

# Action Plan of the CARPE DIGEM Project: Catalysing Regions in Peripheral and Emerging Europe towards Digital Innovation Ecosystems

Partners involved:

- Region Västerbotten
- Uminova Expression

Policy Instrument:

Regional Development Strategy (RUS) Västerbotten

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## 1 General information

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Project: CARPE DIGEM  
Partner organisation: Region Västerbotten  
Other partner organisation involved: Uminova Expression  
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## 2 Policy context

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The Action Plan aims to impact:

- Investment for Growth and Jobs programme
- European Territorial Cooperation programme
- Other regional development policy instrument**

Name and reference of the policy instrument addressed:  
Regional utvecklingsstrategi (RUS) 2020- 2030

### 2.1 Introduction: the territorial context of Region Västerbotten

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Region Västerbotten spans 55,432 km<sup>2</sup>, making it the second biggest region in Sweden after Norrbotten. The largest cities are Umeå (about 85,000 inhabitants and about 126,000 in the whole municipality) and Skellefteå (about 36,000 inhabitants and about 73,000 in the municipality).

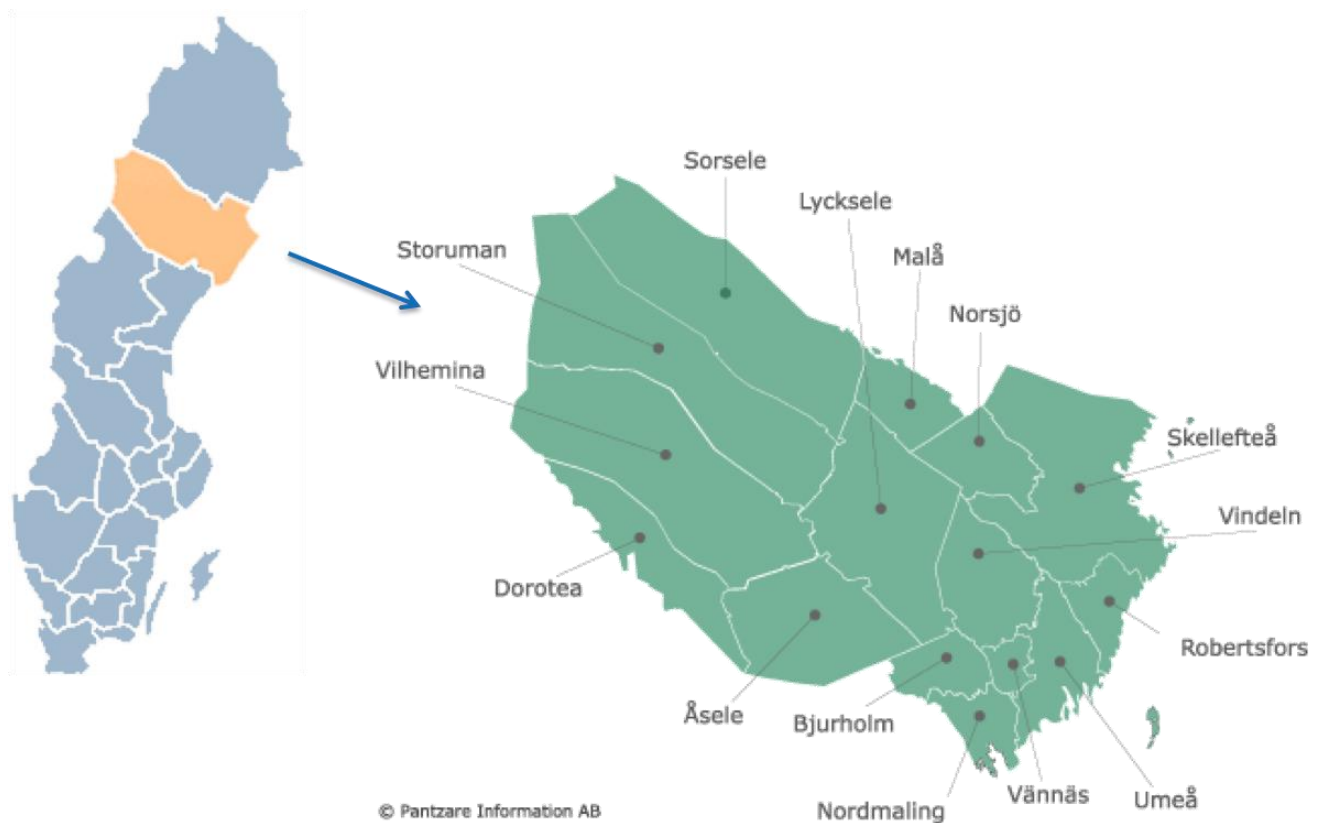


Figure 1 - Map of Region Västerbotten

The region's **sparse population** presents a challenge. It is difficult to engage local actors in innovative environments and networks, there is considerable intraregional variation in the volume and quality of key network infrastructure, and changing demographics are putting pressure on the functioning of the welfare state especially in sparsely populated inland areas. Bigger urban centres along the coastline already have good logistical services by roads, railway, ports and airports. Västerbotten also has a high level of knowledge and skills, with three universities, many innovative businesses, clusters and networks. Coupled with the advantage of some of the most advanced digital and broadband connectivity in all of Europe, this represents a strong competitive advantage when facing competition from growing knowledge economies elsewhere. Västerbotten's challenging context nevertheless enables opportunities for innovation in sustainable social development, testing activities, service solutions, and technical solutions for infrastructure and communications networks over long distances.

Västerbotten's knowledge-intensive environment has already given rise to **several extensive initiatives of interregional and transnational collaboration**. Västerbotten is involved in the preliminary steps to develop an Arctic Investment Platform and engages actively within the Baltic Sea Region in the initiative to promote an interregional S3 ecosystem. Key industry sectors in Västerbotten include high-tech processing industries, forestry, energy and cleantech, life science, ICT, and service industries.

Västerbotten has a good innovation capability and has been highlighted as a leading innovative region in European comparisons. Also, in "Reg Lab's Innovation Index", Västerbotten shows a prominent position in terms of **renewability**. The OECD's recent report "Territorial Review - Northern Sparsely Populated Areas" states that the challenge in the future of Västerbotten's part is to speed up the further processing of products through new SMEs, while recognizing that there are large intra-regional differences between large-scale and smaller municipalities, between city and rural areas, coast and inland.

The **opportunities** to take part in the systems and environments that promote innovation are **limited in sparsely populated areas** and in smaller municipalities. This points out that efforts should be directed towards developing **methods and tools to strengthen innovation** power throughout the county by taking care of creativity and creative power of actors who are not usually found in already established innovation systems.

A green, industrial revolution is at the same time underway in northern Sweden. The investments made in renewable energy, battery production and fossil-free steel will amount to just over SEK 1,000 billion in just a few years. It creates new opportunities - a new chance to build a society that is truly sustainable. This major societal transformation is financed by the new industrialization, it is driven by **green energy and digitalization** and it is carried out in collaboration and creates a paradigm shift that must be implemented in the short term.

It is about shaping conditions for regional and local mobilization, identifying a common direction of building capacity to handle societal change as a result of the new investments and establishments that follow in the footsteps of climate change. The investments involve an expansion in places and in municipalities that for a long time have been characterized by a declining population and thus a declining tax base. This means that the municipalities' adjustment will be at least as thorough as the industry's adjustment. These are very large investments in infrastructure, housing, education and culture that will be implemented in the short term with far-reaching consequences for the future. The transition must go fast and it **requires collaboration** on a whole new level.

The social transformation that the region and northern Sweden is facing is historic. This means that there is no model to look at and learn from. It is a pioneering project that is launched and which must be characterized by courage where you learn while driving. The change will involve efforts in the form of projects and investments in both the short and long term. The investments create great dynamism, but they also lay the foundation for new development by attracting nearby, complementary businesses which strengthens the larger-scale investments.

This major societal transformation financed by the new industrialization is being carried out by **local, regional, national and international actors**.

It is a transformation process on every level with large-scale future establishments around climate and sustainability, new innovations, new technology and new skills. Within all of the six priorities of the RUS it is key the increase of the capacity for collaboration and co-operation between stakeholders. The green transformation will operate at the **intersection of technology and service development** in industry, test operations, sustainable energy and environmental technology, as well as attractiveness and recipient capacity. It will thus contribute to the work of realizing the Smart Specialization Strategy as Regional Development Strategy where Digitization, Communication, Innovation, Learning, Attractiveness and Sustainability are horizontal areas and dimensions.

### 3.3.1 Regional Development Strategy (RUS) Vasterbotten - RUS 2020-2030

The region decided to refer to the new Policy Instrument since it replaces the previous RUS 2020 now outdated.

#### Västerbotten - an attractive region where differences create development

The PI has two overall sustainability goals aimed at the global goals in Agenda 2030:

- I) A living place is the community where people want to stay, the place with good conditions for visiting, growing, working and getting old.
- II) A circular place handles climate change and creates economic opportunities and infrastructure in a way that simultaneously takes care of natural resources and ecosystems. It contains six priorities:

1. *An innovative and smart region* (collaboration and co-operation, digitization and new solutions / innovations)
2. *A region with location-based sustainable business development* (collaboration and co-operation, growing, stronger and new viable companies)
3. *A region close by* (collaboration and co-operation, sustainable mobility, investments in sustainable transport systems and digital infrastructure)
4. *A region with sustainable living environments to live, work and live in* (collaboration and co-operation, developing and managing natural heritage, habitats, active leisure, culture and cultural heritage as well as sustainable consumption, including energy use)
5. *A health-promoting region* (collaboration and co-operation, healthy lifestyles, healthy work and business environments as well as safe care and social care)
6. *A region rich in skills* (collaboration and cooperation, equal participation in working and social life, especially through education and the supply of skills in companies and businesses).

Through our participation in CARPE DIGEM and our focus on Open Social Innovation (OSI), we are contributing to increase that capacity across sectors as we act in all the six priorities through our constellation in the project.

The PI is therefore principally being improved by new 'rural local collaborative projects', involving stakeholders as well as students and immigrants in a co-constructive process. In particular, we mention the following three mail projects:

**Project I: Creatives for longevity**

*By eXpression Umeå and RISE (Research Institutes of Sweden). Financiers: Tillväxtverket, Region Västerbotten, Umeå Municipality*

Creatives for longevity is a collaboration to strengthen the creative sector and an initiative where tradition and future merge. The overall purpose of the project is to contribute through sustainable digitization, design knowledge and innovation development to sustainable growth and innovative power in small and medium-sized companies in Västerbotten. The target group is creators and producers, companies that are hard hit by the pandemic. Through our open innovation environments, we provide the opportunity to test digital technology and cross-border collaborations. The innovation environments offer expertise for prototyping, product development with new materials and digital technology, exploration of different materials and interactive design.

**Project II: Redesigning the Future**

*By eXpression Umeå and High Coast Creatives. Financiers: EU, Region Västerbotten, Umeå Municipality, Örnsköldsvik Municipality, Företagarna Örnsköldsvik*

An accelerator for the internationalization and growth of creative industries. The purpose is to stimulate growth among creators in the north of Sweden through development of new digital strategies in order to reach the global market from both rural and urban areas. The project goal is to increase the internationalization and export opportunities for CCI companies in the regions of Västerbotten and Västernorrland through business development support, development of new digital business models and the usage of shared resources.

**Project III: North Sweden Arena for Art, Design, Tech & Business**

*By eXpression Umeå and Umeå University. Tillväxtverket, Region Västerbotten and Umeå Municipality.*

The project goal is to develop an industry-wide test and development environment that, with the help of cultural and creative industries, strengthens new thinking and innovation for the entire region. A test and development environment where SMEs, as well as start-ups and creators/innovators, meet each other across borders and share new knowledge and experiences. The project is strengthening cross-industry networks and collaborations between CCI companies in Västerbotten.

## 2.2 Role of the Innovation Loop for regional growth and development

In the direction of strengthening regional innovation, since 2014 Region Västerbotten has been organising and running a co-creation event, the “Innovation Loop” (<http://innovationloop.eu>). This consists of a cyclical well-structured co-creation process whose mission is to allow the co-generation of innovative ideas and prototyping these into innovative solutions (products, services, processes) towards regional innovation ecosystems.

- It has a cyclical approach where every cycle has an overall actual theme (e.g. Talent for Growth, Culture –Driven Growth, Border – Crossing Meetings, etc.).
- It follows three phases: 1. Co-identify problems and ideas to solve them; 2. Co-generate solutions; 3. Implement solutions
- It is based on four types of meetings: Information meetings; Idea workshops; Prototyping workshops; Implementation Workshops.

### Targets:

- Partners:
  - Academic and Research Institutes (public and private)
  - Companies (of any size and any sector)
  - Governments (regional but also local and national level)
  - Media
- Participants (in the Quintuple Helix):
  - Citizens
  - Representatives of partners

### Methods and tools:

- Co-creation methods from Design Thinking / Service Design
- Co-creation web-tools and platforms

### Resources needed

The Innovation Loop engages: up to 1.500 people a year; circa 35 public sector organizations and circa 35 companies. A yearly budget of 1 million euro is usually invested in the whole annual cyclical initiative by getting financial support from different regional projects and stakeholders.

### Evidence of success

The Innovation Loop produced up to 37 new products, services or processes in different stages of implementation. In Västerbotten the Innovation Loop is contributing to strengthen regional innovation leadership, to achieve more efficient use of the Structural Funds as well as to increase synergy between the EU, national, regional and local development strategies, bringing:

- different themes focused on social issues driven by individual and organizational needs;
- a broad representation of participants from different knowledge perspectives, ages and professional background.

In the context of the Brussels-based European Week of Regions and Cities (EWRC), in 2018, more than 70 people from all over Europe joined a Participatory Session with the aim of co-generating new ideas for digital transformation in the public sector by using the Innovation Loop.

## 2.3 The opportunity for a Living HUB for regional development and innovation

### Rationale for creating/strengthening a regional Living Hub

There is a large need for better utilising the rural potential for boosting the regional development connected to distance-spanning technologies in peripheral regions. There is need to connect separate competence centres to be able to develop an attractive society for tomorrow with a bottom-up perspective.

In particular, we do not only build digital hubs, but we have a wider perspective - from remote-controlled airports and hydrogen conversion, over advanced distance care to innovative handicrafts. And where we must not lose sight of the fact that it is man - not the structures - who carries the key competence. As citizens, we are in all our different roles and functions both suppliers and recipients in this composite system. This is what shapes the "Living Hub" that can deliver in accordance with our vision of making visible the potential of sparsely populated areas as an innovation area.

What we need to achieve:

- For Västerbotten it is important to identify, take advantage of and develop the potential of the hidden knowledge and overlooked resources that exist in the region. The region needs to develop new structures and create digital innovation hubs and ecosystems that take advantage of that potential. It requires "co-visioning and co-construction." Developing such structures will increase the availability and accessibility of digital innovation hubs at a distance. Create new local collaborative projects, which involve different stakeholders in the implementation. Develop methods for how the region can collaborate when it comes to creating digital hubs / ecosystems to develop community service.
- We need new thinking when it comes to business models - not least when it comes to the borderland between running a business and innovation.
- The consequences of the pandemic increased the demands on the ability to adapt. We need new thinking and cross-fertilization of skills.
- Region Västerbotten region is too Umeå-dominated - resulting in an unfair regional balance. We should also think bigger territorially. It is interesting to note that eXpression operates all the way from Jämtland up to Norrbotten at the same time, as for Storuman, the model area for "Good and close care" includes southern Lapland
- We want to see ourselves as an enabler - that we become an innovative link that primarily creates added value for ourselves and the region and that we then also deliver inspiration and knowledge to the other international participants in the project.

### Description of the Living Hub





We are creating a vision-driven Living Hub by involving stakeholders and digital ecosystems within the entire spectrum that our collective initiative in Västerbotten holds and which is being enriched through our joint participation in CARPE CARPE based on our different roles and assignments. Could not one look a little more holistically at the whole thing. - ie not just on the parts. Not only on clustered competence hubs in different areas, but we also package the hubs into a "configuration" that opens up for the cluster hubs to fertilize each other. We open up for interactivity, creativity, letting "randomness" into the structure. The linear always works - it just goes on. Opening up to unexpected meetings, between people, skills, structures, platforms and ambitions adds a new dynamic. The one that characterizes a Living Hub - a dynamic that makes things grow and development develop.

The Living Hub of Region Västerbotten is composed by two parts: core skills from each sector and interactions between people across sectors.

The aim is to involve key actors from each cluster/sector in better structured forms of collaboration that bring a multi-disciplinary and cross-sectoral / holistic vision for regional development and innovation where open social innovation plays a key role. The picture below represents the dynamic concept of the Living HUB showing the various clusters present at the region.

The picture shows overture towards new sectors and forms of collaboration.

The Living Hub of Region Västerbotten will also be beneficial for both communication and positioning – internally and externally- nationally and internationally.

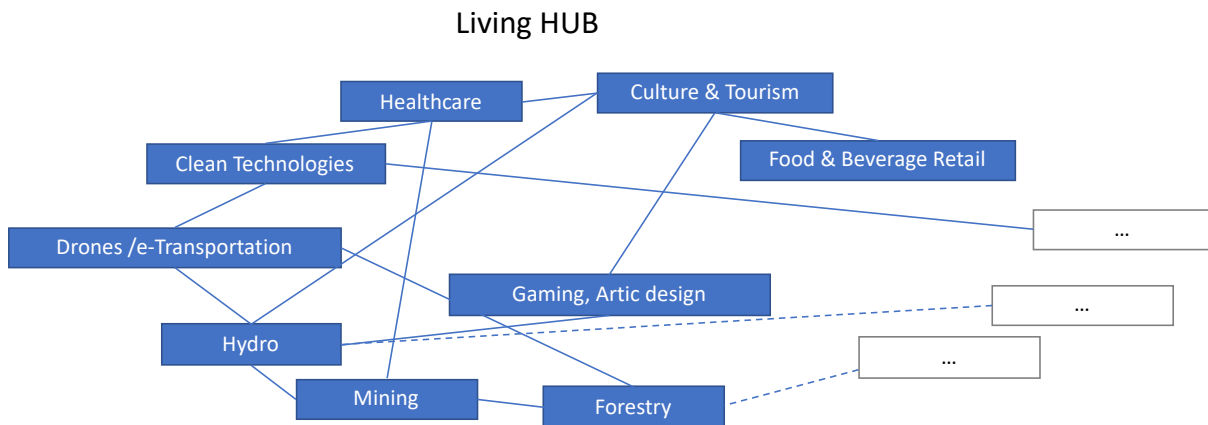


Figure 2 - Living Hub of Region Västerbotten

### 3 Actions

#### 3.1 Knowledge applied from CARPE DIGEM

Describe in this section how you are applying the knowledge acquired and lessons learnt from the exchange activities in CARPE DIGEM, in the development of your action plan.

Partner experience and practice (please detail: service name, short description and location)	How this Partner practice has contributed to the services developed in your Action Plan (detail any transfers, full or partial of good practice)
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<p>Mallorca GP on location-based services for tourists by gathering internet navigation data and recommending services that are based on data from tourists and their analyzed and segmented profiles.</p>	<p>To develop the benefit of what new technology can provide and to learn from the mistake made. To be able to take a shortcut in an environment where technology is developing very fast.</p>
<p>Madeira GP on digital nomads</p>	<p>To explore the possibility that Vasterbotten has to attract digital nomad in the way that Madeira has been doing. For this type of target, the quality of life can be considered equal as in Madeira.</p>

### 3.2 Description of actions planned

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Our action plan will consist of one action and two main interconnected sub-actions aiming at “Strengthening the Living HUB” for widening the potential of sparsely populated areas as an innovation area.

The action plan engages different clusters at Region Västerbotten, eXpression Umea and the Municipality of Storuman, the latter being already hub for regional development in Scandinavia

Below we describe the sub-actions and the value brought into the region and main players involved, as follows:

#### **A1 - Strengthening the Living HUB**

Objective: to connect all capacities and outcomes through operational procedures for strengthening the Living HUB. This will bring valuable insights in different sectors from the partners GPs. Players involved: Region Västerbotten, eXpression Umea, Storuman Municipality.

Sub-actions:

- A1.1 Defining operational procedures for the Living HUB
- A1.2 Defining a new project for the sustainability of the Living HUB connected to the New Northern Green Deal, ongoing in Vasterbotten

Activities within each sub-action:

### A1.1 Defining operational procedures for the Living HUB

#### *A1.1.1 Interviewing key actors in each sector to evaluate existing capacities, gaps and barriers*

Objective: Mapping managerial and technical capacities of the various clusters at the region, including gaps and barriers for collaboration. This will bring us an updated map of capacities for digital transformation. We will also use the digital assessment tool developed by CARPE DIGEM. Players involved: Region Västerbotten, eXpression Umea, Storuman Municipality.

#### *A1.1.2 Map the projects' outcomes and identify procedures that secure the findings of the projects.*

Objective: Mapping the main outcomes of existing projects (using RISE, eXpression and Stureman Municipality) through meetings and interviews, in order to identify procedures that secure the findings of the projects, therefore empowering knowledge management inside the region and Living Hub. This will bring us an updated map of projects results for further exploitation through new calls. Players involved: Region Västerbotten, eXpression Umea, Storuman Municipality.

#### *A1.1.3 Re-use learnings from existing GPs from other partners*

Objective: Allow a proper implementation of the learnings from the study visits in order to enrich our work in the mid-long terms under the Living HUB approach. This will bring valuable insights in different sectors from the partners GPs. Players involved: Region Västerbotten, eXpression Umea, Storuman Municipality.

Role of stakeholders: Storuman Municipality will provide valuable input about the strategy for municipality development with particular focus on the rural area. Storuman will describe their competences and expertise in digital transformation in the rural area and help to map any existing gap that the action plan can then try to address. Storuman has broad network of partners with healthcare, aviation and infrastructures and thus will be able to stimulate the generation of network of stakeholders that can be crucial for generating new collaborative rural project.

### A1.2 Defining a new project for the sustainability of the Living HUB connected to the New Northern Green Deal, ongoing in Vasterbotten

#### *A1.2.1 Co-create new ideas and new proposals in each sector with quintuple-helix approach*

Objective: From a bottom-up perspective, to identify challenges and lacks in each cluster by using the "position method" which creates consensus about what challenges should be addressed in prioritized way. And then co-defining new projects that address those challenges using the Innovation Loop. This will bring new projects and activities in each sector. Players involved: Region Västerbotten, eXpression Umea, Storuman Municipality.

### A1.2.2 Co-create new ideas and new proposals across sectors with quintuple-helix approach

Objective: From a bottom-up perspective, to identify challenges and lacks across cluster by using the “position method” which creates consensus about what challenges should be addressed in prioritized way. And then co-defining new projects that address those challenges using the Innovation Loop. This will bring new projects and activities in across clusters. Players involved: Region Västerbotten, eXpression Umea, Storuman Municipality.

Role of stakeholders: RISE eXpression Umea and Storuman Municipality will provide valuable input for properly evaluating the findings in activity A.1.1 and to stimulate the creation of context-based collaborative projects.

Overall the implementation of the action and its sub-action will help to modify the policy instrument. In all the priority six areas in the PI described in 3.3.1, the importance of creating capacity for collaboration and co-operation has the highest priority. Through our participation in CARPE DIGEM and our focus on Open Social Innovation (OSI), we are able to contribute to increase that capacity across sectors as we act in all the six priorities. The approaches that OSI directs and the methods and tools that have been developed form and establish the basis for the development of The Living Hub. That is reflected in the activities in the action plan. This means that within semester 1 and 2 we will involve politicians and decision-makers in jointly evaluating a PI that is now in a first implementation phase - to discover what gaps are in it, to specify intentions, to focus on writings and formulations that need to be sharpened or improved and to develop underlying governing documents and suggesting direct changes in them. Both in the short and long term.

## 3.3 Timeline and funding

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The following Gantt chart indicates the timing of each sub-activity. All sub-activities are funded with internal resources of Region Vasterbotten.

		1 semester						2 semester					
		Aug-2022			Jan-2023			Feb 2023			Aug 2023		
		aug	sept	oct	nov	dec	jan	feb	mar	apr	may	jun	jul
A	Actions/Sub-actions	1	2	3	4	5	6	7	8	9	10	11	12
A1 - Strengthening the Living HUB													
1.1	Defining operational procedures for the Living HUB												
1.1.1	Interviewing key actors in each sector to evaluate existing capacities, gaps and barriers												
1.1.2	Map projects' outcomes and identify procedures that secure the findings of the projects												
1.1.3	Re-use learnings from existing GPs from other partners												
1.2	Defining a new project for the sustainability of the Living HUB connected to the New Northern Green Deal ongoing in Vasterbotten												
1.2.1	Co-create new ideas and new proposals in each sector with quintuple-helix approach												
1.2.2	Co-create new ideas and new proposals across sectors with quintuple-helix approach												

The activities will be co-funded with internal resources from Region Vasterbotten for a total of 16.000€ as foreseen below for each sub-activity:

- A1.1.1 Interviewing key actors in each sector to evaluate existing capacities, gaps and barriers  
Cost of the action: 4.000€
- A1.1.2 Map the projects' outcomes and identify procedures that secure the findings of the projects: 2.000€  
Cost of the action: 2.000€
- A1.1.3 Re-use learnings from existing GPs from other partners  
Cost of the action: 2.000€
- A1.2 Defining a new project for the sustainability of the Living HUB connected to the New Northern Green Deal, ongoing in Vasterbotten  
Cost of the action: 3.000€
- A1.2.2 Co-create new ideas and new proposals across sectors with quintuple-helix approach  
Cost of the action: 3.000€

#### 4 Monitoring activities in Phase 2

A. In Phase 2 reports you will need to report on the predicted timeframe for the project funding application and set-up/implementation process

**Approval of Action Plan: Please use the model below on headed paper of your organisation**

..... agrees to implement the Action Plan for the ... as detailed above. I confirm that I have the required authorisation of to do so and that the required authorisation process of ..... has been duly carried out.

On behalf of:

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

Position in Organisation: \_\_\_\_\_

Date: \_\_\_\_\_

*Note: Regarding Endorsements for the Policy Instrument Managing Authority or other relevant body directly implicated in the delivery of the Action Plan*

Example: On behalf of.....I would like to confirm our support for the .....Action Plan developed through the CARPE DIGEM project.

We agree, where appropriate, to promote and give assistance to the delivery and implementation of the projects and other activities as detailed in the...Action Plan.

I confirm that I have the required authorisation of to do so and that the required authorisation process of ..... has been duly carried out.

On behalf of:

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

Position in Organisation: \_\_\_\_\_

Date: \_\_\_\_\_

## Annex 1 - List of main activities and meetings with the local stakeholders

The section below provides details of meetings where key issues addressed:

Activity/meeting	Date	Stakeholders involved	Issues addressed and main outcomes
Digital stakeholder meeting with Umeå Region	12/02/2021	Umeå Region, 15 participants (companies)	How to reach out with new products from SME companies internationally
Digital stakeholder meeting with the municipalities in Västerbotten	13/04/2021	12 participants (Mayors of Västerbotten municipalities and the heads of the municipalities)	CARPE CARPE work and advancements in Europe and implication for regional stakeholders
Digital stakeholder meeting	20/05/2021	18 participants (companies, politicians)	Corona express in the north of Sweden,
High-level meeting between	20/08/2021	Norbotten and Västerbotten Regions	between Norbotten and Västerbotten, to develop an application between the two regions for regional development under Green Deal
Meeting	15.16/09/2021	Ambassador of the United Emirates representative in	Discuss about digital transformation and then facilitate the participation of companies from the Region to the Dubai Expo



*Action plan Region Västerbotten*

Activity/meeting	Date	Stakeholders involved	Issues addressed and main outcomes
		Europe and regional stakeholders	
Meeting	27/10/2021	Managers of 15 municipalities in Västerbotten	Update about the activities undertaken in different projects including CARPE DIGEM for regional development.
Digital workshop	07/12/2021	Umea University and Region Västerbotten	Joint activities to strengthen innovation between Umea University and Region Västerbotten
Hybrid (digital and physical) Meeting	7-8/10/2022	Public and private stakeholders	Co-creation focused on sustainable societies in digital times, the biggest conference in Norther Sweden about digitalization and development, in North Sweden Västerbotten
Industry days	24/01/2022	Industries and politicians	Industry days, gathering members from different industries and politicians to discuss about Green Deal, identifying priorities and opportunities for funding.