POLISS

POLICIES FOR SMART SPECIALISATION

POLISS Winter School
Stavanger, Norway
30 January – 5 February 2023
WP2 D2.5

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The Training School in Stavanger was co-organized by the Nordic Research School of Innovation (NORSI) and focused on innovation policy. In addition to our 14 POLISS researchers, we were joined by 13 PhD students from NORSI.

The training week was focused on three areas: (1) lectures on core innovation theory and policy topics, (2) skill sessions, and (3) group work on real-world policy cases. In addition, we had planned dinners and a small winter getaway in Sirdal. This gave us the opportunity to connect with each other and further build the base for cooperation.

Theoretical lectures

The series of four theoretical lectures started on Monday with Silje Haus-Reve (Associate Professor of Innovation and Regional Studies at the UiS Business School) introducing innovation policy and its major theoretical foundations.

On Tuesday, Neil Lee (Professor of Economic Geography at LSE) presented on the topic of innovation for the masses. He highlighted successful policy cases where innovation did not drive inequality, like in Taiwan, that had a great focus on education in combination with technological development.

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On Wednesday, Marte C.W. Solheim (Professor in Innovation Studies at the UiS Business School, and Head of the Stavanger Centre of Innovation Research) and Rune Dahl Fitjar (Pro-rector for Innovation and Society at UiS and Professor in Innovation Studies at the UiS Business School) provided insights into regional innovation policies in Stavanger. They explained how Stavanger and its region Rogaland changed specialization from fishing and canned fish to petroleum and how the current specialization in petroleum, with its wage premium, is influencing the development of other sectors.

On Thusrday, Dirk Fornahl (Professor of Regional Economics and Head of the CRIE Center for Regional and Innovation Economics at the University of Bremen) introduced the new mission orientation in innovation policies, arguing for a need to focus on the direction of change to tackle grand societal challenges.

Skills sessions

We had three skill sessions. Jan-Philipp Kramer (Vice-Director and Head of EU Services of the Prognos office in Brussels) provided the first skill session on "How to write a policy brief". He stressed the importance of connecting with the person receiving the policy brief by reflecting on who the target audience is comprised of and what their needs are. Subsequently, in contrast to the scientific funnel logic and following the pyramid structure, core statements are presented first, followed by the details.

Marte C.W. Solheim (UiS Business School) held the second skill session on "Communication and dissemination of research". In her presentation, she shared her journey of becoming an engaged academic and communicator, challenges and great successes, and useful tips.

For the third skill session, Jo Røislien (Professor of medical statistics and TV host) shared his insights and the newest research results on how to make numbers count. He emphasized that researchers need to reach out to a large part of the population because they have important knowledge to share. He introduced a checklist that can act as an aid when communicating information: THNK, meaning (1)

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be **t**rustworthy, yet not boring; (2) appeal to **h**uman emotion, yet not emotional; (3) have a **n**arrative, yet be factual and informative; and (4) be **k**reative, yet not crazy.

Dinners and discussions

The dinners were a great opportunity to sit down in a less formal setting and exchange impressions and opinions about the program and our progress.

Policy cases and recommendations

On the first day of the Winter School, policymakers presented real-world policy cases, which we worked on in groups throughout the week. On Friday, we had the opportunity to presented our findings to the policymakers and engaged in a constructive round of conversation. After the course, we put together a policy brief comprising our recommendations. Below is a short description of each group's policy cases and recommendations.

Case 1: SMEs and high inflation

Policy case from the European Commission
Group: **Martina Pardy, Dongmiao Zhang,** Luca Serafini, Li Lu, and Louis Lines
Mentor: Marte C.W. Solheim

Digitalisation offers the potential to unlock unrealised growth across European SMEs. However, there are a number of hurdles that inhibit the adoption of digitalising technology, the most significant being lack of skills and understanding around digitalising technologies and their implementation. Whilst other factors, including access to finance, limits adoption this policy recommendation focuses on addressing the skill gaps.

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Their policy brief addressed three sectors: cultural and creative industries and tourism. Sectors which have a greater 50% contribution to value added, have above average specialised personnel and the potential for a green transition.

They propose four areas for policy focus:

1. Partnership framework with universities – designed to facilitate upskilling through cooperation between small and medium-sized enterprises (SMEs) and universities. Particularly through the use of internships and mentorships.
2. Training programs focusing on skills and knowledge including manuals and sector specific programs.
3. Financial support through a digitalisation tax credit.
4. Awareness raising campaign-focused on skills.

Case 2: Smart Specialisation in Rogaland

Policy case from the Rogaland fylkeskommune
Group: **Charles Abbott, Ghinwa Moujaes, Alessio Giustolisi,** Barbara Hedeler, Andreea Neagu
Mentor: Silje Haus-Reve

The group project aimed to develop a novel understanding and refinement of the smart specialisation process in Rogaland - a region in southwestern Norway highly specialised in the offshore oil and gas industry. So far, Rogaland's adoption of smart specialisation has been largely in line with the theoretical guidance, though its implementation has, so far, revealed certain challenges inherent to the implementation of smart specialisation at the regional level. The regional approach has highlighted that whilst theoretical underpinnings and policy practice tend to focus on smart specialisation at the territorial level of the region, a critical (and often under-looked) theoretical and practical dimension to the smart specialisation approach also rests in its being a means to secure greater *interregional* linkages to foster industrial transformation. Transformational policies such as smart specialisation should thus refrain from too much of a sector focus. In line with the theory, RIS3 policies in practice ought to aim to bridge the gap between horizontal and vertical policies; allowing projects to develop outside and between sectors within certain broader domains identified through the gathering of up-to-date information on a region's economic profile.

Policy recommendations

1. Adapt the regional funding mechanism in Rogaland the *Virkemidler for Regional Forskning og Innovasjon*, to reflect a need for intersectoral projects 'between' the domains.
2. Consider the opening of funding to partners outside the region as a route to developing new avenues for diversification by means of new interregional linkages.
3. Policy success and legitimacy should incorporate more responsive indicators and techniques for monitoring.

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Case 3: Innovation District Ullandhaug

Policy case from Stavanger kommune and Universitetsfondet
Group: **Dima Yankova, Benjamin Cornejo Castas,** Andrew Johnson, Erika Dietrichson, Noopoor Misal
Mentor: Rune Dahl Fitjar

The Ullandhaug Innovation District is part of the City Council of Stavanger's plan to develop Stavanger into a 'knowledge city'. Already, the area comprises key innovation actors and has been a site of business development for some 50 years. The University of Stavanger, Innovation Park Stavanger, the upcoming university hospital, and the Norwegian petroleum directorate government facilities are anchored in the suburban area in the South-West of Stavanger, with a common goal to strengthen business, research and innovation in the region. Now in its planning phase, the Ullandhaug Innovation District steering group is seeking advice on the project's strategic direction.

In their policy brief, they provide initial advice to the steering group as the innovation district enters the first stage of creating a vision and establishing a governance structure. They focus on three core areas: (1) attracting human capital attraction, (2) ensuring commitment from partners and stakeholders, and (3) building a unique identity and communication strategy.

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Policy recommendations

1. Human capital attraction	2. Commitment from partners	3. Identity and communication
Physical planning • Enhance the proximity of innovation actors through urban design. • Connect open spaces with high-quality public realm and built structures. • Develop amenities which may be used spontaneously by local residents and knowledge workers. • Create open spaces that function as "living labs".	**Matching labour demand and supply** • Company and university collaboration to understand the future demand for skills. • Create pipelines from the university to firms in the innovation district. • Engagement learning by doing opportunities for university students in firms.	**Avoid "Silicon Somewhere"** • Create a unique and consistent identity. • Realise and augment the existing capabilities and attributes of Stavanger and Ullandhaug.
Social features • Encourage the creation of networks between a wide demographic of actors. • Avoid exclusivity and enclaves in governance and design. • Activity management which enhances social capital.	**Planning and transport connectivity** • Commitment from government for flexible planning • Land use plans should support the innovation district for shared public spaces. • Support improved public transport facilities to take advantage of nearby urban spaces.	**Place-making and urban space** • Prioritize multi-use urban spaces to maximise new ideas, safety and community wellbeing. • Urban design principles should embrace density, public accessibility, and connectivity.
Attracting and retaining talent • Entrepreneur, intrapreneur, and business support services. • Assist the entry and advancement of workers into firms through skills programs. • "Continuing education" for professionals.	**Firm collaboration and open innovation** • Firms should engage in knowledge sharing and open innovation. • Stakeholders share their demands for the co-creation of spaces.	**Flexibility and co-creation** • Engage in constant consultation and dialogue with local stakeholders. • Involve citizens in the design process – recognise and cater for public needs. • Physical integration with existing neighbourhoods.

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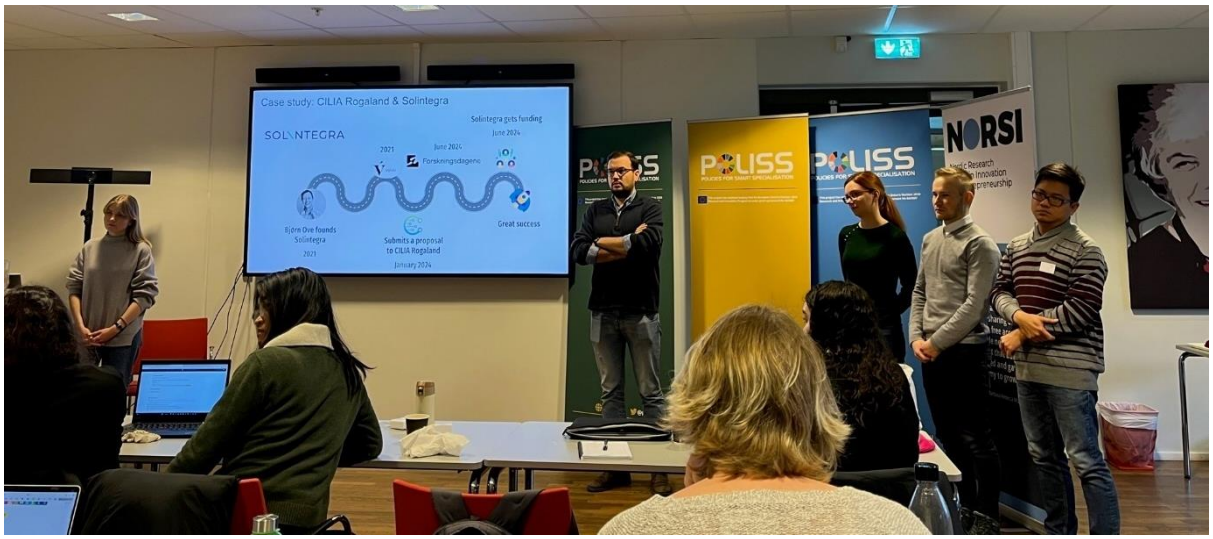
Case 4: Increase private funding of R&D activity in Norway

Policy case from The Research Council of Norway
Group: **Eduardo Hernandez Rodriguez, Stefan Apostol, Eristian Wibisono,** Barbara Waloszek, Anna Baturevich
Mentor: Tom Broekel



Public funding of research and development (from now on R&D) in Norway has increased significantly over the last decades. In this sense, the goal is to achieve 3% of the national GDP invested in R&D. Norway's high proportion of publicly funded R&D stands out internationally, reaching 46% of all R&D spending in 2020.

In this sense, the Research Council of Norway (RCN) is one of the three key governmental institutions alongside Innovation Norway and Skattefunn. Skattefunn offers indirect support by offering tax credits, whereas the first two organisations offer direct support to private and public institutions in Norway. However, unlike Innovation Norway, which has the goal of promoting profitable economic development, RCN mostly supports universities and non-profit research institutes outside the business enterprise sector. This results in RCN constituting relatively small shares of support for small firms.

While there is clear support for public R&D investment, the private sector is still underinvesting in R&D. Thus, the issue in this sense is how to find new private funding sources and mobilise funds to be invested in R&D. Public R&D funding needs to be supplemented with private R&D, so they should be understood as complements and not as substitutes. Increasing private R&D investment requires mobilizing the general public behind SDG goals and targets rather than blindly following an uncertain market, which is why government involvement in prioritization is essential. A market failure can be prevented if there is a probability of detecting if a project is worthwhile. Partnerships between the public and private sectors are a popular method of organizing an economy or innovation structure. However, they are rarely employed in the context of R&D financing.

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The mobilisation of the general public in local investments is more viable when the investment projects are relevant for local communities, for example, when they result in improved welfare. Such gains to be achieved by the private stakeholders can be easily tracked down to SDGs, at the same time making such local investments mission-oriented. Such mission orientation is important for both increased private funding and the sustainability of investment projects. First, the general public is more inclined to support investment which directly and positively impacts their local communities. The aspect of positive local change can be supported with the achievement of SDGs on the local level, at the same time increasing investment sustainability. In other words, private funding contributes to local approval of new investment initiatives, at the same time initiating the social and cultural changes required for the successful realisation and sustainability of local investments.

Policy recommendations

Their general recommendation is to move from supporting R&D and creating policies with the mindset of the triple helix model – academia-industry-government – to a quadruple helix innovation model to emphasise the role of civil society in supporting R&D and consequently include it in the innovation process. This shift cannot be instantaneous and requires gradual change, including developing a new strategic vision for the R&D support in Norway, adjusting regulations to incentivize private actors like philanthropists to engage with research initiatives, building new cultural norms, and so on. At the same time, concrete measures can be implemented to accelerate the emergence of the quadruple helix innovation model in Norway. Their analysis has identified establishing a government venture capital fund as the most viable and ready-to-implement idea.

Case 5: How to improve commercialization from research

Policy case from The Research Council of Norway
Group: **Carolin Nast, Yifan Tian**, Domingos Langa, Emil Bohmann and Ivan Nechaev
Mentor: Kwadwo Atta-Owusu

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Decades ago, few higher education institutions (HEIs) would have predicted that they would find themselves actively involved in the commercialization of research. However, the Bayh-Dole act of 1980 in the US shifted this perception. Politicians worldwide realized that capitalizing on the research from HEIs could help drive economic growth. Norway, one of the world's wealthiest countries, was no exception to this trend. With the passing of The University and University Colleges Act. The implementation of this has, however, not been as straightforward as one could have hoped. This policy group, set out to explore how to identify and remedy the challenges to the implementation. They approached this using a mix of literature searches and interviews. Through their literature search, they identified relevant literature, which they then compared, through interviews, to the experiences of their Interviewee Technology transfer office (TTO). The interviews were conducted as semi-structured interviews where new knowledge and ideas were discussed.

Policy recommendations

Through this, they created the following policy recommendations, which they believe may aid in facilitating the commercialization of research. Their main policy recommendations for this policy brief are:

- Create a framework supporting spin-offs based on academic patenting; and
- Increase TTO internal and external visibility.

These two policy recommendations are supported by a series of policies which they recommend implementing. Firstly, they suggest aligning the objectives of academics and TTOs through a focus on highlighting patenting as an important part of academic performance and highlighting the effects, other than monetary, of patenting, such as societal impact. Secondly, they suggest a mandatory Declaration of Expected Invention as a method of informing academics of the possibility of patenting and the TTO of a possible patentable invention early. This may be supported by offering innovation and entrepreneurship courses for staff and students alike to create entrepreneurial awareness. They also propose that a more radical change may be carried out with a two-fold paradigm shift. Using the Innovation Readiness Level framework to evaluate new inventions and shifting focus from technology transfer to innovation transfer for TTOs. These should result in a higher degree of visibility of the TTOs.

The increase in TTO visibility and innovation and entrepreneurship courses would also create better support for academic spin-offs. They also recommend that there be a focus on creating a transitional framework for academics engaging in spin-offs. Currently, academics either work on spin-offs as a hobby or quit their position and go full-time. However, this carries a lot of risk for the academics. Therefore, they suggest a framework wherein academics may be given a leave of absence for 3-6 months to work on the spin-off, however, they may return at any given point in time during this period. Lastly, they suggest that further monetary resources be given to support spin-offs. This may be triggered by the successful filing of a patent, after which the TTO is awarded seed capital for spin-offs.

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POLISS Team Building weekend in Sirdal (3-4 Sep 2022)

On Friday, after the official innovation policy course, we, that is, the POLISS ESRs, Professor Rune Dahl Fitjar and Tom Broekel, took a bus to the Stavanger winter getaway in Sirdal. We had the afternoon free to explore the snow-covered landscape. Later on, we met for a project dinner. The next day started with a sportive social activity: cross-country skiing and, for some, downhill skiing. We had a fun time on skis, with many falls, rapid learning curves and successful downhill riding.

After returning to the hotel for lunch, we took part in a career opportunities training session with Jason Deegan (Easee), John-Erik Rørheim (Klepp Municipality), Tom Broekel (Professor in Regional Innovation at the UiS Business School) and Rune Dahl Fitjar (Pro-rector for Innovation and Society at UiS and Professor in Innovation Studies at the UiS Business School). The training focused on various perspectives of career (planning) post PhD in academia, industry and policy. The winter school ended with a bus ride from Sirdal back to the airport in Stavanger on Sunday morning. We all agree that it was “a blast!”.

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Dissemination of POLISS

By organizing the Winter Training School together with NORSI we were able to collaborate with 13 PhD students. This not only provided networking opportunities for our ESRs but also helped increase the visibility of POLISS amongst fellow researchers.

The report documenting the activities and finding of the winter school will be published on our website: poliss.eu

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ANNEX 1:

PROGRAMME TRAINING SCHOOL STAVANGER

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POLISS PhD Winter School

Stavanger, Norway

30 January – 5 February 2023

Locations:

University of Stavanger, Norway
Sirdal, Norway

Organizers:

Rune Dahl Fitjar, Tom Broekel, Marte Solheim (University of Stavanger)

Funded by the European Union

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Programme

Monday 30 January

09:40-10:00	**Registration and coffee**
10:00-10:50	**Introduction to the course** **Rune Dahl Fitjar** (University of Stavanger)
10:50-11:00	**Coffee/Tea**
11:00-12:00	**Introduction to innovation policy** **Silje Haus-Reve** (University of Stavanger)
12:00-13:00	**Lunch**
13:00-15:00	**Meet the policy-makers: Introduction to cases** **Markus Hell** (DG Regio): Effect of inflation on innovative SMEs **Cecilie Claviez** (Universitetsfondet) and **Helene Gram** (City of Stavanger): Innovation District Ullandhaug **Philip Lorentzen** (Research Council of Norway): New forms of financing of R&D and innovation **Kjetil Bergsvåg** (Rogaland County Council): Implementation of smart specialization strategy through prioritization of innovation funds **Lillian Baltzrud** (Research Council of Norway): Commercialization from research
15:30-16:30	**Assignment of groups to cases. Allocation of mentors**
19:00-22:30	**Dinner and bowling**, Lucky Bowl, Stavanger City Centre

Tuesday 31 January

09:00-10:30	**Innovation and inequality: How to share the benefits of innovation** **Neil Lee** (London School of Economics)
10:30-12:00	**Group work**
12:00-13:00	**Lunch**
13:00-15:00	**Group work**
15:00-16:30	**How to write a policy brief** **Jan-Philipp Kramer** (Prognos)

Wednesday 1 February

09:00-10:30	**Regional innovation policies in the Stavanger region** **Rune Dahl Fitjar** and **Marte Solheim** (University of Stavanger)
10:30-12:00	**Group work**
12:00-13:00	**Lunch**
13:00-15:00	**Group work**
15:00-16:00	**Communication and dissemination of research** **Marte Solheim** (University of Stavanger)
19:00-22:00	**Dinner**, Yips, Stavanger City Centre

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Thursday 2 February

09:00-11:00	**Modern national innovation policy** **Dirk Fornahl** (University of Jena)
11:00-12:00	**Group work**
12:00-13:00	**Lunch**
13:00-14:30	**Group work**
14:30-16:00	**How to make numbers count and the art of communicating complex topics** **Jo Røislien** (University of Stavanger)

Friday 3 February

09:00-12:00	**Group presentations and feedback from policy-makers**
12:00-13:00	**Lunch**
13:30-15:30	**Bus transport to Sirdal**
19:00-22:00	**Dinner**, Sirdal Høyfjellshotell

Saturday 4 February

08:00-10:00	**Breakfast**
10:00-14:00	**Team-building activity: Cross-country skiing**
14:00-15:00	**Lunch**
15:00-17:00	**Career opportunities for PhDs** **Jason Deegan** (Easee) **John-Erik Rørheim** (Klepp municipality) **Tom Broekel** (University of Stavanger)
14:00-15:00	**Dinner**, Sirdal Høyfjellshotell

Sunday 5 February

08:00-10:00	**Breakfast**
12:15-14:15	**Bus transport to Stavanger Airport and Ydalir hotel**

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