

## Better collaboration on testbeds is required for a better innovation climate in the Nordics



*3D-printer operated by Johan Brekke, Circlub, Torsby, Värmland (photo: Kjell Nilsson)*

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Although Nordic regions generally rank highly on the Regional Innovation Scoreboard that the EU regularly publishes, cases often emerge that indicate that national regulations and their applications make it difficult for scientists and businesses to optimally utilize the research infrastructure that the countries have invested in. The Svinesund Committee, which is one of twelve cross-border cooperation committees supported by the Nordic Council of Ministers, has highlighted this as a border obstacle that worsens the innovation climate in the Nordic Region.

### **Draghi's plan**

Just over a year ago, former European Central Bank President Mario Draghi delivered a report on the challenges facing Europe in an era of declining world trade, geopolitical uncertainty and accelerating technological development. Draghi's strategy for a more competitive Europe starts with the need to reduce the innovation gap with the US and China.

Far too few companies are being started in new technologies in Europe. This is not because there is a lack of ideas or ambition, but because we are too bad at turning ideas into commercial successes. Draghi points to the need to reform the entire innovation ecosystem, including removing regulatory obstacles to optimal use of research infrastructure.

### **Good can be better**

In a global context, the Nordic countries are small, but together they are economically strong – the world's twelfth largest economy – and they represent a significant and technologically advanced market.

When the EU ranks Europe's regions in terms of their performance in research and innovation, Nordic regions tend to be among the leaders.<sup>1</sup> This is also the case in the 2025 ranking, where five of the ten highest-ranked NUTS2<sup>2</sup> regions are Nordic. The list is topped by the Swedish and Danish capital regions, Stockholm and Copenhagen, followed by London, Zurich and German Upper Bavaria, while Helsinki-Uusimaa, Western Sweden and Southern Sweden are in places 8-10.

However, this does not mean that everything is perfect. Draghi stresses the importance of optimal use of research infrastructure, but we have come across

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<sup>1</sup> <https://projects.research-and-innovation.ec.europa.eu/en/statistics/performance-indicators/european-innovation-scoreboard/eis#/ris>

<sup>2</sup> NUTS2 is the regional level in the standard that the EU uses when dividing countries administratively for statistical purposes.

several examples where rigid national rules are putting a damper on both SMEs and research cooperation between the Nordic countries.

### **A potential border obstacle**

The Svinesund Committee has drawn the attention of the Nordic Council of Ministers' Freedom of Movement Council to the fact that the Swedish and Norwegian financing systems currently hinder the ability of small and medium-sized enterprises to use test beds and their services in the neighbouring country in their innovation work.

Test beds are the part of the research infrastructure that it is particularly important for small and medium-sized enterprises to have access to when they are trying to develop new products or processes. However, since these facilities are often nationally funded, their services are only available to companies from their own country. Making Norwegian test beds available to Swedish companies and vice versa would significantly increase access, as the test beds are often highly specialised.

### **No help available in Norway for Swedish SME**

Erik Dahlén came across such an example when he worked as an innovation advisor for the bioeconomy cluster *Paper Province*. A small company in Värmland had developed a bio-based insulation material that could be used instead of plastic in heating pipes. The goal was to establish a manufacturing facility and thereby create jobs in the region. But they needed help developing an efficient production process.

Such expertise was available just across the border in the form of a Norwegian catapult center located in the Raufoss Industrial Park in the municipality of Gjøvik. The center specializes in testing and developing industrial production processes and has a machine park worth 400 million NOK deployed at various industrial companies. It also helps customers, usually start-ups or companies in a transition phase, find someone who can start a production and where to obtain raw materials and other materials.

However, the plans fell through, mainly because it was not a Norwegian company. It can be difficult for small companies that are not used to writing applications to get the help they need to move forward. Erik Dahlén perceived it as a lack of will to help a small company that also came from abroad, both at the catapult center and at SIVA in the form of Sør-Hedmark Næringsshage, who neither wanted to use their resources to find a Norwegian partner nor could offer help with initial financing.

### **The will is there but the mandate is missing**

Norway does not have its own pharmaceutical industry but has decided on a strategic focus on health science. Therefore, Oslo Science City and Oslo Cancer Cluster have signed a cooperation agreement with Astra Zeneca. The agreement means that Norwegian start-up companies will have the opportunity to be housed in Astra Zeneca's BioventureHub in Gothenburg, while Swedish companies will have access to Norwegian research environments within cancer and precision medicine at the Radium Hospital and the University of Oslo

“We would like to establish a mutual collaboration with Astra Zeneca on cancer research so that Norwegian companies can use BioVentureHub’s incubator in Gothenburg and Swedish companies can use our incubator in Oslo, but the problem is that Vinnova does not want to finance projects in Norway and Innovation Norway does not want to finance projects in Sweden,” says Christine Wergeland Sørbye, CEO of Oslo Science City. In phase one of the collaboration, Innovation Norway has agreed that Norwegian companies can take their grants to Sweden, but the amounts involved are small and it has taken a lot of work to make it happen. What we would like would be a general agreement that enables the exchange to be scaled up.

Idar Kreutzer, who is the director of NHO – Confederation of Norwegian Enterprise, has on behalf of the Nordic Council of Ministers investigated the integration between the countries' innovation ecosystems in the Nordic Region. He states that in conversations with the innovation director-generals it emerged that everyone has ambitions for Nordic cooperation, but no one believes they have a mandate to use taxpayers' money across borders. To give such a mandate, it is necessary to write into the appropriation letters to Vinnova and Innovation Norway that their funds can also be used to benefit Nordic cooperation.

### **Funding stops at the border**

The main problem seems to be that national support programs are not open to foreign actors. Both Innovation Norway and the Research Council of Norway require that the recipients of support must be from Norway, and the same applies in Sweden to Vinnova, Formas and the Swedish Agency for Economic and Regional Growth. The problem also exists with the Society for Industrial Growth (Siva), which facilitates a national infrastructure for innovation and business development in Norway, and the state-owned RISE, which has a similar role in Sweden, since their testbeds are usually financed by national support programs and are therefore only available to domestic companies.

Legally, Vinnova can finance foreign companies, but only if they have an establishment in Sweden. An alternative is for a foreign company to act as a

subcontractor, in which case normal procurement rules apply. There are also exceptions in individual cases, for example, an international NGO has received money from Vinnova to arrange a Global Hackathon. For Innovation Norway, it is crucial that the value creation is sufficiently large in Norway, in which case parts of the development and production can take place abroad, but the financing must go through Norwegian operations.

### **Pragmatic but complicated solutions**

There are opportunities to circumvent the rules. One solution is for companies to use Norwegian or Swedish fronts when they want to exploit a specific testbed in the neighbouring country. Alternatively, they can form a subsidiary in the neighbouring country – sometimes it is enough to obtain a business registration number. But we do not advocate such solutions unless they imply that there is synergy between the companies or that a subsidiary is established because they are conducting some form of economic activity in the neighbouring country.

It is nice to find pragmatic solutions when the will is there, but it is of little help if the good will is not there in the very people you meet and whose positive participation you depend on. It also means that you have to allocate considerable time and resources to find practical solutions.

From an international competitive perspective, optimal use of tax-financed research and innovation infrastructure is an important prerequisite. Innovative companies should be offered the use of the testbed in the Nordic Region that is best suited to their needs, while it is important for the testbeds to fully utilize their resources and capacity.

### **A motley crowd**

Another problem is the difficulty of finding the right test bed, as there is no overview of the availability of test beds in the Nordic countries.

In Sweden alone, there are a couple of hundred facilities, most of which are in the Västra Götaland region. They constitute a motley crowd with a turnover ranging from a few tens of thousands to several hundred million SEK. Many have no international contacts at all, while others derive a large part of their turnover from abroad, while they successfully participate in international research projects and are represented in international standardization bodies.

The occupancy rate varies from a few percent to full occupancy with a waiting time of several years. Funding comes from research grants, government commissions,

public and private customers (through commissions or membership) or a combination of these.

### **Nordic added value**

Increased Nordic cooperation on the use of research infrastructure has many advantages; there will be more parties who can share the operating costs, it increases accessibility to research infrastructure, we will have a stronger Nordic voice in international contexts and we will get more value for the money from national investments.

However, Idar Kreutzer notes in his report that there is very limited integration between the Nordic countries when it comes to promoting innovations and raising venture capital for companies (start-ups and scale-ups) that can create new jobs. And there are very few structures or mechanisms that support an integrated Nordic innovation ecosystem.

Since public funds play a crucial role in the innovation climate in the Nordic countries, national limitations are a serious obstacle to developing the full innovation potential of the Nordic Region, especially since the funds available to Nordic Innovation, an institution under the Nordic Council of Ministers, are negligible compared to what is invested in national support programmes. Therefore, the framework for the establishment and use of testbeds needs to be coordinated at the Nordic level and a clearer mandate for state institutions on a common Nordic approach in the guidelines for national innovation programmes.

### **Three concrete proposals**

If the Nordic Region wants to maintain its position as a leader in Europe in the field of innovation, optimal use of tax-financed research and innovation infrastructure is an important prerequisite. Researchers and companies should be able to use the test bed that is best suited to the purpose, regardless of where in the Nordic region the facility is located. At the same time, the test beds are keen to ensure that their resources are fully utilized. Even if not all of them can offer the same excellent conditions as the ESS<sup>3</sup> will offer when it opens its doors in 2027. All researchers who have a brilliant idea are welcome there without any cost.

Firstly, the issue needs to be raised at the Nordic level when responsible ministers meet annually under the auspices of the Nordic Council of Ministers. It would be

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<sup>3</sup> ESS (European Spallation Source) is a European Research Infrastructure Consortium, consisting of 13 member countries (SE, DK, FR, IT, ES, CZ, PL, UK, EE, HU, NO, CH, DE).

appropriate on such an occasion to adopt a ministerial declaration on a more integrated Nordic innovation ecosystem and an agreement on equal treatment of Nordic activities when using state-funded test beds. A model can be taken from the education sector, namely the agreement on a Nordic educational community for theoretical and vocational education at upper secondary level that came into force in 2008. According to the so-called free principle, the countries and their school authorities refrain from demanding payment from each other for the education provided to education applicants from other Nordic countries. A similar agreement could be concluded with advantage regarding the use of test beds financed with public funds.

Secondly, as mentioned earlier, most state funders of research and innovation are positive about Nordic cooperation but believe they lack the mandate to support activities from other countries. This dilemma could easily be resolved by including a clause in the appropriation letters to the relevant authorities stating that their funds may also be used to promote Nordic cooperation.

Thirdly, to create a better overview and thus make it easier to find the right test facility, each country should have its own current and updated list of facilities including current contact information and link to the website. In addition, Nordic Innovation should be tasked with setting up a website with links to the national overviews of available test beds.

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