republic of Lithuania),
- 2 stakeholders were from academia (Lithuanian Institute of Agrarian Economics),
- 1 stakeholder was from NGO (Lithuanian Innovation Centre),
- 1 stakeholder was from companies (Joint Stock Company ART21).

Actions taken to inspire the implementation in the region

There have been multiple step-by-step actions taken to inspire the implementation of the pilot plan for Smart Specialization Strategy in the selected field of intervention, i.e. bio-economy (biogas production from manure and crop residues) in Lithuania.

First, throughout the precise *in-depth research* in the field implemented throughout the LARS project phases, it was identified, that bio-economy in Lithuania perform stagnation at its current state. From the very beginning activities and all actions taken were organized, stable and promising. However, later on consistent work in the field started being interrupted due to the continuous staff turnover (political-confidence and other related positions) in the Ministry of Economy and Innovation of the Republic of Lithuania. Many changes had occurred in 2019 and continue occurring till mid of 2020.

Second, during the research, and especially from good practices from other LARS partner regions in the field of bio-economy, it was identified that it is necessary to change the composition of Quadruple Helix stakeholders to make an actual change in the selected field of intervention. It was identified, that the catalyst for boosting bio-economy in Lithuania should be changed from agriculture to industry.

Finally, it was observed the lack of competencies, leaders, planners and designers in Lithuania to boost bio-economy. Research demonstrated lack of cooperation, huge distrust and no commonly agreed actions to implement the Smart Specialization strategy in the field of bio-economy.

Accordingly, the implemented research and LARS transnational learning practice inspired the urgent step-forward to boost the selected field of intervention and to plan and implement the pilot actions.

Therefore, next actions to implement the plan was *setting the network* of all Quadruple Helix stakeholders. A new goal was set – to create the network of public authorities (Ministry of Economy and Innovation of the Republic of Lithuania, Ministry of Agriculture of the Republic

of Lithuania, Ministry of Energy of the Republic of Lithuania, Ministry of Environment of the Republic of Lithuania) to continue work on implementation of one of the RIS3 priority on bio-economy development in Lithuania.

The final pilot action was *to prepare the recommendations* for developers and implementers of Lithuanian Smart Specialization strategy and help already networked stakeholders in the field to arrange activity planning and implementation documents, which will be used in the next programming period of Lithuanian Smart Specialization strategy renewal in the field of bio-economy.

Recommendations for developers and implementers of Lithuanian Smart Specialization strategy were prepared by Lithuanian Institute of Agrarian Economics and on 29 July 2020 were provided to 19 stakeholders responsible for RIS3 implementation in Lithuania or related/interested with some tasks for RIS3 implementation.

Actions taken to commit and to inspire the public administration

Public administration commitment and inspiration had been done using focused step-by-step continuous Quadruple Helix stakeholder engagement methods and joint work, finalized with joint agreed outcomes.

Gained transnational learning expertise from Västerbotten good practice was used to elaborate successful *roadmap for boosting bio-economy in Lithuania*. This good practice help closing the gaps identified for Lithuania in the field of bio-economy between public authorities and private sector. A new goal was set *to create the network of public authorities* to continue the working input on implementation of one of the RIS3 priority in the field of bio-economy development in Lithuania.

Lithuanian Institute of Agrarian Economics, based on project results, provided *recommendations* for 19 stakeholders responsible for RIS3 implementation in Lithuania or related/interested with some tasks for RIS3 implementation how this process can be developed in Lithuania with focus to:

1. Encouragement cooperation and new working practices/procedures connecting *all actors of the Quadruple helix* involved in the smart specialization process: private companies, academia, public authorities and NGOs.
2. Encouragement of *new learning methods* based on *international cooperation* and *good practices*. Examples of Sweden, Norway and Finland have shown that applying of new learning methods from neighbouring countries, based on international cooperation and implementation of good practices, is a very effective tool
3. Implementation of innovative *networking tools* that help the development of smart specialization. In particular, this should take the form of organizational and financial support for the creation and operation of national innovation network, thus creating the infrastructure needed for the development of innovation.

4. *Individual learning and development of own competencies*. The development and implementation of new innovations in any chosen field of specialization requires constant deepening of knowledge, learning, and development of new ideas, based on individual learning or participation in events, conferences or seminars on this topic.

The following activities had been done to implement commitments:

- *Focus group meeting* with project stakeholder (Ministry of Agriculture of the Republic of Lithuania) to identify (1) main challenges for closing gap between public and private institutions in Lithuania for bio-economy (biogas from manure); (2) discuss ideas and proposal for a roadmap for boosting bio-economy in Lithuania.
- *Prepared recommendations* to 19 stakeholders responsible for RIS3 implementation in Lithuania or related/interested with some tasks for RIS3 implementation that help to move from status quo to the solution for bio-economy in Lithuania with focus to four key areas:
    I. Encouragement of cooperation and new working practices/procedures connecting *all actors of the Quadruple Helix* involved in the Smart Specialization process: private companies, academia, public authorities and NGOs;
    II. Encouragement of *new learning methods* based on *international cooperation* and *good practices*;
    III. Implementation of innovative *networking tools* that help accelerate the development of Smart Specialization;
    IV. *Individual learning and development of own competencies*.

Recommendations acted as a starting point for change while updating working principles for one of the RIS3 priority on bio-economy development in Lithuania.

Finally, to commit and inspire public administration to implement the pilot *shared responsibility* had been *allocated and established*. Lithuanian Institute of Agrarian Economics is set responsible for content of recommendation and act as advisory body for implementation of it. Government of the Republic of Lithuania is set responsible for the continuity of the process to boost bio-economy in Lithuania. Supporting institutions had been connected into regularly acting network: Ministry of Economy and Innovation of the Republic of Lithuania, Ministry of Agriculture of the Republic of Lithuania, Ministry of Energy of the Republic of Lithuania, Ministry of Environment of the Republic of Lithuania.

Negative surprises in these steps

Due to the precise possible risk identification in early pilot planning stages, negative surprises in planned actions and steps had been successfully managed.

Initially observed threats related to political change processes, passive and isolated role of government that could cause unwillingness to change had been minimalized by keeping regular individual interactions with project stakeholders.

Insufficient interest to get deeper into the good practice of receiving region, had been managed by giving in-depth presentation and exploration of existing good practices, as well as detailed explanation of potential benefits and joint discussion regarding possibilities in adopting it.

Unfavourable political processes with regard to changes in already change process-involved human resources from public bodies had been eliminated by keeping close and timely communication with responsible bodies and persons at posts.

It is expected from the newly elected Government (October 2020) to include bio-economy-related changes into National and regional development strategies, programmes and action plans. In case the identified obstacles appears, already created strengths will be used to overcome them, namely, the already existing informal network of bio-economy stakeholders, formed through LARS activities; gained expertise and skills in the field and people with excellence and big ambitions to make the change.

Outcome and impact. Immediate or long-term changes and how these can be justified

The immediate outcome of the pilot is visible at its current state in a form of established network of right people at right places, who are able to make change in the selected area of intervention. Overall impact of the project might be described as boosted innovation process in the field of bio-economy in Lithuania. Among the most visible immediate impacts, stakeholder engagement might be recognized among the most successful inspired collaboration practices in Lithuania, which demonstrates the shift from competitive to collaborative manner in public policy formation and implementation. New knowledge and skills received from transnational learning, interregional cooperation and good-practices, gave new insights on innovation organization and management models and helped move forward from the state of the art. All involved stakeholders gained new knowledge in how to work with innovation at interregional level at personal, organization and regional level. All implemented tasks and related activities contributed to better analytical capacity or know-how. The pilot helped mobilize the political and stakeholder engagement and help define the joint goal of his activity - continuous implementation of one of the RIS3 priorities in the field of bio-economy development in Lithuania. At the same time indirect impact might be listed regarding improved communication skills, personal development of all stakeholders, analytical skills and broadened expertise in the field of bio-economy.

Long-term goal for implementing the pilot

The long-term goal for implementing the pilot is acting powerful network of public authorities (Ministry of Economy and Innovation of the Republic of Lithuania, Ministry of Agriculture of the Republic of Lithuania, Ministry of Energy of the Republic of Lithuania, Ministry of Environment of the Republic of Lithuania) that would ensure continuous implementation of one of the RIS3 priorities in the field of bio-economy development in Lithuania.

Lessons learnt from the process and how they can be compared with previous experiences

The process of pilot implementation had proved the exceptional benefits from transnational learning practice, which became adapted and transferred to the receiving region. This purely illustrate, how improved skills and competencies through transnational learning, continuous communication and belief in good will help broaden the understanding of the issue in selected area of intervention of all involved stakeholders, inspire revitalization of already stagnating field of activity, help finding effective methods and tools to solve identified problems, and move forward from the current state. With help of methodically selected and implemented international good-practise transfer and interregional cooperation, the long-term goal for implementing the pilot became reasonable and grounded.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes	X		Organization's own innovation skills had been established before and used during the implementation of this project successfully
Stakeholder involvement		X	Stakeholder involvement helped meeting right people at the right place, start discussions and find appropriate ways to solve the issues in the field of intervention. The trust among stakeholders was built, moving from competition approach towards collaboration.
Political knowledge and involvement for S3 and interregional innovation		X	Political knowledge had been improved through involvement in joint multiple sessions of transnational learning and transferring good practise to the receiving region to start interregional innovation.
Contributed to better analytical capacity or know-how		X	Analytical capacity or know-how of all involved stakeholders had been improved; expertise in the field had been improved by all parties.

Mobilized the political and stakeholder engagement		X	Political and stakeholder engagement had been mobilized by establishing acting network to boost the selected field of intervention.
Understanding of interregional co-operation in terms of getting access to new knowledge		X	Understanding of interregional co-operation in terms of getting access to new knowledge had been accepted and valued by all involved stakeholders; benefits of interregional cooperation had been recognized as providing tools for solving identified gaps in the field.

3.2.5. Lithuanian Innovation Centre (LIC)

Description of the focus group meeting: organisation, time, representation

Our focus group meeting was held on 3rd of September in Panevėžys city together with the main stakeholders who represent different helixes: business, public organization, university and vocational school, non-governmental organization. In total there were 25 people in the focus group meeting, among those participants were employees of our target organizations – Panevėžys Municipality and Panevėžys region development agency.

Actions taken to inspire the implementation in the region

One of the main inspirations for further implementation of identified good practices were the presentation of Panevėžys region development agency which presented the results and main insights of the study about regional business. This study describes the state-of-art of business environment in the region and what kind of actions regional development agency should take in order to strengthen or empower business entities in the region.

The other source of inspiration was insights made by the experts of Lithuanian Innovation Centre who presented the future trends: what kind of financial and non-financial support the region could expect in the upcoming period of 10 years, also what kind of challenges they will have to overcome and what kind of opportunities will lay in the nearest future for the whole region.

Also, LIC presented Lahti Regional Development Company (LADEC) and their main activities as a good example how Panevėžys regional development agency could overcome challenges and take advantage of opportunities in the future. In the current situation, the most important aspects for the participants of the focus group meeting was improving networking and growing opportunities for entrepreneurs and businesses.

Negative surprises in these steps

As the focus group meeting was attended by the diverse type of people who represent different organizations and interests it was expected that we might receive negative opinions. It was decided by the strategic advisory board that first of all Panevėžys regional development agency should focus on facilitating the traditional manufacturing industry companies such as engineering, mechatronics, electrics etc. as Panevėžys region historically has a vast experience and knowledge in this field. The main aim is to exploit these resources and increase the value that these people could create in order to help to make Panevėžys region a hotspot of industry 4.0.

However, few participants raised their concern whether facilitation of traditional manufacturing industry is the best option for Panevėžys region. Instead they suggested to

look for opportunities in ICT, programming or other services. However, the statistics indicate that most of the talents that seek for a career in ICT or other services go to capital city or abroad. Also, based on the statistics and other good practices Panevėžys Regional development agency presented how traditional manufacturing industry could be accelerated into high-tech industry that creates the same or even bigger value than businesses working in ICT or other services fields.

Outcome and impact. Immediate or long-term changes and how these can be justified

We see our pilot project as a long-term process, that could also be measured by some intermediary results. In our roadmap that we established together with regional stakeholders we indicated 6 objectives that should be achieved in order to consider our pilot as a successful initiative. We continue to work with all stakeholders to establish the whole structure of a regional development agency, verify activities and create a network of actors that would work together with regional development agency.

First of all, our activities have benefited Panevėžys municipality as our guidelines helped to create a regional development agency that is advisory body and facilitator of further development of the whole region. With the foundation of the development agency we indicate an increased engagement of regional stakeholders from different helixes, they see development agency as a one-stop-shop for various issues thus they more frequently come and discuss their challenges or searching for solutions.

Also, Panevėžys region has increased their capacity in analytical skills and resources. Our goal is that Panevėžys regional development agency would make decisions and strategies based on real time data, thus we pointed out, that agency should establish a team of analytics that would collect statistics from different sources, analyse it and prepare recommendations for governing bodies. This step has already been implemented, the regional development agency has their own team of analytics which presented their first report during our focus group meeting.

The other significant goal that we would like to accomplish is increase the number of new R&D initiatives and expressions of interest to begging new innovative projects. Throughout the meetings with regional stakeholders we managed to increase their awareness that it is important and also possible to initiate innovative partnership in the region among universities and business entities. We established connections between regional development agency employees and business entities, research institutions and we hope that this will develop into a platform for companies to share good practices with each other or with other partners and take joint initiatives in Industry 4.0.

During the final focus group meeting we noticed that there is a high demand for knowledge sharing and willingness to cooperate with Digital innovation Hubs, especially from small manufacturing companies that are willing to develop new innovation strategies. Thus, we

consider Panevėžys regional development agency taking on the role of coordinator between relevant DIHs and SMEs in Panevėžys region.

Long-term goal for implementing the pilot

In the long-term our main goal is a self-supporting Panevėžys regional development agency that would have established a broad network of partnerships that would help to implement strategic goals and facilitate the development of the region. We want to build a structure and management of this regional body that would have sufficient resources and knowledge to implement various activities: facilitate innovative partnership, carry out researches and analysis, coordinate partnership between universities and business entities, improve conditions for attracting specialists and retaining them and develop a start-up-friendly ecosystem.

Lessons learnt from the process and how they can be compared with previous experiences

During the preparation of the pilot idea we learnt how important is to have a one body that everyone considers as a centre for regional development. During the visit to Finland we witnessed that all helixes are gathering together to solve regional challenges and issues, while in Panevėžys region some problems are left unsolved as entities don't have information who could be a responsible body.

From Finnish good practices we learnt that regional development agencies may become regional innovation front line - one-stop-shop - for businesses towards their journey to automation and innovation and thus closer integration to European and global value chains. Their role may be seen as a connector that well understands business needs, their issues and then, depending on the level of complexity, may suggest solutions or help to connect with relevant market players locally or internationally. But government support may be required to clearly position regional development agency as a trusted go-to partners.

Also, we noticed that it is relatively impossible to become masters in all support services. Different type of skillset and capabilities are required to meet needs of traditional industry players, therefore strong partnerships and active effort to form well developed ecosystem for relevant market segment will be required. In some cases, even representatives of large business organizations may act as advisors, interested in development of the value chain or driven by future investment opportunities.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes		+	The implementation process has revealed what kind of details, parts and ideas could be transferred and implemented directly without adaptation and which needs to be assessed in regard to local circumstances. This allowed us to prepare a clear methodology for transfer of good practices that could be used with other pilots.
Stakeholder involvement	+		We had experience in this field before.
Political knowledge and involvement for S3 and interregional innovation			
Contributed to better analytical capacity or know-how		+	As mentioned earlier, we learnt how to analyze cultural and socio-economical things that could request for the localization of identified good practice.
Mobilized the political and stakeholder engagement	+		
Understanding of interregional co-operation in terms of getting access to new knowledge		+	We consider our study visit to various Finnish companies and organizations as a central point of our learning process, that inspired us and our stakeholders and gave empowerment for actions in our own region.

3.2.6. Ostrobothnia

Description of the focus group meeting: organisation, time, representation

We have not organized new focus group meetings for the implementation but the issues of implementation have been discussed in the earlier focus group meeting in 13.3 (total of 7 people were present and presented all other helices except companies) and there we got confirmation that FORREGION case from Oppland might be interesting to implement in the region.

This idea was then processed by the UniVaasa team and they developed an idea of researchers who might act proactively (similar to Forregion) and visit surrounding SMEs as well as public organisations, so that the good practice would be tied to the discoveries of gap analysis (done in WP3). The idea was that university would usher researchers for more cooperation and knowledge brokering (as in FORREGION) would happen as researchers would visit these SMEs and public organisations and learn as well as share their learning with the organisations.

This pilot was presented for platform leaders 27.5.2020 (altogether 5 people via zoom). They agreed for supporting this activity. At this time, we also heard that university is going to hire new innovation experts to aid in the patenting etc. activities and it was decided that it might be useful to wait for this new recruitment, as this person would be ideal to ensure the implementation of the pilot.

Recruitments were done and ultimately the university of Vaasa did not just hire one innovation expert but three of them and this meant that there is now a new unit for innovation practices in the University of Vaasa. We took contact into the innovation experts of university of Vaasa in 21.9.2020 (4 people via zoom) and discussed about our idea. They considered our original proposal but saw it challenging due to covid-19 and suggested that we might organize an event, where we would invite company representatives to discuss about their needs. It was quickly agreed that this might not work due to business secrets and therefore a suggestion was made that perhaps we open the floor for researchers who can present their solutions for SMEs. This idea has now been developed and the idea is to continue our discussion with the innovation experts later in October. We are now preparing a suggestion for the structure of the event, which could act as a knowledge brokering pilot in the region.

Actions taken to inspire the implementation in the region

We planned to organize the visits of university staff and doctoral students in the companies especially in SMEs and public organisations. However, as outcome of the feedbacks of the implementation plan, we decided to check the plan, and begin the implementation with a seminar in which we:

1) present the newest research of university of Vaasa. We suppose that the research has some interest among the companies;
2) invite the companies especially SMEs in the seminar.
3) Aim to make the participants to collide after the presentations.
4) Aim to make longer discussions on the possible problems of the companies or identification of the problems of the companies.

We are still communicating and in the phase of raising awareness of doctoral students, researchers and teachers as knowledge brokers.

Actions taken to commit and to inspire the public administration

We decided to have different phases in the process, like preparation, planning, preparing the pilot, implementation and reporting. Idea was to prepare a concrete plan for pilots before September. However, covid-19 made the process difficult and we did not know how to proceed prior to our discussion with innovation experts. Now we are preparing an event for knowledge brokering, where researchers can share their ideas with SMEs and public organizations. We will present the structure for the event in October.

To inspire the public administration was done through focus group meetings in 13.3. and we are continually discussing with Regional Council of Ostrobothnia on the pilot implementation. There are also plans to invite public organisations to attend the pilot event.

Negative surprises in these steps

People have lot of work and covid-19 has brought some new burdens for public administration, companies, and universities. Platform leaders were not themselves ready to work with pilot implementation, instead they suggested us to make a project and ask funding for the visits of the teachers and researchers in the companies and public organisations. This is a viable option but takes time and we wish to test the pilot during the project, not after.

It is difficult to find the interested companies and public organisations and the doctoral students and university staff interested to visit to companies. The function of the visit was somewhat unclear for us and we have formulated the pilot little bit differently after the communication with the innovation experts. We are confident that it will be easier to ask for a few researchers to present their work in an online event than would have been the case with the visits.

Outcome and impact. Immediate or long-term changes and how these can be justified

One possible impact is that a researcher gets a contact through the online event and is possible to visit the company or public organization to exchange ideas. This might mean that they will recruit he or she, and the work at the university might be interrupted. However, this exchange may also spur new ideas and solutions as the persons start to trust each other's more and are able to share more of their work. This might bring benefits for the regional development, especially regarding new knowledge generation.

The pilot benefits the stakeholder engagement in the sense that university staff is more involved in the companies and public organisations in Ostrobothnia. The pilot can give new insight both for the researchers who get familiar to the companies or public organisations and their practices. As a result/impact of the seminar and possible visits, the learning process will deepen, the analytical capacity of the (staff of) companies and organisations will be increased. On the other hand, also the know-how and understanding of the researchers on administrative issues as well as/ or business and technical issues might become deeper and broader. Outcome might be some common understanding and commitment to regional development and knowledge enhancement.

Long-term goal for implementing the pilot

The readiness and ability of researchers and teachers to discuss with SMEs and public organisations, and the courage to take contact more regularly. The ability of company representatives to identify and analyse their problems and contact university staff in their research processes. The representatives of companies and public government will be familiar of the talents at the university as a potential labour force in their organisations.

Lessons learnt from the process and how they can be compared with previous experiences

Implementation is difficult, especially as the process for implementing the good practice has changed during the process. It is difficult to work as intermediator and find out the interests of companies and public organisations on the one hand and that of the university staff on the other hand. Also, the working cultures differ in these organisations, companies being mostly quite short termed, and public government and universities more long termed.

Also implementation of new pilot requires time and it is important to involve the right people into it, otherwise the pilot will not become part of existing processes. One has to be actively pushing the idea forward and also listen to other´s views and make changes accordingly. Our original idea for practical implementation has changed, but the idea behind it (knowledge brokering) has remained the same.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes	no	After implementation the individual staff members have more understanding of other organisations	Not because of the project; university already is active in innovative solutions
Stakeholder involvement		yes	Focus group meeting have encouraged stakeholders to discuss. In some meetings, the target groups were well presented.
Political knowledge and involvement for S3 and interregional innovation		yes	The knowledge on S3 has grown among stakeholders. Regional Council prepared a S3 strategy
Contributed to better analytical capacity or know-how	maybe	maybe	The pilot will have this as impact. Connectivity model (as in WP3) has been used prior to LARS in the region
Mobilized the political and stakeholder engagement		yes	Focus group meetings, preparation for strategy, active international coordinator at the Regional Council
Understanding of interregional co-operation in terms of getting access to new knowledge	no	maybe	University has this as natural part. There is already international research groups

3.2.7. Päijät-Häme

Description of the focus group meeting: organisation, time, representation

Focus group meeting was held June 18th on Microsoft Teams. Five participants joined the meeting representing:

- Lahti University Campus – Director
- LAB University of Applied Sciences – Project manager
- LUT (Lappeenranta-Lahti) University – Project Coordinator
- Päijät-Häme Regional Council – Project Manager

Stakeholder from Lahti Region Development Company LADEC was unable to attend the meeting, but we had several discussions before and after the focus group meeting. Ladec's role between business, universities and funding is significant. All participants mentioned above also attended virtual study visit and meeting with Vaasa University's representatives held in April 2020.

Actions taken to inspire the implementation in the region

Inspired by Vaasa university's open innovation platform model, we choose to implement platform's communication actions and activities that will increase knowledge of our regional stakeholders about university services for companies and business development. Stakeholders were especially excited about Speed Dates and Vaasa Future Festival. In addition, we became interested in ideas where universities expertise and research areas have "faces" and university services for companies can be find at one address.

Companies and NGO's (LARS interviews and stakeholder/focus group meetings) brought up that they are willing to use more regional university services if they could get more and targeted information about the services.

In this focus group meeting, Regional Council presented a draft of action plan for how and what to apply Vaasa Open Innovation Platform model in Päijät-Häme.

All participants committed to collecting and sharing existing university – company practices. Regional Development Company Ladec will offer a platform (Lahti Business Region) where universities can promote their business services.

In November, when Lahti Science Week will be arranged, one proposal is to make one or two small pilot actions called Circular Economy Speed Dates, in order to bring researchers and business developer direct to the group of companies.

Actions taken to commit and to inspire the public administration

Implementation plan was made together with Lahti University Campus and universities representatives and was approved by other stakeholders in focus group meeting and in other meetings during spring and summer 2020. We decided to focus on circular economy theme and decided to make most of the pilot actions next year when Lahti will be the European Green Capital. The first small pilot, the speed dates, will be tested in November 2020 during Lahti Science Week.

With a focused theme we can gather relevant expertise to offer it to companies. We already have platforms (such as Lahti Business Region websites) that be can be used when communicating about university services provided to companies.

Stakeholders are committed to improve companies and business developer's knowledge related universities services and expertise and collecting information on services and education to one platform.

Negative surprises in these steps

It still seems, that in practise, cooperation between regional universities and universities of applied sciences has challenges related to collaboration. Main reasons are lack of trust and competition for students and funding.

Regional council, cities and municipalities are expecting that local business could benefit more from university level research and expertise. But as an example, when organizing speed dates where researchers, companies and business developers can meet, universities did not want to do it with university of applied sciences. So, there will be two different events. That might work, but in worst case, this could increase competition and strengthen already confusing message of the region's university activities.

Inside universities, there is no consensus on how the research is presented in an understandable, business-oriented way. Some researchers strongly think that they don't need to involve in business development or regional development at all.

Outcome and impact. Immediate or long-term changes and how these can be justified

In Päijät-Häme we have started a good and deep cooperation between regional council, universities and regional development company. That is an immediately result. Concrete pilot actions will be done later (November 2020 and next year). Platform – Lahti Business Region - already exist and stakeholders (univ., business developers) are now collecting information that is relevant for local companies. The dialogue is now more open, and the Regional Council is now also seen as a proactive actor and developer.

Further, the following outcomes and insights can be noticed:

- Stakeholders especially universities and business developers have already deepened their cooperation and they communicate more systematic ways and they meet regularly.
- Business development company management found that Ladec's Business Developers need to learn more about universities services for companies so they can combine companies needs and universities services
- Ecosystem -thinking has been increasing
- When developing regional innovation processes, in this case the gap was university – company -cooperation, the work must be continuous, and participation of stakeholders should be systematic and targeted. So that it could be possible, regional councils must have stable funding and resources for this.
- Innovations needs cooperation and common goals in every level, 4 helix cooperation, cooperation also inside organisations and different units.
- We need to focus on international networks
- Knowledge and understanding of the operational logics of different actors has increased.
- Stakeholders and authorities are now more aware about what kind of cooperation a well-functioning, regional innovation process needs. In addition, innovation bottlenecks have become more familiar for regional decision makers.
- Interregional platforms and funding are interesting for our stakeholders. Politicians understand more the importance of interregional projects, funding and meaning of Smart Specialisation.
- Stakeholder's knowledge about the Smart Specialisation Strategy and its role in regional development has increased

Long-term goal for implementing the pilot

Stakeholders see themselves as proactive and cooperative developers. Pilot actions will give good ground to build and strengthen regional ecosystems. Stakeholders also understand that as a region we must focus on global value chains.

Lessons learnt from the process and how they can be compared with previous experiences

The lessons learnt are very much the same as described by the Päijät-Häme partnership. We see more clearly now the need to involve, at the earliest possible stage, the stakeholders in our area in the innovation and development work. There is also now a mutual understanding of the value in participating and investing in international cooperation and networks. And this development work is now much broader and involves more actors from various organisations, including the companies. This gives much more value and will have a greater impact

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes		x	
Stakeholder involvement		x	
Political knowledge and involvement for S3 and interregional innovation		x	
Contributed to better analytical capacity or know-how		x	Understanding of regional innovation system's bottlenecks is better
Mobilized the political and stakeholder engagement		x	Stakeholders and authorities are now more aware about regional innovation processes and innovation bottlenecks
Understanding of interregional co-operation in terms of getting access to new knowledge		x	Interregional platforms and funding are interested more our stakeholders. Politicians understand sore the importance of interregional projects and meaning of Smart Specialisation

3.2.8. Region Västerbotten

Description of the focus group meeting: organisation, time, representation

Focus group meeting was held in August 28th on Microsoft Teams. It was a digital meeting with 18 participants from triple helix actors in the innovation ecosystem. We had a focus group discussion with representatives of 2 business support organizations (clusters), 5 from Universities and Science institutions, and 11 representants from the public authorities.

Stakeholders from Region Västerbotten and Umeå University have had several follow-up discussions after the focus group meeting to prepare the "partnership day" with the aim to share knowledge and challenges regarding the innovation potential of our region.

Actions taken to inspire the implementation in the region

Inspired by Vaasa university's open innovation platform model, we choose to implement platform's communication actions and activities that will increase knowledge of our regional stakeholders about university services for companies and business development.

A focus group meeting with the regional innovation partnership verified the positive view to the plan and to the long-term co-operation. The platform method will be part of the work with the Smart Specialisation Strategy.

A workshop was carried out to further investigate the needs and challenges in the region and to understand how co-operation should be structured.

The Partnership day was then the launch of a long-term co-operation aimed to create the mutual benefits for both parties[2].

Actions taken to commit and to inspire the public administration

Implementation plan was made together with university representatives and was approved by other stakeholders in the focus group meeting and in other meetings during spring and summer 2020. We decided to focus on the Smart specialisation areas and decided to make most of the pilot actions within the process of the development of the new S3 strategy as well as creating meetings to develop the cooperation and engagement between the actors in the platform.

With a focused theme we can gather relevant expertise and offer their support to companies. Existing platforms (such as Bio4enery, Clean tech and Life Science) can be used when communicating about university services provided to companies.

[2] https://www.umu.se/nyheter/partnerskapsdag-mellan-umea-universitet-och-region-vasterbotten_9829332/

Negative surprises in these steps

Cooperation between universities, regional authorities and companies still face challenges. The main reasons are different goals; universities focus on researchers while companies want more applicable innovations to their services and products. In our region there are further some big companies with their own in-house research, some companies also address the problem that the university research priorities do not suit the needs in their area of business.

Outcome and impact. Immediate or long-term changes and how these can be justified

In Region Västerbotten we have started a good and deep cooperation between the regional council, universities and the regional development company. That is an immediately result.

We now have a forum to discuss these development issues as well as take concrete steps to develop the platform; being now in the stage of collecting information that is relevant for local companies.

The dialogue is now more open, and the Regional Council is now also seen as a proactive actor and developer.

Further, the following outcomes and insights can be noticed:

- When developing regional innovation processes (in this case the gap was university – company -cooperation), the work must be continuous, and participation of stakeholders should be systematic and targeted. This, however, requires long-term funding and resources
- The need to develop the innovation ecosystem – we can't exist in vacuum, we need to cooperate
- Internationalisation and new funding were lifted as important for cooperation such as S3-platform, Horizon 2020
- Stakeholders and authorities are now more aware about what kind of cooperation a well-functioning, regional innovation process need. In addition, innovation bottlenecks have become more familiar to regional decision makers.
- interregional cooperation is of high interest for the stakeholders; it is seen as a way to create critical mass, new knowledge and find the right competencies.
- Politicians understand more the importance of interregional projects and the meaning of smart specialisation as well as funding opportunities
- Stakeholder's knowledge about the Smart Specialisation Strategy and its role in regional development has increased

Long-term goal for implementing the pilot

The platform actions will give good ground to build and strengthen regional collaboration and our smart specialisation areas. It will also highlight the areas on an international bases –

creating more collaboration with other stakeholders and researchers to develop the global value chains.

Lessons learnt from the process and how they can be compared with previous experiences

Stakeholders in the area should be systematically involved in development actions and joint planning, such as Smart specialisation implementation. The region has understood the importance of specialization and cooperation, especially with the aim of taking on a role in international value networks.

Openness is the key word. In the past, only management was involved in the development of the region and often the same people discussed cooperation and goals. We are able to involve more actors and from different levels. It is also good to hear the voice of companies directly, not always through interest groups.

Rating: improvement of skills/knowledge on how to implement best practice from other regions

	Neutral	Higher	Comment
Organization's own innovations skills to supported development of changes		x	
Stakeholder involvement		x	Stakeholder have been applying funding to carry out the pilot
Political knowledge and involvement for S3 and interregional innovation	x		Interest and participation to RIS3 process has been increasing
Contributed to better analytical capacity or know-how		x	Understanding of regional innovation system's bottlenecks is better
Mobilized the political and stakeholder engagement		x	Stakeholders and authorities are now more aware about regional innovation processes and innovation bottlenecks
Understanding of interregional co-operation in terms of getting access to new knowledge		x	Interregional platforms and funding are interested more our stakeholders. Politicians understand more the importance of interregional projects and meaning of Smart Specialisation

4. Conclusions

In this chapter the conclusions from each partner's implementation process is briefly summarised, one by one. In some final paragraphs the joint conclusions are made, and some recommendations are put forward.

The report from **Hamburg** emphasises the need for a vision and the commitment from stakeholders in the field of Circular Economy. The implementation phase has been challenging, and the interest and the motivation for cooperation has been low. Hence, the conclusion is that there is a need for a change in culture which affirms the importance of establishing a CE Forum and communicating it as an important goal to all sectors of the economy. The conclusion from the LARS project is that universities and NGOs could be key drivers to gather the political support necessary for a CE strategy in the region.

Innlandet underlines in their concluding remarks the importance to make the implementation of the pilot as a part of the regional planning process.

The report from **Latvia** points out that the focus group meetings has given clear perspectives about steps to take positive signals and about the capacity and readiness to implement the pilot.

One conclusion from **LIAE** when defining the implementation process is summarised in a clear message: *start talking together on the questions that cannot succeed when decisions are taken by a sole helix or only particular lobby group of stakeholders*. The implementation has then followed the plan and the report tells that the process has generated ideas for a roadmap boosting bio-economy in Lithuania.

LIAE further reports that the pilot implementation process has contributed to a new understanding of interregional co-operation in terms of getting access to new knowledge and inspiration from other regions, and therefore changed the previous understanding of interregional cooperation in a simplified common form "go abroad and see" towards the mindful perception "see, think, discuss and make change".

The aim for **LIC** in the Panevėžys region is to create a regional business support eco-system, inspired by the benchmarking process with LADEC, Finland. The implementation process has showed how this good practice could be implemented in the innovation ecosystem of the Panevėžys region. The main components in the communication to the regional stakeholders has been openness, networking, coordination, risk awareness and long-term planning. One conclusion is that these features could easily be transferred but systematic structures, governing bodies and the ways of actions must be agreed and discussed with local actors taking into account local circumstances.

Another conclusion from LIC, based on the experiences in the implementation process, is that regional support and funding should be concentrated on long-term goals if real impact on industry and the innovation ecosystem is to become visible.

In line with this conclusion the report from **Ostrobothnia** declares that "*the process of pilot implementation is still going on*". The very concrete implementation of the concept with knowledge brokering" will tap into the development and recruitment of innovation experts at the university of Vaasa. The idea of the pilot will, by various means, e.g. seminars, be institutionalised in the yearly routines of the innovation services of the University of Vaasa.

Päijät-Häme concludes that the timing of the pilot implementation has been favourable. The process is intertwined with the regional council's responsibility for updating the smart specialisation strategy and the development of the university campus in Lahti opens for new models, inspired by the Vaasa best practise, in fostering university – company cooperation. This development is perfectly in line with the connectivity analysis and focus group meetings carried out.

Västerbotten agrees in their concluding remarks to the points made by other partners that the implementation of the pilot has to be linked to the ongoing strategic processes in the region. In Västerbotten 2020 has been a very intense year where the region has the overall responsibility for presenting the new funding programs as well as developing the new S3 and development strategies for the period 2021 – 2027. This has given the stakeholders a broader perspective on regional development and S3. The pilot also has given the regional stakeholders the opportunity to approach the university with a good example, which has opened up for a positive and forward-looking dialogue.

Joint conclusions

Below some key remarks and comments are listed based on the joint analysis of the WP 6 process and the reports from each partner.

First: a general conclusion, observed already in the outset of this work package, is that a full implementation of a best practice, however well "translated", is not an easy task and cannot be asked for. The idea is that the selected pilot should find its place in receiving region, develop links to other parts of the system, and make itself useful in the new context. This might mean institutional change or emergence of something new. However, as all partners are well aware of, this occurs often gradually, step by step, and the LARS period is short for implementation.

The short time span is obvious and clearly described be the partner reports. Nevertheless, it is obvious that the reports also demonstrate clear footprints; processes have started, new perspectives have been visible and important lessons learnt. Tangible results in terms of outcomes and new concepts, linked to the existing strategical work in the regions are further demonstrated, despite the short time span.

One joint conclusion from the previous steps in the LARS project, clearly stated in the report from WP 5, is that the most efforts in WP6 to implement the change model has to be put on public organizations. They are the actors with the most power and legitimacy, as well as resources. This means that, despite the fact that gap is between companies and universities, the main implementation stakeholder should be a public organization and preferably at the regional level.

The implementation process demonstrates the significance of a need-based approach to regional development. The successful adaptions of the identified best practises are all based on true local needs and careful analyses of the local context among the relevant stakeholders.

This further underlines the need to use a bottom-up approach when formulating regional development strategies and, in relation to these, the corresponding (national or regional) ERDF-programs. The philosophy should be to start with the challenges and needs, not from (more typical) issues such as budget distribution and organisational structures.

In order to be relevant and successful the innovation/smart specialisation strategies should use a methodology for measuring and analysing the development of triple/quadruple helix cooperation and bridging of gaps between the actors. This is verified throughout the LARS project where the so-called connectivity model has been applied (for discovering and measuring the strengths of the cooperation).

The transnational/interregional elements of cooperation have been very valuable. The regional reports tell that the clear process of identifying gaps, analysing best practise and learning and reflecting on adaptions and implementation processes have been very fruitful. From “go abroad and see” towards “see, think, discuss and make change” as the report from LIAE in Lithuania describes this bench-learning process. Receiving an outside perspective has proven to be very useful when reflecting on how present practises may be improved.

The concept of co-creation implies a significant contribution to regional development and innovation. In the LARS project the various forms of focus group meetings, on-line and in-place, have enabled the key players from various arenas to share ideas and vision and learn together.

As a final exercise in the national reports from the pilot implementation all partners were asked to rate how the pilot has improved the skills/knowledge how to implement best practice from other regions. In the table below the results are summarised.

	Neutral	**Higher**	**Comments (samples and/or summarised)**
Organization´s own innovations skills to supported development	3	5	The implementation process has revealed what kind of details, parts and ideas could be transferred and implemented directly without adaptation and which needs to be assessed in regard

of changes			to local circumstances. This allowed us to prepare a clear methodology for transfer of good practices that could be used with other pilots. After implementation the individual staff members have more understanding of other organisations.
Stakeholder involvement	1	7	Even though their motivation level is low, gathering different stakeholders in joint activities is beneficial inasmuch it could lead to lowering their mistrust levels by means of interaction. Focus group meeting have encouraged stakeholders to discuss. In some meetings, the target groups were well presented.
Political knowledge and involvement for S3 and interregional innovation (1 no answer)	3	4	Some stakeholders – planning regions – already are active innovation promoters without specific mandate in their regions, but some regions now are keen to realize innovation promotion and foster cooperation between quadruple helix actors.
Contributed to better analytical capacity or know-how (1: “maybe”)	1	6	Analytical capacity or know-how of all involved stakeholders had been improved; expertise in the field had been improved by all parties. Understanding of regional innovation system´s bottlenecks
Mobilized the political and stakeholder engagement	2	6	Political and stakeholder engagement had been mobilized by establishing acting network to boost the selected field of intervention
Understanding of interregional cooperation in terms of getting access to new knowledge	1	7	We consider our study visit to various Finnish companies and organizations as a central point of our learning process, that inspired us and our stakeholders and gave empowerment for actions in our own region. Politicians understand more the importance of interregional projects and meaning of Smart Specialisation