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regional policies*



# **ACTION PLAN**

## **InnoHEIs- Improving Research and Innovation Infrastructure Performance: from Fragmented to Integrated and Sustainable Cooperation**

MID SWEDEN UNIVERSITY IN MIDDLE NORRLAND, SWEDEN

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## Part I – General information

Project: **InnoHEIs - Improving Research and Innovation Infrastructure**  
Performance: from Fragmented to Integrated and Sustainable Cooperation

Partner organisation: **Mid Sweden University**

Country: **Sweden**

NUTS2 region: **SE 32, Middle Norrland Sweden**

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## Part II – Policy context

The Action Plan aims to impact:

Investment for Growth and Jobs programme European Territorial Cooperation programme, ERDF program 2014 – 2020, Middle Norland (MN). Thematic area 1) Strengthen research, technical development, and innovation. The action plan will also impact the ERDF program 2021-2027, as the new program is about to be approved and the first call will be opened in SE32 Middle Norrland in august 2022.

As stated more than three years ago in the application to Interreg Europe, the Middle Norrland Region is focusing on developing research and innovation ecosystems connecting industry, academia and the public sector around important themes, as: “Forest as a resource”, “Industrial information technology and digital services”, “Tourism” and “Sports and Health”. Environmental, economic and social sustainability are important horizontal criteria in all areas. There are also important well recognised research in social science and humanities, genus, democracy and political science, sensor-based services, digital printing and digital information services. As stated in 2018 and still today there is a strong focus on scaling up the environmental research and the development of new methods to reduce CO2 emissions. Connected to the Goal 1 investment priorities and the goal 1B innovation priorities, it is considered important to increase the investments in research and development which is low, compared to other regions, and this calls for an increase of research impact. The ERDF policy instrument for innovation and growth needed to be improved by adding the dimension of social science and humanities into technology driven innovation programs utilising the cross scientific approaches by mixing technology driven development and research with social science and humanities.

The Middle Norrland, Sweden ERDF regional program 2014 -2020 has focus on four priority axes:

- 1) Strengthen research, technical development, and innovation. A main objective is to increase the amount of innovative SME.
- 2) Increase the access to, use of and the quality of information and communication technology.
- 3) Increase competitiveness in SME. Objective is to increase the number of new companies with

growth potential.

4) Support the societal transformation to a CO2 free economy.

The regional S3 is closely linked to the ERDF instrument. In order to improve the smart specialisation in Middle Norrland. Mid Sweden University (MIUN) worked together with the regional stakeholders in Middle Norrland, (counties of Jämtland/Härjedalen and Västernorrland), the cluster organisations and intermediaries for innovation also stakeholders of the project. Through InnoHEIs, the aim was that new projects would be funded with two local and cross-regional consortia within the ERDF programme 2014-2020. There were expectations that the InnoHEIs would help in creating cross funding, more innovative companies and new areas of expertise in the region. InnoHEIs project intended to help developing the competence and innovation policies, working with cross science cooperation. Study cases has been an input for improvement of the policy programme. MIUN used the experience gained in a long term (10 years) research programme 'Transforming the industrial ecosystem', a combined digital information service and development of a forestry-bio economy programme. The added value of InnoHEIs will support the policy of the ERDF in Middle Norrland and give new insights into how to develop the policy of innovation and growth. As the University have not been a vital part in formulating the existing 2014 -2020 smart specialisation strategy. InnoHEIs has given an opportunity for the university to be more proactive in the new ERDF programmes 2021-2027 on national and regional levels in the Swedish ecosystem.

#### Background and Analysis of Middle Norrland research and innovation infrastructure

As starting point for mutual learning and the development of actions for improvement MIUN made an analysis of the region by interviewing the research and innovation centres, analysing different reports and discuss the findings with the stakeholder at least once per semester.

**In addition to the above, 2020-2021** MIUN organized several digital workshops with invited participants and stakeholders, listed below:

1. The Swedish Agency for Economic and Regional Growth
2. The Regional Government, Region Jämtland/ Härjedalen
3. The Regional Government, Region Västernorrland
4. The Mid Sweden University its faculty leaders and the management of the different research centres
5. The cluster Bron Innovation and its management
6. The cluster Processum and its management
7. The cluster of Peak Innovation and its management
8. Vinnova, the Swedish agency for Innovation
9. SCA company and its research manager
10. SNN Northern Netherland Alliances, partner in InnoHEIs
11. DEV'UP Centre-Val de Loire, France, partner in InnoHEIs

The analysis for middle Norrland Sweden was presented at the partner meeting 19-20<sup>th</sup> of January 2022, it highlights the role of Higher Educational institutes and their research and innovation infrastructure in the regional ecosystem addressing the ERDF programming structure. The report was the basis for the InnoHEIs partners peer review and gave MIUN insights on how to proceed with the action plan for the region.

The analysis identifies some gaps in the regional ecosystem when addressing the ERDF operational programme under the investment for growth and jobs G 1 - Strengthening research, technological development and innovation. They are:

- Geography and the dynamics in the region create a gap in itself. The existence of two regions one university, long distances and low-density population areas. Different cultural background large industry in the county of Västernorrland, service-oriented industry in the county of Jämtland Härjedalen.
- The innovation system of the Middle Norrland region is atomized or filled with gaps. At least four different innovation support and policy making agencies are active. They are not necessarily coordinated.
- Many stand-alone actors (RII: s?) who are by themselves creating value but they are not integrated into a common ecosystem with similar view of Middle Norrland, so they can build on each other's strengths
- Unclear roles of individual researchers and research centers of MIUN, when participating, proposing and implementing smart specialisation strategies of the Middle Norrland region.
- The diversity of stake holder expectations, coordination of priorities, areas of interest, research calls and needs, to mention a few, have been a challenge for the university. Internal research policies, strategies and not least important, the individual interest of researchers, generated administrative strain, poorly perceived R&D impact, situations of mistrust and at times even disappointment on the local arena.
- An obstacle for researchers emerges from the fact that ERDF funding primarily addresses regional development by supporting the needs of small and medium-sized enterprises (SMEs) to acquire new knowledge, methods and processes, but does not consider the needs of the higher educational institutions. By considering the researcher's need for input from the companies instead of the companies' need for outputs from the researcher, this would allow companies to participate in shorter sprints, where the result will still be of relevance for them. Smaller companies may rather be the target group of a structure that can make knowledge available and collaboration possible
- Contacts and dialogue between higher education institutions and the structural fund partnership is ongoing but are in several cases weak. Despite the fact that the ERDF aims at regional development, and despite the fact that higher education institutions should/might perceive itself as a key player in smart specialisation strategies.
- Many of the research and innovation infrastructure owned by the university is defined as under booked and not used to its full capacity. These data were received when InnoHEIs project group at

MIUN made the initial survey of the Research and Innovation centres (RII) in the Middle Norrland in 2020.

The analysis indicates there is a potential for improvement in the Middle Norrland innovation ecosystem. Making the research and innovation infrastructure more integrated and connected to the regions' smart specialisation strategies and prioritisations. The InnoHEIs project team suggest implementing a permanent dialogue between the university, region(s) and the Swedish agency for economical and regional growth. This in order to facilitate mutual understanding, priorities and help each other implementing the smart specialisation priorities. Maybe also develop new programs and calls together. If the actors can find a way for co-working, jointly prioritise, it will be less complicated for the university and other Regional Innovation Institutes (RII) to organize/interpret/clarify their investments and research initiatives. It could even be in line with the regional ambitions. Researchers have to find substantial reasons to do academic research in line with regional strategies as the smart specialisation (S3). The analysis made by MIUN suggest to start a joint research academy with focus on smart specialization. It could be beneficial for all stake holders to strategically contribute.

The ERDF Programme area (1) finances support to strengthen research, technical development, and innovation, one main objective is to increase the amount of innovative SME.

The implementing body of the program is the Swedish national agency for innovation and growth, Tillväxtverket, in cooperation with the different regions in (MN), Västernorrland and Jämtland / Härjedalen. MIUN is a partner in InnoHEIs and has an active role in the MN region, as the only university.

**Influence of InnoHEIs:** The learnings from InnoHEIs influenced MIUN to participate in two Erasmus calls during May 2021. MIUN got both projects financed one called Bridge; Brilliant Innovation through Digital Engagement and DigiSoc Digital skills and cross-domain entrepreneurship for societal challenges

MIUN is the coordinator for the Bridge project. Bridge focus on developing the competences in creativity and entrepreneurship. None of these projects would have been funded without the influence from InnoHEIs PARTNERS and their good practice. Two 'good practices' has been important for developing the action plan: Hanze university in The Netherlands and Spain.

In 2019 on the first partner meeting, MIUN got inspired by Hanze University and its cooperation with companies and their way of running testbeds/ test facilities together with their stakeholders. Also using the RII as an open testbed and capacity creator for regional development. The two good practices 1) The Digital Society Hub (DSH), <https://projects2014-2020.interregeurope.eu/policylearning/good-practices/item/3421/digital-society-hub-hanze-university-of-applied-sciences/> and 2) Building Zerneke, <https://projects2014-2020.interregeurope.eu/policylearning/good-practices/item/3370/building-zernike-campus-groningen/> inspiring projects where people from the educational and research field interact and create solutions with the work field. These examples show the value of involving different stakeholders such as companies, students, researcher in joint challenges were they together learn to find solutions instead of problems. MIUN got inspired and are developing one educational program for engineering students in the same way.

The second inspiration comes from Spain, Barcelona and the good practice: <https://projects2014-2020.interregeurope.eu/policylearning/good-practices/item/4517/bages-catalonia-shared-agenda-to-tackled-common-challenges/> of creating a shared agenda around a territorial common challenge,

explaining how the stakeholder can define the challenges and how clusters of stakeholders can be developed and coordinated.

### **Joint effort of regional stakeholders involved**

To collect all relevant information, facilitate co-development of actions and to ensure broad acceptance of actions, MIUN gathered representatives of the regional government, researcher at the university and all relevant support intermediaries as well as some companies in joint stakeholder meeting, once every semester during the timeframe of the project.

The open, interactive, and structured exchange of experience of the regional players on research and innovation is appreciated by the stakeholders.

## **Suggested Actions**

The suggested action plan is based on the above described two good practices and our own gap analysis report of the Middle Norrland region.

### **“S3PLUS — System & Structure Conversion for Smart Specialisation”**

Middle Norrland is a region with two separate areas of identified smart specialisation strategies that aims at strengthening the region’s competitiveness. The knowledge in mature industries is deep and strong. These clusters are based on proven competence and long experience. Though knowledge is also fragmented and spread across many different organisations, companies, universities, customers and users. Smart specialisation strategy intends to steer the use of EU regional funds for research and innovation on behalf of the Government of the two regions Västernorrland and Jämtland/Härjedalen.

The financial capacity for regional growth is created by the interaction between the Swedish Agency for Economic and Regional Growth, the Region, Higher Education, the Structural Fund Partnership and the Innovation and Entrepreneurial Force. All actors have adopted a stakeholder role adjusted to their needs and together they intend to create a system aimed at strengthening the competitiveness of the regions by identifying and prioritising areas with potential for growth. These are areas where each region already has strengths and also some new areas that can broaden the growth power of the two regions. We suggest to work with a joint concept of jointly supporting initiatives. To putting it simple. Broadening the scope, from the single region to finding synergies in an imaginary joint innovation region, the Middle Norrland. A joint strategic work for the middle Norrland region can be developed by time and effort. Today we have a here. It’s time for Middle Norrland to take the next step. There is a need to add a plus to Middle Norrland’s existing Smart Specialisation process. This plus is the S3PLUS initiative we are proposing!

Mid Sweden University, MIUN is a stable and robust partner that can contribute with its subject knowledge, research capacity and familiarity on the innovation ecosystem.

Based on InnoHEIs mission to strengthen the role of higher education institutions and its research and innovation infrastructure in the regional ecosystem and the study commissioned by the Swedish Agency for Economic and Regional Growth in 2021 on how the Academy brings benefits in the European Regional Development Fund (ERDF, 2021-2027), we have developed proposals for activities

that can strengthen MIUN's role in contributing to regional sustainable growth. We want to move from fragmented research and innovation infrastructure to a more integrated approach.

We do this by increasing the transparency of the university's activities and matching research with the regions' smart specialisation needs. We create an **S3Plus** consisting of people from MIUN, RVN, RJH and Tillväxtverket with the mission to collaborate, develop and strengthen the S3 model in Middle Norrland. This is done through external monitoring of other regions and university cooperation, participation in international Interreg European projects, cooperation between stakeholders', and networks. Benchmarking, learning and experimentation are important key words.

The next step is to refine infrastructure in research and innovation and contribute to sustainable cooperation between science, industry and the general public. It will contribute to long-termism and systemic work. Mid Sweden University is the actor that contributes to robust roles and structures for collaborative forms and trustful relationships. It will also allow for a clearer discussion in a joint strategy work where knowledge of the complex system's exchange is the driving factor.

The Innovative Ecosystem in Middle Norrland can become a platform for developing common missions and new projects ideas, in a way shown by the 'good practices' of The Netherlands and Spain.

### **Part III – Details of the actions envisaged**

The action plan consists of three parts:

1. Increase the insights of what the university can do and not do for the surrounding society. Reopening of an event called "Mitt Forum" where the university invite senior management from stakeholders in the region and inform about what is going on in the university once a year. This is done in connection to the academic feast but it is a separate event. The first event will occur in October 2022. A wider approach and purpose for MIUN of the "Mitt Forum" could be to create a platform for dialogue around societal challenges and then connect them to important research issues at the university
2. **S3Plus** joint action. The ambition of the Operational Programme ERDF 2021-2027 Middle Norrland and the RIS3 for Jämtland/ Härjedalen and Västernorrland regions is to create an interactive dialogue between quadruple helix stakeholders, mainly the university, regions, the managing authority-Tillväxtverket and the clusters in Middle Norrland. Key are: improved information exchange (in order to more jointly create future calls), training in joint learning on how to develop processes and actions connected to the priority areas of smart specialisation in the two regions. It is valuable to increase the understanding of how the actors can work towards a more integrated innovation ecosystem in the region regarded as one entity were the western part surely can support the eastern, not necessary doing the same thing twice or not at all.

To achieve this, we plan to create a **project**, based on (in)formal lines of communication, between the government (partnership?) and regional stakeholders, as part of the RIS3-governance of Middle Norrland. To be launched during the programming period of 2021-2027, actually during second part of the InnoHEIs project. Important activities are getting a better understanding of each actor's driving force connected to smart specialisation, understand the connection between the priority areas of the two regions and develop joint projects where it is possible and where the university can support in capacity building. While monitoring the



impact of the ERDF 2021-2027 different projects visualisation tools are important to use and develop for better understanding of the S3process.

This action will in turn (further) strengthen the position of Higher Education Institutes (HEIs) as engaged partners in regional governance models for developing and maintaining effective regional innovation ecosystems.

Input for this action will come from the 'Partnerships' in Northern Netherlands and Spain.

3. Further develop knowledge of what is going on in the world, external analysis of the process of smart specialisation in Europe, benchmarking with regions in Sweden, Europe and Internationally.

## **ACTION: The implementation and monitoring of the *Project S3Plus* in Middle Norrland**

### **1.1 Description of Action**

1. *Analyse ongoing activities between university and the regions and other stakeholder / middle Norrland.*
2. *Analysing the different prioritised S3 areas in the two regions, identify the overlaps between the regions, together with the regions, university and clusters jointly develop calls to mobilise actors in these areas.*
3. *Support and develop ongoing activities that work well.*
4. *Do business intelligence in the identified S3 areas, as well as benchmarking of other universities, clusters and regions in Sweden, Europe and internationally. This could be performed by the researchers at the university*
5. *Monitoring of results and visualize them*
6. *MIUN may support the regional leadership of RIS3 with action-oriented research on smart specialisation, its processes and impact on the societal development.*

### **1 Players involved**

*Region of Jämtland / Härjedalen*

*Region of Västernorrland*

*Tillväxtverket*

*MIUN*

*The Clusters 1) Peak Innovation, 2) Processum, 3) Bron Innovation and maybe some more.....*

### **1.2 Timeframe**

August 2022- August 2023, InnoHEIs part two, monitoring of implementation of action plan as explained in the rules for Interreg Europe projects.

September 2022 - august 2025. **S3Plus** project will start and go on for three years.

### **1.3 Costs**

Costs are for personal participating in these activities. Each actors pays its own personal

#### **1.4 Monitoring,**

Monitoring will be performed during part two of the InnoHEIs project in collaboration between MIUN and Tillväxtverket.

The improved collaboration between the key actors will be measured via interview questionnaire during first quarter of 2023. Presented to the partnership of InnoHEIs. The money for part two in InnoHEIs project will be used for this.

**Place, date:** Sundsvall

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