



NORTHERN NETHERLANDS' RIS3

RESEARCH AND INNOVATION STRATEGY
VOOR SMART SPECIALIZATION (RIS3)



• Stimulates • Facilitates • Connects

1. SMART SPECIALIZATION STRATEGY (S3)

The Northern Netherlands Alliance (SNN) is the Management Authority for the European Regional Development Fund (ERDF) in the Northern Netherlands. The ERDF is part of the EU's European Structural Innovation Funds (ESIF). Every region receiving ESIF funding needs to have a regional innovation strategy (RIS3) in place. A RIS3 is based upon the principles of smart specialization. This chapter will function as a theoretical framework and explain more about the philosophy of smart specialization and regional innovation strategy.

1.1 EU, INNOVATION & SMES

The EU aims to achieve smart, sustainable and inclusive growth by 2020. The way to attain this, and to tackle the economic and societal challenges facing Europe, is to utilize technological advances and cutting edge research. In other words: innovation is key.

Therefore, the EU designed its structural funds in such a way that they support innovation. After all, development of innovation through increased investments in research and development leads in a vast majority (almost 80%) of companies to an increase in turnover by more than 25%.¹ Innovation support measures are designed to support companies during their innovation process. Small and Medium-sized Enterprises (SMEs) represent 99% of all business in the European Union (EU).² The smaller a company, the more difficulties it faces towards innovation or the commercialisation of innovation, making SMEs a particularly interesting and necessary target for innovation support policy.¹

1.2 SMART SPECIALIZATION

In Europe, public innovation support is organized at a regional, national, and European level and involves grants, subsidised loans, equity, and a wide range of innovation support services, mainly focussing on SMEs. The main challenge for policy makers is to identify those areas that will create the highest societal impact from innovation support. For this purpose, the European Commission created a high-level expert group "Knowledge for Growth" in 2008, a group of prominent economists installed to advise the Commission. This advisory group developed the concept of smart specialisation (shortened as S3) (D. Foray, P.A. David and B. Hall).

The concept of smart specialisation aims to achieve economic growth and prosperity by boosting certain (regional) strengths through targeted support for research & innovation. Developing a smart specialization strategy involves several elements: building a shared vision of the region; analysing the place-based context (examining regional assets and strategic potential); establishing multistakeholder governance structures; identifying strategic priorities; advancing policies targeted to support innovative activities within the priority areas; and putting in place a strong monitoring- and evaluations system.

But how are those priority areas decided upon? Who chooses which economic domain to specialize in? This is where the Entrepreneurial Discovery Process (shortened as EDP)³ is introduced.

1.3 ENTREPRENEURIAL DISCOVERY PROCESS (EDP)

EDP is at the core of the Smart Specialization theory and refers to an Open Innovation approach with the quadruple helix (businesses, knowledge institutes, governments and civil society). EDP basically means that cooperation between entrepreneurs, universities and, preferably, end-users, will lead to the emergence of new ideas or 'entrepreneurial discoveries'. Once promising discoveries have been made, these should be enabled to gain critical mass, by support through investments with public resources. These discoveries, when directed correctly and supported in their interconnection, might evolve into a cohesive palette of innovations, and ultimately, into a core competitive advantage for the regional economy.

¹ European Commission, "Innovation." Last updated 28-03-2017, accessed march 2017, via https://ec.europa.eu/growth/industry/innovation_en.

² European Commission, "Entrepreneurship and Small and medium-sized enterprises (SMEs)." Last updated 28-03-2017, accessed march 2017, via https://ec.europa.eu/growth/smes_en.

³ The Entrepreneurial Discovery Process (EDP) is an interactive process in which market forces and the private sector are discovering and producing information about new activities. Government then assesses the outcomes and empowers those actors most capable of realising the potential. See, for example, Foray et. al (2012) Guide to Research and Innovation Strategies for Smart Specialisation (RIS3) (Luxembourg: Publications Office of the European Union), via http://ec.europa.eu/regional_policy/sources/docgener/presenta/smart_specialisation/smart_ris3_2012.pdf, and Hausmann, R. and Rodrik, D. (2003) "Economic development as self-discovery," Journal of Development Economics, 72 (2): 603–633.

So choices are not made randomly; the prioritisation of certain economic areas is a natural outcome of continuous EDP. The concept of smart specialization therefore stimulates innovation support agencies not to be steering innovation but rather to facilitate innovation, i.e. support the creation of innovation environments and living labs, where these EDP-actors can meet and cooperate. In other words: it is important to create a strong and fertile eco-system for innovation. Ultimately, by increasing societal impact in the region, the overall European societal challenges will be faced more effectively.

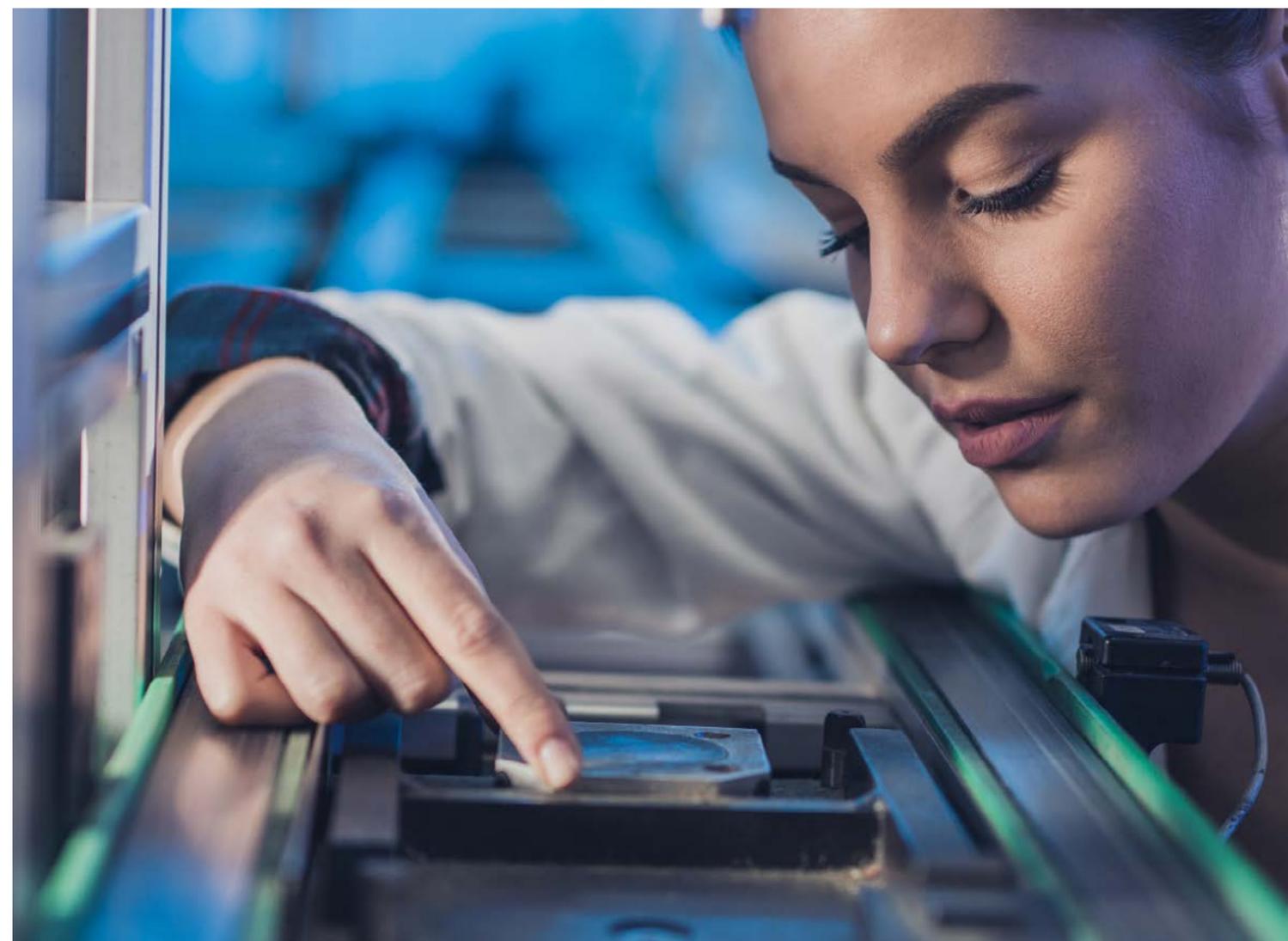
1.4 REGIONAL INNOVATION STRATEGY (RIS3)

The philosophy of the smart specialization theory is translated into policy by the formulation of Regional Innovation Strategies (RIS3), sometimes also referred to as Research & Innovation Strategies. A RIS3 concerns the prioritisation of certain strategic domains within a specific region. In these strategic domains, resources should be concentrated, dealing for example with particular kinds of technology, fields, disciplines and sub-systems⁴. This helps to better direct funding to certain goals, to better target beneficiaries and in the end, to enhance the innovative capacities of a region.

In 2013, the European Commission officially adopted the concept of smart specialization, making it a key mechanism of the EU's ESIF policies – so that these policies can be used more efficiently and synergies can be made between different EU, national and regional policies. The Commission has decided that regional innovation strategies are a pre-condition for ERDF funding under Thematic Objective 1 (Strengthening research, technological development and innovation).

The next chapter will dive into the case of the Northern Netherlands, and will elaborate on the design, content and implementation of its RIS3 – with a particular focus on the Northern Netherlands' vision on the importance of EDP.

⁴ Foray D. and Goenaga X. (2013), The Goals of Smart Specialisation: RIS3 Policy Brief Series, no. 01/2013 (Brussels: EU Commission, Joint Research Centre Scientific and Policy Reports), via <http://ftp.jrc.es/EURdoc/JRC82213.pdf>.



2. S3 AND EDP IN THE NORTHERN NETHERLANDS

As a region, the Northern Netherlands is aiming to become an inspiring example of smart, sustainable and inclusive growth as advocated by Europe 2020. The principles of smart specialization have established a strong foothold in the region – among businesses, knowledge institutes and societal partners, as well as the local and regional government. SNN acts both as a facilitator and as a responsible organization for the design and implementation of the RIS3.

2.1 DESIGN

SNN made an early start with developing a smart specialization strategy, as the first sketches for the RIS3 were already drawn in the beginning of 2012. From the outset, government was kept away from the ‘driver seat’, and the design of the RIS3 was a true co-creation process, with an extensive stakeholder involvement. The distance of the government is reflected in the process and in the content of the strategy.

After the creation of the RIS3 in 2012, there was a widespread feeling in the region that there was a document needed in which the strategy became operationalized. In the fall of 2013, a new process started which aimed to create a the Northern Netherlands Innovation Agenda (NIA). This process was an even more intense ‘co-creation’ of stakeholders from the Quadruple Helix (Q4-Helix). The NIA was delivered in the summer of 2014.

In short: the process of developing the RIS3 and the NIA was a joint effort of a myriad Q4 actors, because SNN acknowledges the importance of the knowledge of the players in the field. These stakeholders have not just been reached via questionnaires and interviews, but they have also been actively involved in discussing the design of the RIS3 through attending large-scale events. The end result was a strategy and an agenda which received broad acceptance among stakeholders in our region.

2.2 CONTENT

In terms of content and philosophy, the bottom-line of the Northern Netherlands’ RIS3 is that it uses four societal challenges as a starting point. These challenges are not limited to the region itself, but can be found on a European level too. The first societal challenge is that of Health, Demography and Welfare. The second challenge is related to Food Security, Sustainable Agriculture and Bio-economy. Thirdly, the RIS3 designates Reliable, Clean and Efficient Energy as another societal challenge. Lastly, the RIS3 stresses the need for Clean, Safe Water. Indeed, the Northern Netherlands RIS3 is used to find innovative solutions to these challenges. This means that there is no prioritizing of sectors, subsectors and/or clusters.

Naturally, the societal challenges weren’t decided upon at random – the choice was the result of an intense analysis process. This process included the analysis of the clusters in this region, as they are an important source of innovative power. Also, the broader economy was investigated thoroughly. It started with an extensive analysis of, what we called, our regional DNA.

The conclusion of all the analyses was that the Northern Netherlands society has a strong interest in tackling major societal challenges which are felt sharply in both the region and in Europe. It was also concluded that the road to solve the challenges would be paved through collaboration: bringing businesses, knowledge institutes and preferably end-users together, and bringing them together in innovative environments, like hubs, campuses and living labs, where the climate would be best to stimulate innovative behavior and entrepreneurship. Basically: to create a fertile ground for a continuous type of entrepreneurial discovery.

This is a type of EDP which leads to ‘dynamic specialization’. This means the process provides room for specializations not yet identified, which can be expected to develop in particular at the crossings of current clusters and industry sectors.



2.3 IMPLEMENTATION

Each and every activity carried out by SNN is based upon the RIS3. The smart specialization strategy and its focus on tackling societal challenges forms the foundation for the whole of SNN’s system. The road to solve those challenges is paved through collaboration. In order to stimulate innovative behavior and entrepreneurship, it is essential to bring parties together in innovative environments – in other words, it is highly important to create fertile ground for continuous EDP.

Firstly, tackling the societal challenges asks for cooperation between a broad array of actors from different domains. The Northern Netherlands therefore strives to establish an intricate network of Q4 stakeholders. SNN functions as a facilitating organization. Through setting up networking events such as lectures, workshops and social gatherings, SNN actively aims to bring together private companies, public authorities, knowledge institutes and civil society organizations.

Secondly, the development of ‘innovation environments’, areas of tremendous innovation potential, has also strongly helped to facilitate the EDP in the Northern Netherlands. Business, government, research institutes and societal organizations are now actively cooperating within these innovation environments – in which stakeholders can meet, discuss and discover. There is also a focus on developing ‘living labs’, where universities, entrepreneurs and end-users all work together to test innovations in a real-life environment.

Thirdly, the Northern Netherlands emphasizes the importance of attracting and involving of SMEs. Truly pivotal to EDP in the Northern Netherlands are SMEs, since they comprise more than 95% of all companies in the region. The EDP aims to strengthen the knowledge base of SMEs to ensure that they are better equipped to exploit existing knowledge and generate new knowledge.

Fourth, the Operational Programme European Regional Development Fund (OP ERDF) is the Northern Netherlands’ main policy instrument to stimulate EDP. As a Management Authority (MA), SNN directs grant funds that derive from national and European economic programs. All subsidy instruments that SNN offers, are in accordance and in line with the content of the Northern Netherlands’ RIS3.

A fifth activity is the formation of governance structures. Quite recently, the Economic Board Northern Netherlands was formed, consisting of stakeholders from the Q4. Its main focus is to encourage and oversee the implementation of the Northern Netherlands RIS3 and the Northern Innovation Agenda.

Sixth, to realize all of these ambitions, proper monitoring instruments should be in place. SNN has developed multiple monitoring instruments. Since 2016, SNN has initiated the Northern Netherlands Innovation Monitor, a joint project with the University of Groningen. The objective of the Innovation Monitor is to annually identify and analyze innovation activities and performances of SMEs in Northern Netherlands.

Finally, the Northern Netherlands' RIS3 stresses the importance of cross-border cooperation. While missing links in value chains perhaps cannot be found close to home, they might be present somewhere else. Therefore, the Northern Netherlands aspires to match chains beyond borders and to create a multi-regional ecosystem with connected value chains all over Europe. SNN participates in various Interreg- and Horizon2020 projects.

In short, all of SNN's activities are fundamentally based upon, and an implementation of, the Northern Netherlands' RIS3. Indeed, all activities are essentially solutions to the societal challenges that form the starting point of the Northern Netherlands RIS3.

2.4 CURRENT VISION

SNN is currently looking for enthusiastic stakeholders that are committed to fulfilling a central role in the implementation of the Northern Netherlands' RIS3. Stakeholders who believe in the economic potential of the Northern Netherlands – but who also acknowledge that the region can achieve even more. We are looking for stakeholders who foster cooperation between businesses, knowledge institutes and, preferably, end-users, so that knowledge and ideas can become commercialized. Stakeholders who encourage businesses in the same supply chain to cooperate more closely. Stakeholders who stimulate crossovers between sectors and clusters.

This way, a creative ecosystem for innovation can be forged, where businesses and knowledge institutes can work together in developing promising niches, so that new ideas arise that can grow to become a series of correlating and mutually reinforcing innovations – and in the end, economic strengths. Our Open Innovation Call, for example, is one instrument to achieve this.

