



REGIONAL COUNCIL
OF LAPLAND



Action Plan

Lapland

Inno4Sports
Interreg Europe



European Union
European Regional
Development Fund



Research &
innovation

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1. General information

Project: Sport for Growth and Healthy & Vital Communities

Partner organisation: Regional Council of Lapland

Other partner organisations involved Lapland University of Applied Sciences & Lapland Sports Federation

Region: Lapland

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2. Background

About the project

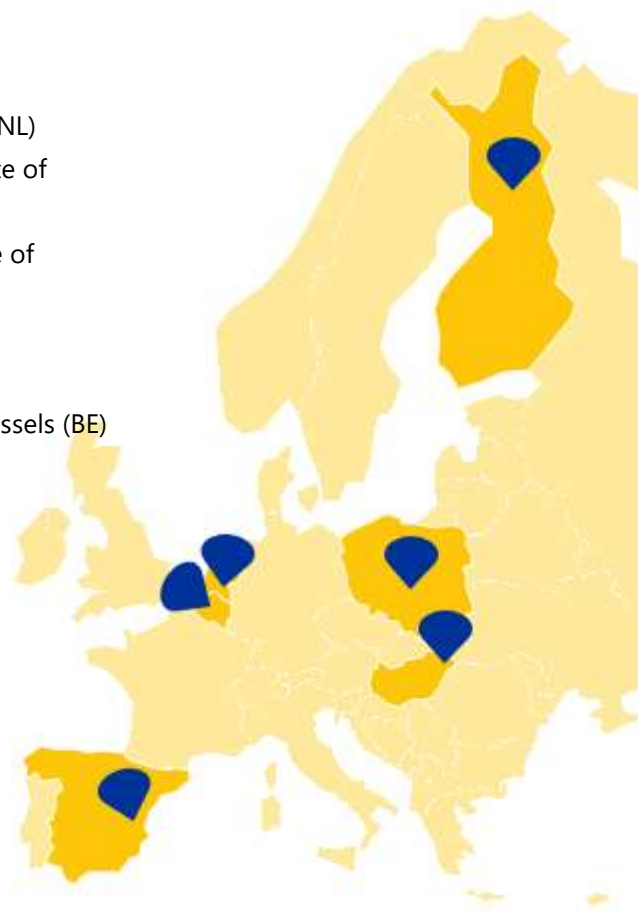
The Inno4Sports project brings together eight partners from six European regions that all share the ambition to promote the role of sport innovation in their regional economy. The aim of the project is to improve the performance and efficiency of regional development programmes (policy instruments) to make them better support innovation and business creation in the field of sport and vitality. This was done through interregional learning and knowledge exchange.

During the first phase of the project, from June 2018 to November 2020, the partners have shared good practices and learnt from each other through study visits, workshops and online communication. Based on interregional learning, each partner region has developed their own action plan where they determine how they will implement the lessons learnt in order to improve their regional development programmes.

You are now looking at the results of the first phase of the project. The second phase of the Inno4Sports project, December 2020 to November 2022, is dedicated to the implementation of the action plans. This document defines what has been learnt from partner regions during first phase of Inno4Sports and how these learnings are implemented in Lapland.

Project partners:

- Cluster Sports & Technology, South Netherlands (NL)
- Instituto de Biomecánica (IBV) & Valencian Institute of Business Competitiveness (IVACE), Valencia (ES)
- MSE Cluster Ltd & University of Debrecen Institute of Sport Sciences, Hajdú-Bihar (HU)
- Regional Council of Lapland, Lapland (FI)
- Verde Cluster, Łódź (PL)
- European Platform for Sport Innovation (EPSI), Brussels (BE)



Regional context

Lapland's nature offers almost 100 000 km² area for sports and recreation and over 350 sport clubs offer free-time activities for all needs. Sport plays an important role as part of wellbeing of locals. At the same time Lapland's knowledge institutions offer great competence for professional sports and coaching. However, it is only in the recent years that sport has started to have been recognised as an individual industry.

Tourism is one of the main industries in Lapland and acts as an enabler for business and innovation in the field of sports. A large amount of experiences offered to visitors in Lapland is based on sports and the utilisation of Lapland's unique arctic nature. Lapland's touristic areas such as ski resorts offer excellent sports facilities for recreational sports as well as professional training, furthermore they also serve living labs for local research, development and innovation activities to develop and validate new products and services.

In addition to tourism and related services, Lapland's sport industry consists of high level sport and wellbeing services, retail and manufacturing.

Sports and vitality as an industry has great potential globally. Growing interest on personal wellbeing is a growing trend and megatrends such as digitalisation, new technologies and the change in work and lifestyles create not only challenges but also new opportunities. During the Inno4Sports project, the covid-19 pandemic has also challenged businesses in a new way and restrictions have been especially affected field of sports where face to face interaction is often necessary.

In addition to the private sector Lapland's sport expertise also includes quality education and research institutions. Lapland University of Applied Sciences (Lapland UAS), is one of four organisations in Finland offering high level education in the field of sports. Sport education is also offered in secondary level including Vocational College Lappia and Rovaniemi Education Centre REDU, which also oversees the Santasport Lapland Sports Academy. Sport development is also supported by design expertise from University of Lapland, ICT and gaming from Lapland UAS and education and research in the field tourism and destination management.

Lapland's 350 sport clubs offer great knowledge in different sports and play a big role in keeping local people active. Lapland Sports Federation, acting as thematic coordinator in Inno4Sports brings together both sports clubs and public actors and oversees the regional sports strategy.

Relevant players in Lapland's sports ecosystem are also public actors, especially municipalities who aim to the wellbeing of their residents. The Regional Council of Lapland is a joint municipal board formed by its 21 member municipalities. Regional Council of Lapland is responsible for regional development and regional land use planning. It manages the national development programme work related to the national and EU structural funds, is responsible of the regional strategies such as Regional development strategy (Lapland Agreement) and regional Smart Specialisation Strategy (S3), and is in charge of international cooperation efforts in the region.

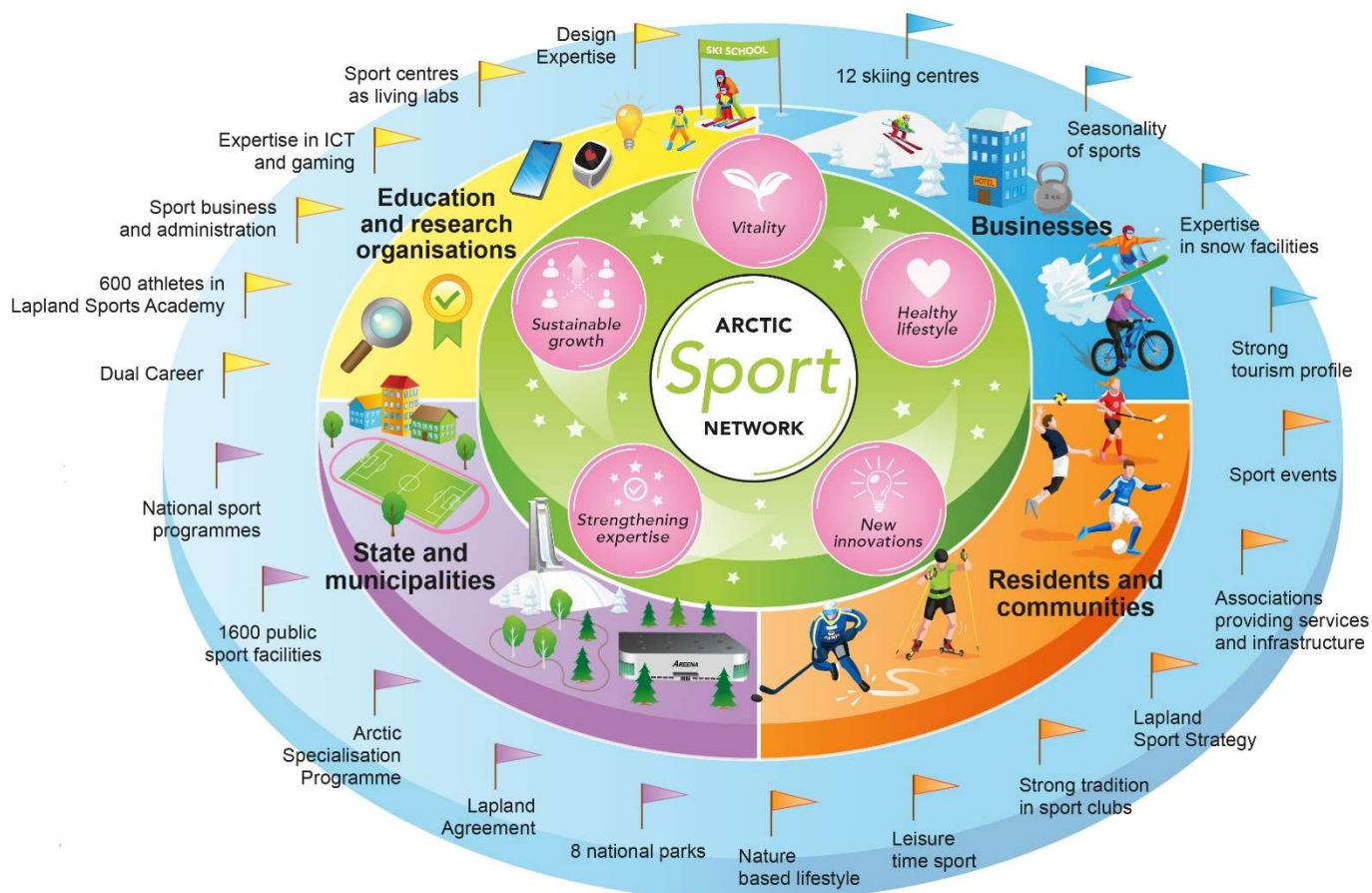


Figure 1: Framework for Lapland's sport ecosystem

Lapland's sport expertise is being gathered together by the Arctic Sport Network. The network is based on cross-sectoral ecosystem-like collaboration bringing together actors from different fields of sport. The aim is to unleash the full potential of sport as an industry, support new business and innovations, to strengthen the local knowledge base and to promote healthy lifestyle among locals by acting as a communication and knowledge platform and therefore enabling collaboration between actors. The network doesn't have any legal form, and anyone can participate in the meetings and workshops which makes the network dynamic and enables true bottom-up approach.¹ With the help of good practices learnt from Inno4Sports partner regions Lapland wants to make to improve the Arctic Sport Network to better support innovation and growth in field of sports and vitality.

¹ <https://www.interregeurope.eu/policylearning/good-practices/item/4340/arctic-sport-network/>

3. Policy context

The Action Plan aims to impact:

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

Policy instrument addressed:

Lapland's Smart Specialisation programme²: Lapland Arctic and international highflier - The Strategic Priorities for International and Smart Specialisation 2018 – 2022³

Sustainable growth and jobs 2014 - 2020 - Finland's structural funds programme

Sport as an emerging industry in Lapland's smart specialisation

The aim of this action plan is to support the use of Lapland's Smart Specialisation Strategy (S3) as a tool for creating innovations and growth in the field of sports. The current strategy, which has been revised in 2018, is coordinated by Regional Council of Lapland and implemented in collaboration with wide range of regional stakeholders. Although, the smart specialisation strategy isn't a financial instruments as such, it directs the allocation of European Regional Development Funding (ERDF) meaning that S3 compatibility is one criteria in the evaluation process of funding applications.

In Lapland's smart specialisation strategy, sport is recognised as an emerging industry under the priority *Advanced Arctic business – foundation for the growth*⁴. Being an emerging industry, sport sector has a strong base in Lapland, in educational and research organisations as well as businesses, but has only recently been recognised as a distinct industry with great potential. Having sport included in the S3, brings the industry better recognition on strategic level and supports new projects to be funded from the regional ERDF-funds. The Arctic Sport Network uses the smart specialisation strategy as a tool to support growth and innovations in the field of sport.

The second priority of Lapland's S3, *Arctic expertise, renewal and innovations strengthening the growth and international business activities*, aims at creating a fruitful environment for new innovations and their successful commercialisation. The Arctic Sport Network aims to create a model where educational institutions, research organisations, private sector and other actors are integrated in order to unleash the potential and to create successful business. The high quality sport infrastructure and tourism facilities

² In Inno4Sports application form the policy instrument is referred as Lapland's Arctic Specialisation Programme (RIS3), which has been updated and replaced in 2018 by the document mentioned here. Therefore, this action plan is targeting the current version of the S3.

³ Lapland an Arctic and international highflier — The strategic priorities for international and smart specialisation 2018 – 2022, Regional Council of Lapland, Publication series: A52/2018, Rovaniemi 2018, ISBN: 978-951-9244-88-4

⁴ Lapland an Arctic and international highflier — The strategic priorities for international and smart specialisation 2018 – 2022, Regional Council of Lapland, Publication series: A52/2018, Rovaniemi 2018, ISBN: 978-951-9244-88-4, page 27.

combined with other laboratories and testing environments provide a fruitful platform for open research, development and innovation activities.

Furthermore, the Arctic Sport Network supports the priority *Regional ecosystem as the base for internationalisation* by acting as an ecosystem where all actors contribute to the collaboration creating complementary products and services and shared value chains. The Arctic Sport Network also plays an important role also in internationalisation by promoting Lapland's strengths and needs in interregional and international platform. One important interregional platform is the Sport & Vitality thematic partnership under the S3 Platform for Industrial Modernisation, where Lapland is the lead region. This partnership, better known as ClusSport, brings together European regions that share the aim to strengthen the Sport & Vitality industries at the EU level.

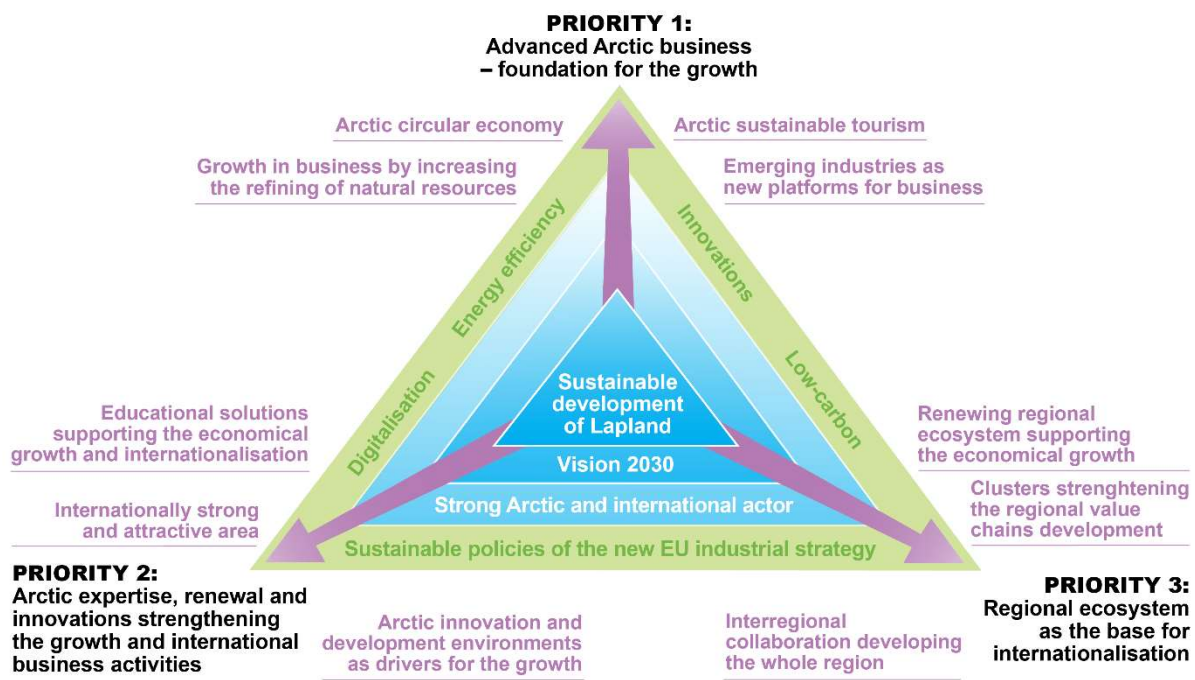


Figure 2: The strategic priorities for Lapland's international and smart specialisation 2018 – 2022

Structural Funds Programmes as a tools for sport innovation

As S3 guides the allocation of European Regional Development Funding (ERDF), this action plan is also aiming at better use of ERDF-funds in development of sport innovation. Regional Council of Lapland, as intermediate body for the structural funds programme, has allocated ERDF-funding over 55 million euros during the 2014-2020 programme period. From this amount approximately 4M€ have gone to projects targeting variety of development activities in field of sport. The level of the use of data and digital solutions as part of these development activities is however low, compared to the potential discovered during Inno4Sports. Since there are projects funded from the programme that are running until the end of 2022, this action plan aims to encourage the adoption of data use and digital solutions in these projects.

4. Action 1: Strengthening of Arctic Sport Network collaboration

During Inno4Sports project we've had the chance to see how the sport clusters and ecosystems function in the partner regions. Well-functioning regional ecosystems benefit all their members by helping actors reach shared goals or solve shared challenges, and by supporting innovation and business creation by offering complementary competences and resources such as facilities and living labs. Ecosystems are based on mutual trust and contribution from all its members.

This action contributes to the implementation of the smart specialisation strategy by generating a project compatible with S3 and by strengthening the Arctic Sport Network as an ecosystem and by increasing the capacity of actors to work together towards shared goals and implement shared projects.

Lessons learnt

Knowledge triangle model, InnoSportLab de Tongelreep, South Netherlands

Activities in InnoSportLab de Tongelreep are based on collaboration between the research institute, end-users (swimmers) and businesses. The basic idea is to generate innovation in a way that benefits everyone involved in the process. The lab brings together a) swimmers, who aim to get better b) university and it's researchers aiming to produce top of the class information and c) businesses providing tech, equipment and infrastructure aiming at growth and providing top of the class products. By combining the skills and resources of these three sectors, all benefit by getting valuable information to support their aims and by accelerating the innovation process.

Lessons learnt:

- Motivation of different actors to take part in collaboration – all benefit
- Small cross-sectoral partnerships focusing on specific issues
- Transferring competence generated by public research and education organisations to the benefit of regional business life and coaching

Action steps

Building of better Arctic Sport collaboration - Sport during and after Corona-virus project

Lapland UAS, stakeholder and thematic coordinator, has received ERDF-funding for project "Sport during and after Corona-virus". The project aims to bring together businesses, educational and research organisation and end-users (sport clubs) to find new solutions as response to covid-19 situation with the use of knowledge triangle model. The Lapland UAS project aims to find synergies between actors in the same way to support business, innovation and sports in the time of covid19. Although the project is targeting businesses, inspired by the knowledge triangle model, also educational organisations and sport clubs (representing end-users in this case) are included in order to widen the knowledge base.

The project consists of the following steps:

- 1) Innovation workshops with Arctic Sport Network on what are the short and long term consequences of covid-19 and possible solutions and opportunities there are
- 2) Regional and interregional exchange of good practices and mapping of opportunities for interregional collaboration

Timeline: July – December 2020

Resources: Sport during and after Corona-virus –project, funded by Sustainable growth and jobs 2014 - 2020 - Finland's structural funds programme (Regional Council of Lapland), total budget 78 860€.

Success indicators:

Number of ERDF-projects approved: 1

Amount of ERDF-funding received: 78 600€

5. Action 2: Testing the Data Driven Innovation concept

Lapland wants to establish a regional innovation hub for sport & vitality to harness the regional infrastructure and expertise to better serve innovation and business creation in the field of sport. The innovation hub would provide businesses testing and development environments (living labs), data, and know-how to develop competitive products and services.

This action is based on learnings from South-Netherlands and Valencia and acts as the first steps in the establishment of the innovation hub. In the action Lapland wants to further investigate the potential of data driven innovation and how it could be integrated in the existing and future facilities and therefore also in the research and innovation actions of the Arctic Sport Network. The action is implemented together with Valencia and South-Netherlands to see how the data driven innovation model could be implemented in different contexts and potentially create a network of innovation hubs. When linking the hub to wider European network, Lapland's innovation hub could serve also businesses in other regions as well as bring the expertise of other hubs to the use of Lappish businesses.

After a successful pilot, the aim is to incorporate the method in future and ongoing ERDF-projects (Finland's structural funds programme 2014-2020) in order to put the piloted DDI-method in practice in the long term. These projects include:

- Energy Efficient Arctic Snow, development activities (1.12.2019-31.11.2022), Lapland University of Applied Sciences
- Energy Efficient Arctic Snow, investment project (1.3.2019-31.8.2021), City of Rovaniemi
- Learning and testing environments for sport hub of the future, development activities (1.4.2020-31.12.2022), Lapland University of Applied Sciences & Rovaniemi Municipal Federation of Education
- Learning and testing environments for sport hub of the future, investment project (1.4.2020-31.12.2022), Lapland University of Applied Sciences & Rovaniemi Municipal Federation of Education
- Smart sport route of three bridges (application submitted, waiting for decision), Lapland University of Applied Sciences

All projects either aim for or include concrete investments in infrastructure and technology. With the knowledge gained from the pilot, the DDI method and technology supporting its implementation can be incorporated in the ongoing projects.

This pilot action also contributes to the implementation of Lapland S3. The results of the pilot are shared with the Regional Council of Lapland, which will evaluate the results and use them in order to formulate future policies within the S3 2018 – 2022. Currently sport is identified in the S3 as an emerging industry. With the use of DDI and the development of sport innovation hubs the aim is to increase the role of sports in the S3 2018 – 2022 and support formulation of a regional sport cluster that is recognised as part of Arctic Smartness, which is a collaboration platform that brings together regional development organisations that all implement the S3.

Lessons learnt

This action has gotten its inspiration especially from lessons learnt from South-Netherlands and Valencia:

Vitality Living Lab, Cluster Sports & Technology, South Netherlands

A Vitality Living Lab project, implemented in South-Netherlands, brought together a mix of field labs, knowledge institutes and companies that all aimed at creating one unified living lab infrastructure. The aim of the living lab is to support shared innovation process all the way from idea generation to testing, validation and business acceleration.

Lessons learnt:

- Public-private collaboration on combining existing facilities and living labs for the use of sport innovation
- Developing of sport facilities to support both sports and research and development activities
- Whole innovation process from idea generation to market access integrated in the living lab structure

MOVE 4D High-speed 4D Body Scanner, Instituto de Biomecánica, Valencia

Inno4Sports partner IBV is a leading research organisation in biomechanics. Their MOVE 4D lab consists of high-speed and high resolution cameras that are able to track movement of human body and a software to analyse the functioning of human body. The information provided by the scanner can be used in medical treatment and coaching, but it also offers possibilities for i.a. product design, testing and game technology.

Lessons learnt:

- Technology to measure and analyse movement of human body
- Use of human motion data in innovation processes

Action steps

Pilot action on Digital Human Twin

Carrying out a pilot action to find out how data driven innovation model can be applied in Lapland, in this case, in the Rovaniemi Ounasvaara Winter Sport Innovation Hub. The aim of Lapland is to pilot the data driven innovation concept in winter sport context, which means testing the technology from South-

Netherlands and Valencia and to see how to bring added value to existing services through data. The pilot will be carried out by Lapland University of Applied Sciences through workshops and strong interaction with stakeholders including academia, companies and sport clubs. As a result of the pilot there will be a model of data driven innovation that can be incorporated in ongoing and future research, development and innovation activities.

The pilot consists of the following steps:

- 1) Interregional workshop about data driven innovation in sports
- 2) Elaboration of needs and opportunities for data driven innovation process in regional context
- 3) Development of a model for the data driven innovation process in regional context
- 4) Case application of data driven innovation
- 5) Interregional webinar on assessment and conclusions

Timeline: Q1/2021-Q2/2022

Resources: Pilot action: Transition to data driven Innovation: Using personal digital data to develop, and assess sports services and products, 25000€, funded by Interreg Europe (Application submitted)

Success indicators: Amount of ERDF-funding targeted to implementation of DDI: 100 000€

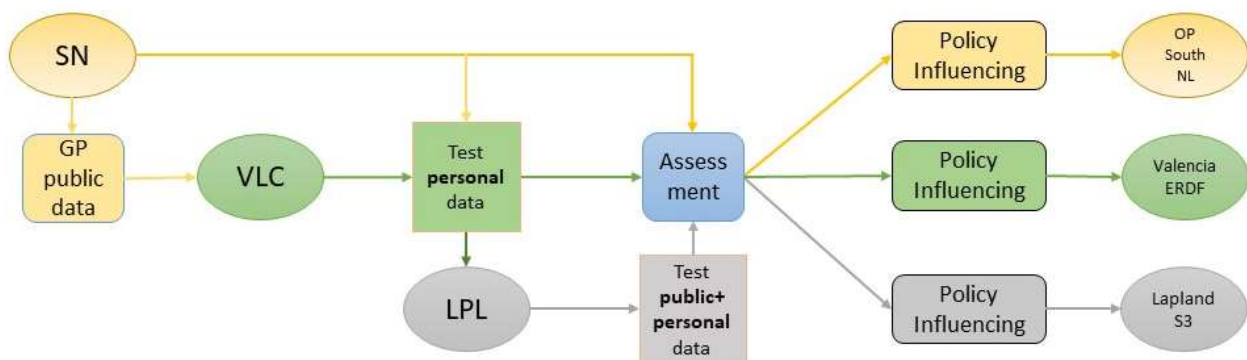


Figure 3: Relation of partners' actions in the digital twin pilot. South-Netherlands (SN) is the owner of the good practice (GP), which Valencia (VLC) and Lapland (LPL) test in their regional context and, by doing so, influence their regional policy instruments. By sharing experiences and results and learning from each others activities creates base for further collaboration.

6. Action 3: Smart Urban Sport Routes

Today technology plays constantly bigger role in sports in forms such as sport watches, applications and smart environments. Technology offers ways to athletes to improve their performance by studying data from their training, and at the same time, it can help inactive people to find motivation and interest to improve their health. This action targets lessons learnt from Inno4Sports meeting held in South-Netherlands on how to use data and technology to support sport activities in urban surroundings. In the City of Eindhoven urban spaces act as living rooms for the residents and with the combination of technology, data and urban design these urban surroundings play an important role in supporting the wellbeing of local people.

This action aims at better implementation of Lapland's smart specialisation strategy by generating a project compatible with the S3, by strengthening research and development collaboration in the field of sports and technology and by looking for synergies between different sectors as well as clusters. The action also supports the adoption of latest technologies in the region and innovation activities. When successful the action supports recognition on sports industry as an essential part of Lapland's economy and smart specialisation.

Lessons learnt

The action is based on the following good practices:

Vitality Data –project, Eindhoven University of Technology, Noord Brabant Region

In Vitality Data –project researchers used gps-data of sports watches and other trackers in order to learn about Eindhoven citizens' running habits. From the data the researchers and urban designers were able to recognise bottlenecks and other development needs in order to make the city a better place for running.

Lessons learnt:

- Using data to analyse people's sport habits in order to develop urban areas to serve active lifestyle and forms of green transport

#040 Beweegt! –partnership, Noord Brabant Region

#040 Beweegt! is a partnership between Eindhoven Municipality, Fontys University of Applied Sciences, Eindhoven University of Technology and InnoSportLab Sport & Beweeg. It actively contributes to vital residents by stimulating sports & exercise. It aims at creating public spaces that support active lifestyle, are attractive for free sports & exercise and accessible to all people, and that encourages encounters. It also provides new knowledge about how public space can stimulate healthy behavior and how technological & social innovations play a role in this. One interesting example is a smart route developed to encourage senior citizens to exercise. The route consists of technology embedded to a park and a smart phone app to give instructions to the users.

Lessons learnt:

- Urban design supporting active lifestyle
- Use of technology to make active lifestyle more appealing and therefore prevent problems caused by inactivity

Action steps

Smart Sports Route of Three Bridges -project

The action is implemented through a project focusing on "Three Bridges route" in Rovaniemi, which is a popular route for walking, running and cycling among Rovaniemi residents. Since the route has emerged

spontaneously and hasn't been specifically designed for sports, it gives a great opportunity to pilot learnings from Eindhoven as well as innovating new products for healthy lifestyle.

The idea of the Smart Sport Routes -project is to map existing routes and develop smart applications to among the routes, in cooperation with the city, companies, sports associations and the local residents who practice sport. Crucial themes for the project are town planning and integrating technology. The project aims at planning experience-driven sports route taking into account tourism and needs of the partnering companies. During the project existing services and products among the route are developed into more experience-driven form.

The goal of this project, coordinated by Lapland University of Applied Sciences, is to create a plan for smart sport route that leads to large scale public-private investment project.

The project consists of the following work packages:

- 1) Mapping of opportunities and earlier experiences on smart sport routes (tourism, health-enhancing physical activity, experiences)
- 2) Mapping of possibilities to include the smart sport route in to the town plan
- 3) Mapping of integrated technology together with business partners
- 4) Building of business network
- 5) Plan of the three bridges route

Timeline: Q1–Q2/2021

Resources: ERDF funding approx. 50 000€, (project application submitted)

Success indicators:

Number of ERDF-projects approved: 1

Amount of ERDF-funding received: 50 000

Number of applications to other financial instruments: 1