

Inclusive Innovation for Green Transition

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Though the Nordic countries often dominate the various equality indicator rankings (e.g. [WEF's Global Gender Gap Index](#), top 4: Iceland, Finland, Norway and Sweden), significant vertical and horizontal gender segregation in education and working life remains. The so-called Nordic Gender Paradox occurs when national ideals of gender equality do not reflect individual-level values and practices. This mismatch between the 'Nordic ideal' and the reality of everyday life practices was addressed in MDI's AGDA project (Addressing the Gender and Diversity Paradoxes in Innovation – Towards a more Inclusive Policy design).

Inclusive innovation policies are defined as policies that aim to remove barriers to the participation of under-represented individuals, social groups, firms, sectors and regions in innovation, research and entrepreneurship activities. Their goal is that all segments of society have opportunities to successfully participate in and benefit from innovation (Planes-Satorra & Paunov 2017, 6).

In the project, we analysed policy documents and strategies, organised dialogues in Finland and Norway and co-created practical tools and narratives for more inclusive innovation policy. The main findings of the AGDA-project are:

- 1. Inclusive innovation requires re-thinking of our explicit and implicit norms and utilising the whole societal potential.**
- 2. Successful inclusive innovation and diverse policy design enhance sustainable green transition.**

Introduction

The Nordic Gender Paradox is visible in RDI policy

Across Europe and in the Nordic countries, funding organisations and the projects and activities they fund have increasingly focused on gender equality in their attempt to promote inclusive innovation. Notwithstanding this however, the field remains far from gender-balanced, inclusive or neutral. Numerous indicators continue to reflect a lack of gender balance or inclusiveness. Research funding and its innovation outputs (e.g., patents, start-up activity and investments), continue to demonstrate patchy progress towards inclusion. According to *Unconventional Ventures*, in the Nordics, of all the capital deployed during 2021, the share for all-women funding teams was 1.1%, whereas all-men teams were allocated 88.2% and mixed teams 10.7% ([The Funding Report](#)). These numbers clearly do not reflect the Nordic ideal where gender equality has already been achieved.

The argument that the Nordics have achieved gender equality and that it is now time to address other aspects of diversity, needs to be challenged. Minelgaite, Sund and Stankeviciene (2020) argue that while the Nordic countries rank highly in gender equality, there is a gap between what societies aspire to and how individuals value gender equality. More succinctly, national aspirations do not necessarily reflect the reality of gender diversity occurring at the individual-level. Gender segregation between disciplines and occupations, particularly in ICT where men are in the clear majority, represents one aspect of this Gender Paradox (Corneliussen, 2021).

The focus of this policy brief is on the gender aspects of diversity, because it is the easiest case to understand and address. In terms of knowledge and awareness, if we fail to recognise even the gender norm which nevertheless applies to half the population, we simply cannot even begin to develop inclusion further.

Implicit norms and structural disadvantages have been inherited from previous innovation policies

The roots of the Nordic gender paradox do not lie in direct discriminatory practices or legislation, but in the implicit norms and structural disadvantages derived from the long history of innovation as a tool of economic policy. In the green transition context, however, economic sustainability is not the only objective of innovation.

Implicit norms and structural advantages and disadvantages make the ability to influence policy making, being granted funding or benefitting from the results easier for some and harder for others. Implicit norms restricting inclusive innovation include things like the norms that 'define' a qualified applicant or a convincing project idea. As several researchers have shown, VC funding has many gender biases in both private and governmental funding (see e.g., Malmström et al. 2017).

The main structural disadvantage is embedded in the horizontal gender segregation in education and working life. STEM-sectors are dominant in innovation funding beneficiaries. As men are overrepresented in regards to STEM sector employees and entrepreneurs, this creates a structural disadvantage for the entire female population to gain access to innovation funding. This represents a severe restriction, especially in Finland. According to the [European Gender Equality Index](#), Finland is second to last in gender segregation in tertiary education with 45.1 points, while Sweden is top with 69.1 points.

Moreover, practical questions relating to physical and virtual accessibility, language barriers or working permits also still exist. Thus, inclusive innovation requires a re-thinking of these explicit and

implicit norms and practices in a variety of ways. Inclusion is not only about the diversity of people but also about diversity among disciplines and research and innovation topics. (See Figure 1: Elements of diversity in funding RDI programmes)

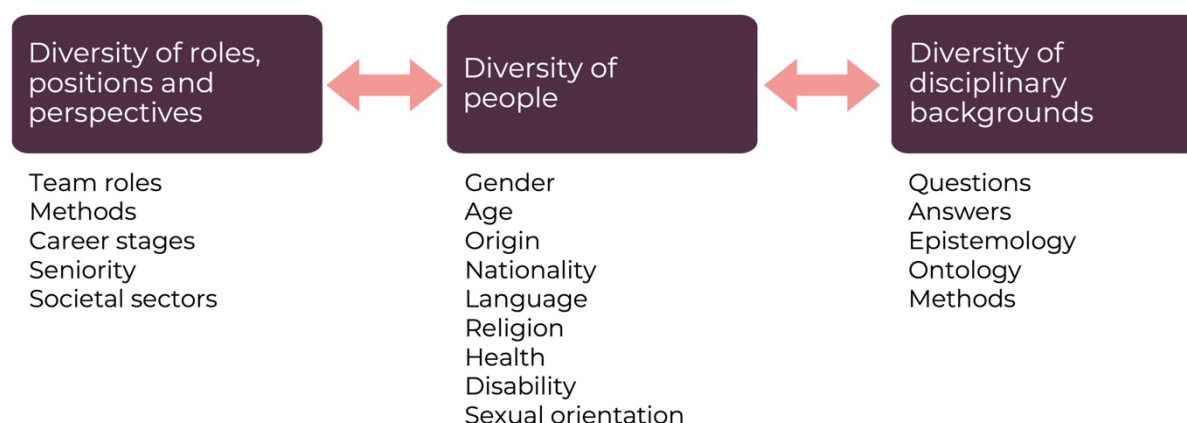


Figure 1. Elements of diversity in funding RDI programmes.

No sustainable green transition without inclusive innovation

Inclusive innovation is not just a value-based policy, but a basic prerequisite for sustainable and efficient transition. As many sources indicate, green transition is not only a technological change, but a societal one. In addition to the technical solutions, it requires that changes are made across all levels, from individual behaviour to macro-level systems of policy making and the economy. Without a diversity of people, disciplinary backgrounds and types of innovation, the green transition cannot be executed in an effective, profitable and sustainable way.

Table 1: Green transition at a crossroads – policy implications

	Non-Inclusive Innovation	Inclusive Innovation
Substantive definition	Mainly technically perceived, dominated by the energy sector	Seen as a multi-faceted and multi-disciplinary field, leaving room for social innovation, wellbeing, arts and culture
Diversity	Weak	Strong
Segregation	Strong, “women’s jobs” in the health and care sectors, “men jobs” in ICT, energy and manufacturing	Working to overcome labour market segregation, providing role models and training and career paths to different people
Time perspective for planning	Short-term, budget year or government term	Long term, over one government term
Societal stability	Weak, considering innovation and social cohesion as separate, disparate areas of policy	Strong, cross-sectoral perspectives required when implications and policy impacts are considered for the planet. Ecology, economy and human activity are perceived as one.
Monetary profits	More directly measurable, higher short term business profit, higher risks	Both business and societal profit, long term profits, lower risks, lower short-term business profits

What we measure, gets followed. What we follow, influences our action

Positive progress in terms of individual actions, projects and initiatives is being made across the system, especially in research organisations and national funding organisations¹. E.g. Vinnova was raised as the positive example of mainstreaming inclusive innovation in its practices. The issue of gender is referred to and questions are raised in application forms, in order to raise the applicants' awareness of diversity. In VINNOVA's ongoing application on circularity for instance, it is stated that "Many problems, results and solutions can seem to be gender-neutral, but they still affect women and men differently. How do you intend to take this into account in this project and how can it affect the project's effects?"² Good organisation levels and practices, including training, recruiting specific diversity specialists and participating in European and Nordic networks and projects were raised during the dialogues and interviews. These seem to remain all too often just organisation level actions, not systemic ones.

It is clear that single organisations are not sufficient to change the mindsets of the Nordic countries and their research and innovation sectors. To make the next step on inclusive innovation, the role of networks and communities of practice was constantly highlighted. Secondly, data represents an important part of our knowledge and awareness of what constitutes RDI or STI policy and its preconditions. Thirdly, the practices related to RDI and its funding are important both in awareness raising and change making.

Inclusive innovation seems to be a challenge especially for Finnish innovation policy. The Finnish funding organisations differ from their Nordic partners (e.g. [Norway](#)) in that they do not provide gender specific data on applications and funding. Finnish partners and funding bodies are not always equally visible or present in these networks as their Nordic counterparts, either. This may, in part, be due to the lack of research resources and competencies, but is most likely an issue of prioritisation and policy in general.

Data and Methodology

As the project was mainly a development and networking exercise, our main focus throughout the data gathering and analysis period was on developing the narrative of inclusive innovation and green transition, primarily, its enabling factors and limitations.

Our preliminary document analysis covered the Nordic countries' main funding organisation's strategies and guidelines related to equality and inclusion. We also interviewed ten representatives from the research and innovation funding organisations of the other Nordic countries, experts from the innovation policy, academia or research funding areas and young researchers working in projects connected to the green transition. During the project three Timeout Dialogues were organised the first during Tampere university's Geography Days (10 participants), the second in Vaasa with the local stakeholders engaged in the energy sector innovation ecosystem (18 participants) and the third Online with the Norwegian research and innovation stakeholders of Vestlandsforskning (8 participants).

¹ E.g. for all public organisations in [Norway](#), [Equality Action Plan for the Research Council of Norway](#), [Business Finland](#), [Academy of Finland Equality and Non-discrimination Plan](#), [Vinnova's Gender Mainstreaming Plan](#), [Strategy for Gender Equality at the Swedish Research Council](#)

² <https://www.vinnova.se/m/fordonsstrategisk-forskning-och-innovation/ansokan/>

Throughout the implementation process, the steering group played an important role in sharing information, knowledge and developing ideas to be taken forward. Steering included Milja Saari (Strategic Research/ Academy of Finland), Annu Kotiranta (Business Finland), Moa Persdotter (VINNOVA), Hilde Corneliusen (Vestlandforskning, Norway), Tamar Melanie Heijstra (University of Iceland, Iceland) and Helka Kalliomäki (University of Vaasa, Finland).

Conclusions and Recommendations

The existence of a high level of segregation is seemingly taken for granted as is the suggestion that we cannot do anything about it. At present, there is clearly insufficient political pressure to take diversity and inclusion into account in RDI organisations and RDI funding. Inclusive innovation requires the re-thinking of explicit and implicit norms and practices in a variety of ways. This however also demands capacity-building within the innovation policy making community ensuring that each participant realises that “ this is my responsibility”, “I do this”, “I make choices”.

Inclusion supports more versatile innovation policy outcomes and uses more varied business potentials and skills. Inclusion offers the possibility of perceiving the opportunities of innovation more broadly and be open to innovation in areas and sectors not so commonly associated with traditional RDI or innovation policy (from services to design, arts or culture) and appreciate different scales (from local, small-scale activities to more broadly scalable services with larger market potential, e.g., through digitalisation). In order to do that, RDI- policymakers need to think, act and design policies and the programmes and projects that implement them differently. It can be achieved through:

1) Re-thinking innovation in order to turn it into an asset of sustainable green transition.

Without a diversity of people, disciplinary backgrounds and types of innovation, the green transition cannot be executed in an effective, profitable and sustainable way.

2) Including the costs and effects of non-inclusion in the policy design.

More work needs to be done on measuring the positive impact and effect of inclusion and diversity, or the cost of non-inclusion. If the policy-makers want to see euro figures and Social Return on Investment (SROI), this is what we should give them.

3) Designing innovation policy and instruments in line with human-centric design.

This kind of orientation is also more in line with inclusion and diversity. In addition, the ideation could benefit from being exposed to a more versatile set of ideas, backgrounds and experiences.

4) Strengthening networks and epistemic communities.

Strengthening networks on inclusive innovation and creating meeting places engages dialogue across sectors around inclusive innovation(e.g., gender experts meeting innovation experts, or those working with digitalisation with those working with human skills and empathy).

5) Strengthening capabilities and skills relating to implementation of inclusive innovation

People with training, skills, full potential of networks, peer communities and sufficient tools and resources at their disposal, will turn inclusive innovation into reality.

6) Addressing the question of inclusion and its implications in measuring and monitoring.

Data is required to raise awareness and to show results and impacts.

References

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More Information

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The outputs and results of the project will all be made available on the AGDA project's website <https://www.mdi.fi/en/agda/>