

INNOVATION & GENDER

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**Why does GENDER DIVERSITY matter when
it comes to product and service innovation?
What has RESEARCH shown? And what does
HARD-WON EXPERIENCE
tell us?**

**With good examples from Sweden and
Norway, INNOVATION & GENDER
show how businesses gain a competitive
edge by INTEGRATING a gender perspective
into their innovation work – a much needed
boost as GLOBAL COMPETITION becomes
increasingly TOUGH.**

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Foreword

The book you are holding is the result of a collaboration project between two countries, Norway and Sweden and three different public agencies, Innovation Norway, the Swedish Agency for Economic and Regional Growth and VINNOVA. Common to all these agencies is a mission to increase growth by innovation.

As globalisation increases, an ability to attract investment and competence assumes more importance and our region faces fresh challenges. The Nordic region cannot compete with low wages so to sustain economic development and growth, we must bring to bear all our competencies and be innovative.

The innovation performance and competitiveness of the Nordic region has been explained by such factors as the welfare model and high levels of trust, cooperation, education and R&D funding. Important parts of the welfare model are measures for increased gender equality and our countries are often regarded as two of the most gender-equal countries in the world. The majority of Nordic women and men are active in working life but we have a horizontally and vertically segregated labour market.

One of our conclusions is that the most gender-segregated industries in Norway and Sweden face unprecedented challenges. We must be able to utilise all our capabilities so that companies, clusters and regions will be able to attract and keep a highly skilled workforce. Many young women and men today expect to be able to develop their full potential at work and achieve a work-life balance. The business sector must increase its capacity to connect innovation and gender in relation to the labour, product and financial markets.

We can continue with business and innovation as usual if we want to produce “more of the same” and take the high-risk track associated with a lack of a gender perspective. If, on the other hand, we would like to communicate images of modern industries, clusters and companies to attract human resources, capital and investments we need to improve existing practices and sometimes also break with the existing order. In this book, we argue that a gender perspective can strengthen innovation milieus and we take a step towards an innovation case for gender diversity.



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Innovation Norway promotes nationwide industrial development profitable to both the business economy and Norway's national economy and helps release the potential of different districts and regions by contributing to innovation, internationalisation and promotion. The company is owned by the state (51%) and the county communes (49%). The company has offices in all the Norwegian counties and more than 30 countries worldwide. Innovation Norway's core group of clients includes entrepreneurs and companies, predominantly SMEs.

The Swedish Agency for Economic and Regional Growth works proactively for sustainable growth throughout Sweden by facilitating entrepreneurship. We do so by helping companies to develop and by working to establish simpler rules and good sources of information for entrepreneurs. We contribute towards regional growth initiatives and are the managing authority for Sweden's eight regional structural fund programmes. The Swedish Agency for Economic and Regional Growth is a national authority.

The Swedish Governmental Agency for Innovation Systems (VINNOVA) is Sweden's innovation agency and our aim is to increase the competitiveness of Swedish researchers and companies. VINNOVA's task is to promote sustainable growth in Sweden by funding needs-driven research and the development of effective innovation systems. To this end, VINNOVA's annual investment budget for new and ongoing projects is EUR 220 million. An important part of VINNOVA's activity is increasing the cooperation between companies, universities, research institutes and other organisations in the Swedish innovation system. We do this in various ways, including long-term investment in strong research and innovation milieus, investment in projects to increase commercialisation of research results and creation of catalytic meeting places in the form of conferences and seminars. Some 200 people work at VINNOVA's offices in Stockholm and Brussels.

Innovation & Gender
Innovation & Gender
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Executive summary

This book provides the reader with a mixture of theory, practices and models as a basis for initiatives aimed at removing barriers to growth through the connection of innovation and gender. Findings from research and practice are discussed in the light of future demands on the business enterprise sector, challenges facing the Nordic region and Europe, plus policy developments towards broader views on innovation in the European Union. A wide range of arguments for the innovation and gender connection is highlighted in the book and six core statements are made in relation to the innovation case for gender diversity: Competition for well-educated employees; Competition through better decisions; Gender diversity as driver of creativity and innovation; Competition with user-driven innovation; Gender as a means of design innovation; Competition by image shaping. A theoretical framework and evidence-based arguments for each of these core statements are presented, as well as pilot efforts to increase competitiveness in the business enterprise sector by applying a gender perspective. The reader will become familiar with Norwegian and Swedish programmes for cluster development and five innovation milieus involved in ongoing development work to connect innovation and gender. There are descriptions of pilot actions to improve the competitive advantage of clusters focusing on the steel industry, food production chain, maritime industry, development of products and services based on fibreoptics and automated manufacturing and lightweight materials. Examples are provided from clusters located in diverse regional contexts and experiences from new initiatives are combined with knowledge acquired over a number of years in well-established innovation milieus. Ten generic methods for introducing a gender perspective in innovation milieus are identified in the book, through analysis of the developments in the Nordic region and state-of-the-art research. Furthermore, an analytical model for tracking the progress and outcomes of actions implemented in cluster programmes, innovation milieus and companies is introduced. This model is based on research carried out by Etta Olgiati and Gillian Shapiro plus case studies of corporate gender equality strategies, change processes and innovative management practices in seven European countries. The book gives cluster professionals ideas for strategies to mobilise actors for gender diversity and tools for bridging the gap between policy aspirations and the implementation of new practices in innovation milieus.

Content

1	The Story of the book	14
2	Our scene	19
2.1	Smart, Sustainable and Inclusive Growth in Europe	20
2.2	Global Competition Challenging the Nordic Countries	22
3	Rethinking Innovation	25
3.1	Innovation Milieus	26
3.2	The Innovation Case for Gender Diversity	27
3.3	Non-normative Thinking Strengthening Innovation Milieus	28
4	Between Top-down and Bottom-up	33
4.1	Translating Policies into Actions	34
4.2	Development of Practical Tools	36
5	Doing Innovation and Gender	43
5.1	An Inclusive Approach to Innovation	44
5.2	A Broad Approach to Innovation	45
5.3	A Gender-Aware Approach to Innovation	47
5.4	Opportunities for Innovativeness	52
6	Practices on the Ground	59
6.1	Applying Old Methods in New Contexts	60
6.2	All Aboard	64
6.3	NCE Raufoss Women’s Arena	67
6.4	Three TIGERs	70
7	Tracking Innovation and Gender	75
7.1	A Dynamic Model	76
7.2	Sustainable Results	78
7.3	Change and Absorptive Capacity	81
8	Innovation and Business as usual?	86
	References	90



The Story
of the Book

1. The Story of the Book

Innovation is uppermost in the mind of decision makers all around Europe. In recent years, the connection between innovation and gender has attracted increased interest among policymakers, researchers and business leaders. Businesses and clusters aspiring for a world class position have recognised the potential to create a manifold competitive advantage by integrating a gender perspective into their operations. This advantage involves improved financial performance, strengthening of the brand and tackling of workforce shortages. To remain competitive in the global market, companies must be able to staff positions for technology experts and leaders.¹

The European enterprise sector is being influenced by intensified discussions around the globe on the “business case for gender diversity”. Researchers and practitioners are talking about the “third wave of arguments” for the case focusing on gender diversity as critical for the adaptive and innovative capability of businesses. The first wave (rooted in arguments around the skill shortage) dates back to the WWII, whilst the second wave (incorporating market-based arguments and understanding of diverse markets) emerged some decades ago. In this book, we will touch upon all three waves of arguments whilst giving examples from Norwegian and Swedish clusters focusing on the steel industry, food production chain, maritime industry, development of products and services based on fibreoptics and automated manufacturing and lightweight materials.

More and more European companies are adopting gender diversity and equality strategies for the business benefit this is expected to deliver. The diversity-as-competitive-advantage discourse is most strongly used in top UK companies, whilst in other parts of Europe the gender equality discourse is more common². This might be explained by US influence on corporate management practices in the UK. In this book, we focus on the competitive advantage of the innovation and gender connection for clusters whether using different concepts such as a gender perspective, gender diversity or gender equality.

Naturally, gender equality might be listed among the corporate values but ultimately it is only the connection to profitability and financial performance that ensures interest from the business enterprise sector. Professor Michael Porter at Harvard Business School, a leading authority on corporate strategy and competitiveness, has also underlined the importance of business benefit in his recent work on the competitive advantage of Corporate Social Responsibility³. In our daily work of managing national programmes aimed at promoting innovation milieus, we are looking for new ways to stimulate interest in the topic of “gender, growth and competitive advantage” among various cluster development actors. Organisations for cluster collaboration and intermediaries must be able to access arenas within which to exchange knowledge and experience on this topic. Given the fierce global competition, neither the Nordic countries nor Europe generally can afford not to utilise all possible opportunities.

As cluster or programme managers, we need a portfolio of evidence-based practices and arguments for what we, in this book, have chosen to call the innovation case for gender diversity. Cluster professionals need knowledge of how to introduce a gender perspective in innovation milieus, strategies to mobilise actors and tools applicable in diverse regional contexts for opening up new innovations and accessing new markets.

Our intention with this book is to provide the reader with a mixture of theory, practices and models as a basis for initiatives aimed at removing barriers to growth through the connection of innovation and gender. The book will highlight a wide range of arguments for this connection, citing a range of different voices. One strong voice involves the stories of cluster professionals from innovation milieus and their involvement in pilot efforts to increase competitiveness by applying a gender perspective. Representatives of five different milieus have contributed reflections to the book and their actions in these environments have been analysed in the light of scientific studies, current trends in society and our own experiences of three public sector agencies. These represent other voices in the dialogue on the topic in question.

The driving force behind this book has been our joint interest in presenting some of the grassroots work and ongoing R&D focused on increased competitiveness in the Nordic region. A catalytic event in its publication was participation by some of us in the 2009 TCI Annual Global Conference, where we arranged a workshop.

During the Conference, a Gender and Economic Growth Initiative was launched aimed at collecting best practices from different countries. TCI is a global network of practitioners, policymakers, researchers and business leaders working towards improving competitiveness in regions and clusters. Each year, practitioners from the network around the world gather to explore the latest trends in cluster-based policies and best practices in cluster development.⁴

We had for a while talked about arranging a seminar on cluster development and gender in the Norwegian-Swedish group of cluster programme managers. Someone at the office talked about the TCI Conference in Jyväskylä, Finland and I came up with an idea of a workshop on Gender and Growth. Initially the interest seemed limited but the topic was put on the agenda and got the participants' attention. As a result of the event, we created a strong group of cluster professionals interested in moving forward; our confidence grew that we were on the right track and the idea of a joint book was born. (Lars-Gunnar Larsson, VINNOVA)

In the next Chapter (2) we set our scene in terms of the Nordic and European arena where we operate and the challenges our region faces. Six core statements related to the innovation case for gender diversity are presented in Chapter 3. Thereafter, in Chapter 4, we share experiences of measures implemented by our agencies.

The reader will get acquainted with some national programmes and innovation milieus involved in ongoing development work to connect innovation and gender. In Chapter 5, we provide a theoretical framework for our core statements. Different methodologies in an “innovation and gender portfolio” and case studies of innovation milieus in Norway and Sweden are presented in Chapter 6. An analytical

model for tracking innovation and gender based on European research and studies in the business enterprise sector is outlined in Chapter 7. Finally, in Chapter 8, we discuss our findings from research and practice in the light of future demands on enterprises to communicate their commitment to innovation and gender in product, labour and capital markets. References appear at the end of this book.

Facts

Gender: A concept that refers to the social differences between women and men that have been learned, are changeable over time and have wide variations both within and between cultures. (100 words for equality. A glossary of terms on Equality between Women and Men, European Commission)

Gender equity: Fairness of treatment by gender, which may be equal treatment or treatment which is different but which is considered equivalent in terms of rights, benefits, obligations and opportunities. (100 words for equality. A glossary of terms on Equality between Women and Men, European Commission)

Gender equality: The concept meaning that all human beings are free to develop their personal abilities and make choices without the limitations set by strict gender roles; that the different behaviour, aspirations and needs of women and men are considered, valued and favoured equally. (100 words for equality. A glossary of terms on Equality between Women and Men, European Commission). The quantitative aspect implies an equal distribution of women and men in all areas of society such as education, work, recreation and positions of power. The qualitative aspect implies that the knowledge, experiences and values of women and men are given equal weight and used to enrich and direct all areas of society (Statistics Sweden, Women and Men in Sweden – Facts and Figures 2010).

Gender perspective: The consideration and attention to the differences in any given policy area/activity (100 words for equality. A glossary of terms on Equality between Women and Men, European Commission). In this book, we interpret this as looking at the impact of gender on women's and men's opportunities, social roles and interactions.

Applying a gender perspective in an innovation milieu will not necessary lead to gender equality but it will reveal inequalities and the way gender is done in that milieu. Thus it will create gender awareness and knowledge for action.

Gender diversity: The concept can refer to the number of women and men in an organisation or in a certain position and can also signify an intersectional perspective taking into consideration gender in connection with other social differentiation categories such as age, ethnicity, educational background, class and sexual orientation (www.gendertoolbox.org). In this book, we interpret this as embracing both gender diversity and equality in order to contribute to innovativeness. The alternative would just mean "counting heads". We believe inclusive, gender-equal innovation milieus will also be more diverse. Gender is often the only permissible categorisation since the others might vary throughout life or be unethical to use in our context.



Our Scene

2.1 Smart, Sustainable and Inclusive Growth in Europe

Innovation has been given a prominent role in the new Europe 2020 Strategy (launched in the spring of 2010) and in one of its “flagship initiatives”, Innovation Union. This initiative aims to improve the framework conditions of research and innovation, thus catalysing progress. Some of the priority themes for the flagship initiative include: a strong focus on the challenges facing society; knowledge partnerships and links between education, business and research; measures to improve conditions for R&D investment in the private sector; design of new indicators to track innovation and sufficient supply of science; engineering graduates.⁵

Recruiting and retaining women in scientific and technical fields is seen as a key to success for the 2020 Strategy. A number of studies and reports have stressed the acute problem of women’s under-representation in science in the business enterprise sector. Whilst women represent over 35% of all researchers in the higher education and government sectors of most European countries, this is not the case for the corporate sector. The percentage of female researchers in the business enterprise sector is less than 25% in most countries.⁶

Yet another flagship initiative under the 2020 Strategy, the New Skills and Jobs Agenda, focuses on the need to modernise labour markets, increase labour participation and match labour market and skills. Studies show that the European labour shortage is likely to have more effect on

female or male dominated occupations than on less divided sectors⁷. Occupations in healthcare and ICT are already affected by the shortage of professionals in Europe. For example, the rapidly growing demand for ICT specialists was one of the motivators behind the European Code of Best Practices for Women and ICT launched by the European Commission⁸. Organisations that have signed the Code include global corporations like Google, Cisco and Microsoft and research institutes like the Research Council of Norway.

There is considerable interest in the design of new measures to get more women involved in technology as well as innovation processes in the business enterprise sector. This will tackle the demographic challenge and achieve innovation results. A European dialogue is underway linked to the innovation case for gender diversity. This dialogue is reflected in policy, practices and various programmes providing funding for cluster initiatives.

“Equal participation of men and women is essential for Europe to exploit the full potential of innovative strengths – not only for demographic reasons, but also in case of innovation processes and results. There is a need to clarify what (new) cluster policy related measures can support the process to get more women involved in the innovation process of business and research.”⁹

The quotation on page 20 was found in a strategic call for project proposals in 2010 aimed at “boosting innovation through new cluster concepts in support of emerging issues and cross-sectoral themes”. It was launched by the Territorial Cooperation Programme for Central Europe, a programme funded by the European Structural Funds.

Cross-border cooperation between regions needs to be strengthened and the 2020 Strategy provides a new arena for cooperation on the theme of innovation and gender in Europe. Getting more women involved in cluster initiatives requires a double strategy, i.e. promoting a gender perspective in technology clusters and manufacturing and, simultaneously, a recognition of the potential in female-dominated sectors. So far, there has been a bias towards funding technology-intensive clusters in Europe even though there is as much potential in service-intensive activities¹⁰. It is estimated that by 2020 three quarters of all jobs in Europe will be in services.

However, in recent policy developments we detect a shift towards broader views on innovation and an increased acknowledgment of service innovation. The European business panel which provided input for the new innovation policy drew the conclusion that “more technology is not the solution”. Europe needs to utilise the potential of social innovation and open up to the creativity of a broad range of people, ideas, institutions and processes that will drive future innovation.¹¹ This is in line with our own ideas that an inclusive approach to innovation and a gender perspective will create a more favourable environment for growth.

In the next chapter, we will briefly touch on the topic of the changing nature of innovation and elaborate on our ideas in Chapter 5, *Doing Innovation and Gender*. Firstly, we would draw attention to the fact that the Nordic countries, which usually lead different rankings of innovation performance such as the European Innovation Scoreboard¹², face similar challenges to Europe as a whole.

Facts

The Europe 2020 Strategy has three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource-efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion. (www.ec.europa.eu/europe2020/index_en.htm)

2.2 Global Competition Challenging the Nordic Countries

The innovation performance and competitiveness of the Nordic region has been explained by such factors as its welfare model and high levels of trust, cooperation, education and R&D funding¹³. Norway has one of the highest GDPs per capita in the world and the World Economic Forum Competitiveness Index for 2009 ranked Sweden as one of the most competitive economies in the world¹⁴. For the same year, the Nordic countries also topped the World Economic Forum Gender Gap Index list which covers over 130 countries¹⁵. The ranking aims to increase awareness of the opportunities created by reduced gender gaps and the correlation between a country's competitiveness and its level of gender equality.

*“Highly skilled employees and world-class research are the bedrock of Nordic competitiveness and a key reason for the high level of R&D intensity in the region. In both areas, the region is in danger of falling behind markets needs, not the least because of a lack of global perspective and Nordic integration. If there is one critical issue that the Nordics need to get right, it is this one.”*¹⁶

As for other parts of Europe, skills availability and the presence of dynamic clusters determine whether or not global corporations are interested in locating their R&D

units in our region. A low population density and dearth of large cities poses a specific obstacle to the region in terms of accessing markets and human capital. Some of the innovation milieus described in this book are located in sparsely populated areas of Norway and Sweden where young women in particular leave to seek employment and higher education elsewhere.

As in other parts of Europe, there are few female researchers present in the corporate sector and in the latest “She Figures” from the European Commission, Sweden had 25% and Norway 20% women scientists in the business enterprise sector¹⁷. Unfortunately, current trends do not look favourable for the region. According to the global ROSE (Relevance of Science Education) study coordinated by the University of Oslo and covering over 40 countries, young students aged 15 are less interested in science and technology careers in the Nordic countries than in the developing countries. Young women are significantly less interested than men in getting jobs in technology, whilst in developing countries gender differences are relatively small.¹⁸ In contemporary Western society we see a co-production of masculinity and technology as well as a co-production of technology and innovation¹⁹. It seems this coproduction of gender and innovation could be done differently in other societies²⁰.

The added value provided by businesses depends on the creativity of the workforce and although the Nordic countries are at the forefront of the fields of innovation and gender, increased global competition is

challenging this strong position. Businesses and innovation milieus outside the Nordic region are becoming aware of the potential that lies in gender diversity. In areas of current advantage, the gap between the Nordic countries and other world regions is shrinking.

We must improve our ability to combine skills in new ways as industries change and the service component in manufactured goods increases, whether in business-to-business or consumer markets. The horizontal segregation on the labour market and in education is likely to affect this process and should be regarded as one of the main challenges to the Nordic region; a challenge which pushes companies and innovation milieus to engage in projects

aimed at counteracting segregation, as we will describe in this book.

Several initiatives have been taken during the last decade to further strengthen the position of the business enterprise sector and/or single businesses in the Nordic region. One example of an industry-driven project that attracted a lot of international interest from business leaders and researchers was Your Concept Car (YCC) from Volvo Cars²¹. A policy measure attracting international interest was the Norwegian boardroom gender quota, which came into force in 2006²². Directly or indirectly, these initiatives are influencing developments in some of the innovation milieus which the reader will encounter in the forthcoming chapters.

Facts

Norwegian boardroom quota: This legislation compels large enterprises listed on the stock exchange to have at least 40% women on their boards. This quota applies only to publicly traded and public limited companies, but the legislation has led to “spin-offs” in terms of new, voluntary programmes. The Female Future Programme, run by the Confederation of Norwegian Enterprises, is the most well-known of these voluntary schemes and has been exported to several countries (www.nho.no/ff)

Your Concept Car: YCC was designed by a group of women and launched at the Geneva Motor Show in 2004. Although the car was never put into production, many of the ideas designed by the Swedish-led think tank appear in cars today. The focus of the project was to find new technological and design solutions by meeting the expectations of both female and male customers. Surveys showed that women were Volvo’s most demanding customers.



Rethinking
Innovation

3.1 Innovation Milieus

The concept of innovation systems as we now know it was developed by several researchers in the late Eighties and into the early Nineties²³. Originally developed as a concept for understanding and explaining the differences in economic growth between countries, it was soon adopted into innovation policy. Within this policy area, the concept of innovation systems was and is used mainly in programme development or as a policy implementation tool. The great breakthrough for innovation systems as a policy instrument was in the rhetoric around growth policy, a process that started at the end of the Nineties. The work on national innovation systems carried out by OECD in the Nineties was important for the acceptance of a systemic view of innovation. As a consequence, measures for increased growth at the regional and national level in the Nordic countries are often influenced by the national innovation systems perspective and related perspectives like the Triple Helix²⁴ and Cluster²⁵. Clusters are increasingly being seen as an important instrument in fostering innovation, competitiveness and regional economic growth. Much of our understanding of the region as a locus of innovation comes from research into places that qualify as learning regions, clusters, industrial districts, or regional innovation systems²⁶.

Hence innovation is no longer a word merely helping us describe and explain societal phenomena of “newness”, “change” and “diffusion”; it has also grown into important policy areas for assisting EU Member States in establishing conditions

for creating economic growth, new jobs and social cohesion. In the policymaking context, innovation is considered a prerequisite of economic growth.

For the agencies behind this book, innovation milieus are important perspectives for understanding and necessary policy tools for contributing to economic growth at regional and national level. As policy practitioners, we recognise that realising innovation and renewal requires strong environments, innovation milieus, where public and private actors in complementary sectors collaborate. This collaboration gives enterprises in innovation milieus access to specialised input goods, opportunities to facilitate the transfer of technology, information and experiential knowledge and opportunities to turn this into higher value-added products and services. This enables enterprises and regions to strengthen their long-term strategic cooperation and competitiveness. A successful innovation milieu is an important engine of regional and national growth. This makes it a tool for achieving international competitiveness and a means of promoting sustainable development in regions by developing internationally competitive research and innovation environments in specific growth fields.

In recent years, there has been increased criticism of the way the innovation system concept has developed in analysis and policy. This has led to an exclusion of important elements relevant to understanding innovation-based economic growth and an overemphasis on research-based innovation and technological infrastructure. This development has taken place even though leading researchers within the area pro-

mote a holistic view of innovation that includes not only economic factors but also institutional, social and political ones²⁷; one that views innovation systems as a social system where the most valuable outcome is knowledge and the most central process is learning. A social activity demanding interaction between people – women and men.²⁸

For us as practitioners, innovation milieus have proved a valuable concept in understanding and promoting sustainable economic growth and development. However, we have also recognised some weaknesses with our policy implementation tools as these might lead to exclusion; a fact also recognised by researchers. For example, the Nordic countries have a high level of participation by women in the labour market, but it is simultaneously one of the most horizontally segregated. Men and women are active in different sectors. The traditional female stereotypes are interwoven with conventional female roles and these, in turn, with the ways in which we are socialised²⁹. In the same way, masculine stereotypes are interwoven with masculine roles and how we are socialised. This creates a normative thinking about women and men and the specific position they are expected to adopt in our society. This will also be mirrored in innovation milieus, causing a weakness and potential for improvement.

Talent shortage and competence needs are the main fuel of gender diversity in many enterprises. With a gender perspective, we can raise awareness of the male norm in the business enterprise sector. This in turn will probably lead to more women in areas currently dominated by men. It seems that

not only will less normative thinking about women and men lead to better gender equality, it will also lead to increased growth. Our argument is that normative thinking is an obstacle to innovative thinking. It will prevent many ideas from developing, meaning that many growth opportunities will be overlooked.

3.2 The Innovation Case for Gender Diversity

According to the findings of research by the Anita Borg Institute in Silicon Valley, the business case for gender diversity in technology is stronger than ever. Among the business benefits highlighted by the Institute are: enhanced employee recruitment and retention from a wider pool of skilled workers; improved corporate image and reputation; greater innovation and enhanced marketing opportunities.³⁰

The economic case for gender equality can be regarded as going a step further than the business case. While the business case highlights the need for equal treatment to reflect the diversity among potential employees and an organisation's customers, the economic case stresses economic benefits at a macro level. An economic case stresses the wider economic benefits that span individuals, enterprises, regions and nations and can thus address inequalities in the wider labour market; something upon which the more limited business case approach will have less impact.³¹

Inspired by the business case for diversity and the economic case for gender equality,

we argue that a gender perspective can strengthen innovation milieus; a step towards an innovation case for gender diversity. We have identified six different ways – our core statements – that innovation milieus can use a gender perspective to increase innovative capacity. In Chapter 5, we will return to these statements and provide the reader with arguments for each of them.

Statement 1

Competition for well-educated employees

Statement 2

Competition through better decisions

Statement 3

Gender diversity as driver of creativity and innovation

Statement 4

Competition with user-driven innovation

Statement 5

Gender as a means of design innovation

Statement 6

Competition by image shaping

To include a gender perspective in an analysis of an innovation milieu is not a matter of adding one more factor; it means highlighting one aspect of the system that is yielding effects, regardless of whether these effects are measured or not³². Studies have showed that gender analysis could also reveal unexploited innovative opportunities³³. Furthermore, all systems are the sum of their parts and individuals – women and men – in an innovation milieu are the “primary component”. If we integrate a gender perspective in policymaking and programme implementation we can broaden our interventions to include disciplines,

branches and work areas where women are better represented. Even more important is the innovative thinking to which a gender perspective is expected to contribute.³⁴

3.3 Non-normative Thinking Strengthening Innovation Milieus

We will present and discuss strategies and models of how innovation milieus may use the gender perspective as a means of improvement. Common to all the milieus and their pilot efforts presented in this book is an aim to raise the level of gender awareness and create new knowledge of the process by which innovation and gender are constructed. Apart from these similarities, the actors in the Norwegian and Swedish innovation milieus use different ways of raising awareness.

Inspired by Volvo’s concept car YCC (see page 23), a project aimed at finding ideas for new products and new markets by challenging the “genderisation” that usually holds back design, the Swedish Marine Technology Forum initiated the All Aboard project (see page 64 of this book). The rationale behind the All Aboard concept leisure boat is that more female designers, product developers and employees will contribute to broader perspectives and views. Design is at the core and cooperation with industrial designers is perceived as a way to promote innovation, attract women into the industry and stimulate cooperation between companies in the innovation milieu and academia.

In yet another project – Fiber Optic Valley Gender (see page 41 of this book) – the researchers addressed the needs by asking the question “What’s in it for me?” This was the response of the actors in the innovation milieu:

“The gender perspective therefore plays an important strategic role in Fiber Optic Valley’s growth and from the outset has been prioritised as one of the important driving forces, essential to achieving our longterm growth targets.”³⁵

“Active gender equality work has opened the doors to a whole new way of thinking, partly by questioning prevailing norms. A more open working climate and a broader approach to developing products and services boosts the competitiveness of the individual organisations and the regional innovative environment.”³⁶

The increased focus on gender diversity in NCE Raufoss and the creation of a Women’s Arena (see page 67 of this book) is expected to contribute to an image of a modern innovation milieu that will be perceived as more attractive to potential employees, whether female or male. One of the key drivers for the initiative was rapid changes in the labour market and the potential lack of scientists and engineers in the Nordic region.

The innovation case for gender diversity can have different drivers, as we will see from the case stories presented in Chapter 6. Even so, what they have in common is a need for change; in the competition for competence, a need for better effectiveness in the innovation milieu and/or a need to find new markets or products. The point here is that to be leading actors within their branch, companies and innovation milieus must adopt fresh approaches. One way to do this is to be innovative by applying a gender perspective. Naturally, gender equality is a matter of democracy but for companies, economic growth is first priority and we will show how these two objectives – equality and growth – can go together. In our work as programme managers at national agencies we need to handle these objectives simultaneously, using different methods of translating the top-down approach of gender mainstreaming into practices that stimulate business and cluster development.

Innovation systems: The term “innovation systems” comprises several dimensions and can refer to various levels. A national innovation system can be described in terms of important actors and components such as universities, colleges, institutes, large and small enterprises, venture capital and regulatory frameworks. The state plays an important role in national innovation systems. To a large extent, the government is responsible for the provision of regulatory frameworks, infrastructures, interlinking bodies and educational and research organisations. In addition to national and sectorial innovation systems, there are regional and local ones. Innovation processes often occur in environments where geographic proximity and related factors are decisive. Examples of factors that can be unique to a certain place or region are the existence of specialised knowledge, local social networks and trust between the parties concerned.

Clusters: The term “cluster” partially replaces the old terms “sector” and “branch”. As concepts, “sector” has become too broad and “branch” too narrow. By definition, a cluster cuts across different branches. A cluster is also an aspect of competition based on different relationships: relationships between individuals working in companies in different branches, between related companies and their customers, but also between companies and research institutes, trade organisations, actors in the public sector, etc. Another aspect of cluster is based on the local production environment or the home base. These are crucial to a company’s competitiveness since innovations are often generated as a result of specific local skills and competence.



Between
Top-down and
Bottom-up

4.1 Translating Policies into Actions

If the concept of innovation systems has influenced the developments of innovation policies as described in the previous chapter, equality policies have been influenced by the concept of gender mainstreaming. Since the mid-Nineties, mainstreaming has been the overall strategy for integrating a gender perspective into policy and practice in the Nordic countries and European Union. As in other parts of Europe, we recognise that mainstreaming does not exclude measures specifically targeting women or men in areas where they are under-represented. In many companies and some clusters, popular measures are inter-organisational leadership and mentoring programmes especially for women. Within the innovation milieu Triple Steelix (see page 40 of this book) leadership courses were arranged for women in the steel industry, combining lectures with practical exercises. An evaluation of the courses indicates that particularly younger participants appreciated being in a women-only group in an otherwise male-dominated industry³⁷.

Our three agencies are working actively to integrate a gender perspective into all programmes. To fulfil our assignment we are using various instruments such as guidelines, evaluations, dialogues, best practices, process support, workshops and applied gender research. Top-down analyses (of change in performance over time in the innovation milieus) and bottom-up analyses (of how individual projects have contributed to change) need assessing.

“We have a think tank and arrange workshops for process leaders focusing among other things on the business case for gender diversity. We need to trigger interest among businesses in the clusters and show them the existing and emerging opportunities on the global market. In the BRIC (Brazil, Russia, India and China) countries, women are rapidly increasing their income and influence. (Ewa Andersson, Swedish Agency for Economic and Regional Growth)”

To achieve the aims and ambitions for innovation and gender, managers at Innovation Norway are following specific guidelines and systematically challenging customers on this topic. Targeting women is part of the description and implementation of all initiatives and services. Managers should present themselves as committed promoters and take up the challenge with strategic collaboration partners. Innovation Norway gives priority to women as a target group and their participation in industry as entrepreneurs, innovators, managers and corporate board members.

“It’s not just what we deliver, but also how we deliver our services that should be our trademark. We want our customers to recognise our commitment to this issue wherever they meet us, both within Norway and throughout the world. (Gunn Ovesen, Administrative Director, Innovation Norway)”

Innovation Norway offers mentoring programmes for women and implements measures within the framework of a national programme for women's entrepreneurship, 2008-2013. Similarly, the Swedish Agency for Economic and Regional Growth is responsible for measures in a national programme for women's entrepreneurship, 2007-2010. The Agency has a long tradition of promoting women's entrepreneurship since its first assignment from the government at the start of the Nineties. Under the current programme, actions are implemented targeting (potential) entrepreneurs and aimed at stimulating business development, innovation and internationalisation. Other measures aimed at increased knowledge of a gender perspective in the business support system target enterprise agencies, banks, training institutes, universities and incubators.

VINNOVA provides funding for research within the area of Gender and Innovation, including a women's entrepreneurship programme and the Needs-driven Gender Research for Innovation programme. This

funding is part of a strategy by which the Agency aims to fulfil its mission, as laid out by the government, of funding gender research and contributing to gender equality in the area of activity concerned. In 2008, the Agency launched a specific programme, Applied Gender Research for Strong Research and Innovation Milieus (TIGER) which aimed to change processes and increase gender awareness in a number of strong innovation milieus. TIGER is an R&D programme at the intersection of practical gender equality work and gender research. Knowledge gained from the R&D projects funded by TIGER is integrated into innovation milieus supported by VINNOVA under other programmes. In the next section, we will present three milieus that are supported by the Regional Growth through Dynamic Innovation Systems programme and also involved in the TIGER programme: Fiber Optic Valley, Skåne Food Innovation Network and Triple Steelix.

Facts

”**Gender mainstreaming** is the integration of the gender perspective into every stage of policy processes – design, implementation, monitoring and evaluation – with a view to promoting equality between women and men. It means assessing how policies impact on the life and position of both women and men – and taking responsibility to re-address them if necessary. This is the way to make gender equality a concrete reality in the lives of women and men, creating space for everyone within the organisations as well as in communities; to contribute to the process of articulating a shared vision of sustainable human development and translating it into reality.” (The European Community of Practice on Gender Mainstreaming, www.gendercop.eu)

4.2 Development of Practical Tools

Since the first-generation cluster programmes, some of our agencies have provided grants for pilot actions which focus on innovation and gender. One of the tools that was found applicable to companies as well as clusters was the widely-used Balanced Scorecard. Research in Germany and the Netherlands also shows that a Gender Balanced Scorecard is a useful management tool if preceded by activities to raise general awareness of gender issues³⁸. Even though scorecards, plans and checklists are important instruments, our experience is consistent with studies in other European countries which found that innovation and gender initiatives must be idea and value-driven.

There are quite a few hurdles to translating a mainstreaming strategy into practice on the ground in companies and innovation milieus. The “gender perspective” often falls to key individuals who are willing (or appointed) to take on the responsibility. Leaders of organisations for cluster collaboration and managers of companies involved in the innovation milieus play key roles in removing hurdles and acting as champions. Successful cluster development is characterised by visioning and strong leadership, whether institutional or individual.

Recurrent themes which surface in our dialogues with process leaders in clusters on how to bring about change include: step-by-step actions, realistic targets, sufficient skills within the cluster team and participatory approaches. Still other themes

are technical and hands-on support for cluster professionals and sector-specific approaches aimed at capacity-building. The innovation and gender connection must be seen as relevant to the day-to-day activities of actors in the innovation milieus. Questions must be raised which attract the interest of key stakeholders and guidance for innovation milieus must consider both operational and strategic levels. We rely on the voluntary participation of the business enterprise sector and must therefore orientate ourselves towards the requirements of enterprises. A combination of bottom-up and top-down strategies is recommended for integrating a gender perspective, whether in a public agency, company or cluster.

“The requirement that initiatives supported by VINNOVA should mainstream a gender perspective in their operations without specifying exactly how this should be done gave the actors freedom to design interventions in the light of their own context. In some cases this led to an experimental application of a gender perspective and numerous ideas were generated. Some of the ideas were tested in practice and gender was used both as an analytical and a creative tool in the innovation milieus. However the lack of gender competence and leadership were factors that often slowed down the development process. Most of the actors in the innovation milieus acknowledge the importance of a gender perspective, but it seems difficult to get going. (Ann-Christin Nyberg, Researcher, Luleå University of Technology)”

Funding for actions in innovation milieus striving for excellence

Our agencies provide funding for the development of centres of excellence and clusters in Norway and Sweden. In the Regional Cluster Programme implemented by the Swedish Agency for Economic and Regional Growth, financial support can be granted to mature cluster initiatives with highly developed relationships. This applies to actors that are nationally recognised within their field of competence and are in a phase of internationalisation and advanced business development. Also supported are developing clusters which aim to link up actors operating in different sectors and competence fields. A similar cluster programme (ARENA) is also available in Norway, providing funding for 3-5 years.

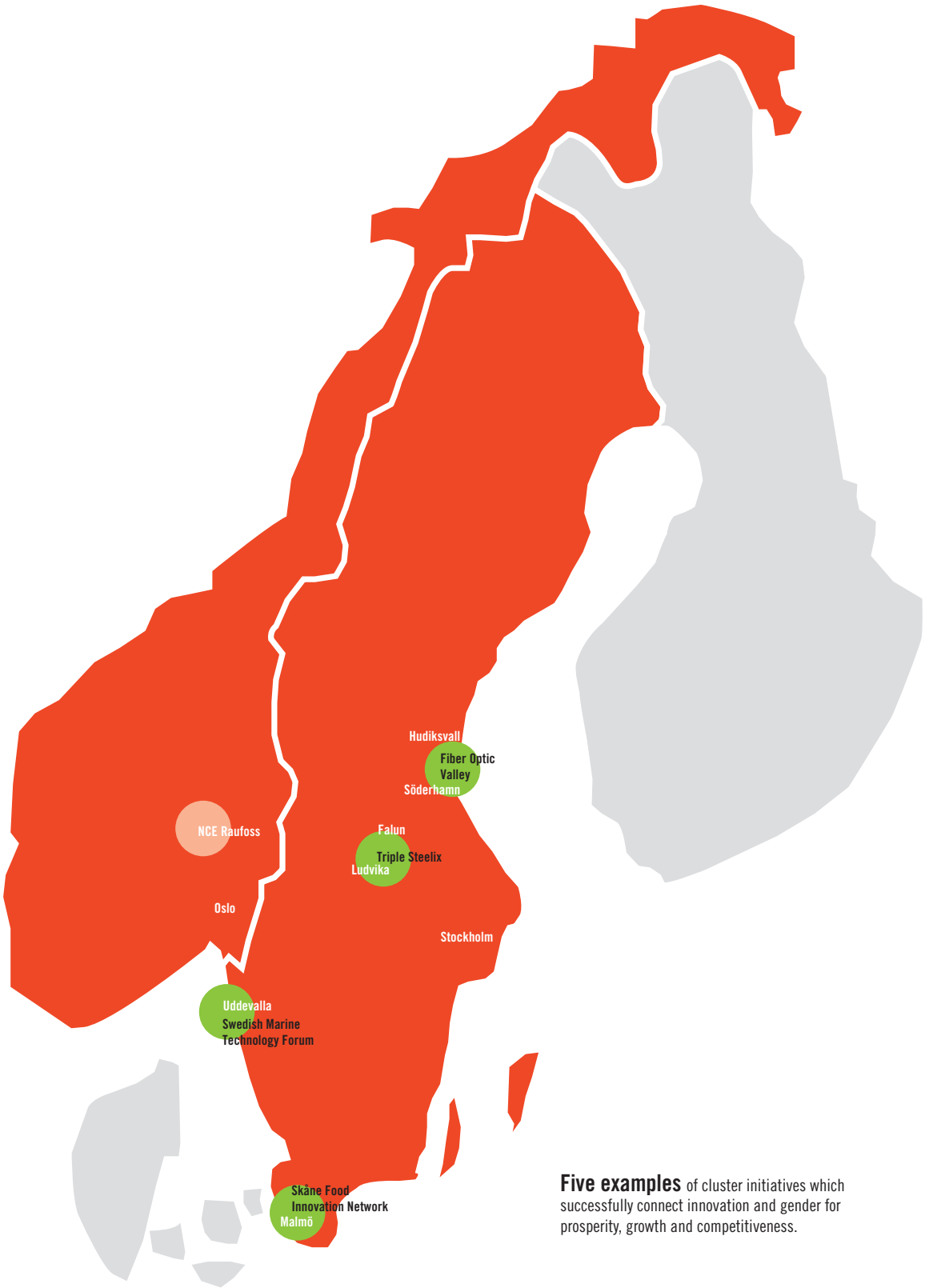
Other programmes provide funding for up to ten years for a limited number of internationally-orientated, competitive and developed clusters in each country. These innovation milieus must have the active participation of companies, researchers and the public sector (Triple Helix). The Norwegian Centres of Expertise (NCE) is administered by Innovation Norway and owned by Innovation Norway, the Industrial Development Corporation of Norway and the Norwegian Research Council, whilst the Swedish equivalent – Regional Growth through Dynamic Innovation Systems (VINN-VÅXT) – is implemented by VINNOVA.

Within all these programmes, we provide seed capital for pilot activities focused on innovation and gender. Evaluations have shown that many actors are uncertain as to what activities might be relevant to them

when promoting the innovation case for gender diversity. In this book, we have chosen to present experiences from five Nordic innovation milieus which aspire to excellence on a global or European scale and which are engaged in development processes to strengthen their competitiveness through a gender perspective. A brief introduction to the innovation milieus can be found on page 39-41.

We have chosen to highlight activities in environments representing diverse industries and regional contexts. Experiences from new cluster initiatives are combined with knowledge acquired over a number of years in well-established innovation milieus. Innovation and gender must be analysed in the light of a wide variety of contextual factors, including the capacity of the actors concerned to adapt to rapid changes in their surroundings. The characteristics of the innovation milieu and its surroundings will influence the way dialogue on innovation and gender is entered with cluster professionals. Some of the factors likely to affect these dialogues include different national welfare regimes and whether the cluster is located in an urban or rural area. Also affecting the entry are the concentration of SMEs and global corporations in the cluster and whether the core business focuses on manufacturing or services. Another aspect for consideration is whether the enterprises involved are operating mainly in consumer or business-to-business markets. Experience from the initiatives funded by our agencies shows that horizontal and vertical segregation in the workforce within the cluster and its surroundings influence which methods can be proposed to connect innovation and gender.

On the other hand, we have found some common patterns in all innovation milieus and our conclusion is that some methods seem to be generic – transferable to any cluster regardless of characteristics. Before laying down these generic methods, the practices applied in various milieus and the groundwork for connecting innovation and gender in Chapters 6 and 7, we will equip the reader with a theoretical framework. In the next chapter, we present an overview of the innovation and gender research and revisit the six core statements presented in Chapter 3, providing evidence-based arguments for each of them.



Five examples of cluster initiatives which successfully connect innovation and gender for prosperity, growth and competitiveness.

Swedish Marine Technology Forum is a non-profit, business-driven organisation which represents the maritime technology industry. It works towards efficient production and the development of new and less environmentally damaging products and is a joint effort between firms, universities and public representatives. The cluster initiative also works to increase recruitment and enhance regeneration in the maritime industry. Its goal is to create a forum encompassing the entire maritime industry with its future challenges. The Forum addresses suppliers to the shipping industry, the offshore industry and the leisure boating sector (www.smtf.se)

NCE Raufoss is a corporate collaboration in the industrial environment in and around Raufoss Industrial Park in Norway. The cluster's core activities are automated manufacturing and lightweight materials and involves some 40 companies with over 3,500 employees. Principal markets for these companies are the automotive, electronic and defence industries and the total turnover is around EUR 0.6 billion, of which exports make up 85%. The objectives of the cluster are to strengthen current and future market positions by cooperating to develop a competitive edge and to share knowledge with manufacturing companies all over Norway. On behalf of its member organisations, NCE Raufoss promotes further development of the cluster, PR and information, establishment of new businesses, relationships with educational institutions, R&D and commercialisation. (www.nce-raufoss.no)

Triple Steelix in the industrial region of Bergslagen is a strong cluster of steel-based companies of all types; from the mills of SSAB and Sandvik to hundreds of SMEs. The combined competence and resources of all these companies is embodied in the motto of the Three Musketeers, "All for One and One for All". Information and experience is exchanged freely between companies and networks can always be created to handle any type and size of order. This flexibility makes Bergslagen globally unique as a place to find subcontractors or suppliers of specialised products and services. Local cooperation is often carried out with the aid of Triple Steelix, an innovation system with an important role in the development of steel-related companies in the region. Through Triple Steelix, SMEs have access to a vast pool of external research and product development resources, including research facilities and competence from universities and institutes of technology in Sweden. (www.triplesteelix.se)

Fiber Optic Valley is an organisation working to position Sweden as world leader in the development of products and services based on fibreoptics. This technology is the basis of virtually all modern information technology and is a dynamic and rapidly growing industry. The organisation's core business is assisting the growth of local and global companies. This is achieved through a unique support in the form of research, training, financing, contacts and business development. All this is combined with an equally unique test environment for technical testing and behavioural science studies. "Our vision is to be a fiber optic center of Europe by 2015 and a natural choice of location for any new business in the field." (www.fiberopticvalley.com)

Skåne Food Innovation Network is a joint research initiative for everyone wanting to develop Skåne into a European food centre. Its members and partners are companies, organisations, public authorities and universities representing the entire chain From field to fork. The Network was established in 1994 on the initiative of the business community and grew rapidly into a well-functioning network with a strong commitment from business, research and society. It now operates on a broad front to advance the food industry, including raising the pace of innovation and processing proficiency in the business. "Our largest project is dedicated to creating added value and competitiveness through cooperation and various business-to-business and business-research constellations. In parallel with this, we are also working to increase the attractiveness of the food industry to young, well-educated people – a must for the development of the field." (www.livsmedelssakademien.se)



Doing
Innovation
and Gender

5.1 An Inclusive Approach to Innovation

In our contemporary Western society, innovation is perceived as necessary to stimulate economic growth which, in turn, is considered essential to development. Unlike gender equality, economic growth is often presented as a self-evident policy objective³⁹. Over time, various bodies of theory have shaped our understanding of innovation and we have seen more recent ideas try and define the processes and relationships important to innovation and learning⁴⁰. We see these ideas as a reaction to an innovation theory which reduces things to structures, actors and systems and is little concerned with the processes, practices and interactions going on within the system. When working as practitioners in innovative milieus, we believe there is also a need to focus on processes and relationships. This includes learning and making people – women and men – more visible in the system with their various competencies and experiences. Thus a gender perspective becomes important in contributing to innovation and sustainable growth.

The need for sustainable economic growth has long been to the fore in European policy. In the Lisbon Strategy of 2000, the heads of state and government in Europe “committed themselves to making the European Union the most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs, greater social cohesion and respect for the environment”.⁴¹ Hence the emphasis on a need for

sustainable development and social objectives. National reports in the context of the Lisbon Strategy were governed by guidelines establishing that gender equality must be integrated and that equality is an important prerequisite for increased growth. The new 2020 Strategy presented in Chapter 2, the European innovation strategy and the OECD innovation strategy all feature a broader and more inclusive growth policy⁴². The impact of this broader view of innovation is reflected in the fact that Norway and Sweden have both recently launched service innovation strategies⁴³.

However, innovation policy in the Nordic countries undoubtedly retains a rather strong focus on hi-tech industries. Traditionally, the focus has been on manufacturing rather than the service sector and this is still visible, although there is now a discernable shift towards services. The use of a narrow approach rather than a broad one may also be due to the level of maturity and stage of the innovation chain addressed by the policy instrument. There is a general movement from technical innovation to service and social innovations and from infrastructure and regional innovative capacity to utilisation and user-driven innovation.⁴⁴

It should be borne in mind that innovation is not gender-neutral. Criticism has recently been levelled at the prevailing view of innovation policy, arguing that it has been too narrow and exclusive⁴⁵. The role of innovation policy as parts of and contributors to the overall objective of growth has been questioned and criticised for limiting our visions of how “progress” can be per-

ceived⁴⁶. Accordingly, research has shown that what we regard as an innovation is often a technical innovation within certain sectors of industry⁴⁷.

The view that gender equality is important, but also a constraint or a cost has hampered its integration into some policy development, particularly in the field of economics. This limiting view of equality policies (as a societal choice that may act as a brake on economic development) also narrows the scope of potentially beneficial advances towards gender equality. It focuses on the short term and relies on the status quo as the model with which to compare progress. However, it is also possible to view equality as having a productive or economic role with much wider implications for European economies. In other words, seeing gender diversity and equality as a means of creativity and innovation rather than one of several objectives.⁴⁸

For instance, global warming, scarcer energy, food and water supplies, ageing societies, public health, pandemics and security are policy areas recurrently and increasingly referred to as “grand challenges” and thus highlighted at both EU and national levels⁴⁹. Applying a gender perspective allows us to find new ways of meeting these challenges, most obviously in the case of the ageing society which highlights our need to utilise all our competencies. However, the gender perspective can also be an important tool in meeting the challenges of global warming. Women and men leave different ecological footprints and are affected by global warming in different ways and to different extents.

The gender perspective can also be used as a lens on to view all three dimensions of sustainable development (social, economic and environmental), whilst gender equality may be regarded as a prerequisite for economic growth.⁵⁰

5.2 A Broad Approach to Innovation

Several recent studies focus on how gender is constructed in innovation policy. Lindberg identifies two priority areas of technology related to male-dominated branches in Swedish innovation policy, connects them to two types of masculinities and discusses the “co-production of gender and innovation”⁵¹. Pettersson, in a study of innovation strategies in Nordic countries, states that the production of gender can be seen as creating male and men as the norm⁵². Science, innovation and technology are connected to masculinity. The co-production of gender and science, technology and innovation results in an interpretation of men as technically or scientifically skilled and women as unskilled in these areas⁵³. These intertwined and mutually reinforcing constructions cause women and technical areas connoted as “female” to become invisible whilst men and their interaction with technology and technical areas connoted as “male” gain attention.⁵⁴

Similar conclusions are drawn in a study of Swedish innovation policy discussing how the individual is made invisible in the discourse and how the structural level is given prominence. The seemingly gender-

neutral discourse cannot hide the fact that the strategy focuses on male-coded production over female-coded reproduction and competitiveness over co-operation. The overall focus on the aggregated level also causes contradiction, as the strategy makes a “black box” out of innovation and learning.⁵⁵ A study of the Norwegian VRI programme, encouraging innovation through regional cooperation and R&D efforts, concludes that the bulk of innovation studies so far conducted focus on male-dominated industries and in ways that measure outcomes in male-dominated industries. Innovation in female-dominated sectors (such as the service sector and public sector) is rarely studied and they have not been deemed innovative. The study sees this as an empirical fault stemming from a narrow definition of innovation.⁵⁶ From our point of view, it also mirrors how a technical-limited rationality has been placed above responsible rationality.

Hence, innovation could be defined in different ways. When we see innovation as equal to a technical product, the definition has consequences in how we interpret what innovation is and who we perceive as innovative. From our perspective, the most valuable definition of innovation would be a term that does not exclude any (economic, social or other) value-adding aspect of the system. Thus, it makes more sense to define an innovation as an idea which has been taken into use and then created value by diffusion. A narrow view will cause us to see innovation only as something developed in certain areas and which will lead to a tangible product, but it is so much more. Innovation might equally be new methods,

services, technologies, experiences, ideologies and pedagogical methods.

*“What innovation is really about is questioning what is taken for granted – challenging the norm – and finding new pathways to things. In challenging the norm, we need a critical perspective and undoubtedly a gender perspective can be helpful.”*⁵⁷

As we have seen, attempts are being made in Europe to broaden innovation policy and develop more inclusive growth policy. Lavén shows us how research and policy translates into practice in innovation milieus and how theories are prescribed as recipes for producing innovations⁵⁸. However, if the theories are not adapted to the context, they will lead to the creation of new structures rather than innovations. We believe this to be equally important when discussing gender aspects in which context is important. By presenting different models (including practices and examples of how to include a gender perspective in innovation milieus), this book contributes to an understanding of how we can create more inclusive practices when moving from theory to policy and from policy to practice.

By shifting the discourse on equality from a socially worthwhile yet potentially expensive aim towards an economically productive investment, it becomes possible to see gender diversity as contributing to economic success. It is important to see equality as an economically productive factor, for an improved understanding of the economic and social policymaking environment

and for the benefits of increased flexibility for the individual. Thus, by incorporating the equality agenda into policy reform and development, it is possible to ensure coherence between institutional structures and the personal aspirations and behaviours of women and men. The benefits of greater flexibility arise from a reduced specialisation in the division of labour between women and men either in households, within organisations or the wider labour market. However, we can also see how gender equality can contribute to economic development through increased female participation in the workforce, contribution to GDP, establishing a sustainable system of social reproduction and women's inclusion in the fiscal system. The benefits of equality expand further when societal development is expanded beyond GDP growth to quality of life and wellbeing.⁵⁹

A Danish survey shows that in general, the Nordic countries are well underway in supporting and promoting gender diversity and equality. Even so, only a few initiatives focus directly on the fact that gender diversity can be seen as the engine of creativity and innovation in business. In other words, there needs to be a political focus on diversity and equality as resources.⁶⁰

5.3 A Gender-Aware Approach to Innovation

So, how can a gender perspective be understood as a tool for creating excellence and creativity in innovation milieus? As we have pointed out, male is usually the norm

and innovation policy often lacks a gender dimension. In Norway and Sweden, we prioritise areas that have historically been strong but may not lead future innovation areas. Overemphasis on areas that grew strong a long time ago and have passed their most innovative phase means we forget to identify new innovation opportunities, overlooking growth areas and opportunities for exploiting innovation. As we have seen in innovation policy documents, areas connoted as female are considered less important to growth and are left out⁶¹. Thus, potential growth areas are ignored.

The Norwegian researcher Hildur Ve's theory of different rationalities offers a frame of interpretation of this hierarchy, with responsible rationality subordinate to the technical-limited rationality. The basic assumption of this theory is that the two sexes are socialised for different tasks in a gendered society and as a result, also develop different rationalities. Technical-limited rationality is the prevailing form of rationality in a capitalist society; a combination of technical, economic and bureaucratic rationality which has economic effectiveness as its rationale. However, this rationality is only useful in the productive sphere. Another kind of rationality is needed in the reproductive sphere; caring for others (children, sick people and elderly people) into which women (as a group) are socialised to a higher degree than men (as a group).⁶²

Ve's theory could explain how areas dominated by a technical and natural scientific tradition tend to use terms such as "actors" or "systems" – revealing a technical-limited rationality. With a responsible rationality added, it would be easy to grasp that

behind these “neutral” actors are human beings – women and men – with different experiences, values and emotions. We regard technical-limited and responsible rationalities as socially constructed gender differences and not biologically determined. In working life, these rationalities are interwoven and vary depending on the context. Female as well as male-dominated sectors incorporate both responsibilities.

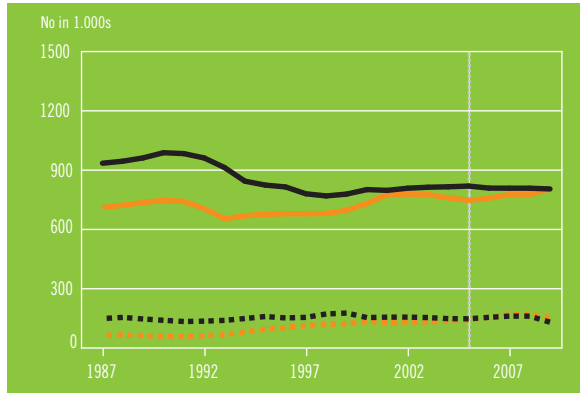
It is a common perspective in international gender research to regard gender as socially constructed; we are “doing gender”, in each and every corner of everyday life⁶³. Moreover, we also do gender when we arrange collaboration in an innovation milieu. In everyday life, assumptions are made about women and men as separated by certain differences. We all carry these assumptions with us about women and men and the

relationship between them. We reproduce patterns from our social and historical context and thus create femininity and masculinity; in other words, constructions of what it is to be a woman or a man.⁶⁴ Our ability to innovate is hampered by such normative thinking and stereotypical notions of gender.

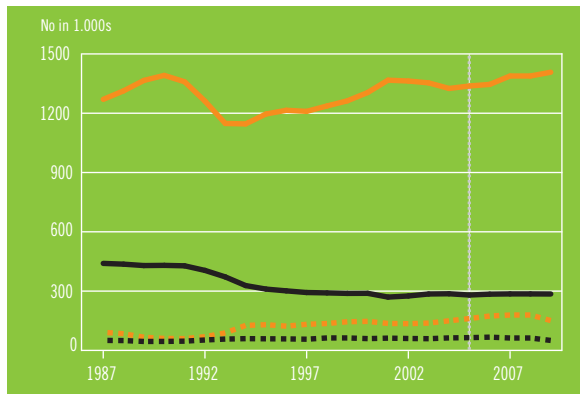
According to theories of the gender system, women and men are segregated horizontally as well as vertically on the labour market⁶⁵. The horizontal level implies that women (as a group) and men (as a group) are active within different sectors of working life. In Norway and Sweden, only a few occupations have balanced participation by women and men (40% of either sex). The vertical segregation is evident in the fact that women and men hold different positions in working life.

Employees aged 20–64 by sector and link to labour market 1987–2009

Women



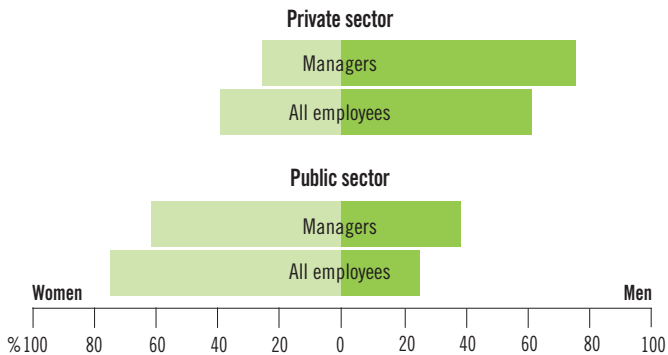
Men



Source: Labour Force Surveys (LFS), Statistics Sweden

- Permanent employees in the private sector
- Temporary employees in the private sector
- Temporary employees in the public sector
- Permanent employees in the public sector

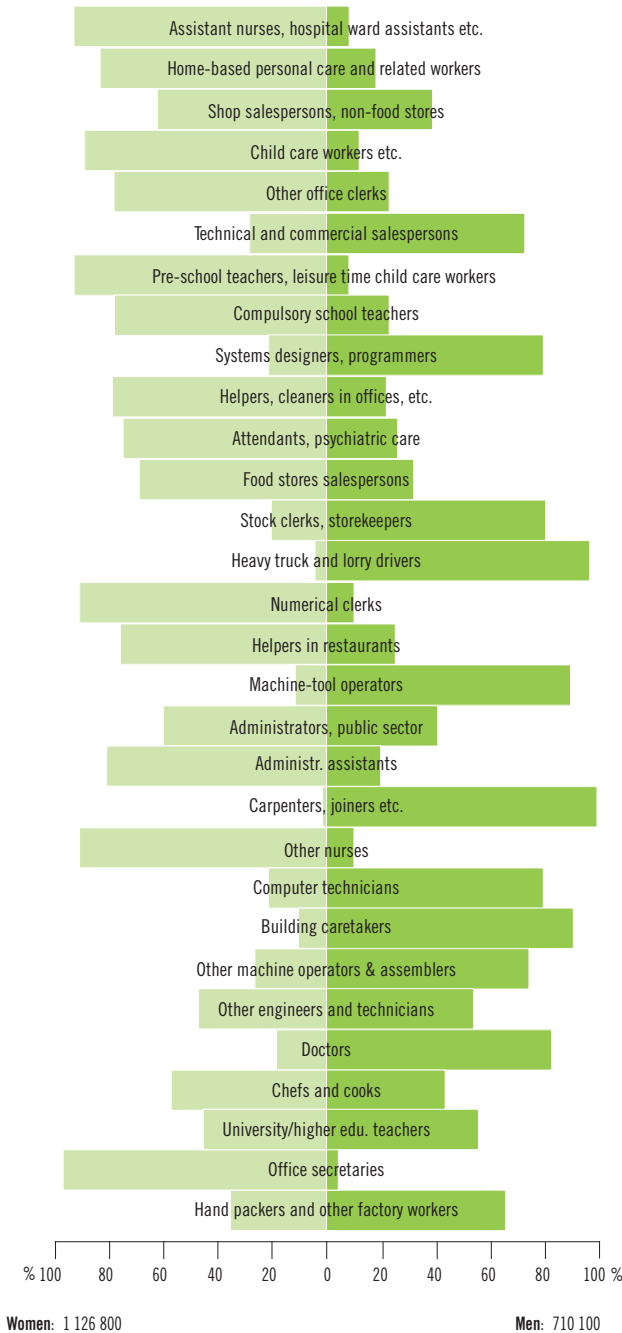
Managers and total employees in private and public sector 2008



Source: Wage and salary structures, National Mediation Office

The 30 largest occupations 2008

Number and sex distribution (%). Ranked by number of persons in each occupation.



Source: Occupational Register, Statics Sweden

Doing Gender: West and Zimmerman argue that gender is neither a set of traits, nor a variable or role, but the product of social doings. They claim that gender itself is constituted through interactions. Gender is exhibited or portrayed through interaction and thus seen as “natural” while it is being produced as a socially organised achievement. Doing gender means creating differences between girls and boys, women and men; differences that are not natural, essential or biological. Once these differences have been constructed, they are used to reinforce the “essentials” of gender. Doing gender is an ongoing activity embedded in everyday interaction between women and men, between women and between men. Viewing gender as an accomplishment shifts attention from individuals to interactional and institutional arenas, thus opening up opportunities for change.⁶⁶

5.4 Opportunities for Innovativeness

So how can we turn gender equality and diversity into an opportunity to increase the innovative capacity of innovation milieus? We have argued that a gender perspective can help strengthen weak links in innovation milieus and provide a track towards an innovation case for gender diversity. In this section, we offer further discussions on each of our six core statements presented in Chapter 3.

Statement 1

Competition for well-educated employees

In the war for talent and for companies to remain competitive, an ability to attract and retain human capital is crucial to their success. Companies are looking for technology workers with more experience and a broader skill set. Competition for these employees, combined with a drop in science graduates and the impending retirement of the baby-boom generation, has led to fierce recruitment competition amongst enterprise. Companies with effective diversity inclusion practices are benefitting from reduced absenteeism and employee turnover.

Today, only one in 10 board members of the largest companies listed on the national stock exchange of EU Member States is a woman and progress has been slow in recent years. The disparity is widest at the very top, where only 3% of such companies have a woman directing the highest decision-making body. It is deplorable that women's talents are not being tapped to

their full potential. If Europe is to achieve its goal of becoming a dynamic and competitive knowledge-based economy in a globalised world, then we must make better use of women's talents and skills. The corporate world is increasingly aware that a good gender balance at all levels can benefit business, but the rate at which women are being integrated into senior positions remains painfully slow.⁶⁷

“Strength in science, research and development is key to the innovative and competitive future of Europe but the talents of women in this area remain underutilised.”⁶⁸

Companies that only manage to promote women into leadership from in-house positions demonstrate that they have not yet worked out how to gender-balance their leadership development systems and talent pipelines. We would assume this also has consequences for their ability to understand the gendered opportunities in their markets and among their customers. This does not bode well for the future sustainability of the gender balance in these organisations. Companies agree that they need more leaders with varied skills and women have the skills to meet the new demands of technological work in terms of technical, business and interpersonal skills.

Too often leaders, who mean well, wonder why women are not making it to the top, and try to find ways to 'help' them – with training, networks, mentoring or coaching. With women now representing the majority of university graduates in most developed countries around the globe, we'd suggest that it is time to stop asking what's wrong with women, and start asking what is wrong with the culture, processes and mindsets of your organization if it can't effectively attract, retain and promote a majority of today (and tomorrow's) talent.⁶⁹

Studies in Europe and the US highlight the fact that senior managers often point to insufficient experience among (potential) female leaders and board members as an obstacle to women's advancement. Women themselves often point out the main obstacles as gender stereotypes, lack of role models and attitudes in the organisations.⁷⁰

For companies as well as innovation milieus, the talent shortage is the most easily recognised case of innovative opportunity for gender equality. For instance, in the Norwegian companies in the innovation milieu NCE Raufoss (see page 40 of this book), the underrepresentation of women in engineering and technology studies threatens the future recruitment pool. Companies in the innovation milieu must be able to offer the best possible conditions in order to find their future workforce and "high tech employees". The same goes for the Swedish milieu Triple Steelix (see page 40 of this book), which is engaged in developing a model for creating attractive

workplaces and increased awareness of a gender perspective.

Statement 2

Competition through better decisions

For companies as well as innovation milieus, gender diversity makes for improved decision-making at all organisational levels and results in better decisions. This has been shown in a variety of settings, occupations and organisations and also applies to group task performance, creativity and innovation. Gender diversity is especially important and beneficial to problem-solving tasks. A recent industry report estimates that by 2012, teams with balanced participation of women and men will double their chances of exceeding performance expectations when compared to all male teams⁷¹.

Research has also found a correlation between the presence of women in higher management and financial performance of the organisation, as measured by total return to shareholders and return on equity. For instance, a Finnish study reveals a positive and significant correlation between female leadership and firm profitability. Even if the researchers do not prove causality, their findings have several important implications. The study suggests that a firm may gain a competitive advantage over its peers by identifying and eliminating obstacles to women's advancement to top management.⁷² Besides being fair, gender awareness in the provision of career opportunities is also in companies' best interests.

In the case of the innovation milieu Fiber Optic Valley (see page 41 of this book), the

change agents in a gender network and top managers from the organisations involved were offered tailor-made training in innovative leadership. This training provided a theoretical understanding of how the lack of a gender perspective affects results and limits profitability. As a result of the programme, the managers involved increased their capacity to lead a change process, applied their knowledge of gender equality and created an innovative environment.

Statement 3

Gender diversity as driver of creativity and innovation

Innovation is about creating something new and is enhanced by diversity in gender, experiences, perspectives, knowledge and networks. Individuals – women and men – who are allowed to develop their full potential will be creative, engaged and willing to take risks. Furthermore, they will thrive better which helps reduce business costs. There is a positive relationship between gender diversity in the firm's knowledge base and their innovative capabilities. Human capital resources have different dimensions such as education, training and experience. Demographic dimensions such as gender, age and cultural background also affect the application and combination of existing knowledge and the communication and interaction between employees. Employee diversity is often considered positive since it might create a broader search base and make the firm more creative and more open towards new ideas. Ideally, gender diversity should increase a firm's knowledge

base and increase the interaction between different types of competencies and knowledge.⁷³

Innovation often depends on groups of individuals in the organisation. It is in the context of a complex social system in an organisation, where different types of knowledge come into play to generate new knowledge or ideas. Therefore the composition of individuals within the enterprise is an important factor for understanding innovation, since a diverse workforce also contributes to diversity in the knowledge base. Enterprises with a balanced workforce (50-60% of same gender) are almost twice as likely to innovate compared to those with the most segregated workforce (90-100% of same gender). Thus, a balanced gender distribution has a strong effect on the likelihood to innovate and innovative performance of enterprises.⁷⁴

Statement 4

Competition with user-driven innovation

User-driven innovation creates successful new concepts, products and services for companies and organisations. Successful and profitable innovations can be developed by working with users and including them in the process, thereby tapping knowledge of their problems and needs. The complicated nature of innovation renders it almost impossible for a single company to achieve the next breakthrough on its own. Nowadays, companies need to open their innovation processes to include their users, partners or suppliers and ensure they snap up the next bright idea

of relevance to the company. One way of ensuring outside ideas and knowledge find their way into the companies is to include users in the innovation process. Valuable insights can be gathered by the company at the front end of the innovation process by tapping users' tacit knowledge and understanding their needs and the challenges they face.⁷⁵

Companies and organisations can work with user-driven innovation in many ways, with gender as an important clue to revealing user innovation. Women influence 80% of consumer spending decisions and yet 90% of technological products and services are designed by men⁷⁶. Including women in the technological design process means more competitive products in the marketplace. The most innovative companies design products through user-driven innovation by integrating lead users in the design process. Involving more women can bring new markets and new technological applications to the design process. It is our belief that effective marketing to women, without a reliance on stereotypes and normative prejudices, would open up new lines of business. According to the Harvard Business Review, the purchasing power of all women in the world is equivalent to a growth market bigger than India and China combined and will grow from EUR 15 billion to EUR 20 billion within the next five years⁷⁷. Even though women (as a group) have become an important engine of the worldwide economy, they are seldom considered or treated as important customers.

The innovation milieu Skåne Food Innovation Network (see page 41 of this book) has

been influenced by ideas on open innovation and user-driven innovation. Its gender initiative is part of the Foresight activities aimed at identifying future challenges for the food industry and areas where the milieu needs to focus. An important point of departure for the Network is a gender perspective on food production innovation and how this perspective could help develop the industry.

Statement 5

Gender as a means of design innovation

Consumers are interested in the individualisation of products and products that break with traditional gender stereotypes. Commercial interests have been criticised for designing for the dominant group in society – the notorious young, white, able-bodied, highly educated male – to the exclusion of user groups who do not fit these criteria. It has been argued that in designing for everybody, designers are actually subconsciously following the male norm in society. There is a positive and a negative side to the companies' focus on the ways women differ from men. On the one hand, a focus on what women want could serve to strengthen and give value to feminine-connoted skills and preferences. On the other hand, by developing a product based on "typical women's interests," designers run the risk of reinforcing and re-inscribing perceived gender differences rather than "transforming gender". Gender design might reproduce stereotyped patterns and a view that women and men are different. Moreover, designers' beliefs

about women do not often conform to the skills, preferences and experiences of most women.⁷⁸

The exception to this rule might be what has sometimes been called feminist direct user-involvement techniques, where potential users are involved in the design from an early stage. In the rare cases where this approach has been adopted, it seems to have helped in creating a more nuanced image of what women want and in empowering female end-users. Again, some practical problems come up with these techniques as designers need to pay more attention to the selection of potential users on which user tests are performed to ensure they represent the end-users designers aim to reach.⁷⁹

In the case of the All Aboard project run by the Swedish Marine Technology Forum (see page 40 of this book), the long-term goal is innovative new products and services for the leisure boat market. A further goal is increasing the number of non-traditional product developers working in the boat industry, with particular emphasis on bringing more women into it. The All Aboard case strives towards design-driven innovation and inclusive design approaches. Increased innovative capacity will improve the industry's competitiveness. The main motivation for the cluster was to utilise the potential for increased sales, innovation and product development by engaging demanding customers and taking into account their ideas. One of several hypothesis based on findings from the car industry (such as Volvo's YCC) was that women (as a group) would be more inter-

ested in environmental, safety and security aspects of leisure boat life than men (as a group).

Statement 6:

Competition by image shaping

Gender diversity benefits an organisation's image whilst companies with diverse workforces generally benefit from a better image in the marketplace. For socially progressive companies, such initiatives are not driven solely by the desire to increase revenue, but with a commitment to tackle social exclusion. They also contribute to enhancing the company's image and making them more attractive to society in general. In the context of sustainable development, organisations are taking a different approach to doing business. Financial performance is no longer regarded as the exclusive driver. Instead, economic, environmental and social factors including gender equality are increasingly being recognised as important. Under greater scrutiny than ever before, organisations are increasingly being encouraged by their stakeholders to measure, account for and take responsibility for their economic, environmental and social (EES) performance. Sustainability reporting has emerged as an effective mechanism by which organisations communicate EES information transparently to employees, customers, investors and others. Although gender equality is being recognised globally as a priority, many organisations are struggling to transform this recognition into practice and then communicate it.⁸⁰

The rationale for integrating a gender perspective into innovation milieus can have different sources relating to our core statements. Nevertheless, the common factor is change driven by the need for competencies, better effectiveness and new products or markets. The point here is that to be a leading organisation within their branch, companies and clusters must “think new” to be innovative. As we discussed in Chapter 3, applying a gender perspective is one way to do this and the two objectives of equality and growth can go together.

By applying a gender perspective, we will be able to develop existing (or create new) innovation processes as well as commercialisation models for alternative value propositions and modes of consumption. Our conclusion is that integrating a gender perspective into innovation milieus will afford the actors the necessary gender-awareness to identify potential improvements for gender equality and sustainable growth. Driven by sustainability, the “third industrial revolution” signifies new research and innovation opportunities in green technology and sustainable design. However, the social, cultural and gender aspects of sustainable development indicate a need for an interdisciplinary approach.

Arguably, a gender perspective can help highlight normative thinking about women and men that is an obstacle to innovative thinking. We are convinced that less normative thinking about women and men will lead to new ideas, new business opportunities, the identification of new markets and excellence in innovation milieus.

The absence of a gender perspective will hamper development and lead to an incomplete economic analysis. In the next chapter, we will provide some methods applicable in complex milieus for overcoming obstacles to the creation of an excellent innovation environment.



Practices
on the
Ground

6.1 Applying Old Methods in New Contexts

Connecting innovation and gender in a single organisation is quite an endeavour and when it comes to innovation milieus, we face a complex challenge. On the other hand, we also face “opportunity stages” involving industry, academia, public bodies, media and intermediaries⁸¹. Public agencies and organisations for cluster collaboration can stimulate an exchange of best practices. Researchers on these stages can provide new knowledge and companies at the forefront act as role models. The increased media interest in the innovation and gender connection may be an eye-opener to actors in an innovation milieu. Stories about clusters can be created, with the media playing a brand-building role for milieus striving for world-class position.

“Our hypothesis is that in order to be effective, the establishment of equality in organisations must be rooted in and must mirror other organisational processes aimed at innovation.”⁸²

So what methods could we use to introduce a gender perspective into complex milieus? A lack of methodologies specifically designed for mainstreaming in innovation milieus still persists. However, best practices from integration of a gender perspective into enterprises and regional development processes can be utilised. Through experience from innovation milieus in Norway and Sweden in different industries plus our own research, we have identified ten generic methods which seem applicable regardless of context. These methods are given a brief introduction below and feature in the case studies presented in subsequent sections of this chapter. None of these methods are new, however they are rarely applied in a coherent framework to improve competitive advantage and business development in clusters. Approaches applied should mirror cluster development processes and indeed, some of the methods we suggest below are cornerstones in the successful management of cluster initiatives.

1. Foresight Exercises

The initial stage of a process aimed at connecting innovation and gender might involve a foresight activity comprising such elements as scanning, trend analysis, futures studies, scenario constructions and search conferences to detect change in the innovation milieu's surroundings. Foresight is often interpreted as specific methods, for example the expert panels used in technological foresight, but we apply a broader meaning as proposed by Lundkvist⁸³. Through foresight exercises specific challenges can be identified, key actors mobilised and the benefits of gender diversity identified. A Gender-SWOT is a tool that could be used in a foresight exercise. By analysing the strengths and weaknesses of a cluster from a gender perspective, the actors concerned get a better picture of how to build on opportunities and remove barriers to growth (threats).

2. Communication

Clear, concise internal and external communication of the approach to innovation and gender is crucial to imparting a reliable, sustainable picture of a cluster's identity and values. Publicity is important in raising awareness of an initiative promoting competitiveness through gender diversity. Moreover, it can benefit the public image of the innovation milieu (see core statement 6 on page 56 of this book) and its comparative advantage. The power of communication is often underestimated and results – even small or ground-breaking ones – should be celebrated and visible in the innovation milieu. It is important to spread information about processes of change, recognise achievements and inspire as yet unengaged actors. If a foresight exercise is the first stage, then a recommended subsequent one would be outlining a communication strategy for actors within and outside the innovation milieu.

3. Mapping

Mapping of industries and the regional context is necessary for the design of effective instruments for innovation milieus. Some useful data to collect is how women and men are represented in cluster collaboration organisations, higher education and academic programmes and as researchers, managers, innovators and business owners. The representation of women and men in different industrial sectors and in the production chain are other statistics offering important input for knowledge based decisions.

4. Setting qualitative and quantitative targets

Based on foresights and mapping, key performance indicators need to be established in order to track progress against planned strategic actions. Ideally, indicators

should be both quantitative (such as number of women/men concerned, take-up of different measures) and qualitative (such as changes in values, cultures). Klostén underlined the importance of designing qualitative indicators to accurately measure success and dynamic change in clusters⁸⁴.

5. Monitoring

As with other targets set when an innovation milieu strives for excellence, the outcomes and results of actions for strengthening that milieu based on a gender perspective must be assessed relative to baseline data. This requires a monitoring system to be in place right at the start of an initiative for connecting innovation and gender. There needs to be a system which can: provide data to determine the extent of goal achievement; facilitate the tracking of performance over time; assess processes and methods most likely to produce results; compare and benchmark with other innovation milieus.

6. Networking

Formal and informal networking is at the core of any cluster development. Furthermore, inter-organisational networks are a frequently-used measure and career development tool for overcoming gender-related barriers. In many Nordic innovation milieus, the first focused action aimed at introducing a gender perspective is often to establish a women's network comprising representatives of different organisations. In recent years, networks of gender change agents have also been created in innovation milieus and between cluster professionals interested in gender diversity and business development.

7. Mentoring

Mentoring reinforces inter-organisational networking which, in turn, can result in improved innovative potential. This is a method characterised by the encouragement of learning, in which participants inspire each other to look beyond frames of reference and prevailing norms. Clusters provide an interesting arena for more traditional mentoring programmes, as well as innovative approaches. Different forms such as peer mentoring (for cluster professionals) or cross-mentoring (between companies, sectors or regions) can be used as tools to raise awareness of the innovation case for gender diversity. Mentoring is also a common means of facilitating women's advancement in academia, the public sector and companies. Traditionally, a senior person (the mentor) is paired with a potential female leader (the mentee) to assist her career progression. Nowadays "reverse mentoring" is implemented to stimulate organisational development and gender diversity. In these programmes, the mentees are often senior (male) executives in companies that are mentored by young (female) employees from different levels in their organisations. Reverse

mentoring can provide in-depth insight into the needs of employees, organisations and clusters and increased awareness of how to counteract segregation.

8. Coaching

Training in the field of gender diversity and equality is often proposed as part of an implementation strategy, whether in a single enterprise or innovation milieu. Our experience is that neither cluster professionals nor business leaders have time to allocate for training. Some also find the training offers too general and not adapted to their own context, plans or objectives. An alternative to training is to provide a “personal trainer” or coach in the field of innovation and gender who assists an individual coachee or group to integrate a gender perspective into day-to-day operations. Coaching is usually characterised by a more task-orientated approach than mentoring and the coach is usually a gender expert able to foster the necessary skills. A coach is responsible for the challenge of teaching and stimulating the coachee to reach a higher level of her or his potential. As a role model, the mentor shares relevant and necessary experience, but leaves it to the mentee to apply the knowledge in a way that best suits her/his own purpose.⁸⁵

9. Gender-aware design

Design thinking is a creative process based around the “building up” of ideas and, according to Stefansdottir and Gislason, design innovation can be an important catalyst of gender equality⁸⁶. Gender-aware design which permeates a product, service, development process or stakeholder communication within a cluster opens new pathways to innovation (see core statements 4 and 5 presented in this book on pages 54-55). A review of promotional material – marketing and advertising – in the light of a gender perspective provides valuable information on how the innovation milieu is perceived by internal and external actors. Gender-aware design is an advanced method and often requires expertise to avoid reproducing societal stereotypes.

10. Applied gender research

Applied gender research is a method that has been used in the Nordic context to stimulate cluster development and scientific studies. In R&D projects funded by VINNOVA, gender researchers work in teams with project leaders, process leaders and/or consultants specialising in innovation and gender. In turn, these teams work in close co-operation with actors in the different innovation milieus. Joint researcher-practitioner reflections enhance a process where the actors become carriers of knowledge and are able to integrate a gender perspective into their work practices. Action-oriented research methods, such as search and dialogue conferences, are used to mobilise individuals and organisations to engage in gender equality initiatives. Other methods used by researchers and practitioners are value exercises to make prevailing norms explicit in the innovation milieus.

6.2 All Aboard

In the Nineties, a majority of the car industry did not recognise the purchasing power of women. But we knew that women bought 1/3 of all cars in Sweden and influenced most decisions made to buy a car in the family. Our assumption is that the potential market for leisure boats is the same. (Tatiana Butovitsch Temm, CEO Ampersand AB)

Chapter 4 introduced Swedish Marine Technology Forum, which received funding from the Swedish Agency for Economic and Regional Growth. Inspired by the Agency and the YCC from Volvo Cars (see page 23 of this book) the Forum initiated the All Aboard project and an idea of building a leisure concept boat. Members of the YCC team (who now run their own company, Ampersand AB) were involved in the process so they could share their experiences from the car industry.

As with many other industries, the norm has been “men” and “male” in the boat industry too, but surveys carried out in Sweden indicate a majority of non-boat owners interested in buying or renting a boat are women. A survey in 2007 by Stockholm International Fairs showed that there are many potential leisure boats buyers among women aged 25-45. The main driving force behind All Aboard was to utilise the potential for increased sales, innovation and product development by engaging with demanding customers and taking their ideas into account. One of several hypothesis based on the findings from the car industry was that women (as a group) more

than men (as a group) would be interested in environmental, safety and security aspects of leisure boating. Research findings indicate women are more predisposed than men to buying eco-labelled products⁸⁷. All projects initiated by Swedish Marine Technology Forum have a sustainability perspective and one of the main challenges for the maritime industry is minimising its environmental impact.

All Aboard's goal is to find innovative new products and services for the leisure boat market and, taking a long-term perspective, the innovation milieu aims to break the gender segregation in the Swedish maritime industry. Current estimates are that this industry employs fewer than 10% women, making it one of the most horizontally segregated (no official statistics are available). More female designers, product developers and employees will contribute to broader perspectives and views. Design is at the core of All Aboard and cooperation with industrial designers is perceived as a way of attracting women and of innovating and stimulating cooperation between companies in the cluster and academia. Increased innovation capacity will improve the competitiveness of the maritime industry.

Communication with end-users

The first stage for All Aboard was a survey carried out in co-operation with a Swedish network – Kvinnor på Sjön (Women at Sea) – for women engaged in (leisure) boating. The network promotes women as role models and entrepreneurs and arranges courses and activities specifically targeting women. Over 300 female and some male

boat owners completed a questionnaire in two sections. One section targeted sailors and motorboat drivers with topics on comfort and safety, whilst the other targeted sailors with topics linked specifically to sailing. The respondents came up with numerous ideas on how to improve leisure boats and demands for new products and services for leisure boating.

Boat owners were interested in such things as better solutions for storage, damp, safety on board, solar energy, accessibility and boarding and leaving the boat. Based on this survey, a number of key development areas were identified and some of the problems encountered by the respondents visualised in situation diagrams.

In the next step, the survey and diagrams were presented at the Scandinavian Boat Show, one of the region's most important trade fairs for the leisure boat industry. Companies from the cluster demonstrated products to solve some of the problems encountered by boat owners and presented possible future solutions. During the fair, visitors – women, men and children – were able to contribute still more new ideas and suggestions based on the diagrams and demonstrations. This contact provided further input for All Aboard, reinforcing dialogues between companies and potential customers and between different companies within the cluster.

Not surprisingly the situations, problems and development areas identified in the All Aboard project were familiar to many boat owners, whether female or male. According to one of the respondents in the survey, “most of the things on boats seem to be

geared to the average man” with “men” and “male” the norm for leisure boats, as stated above. Nevertheless, as experienced by many consumer product industries the “average man” seldom exists and he is actually extremely difficult to find. Subgroups of boat owners have different expectations and demands; aspects such as age, lifestyle orientation, socio-economic status and cultural contexts influence customer preferences alongside gender.

After the initial steps of All Aboard, students from the University College of Arts, Craft and Design in Stockholm were asked to interpret and come up with ideas for solutions based on the material from the project. During the Stockholm International Boat Show, a design workshop was arranged with students from University College. This workshop generated dialogues on ways of involving end-users, utilising the creativity of (potential) boat owners and taking into consideration the problems they experienced.

Towards gender-aware design

All Aboard has been dubbed “the most exciting boat project in Sweden” by actors in the cluster and so far, the initiative has generated input for new products and services, designs and strategic plans. It has contributed to a positive image for the innovation milieu and potential customers appreciated the opportunity to express their views on possible product development areas. The project engaged with boat owners, women's networks, boat companies, national agencies and the media.

There have been a lot of encounters with the press during the initial stages of the project and I have been interviewed by newspapers, radio and TV. All Aboard has generated a lot of interesting material and suggestions that we can use in our development work. As I see it, the greatest potential may lie in all the new accessories for boats and the services connected to leisure boating that could be designed.
(Kerstin Hindrum, Project Leader All Aboard)

At the next stage, a virtual boat will be presented based on material from surveys, designers and companies in the cluster. Discussions are underway about whether or not to build a full-scale model of a leisure boat. Even though a model has not been launched, the mere idea of a leisure concept boat has resulted in much press coverage. This can partly be explained by the co-operation with former YCC team members and the opportunity to benefit from their strong “brand”.

Swedish boatbuilding has old traditions and there are several strongly branded companies on the global market. Internationalisation is generating new opportunities as well as fierce competition in the leisure boat segment and attracting more female customers is seen as way to gain market share. Swedish Marine Technology Forum is convinced that it will be advantageous on the national and international markets for individual companies, the cluster and the boat industry to consider the preferences of both women and men. Designing boats for and responding to

requirements of customer subgroups as well as involving women and men – designers and users – in product development will give a competitive advantage.

All Aboard has raised awareness among cluster companies of the inherent market opportunities when women influence leisure boat purchases. Few companies had considered the ingrained norms of the boat industry prior to this project. The potential of inclusive, gender-aware design has not yet been fully recognised by the boat industry. There are still some obstacles to overcome before everyone can be brought on board and companies in the industry can connect with sizeable market segments.

6.3 NCE Raufoss Women's Arena

“We must compete with the public sector for our future workforce. We must be more visible in the surrounding community and able to recruit and retain well-educated women. (Kari Broberg, Head of Strategic Development, NCE Raufoss)”

In Chapter 4, we introduced NCE Raufoss which receives funding from the NCE programme administrated by Innovation Norway. Supported by the Agency, Raufoss launched a Women's Arena in 2008 to promote gender diversity. One of the key drivers in this initiative was rapid changes in the labour market and new demands from the workforce. The underrepresentation of women in engineering and technology studies is a threat to the future recruitment pool. Amongst other things, the knowledge produced under the international research project ROSE (see page 22 of this book) has aroused interest in a gender perspective amongst innovation milieu actors.

Increased focus on gender diversity will contribute to an image of a modern innovation milieu attractive to potential employees, whether female or male. NCE Raufoss companies must be able to offer the best possible conditions for their employees and work-related obstacles to a satisfactory work-life balance must be minimised. State-of-the-art research in Europe shows that, in many occupations, predictable working hours may be more important to work-life balance than flexible working hours⁸⁸.

Networkers and role models

The Women's Arena provides a venue for a professional, interdisciplinary exchange of experience among female employees at all levels in NCE companies. An arena raising awareness of career opportunities and development opportunities in the innovation milieu. It is a source of private and work-related contacts, information, resources, advice, assistance and support for women employed in NCE Raufoss companies. Areas targeted by the Arena include promotion of women to management and on corporate boards, recruitment and retention of female employees and further training and education for women, such as Master's and PhD studies. The overall objectives of the Arena are to increase the percentage of women in the cluster, the number of women in leadership positions and the profitability of NCE companies.

Through this network, female employees become familiar with the cluster and can get involved in different activities. The networking also involves men and a number of men in key positions have been invited as ambassadors for the Arena.

“By appointing men in senior positions as ambassadors for the Arena we want to show them they're important to us. This is not a 'women's initiative' but an arena that will benefit everyone in NCE Raufoss companies, women as well as men. (Emma Østerbø, first Project Leader of the Women's Arena)”

Horizontal segregation is tackled via an open forum for all female employees. Experience from this network offers a knowledge resource for shaping an attractive working environment. Vertical segregation is tackled by a specific network (Women's Focus) for leaders, leadership candidates and women interested in higher education. This network aims to increase women's opportunities to advance to higher positions whilst advancing the cluster towards a critical mass of female managers. During the first two years, several women have taken board positions or got involved in PhD studies.

The Women's Arena cooperates with local communities, schools and science centres to inspire more girls to choose careers in engineering and technology. Members of the women's network act as role models, offering support to young female students and providing information about interesting jobs in the industry. NCE Raufoss also tries to portray the industry in a less gender-biased way so that both women and men can identify themselves as future employees in the innovation milieu. Female role models, a reorientation of the school curriculum and teaching methods plus gender-aware design of promotional material are needed if girls are to be recruited and retained in technical studies.

Monitoring career progression

As for other commercial or development areas in NCE Raufoss, targets have been set and gender diversity progress measured. The Women's Arena is part of a long-term strategy involving systematic analysis of

women's career progression, with targets up to 2016. NCE Raufoss collected baseline data in 2008 and monitors annual progress in several areas including: proportion of female employees; women in different positions in the companies; women progressing to higher education; women participating in training for leadership and board positions.

In 2008, NCE Raufoss companies had a total of 14% female employees, whilst the percentage of women in management positions was slightly higher. 21% of middle managers were women and 15% senior managers. In 2016, the companies should have at least 25% female employees and women at management level.

A mixture of networking activities and different tailor-made programmes are on offer in order to reach the targets and increase the visibility of women already employed in NCE Raufoss companies. Women aspiring to leadership and board positions can participate in mentoring schemes and/or training to gain board competence. A programme for women and men interested in board competence is held in cooperation with regional actors. Female applicants are given priority and female board candidates are presented on a specific website dedicated to the NCE Raufoss Women's Arena. Specific targets are set for the number of women participating in training, further education and mentoring schemes.

The tailoring of programmes in NCE Raufoss is based on needs expressed by female employees and active members of the women's network. During 2009, a survey was conducted and many of the respondents

proposed the initiative should focus on measures such as building networks, mentoring and training. Some respondents also called for activities aimed at attracting more women to the industry and increased awareness by the companies of the importance of recruiting female employees and leaders, so as to keep up with the competition.

“We are moving away from discussions focusing on how good it would be to have more gender diversity in the companies and cluster. Our discussions focus more and more on the necessity of attracting women as employees, entrepreneurs and leaders so as to maintain our world-class position. (Dialogue during a meeting at NCE Raufoss)”

As yet, there is no coherent strategy in NCE Raufoss to combine measures targeting barriers on the individual level (training), interpersonal level (networking and mentoring) and appointment process level (clarity of skills needs). Any strategy would also need to exemplify successful initiatives to enhance women's positions in the business enterprise sector. Monitoring of women's and men's experiences of involvement in different development activities (such as business-critical projects and leading positions) are also an important part of such a strategy.⁸⁹ Nevertheless, the innovation milieu has taken its first steps towards such a strategy and the Women's Arena has helped raise awareness in the innovation milieu and identify key areas for intervention.

6.4 Three TIGERS

In Chapter 4, we introduced three innovation milieus which receive VINNOVA funding: Fiber Optic Valley, Triple Steelix and Skåne Food Innovation Network. All three have access to gender researchers under the TIGER programme (see page 35 of this book). These TIGER projects are influenced by Nordic traditions combining action-oriented research with gender research and results from the R&D projects should be integrated into the ongoing cluster development. In this section, we will give some examples of methods used by researchers and practitioners in these three milieus.

As stated, foresight exercises could be the initial stage of a process aimed at connecting innovation and gender. In Skåne Food Innovation Network, foresight activities are arranged so as to identify areas on which the innovation milieu needs to focus. Industry actors representing the whole food production chain are brought together to discuss specific areas and challenges. These get-togethers, called “Gillen” by the Network (a mixture of the English term “guild” and a Swedish word for community gatherings) result in new products, cross-border cooperations and research relevant to society and business⁹⁰. Dialogue conferences and workshops have also been arranged, allying stakeholders with gender researchers. These focus on production innovation and how a gender perspective could help develop the industry.

“We are building arenas, a kind of meeting infrastructure where different perspectives are cross-fertilised. (Magnus Lagnevik, Project Leader, Skåne Food Innovation Network).”

Mapping regions, industries and companies

Gender experts involved in the TIGER projects are mapping the innovation milieus to collect empirical data and provide actors with data for their strategic decisions. For several years, researchers and practitioners in Fiber Optic Valley have mapped their member organisations, industry and region from a gender perspective. Fiber Optic Valley and Triple Steelix are both located in a region characterised by one of the most gender-segregated labour markets in Sweden. One of the tools used to map these conditions was a Gender Equality Index for comparing different municipalities and regions, provided by Statistics Sweden. The Index covers variables such as women and men in different sectors, in education and as business owners. A long-term gender strategy for Fiber Optic Valley has been formulated as a result of this mapping.

In Skåne Food Innovation Network, the experts involved map the Swedish food industry and collect gender-segregated data “along the food production chain”. In Sweden, women are prevalent in higher education relevant to the food industry, such as biomedicine, clinical nutrition, dietetics and food science. This has raised a number of questions in the innovation milieu: Will the food industry be able to

attract qualified women despite companies investing less in R&D than in many other industries? In what way are the incubators at universities and other business-support structures assisting (potential) women entrepreneurs and innovators in the industry?

*“We’ve got the numbers and in nearly every area connected to the food industry there are gender differences. This is fantastic! We’re seeing opportunities for new innovations – products and services – just by using this knowledge. It can be used to renew the region’s food industry.”*⁹¹

In Triple Steelix, the action-orientated researchers conduct different surveys in companies as a basis for action planning. Employees of the companies are asked to complete questionnaires focusing on the importance of various aspects of an attractive job and to what degree they are actually fulfilled. Other surveys focus on how employees perceive the tension between working and private life and work-life balance issues in their own workplace. The researchers involved analyse the questionnaires factoring in a gender perspective and then provide feedback for strategic corporate decisions.

“We have a vision: In 2012 we will be the most attractive workplace in the region. The most important thing is how the employees perceive the workplace. It’s not enough to design nice

recruitment advertisements; the employees are the most valuable branding ambassadors. (Eva Martinsson, Human Resource Manager Dellners Couplers)”

The project team in Triple Steelix works in close co-operation with one of the world’s leading manufacturers of train connection systems, Dellners Couplers. In the initial stage of the collaboration, a survey on attractive jobs was carried out amongst employees in Sweden, India and Poland. This survey was followed up by feedback meetings with Swedish employees and gender equality training. Feedback meetings were arranged in small groups where the employees discussed gender patterns in their own work environment and potential improvements. These meetings generated over 100 new ideas and suggested improvements from the employees. Based on the results of corporate surveys, a model will be designed for the creation of attractive workplaces and increased awareness of a gender perspective.

Gender coaching

*“The best thing about the Gender Network is that we have succeeded in turning the participants into gender-aware managers. Our way of working, with the managers’ personal development at the forefront and allowing plenty of time for the group to learn together, exchange experiences and reflect, has proved to be a successful way of launching gender equality work in organisations.”*⁹²

In Fiber Optic Valley, middle managers were identified as the key players for effecting change in member organisations. In 2005, a programme was launched where middle managers were offered the chance to participate in an inter-organisational gender network. The programme aimed to help managers understand how to bring gender to the fore, become change agents and create gender-conscious organisations. The programme was implemented at the intersection between practical gender equality work and gender research. The business enterprise, public and academic sectors were represented by a total of 13 women and men from 12 different organisations, who participated in the programme over a two year period.

Regular network meetings were combined with gender coaching, literature studies and tailored lectures. The managers and change agents analysed their own work and roles as well as their particular organisation from a gender perspective. They made observations and conducted interviews and surveys. Their analysis covered internal, horizontal and vertical segregation, interactions and patterns of communication, symbols and perceptions and assumptions of how women and men should act.

Acting as a gender coach, the researcher observed the managers in their respective work environments and reflected with them on situations arising in their daily work. Interpreting the different situations gave the managers as well as the researcher a more in-depth understanding of how people “do gender” in organisations

and measures for achieving change were proposed (see page 51 for an explanation of Doing Gender).

All change agents in the network and senior managers from the organisations were offered tailored training in innovative leadership. This training provided a theoretical understanding of how the lack of a gender perspective affects results and limits profitability. Because of the programme, the managers increased their capacity to lead change processes, apply their knowledge of gender equality and create innovative environments. Based on the research, networking and discussions with senior managers and staff, the change agents draw up action plans with set goals and activities to implement in each organisation. The managers increasingly saw benefits from a gender perspective and were aware of how gender is an important aspect of modern management.

Five years later, the Network has advanced to the next stage, with managers participating in a “learning community” to broaden and deepen their efforts. A learning community has been described as comprising individuals who share a common purpose, collaborate to draw on individual strengths, respect a variety of perspectives and actively promote learning opportunities⁹³. Fiber Optic Valley’s learning community consists of people wanting to work with organisational change from a gender perspective.

Fiber Optic Valley TIGER: Its aim is to strengthen innovation capacity by integrating a gender perspective into organisational development and the development of new products and services. New internal processes and structures are put in place through an active process of change and with a greater awareness of normative thinking on gender.

Skåne Food Innovation Network TIGER: Its aim is to increase awareness and knowledge of a gender equality perspective within the innovation system and help integrate this perspective into strategic areas of the operation defined by the management team. The initiative aims to contribute to increased equality between women and men and strengthen conditions for the development of new innovations and markets.

Triple Steelix TIGER: Its aim is to inspire and initiate change processes which aim for gender desegregation and gender equality and lead to increased innovation, growth and competitiveness of the innovation system. Starting points are gender and working life science, interactive approaches and a focus on the benefits for member organisations.



Tracking
Innovation
and Gender

7.1 A Dynamic Model

In the previous chapter, we gave examples of methods for introducing a gender perspective into innovation milieus. In this one, we present an analytical model for tracking the progress of implemented actions. The dynamic equality tracking model (see picture on page 77) was originally designed by Olgiati and Shapiro with the aim of analysing development work and equality actions in companies, plus the choices and challenges faced by companies and the sustainability of different strategies⁹⁴.

“There is growing evidence to suggest that management practice that does not build on the advantages offered by employee diversity is becoming a high-risk approach. Increased diversity inevitably goes hand in hand with an increasingly global economy, and those organisations that effectively exploit this diversity (internal and external) may be facing a very different future to those who do not.”⁹⁵

The model is based on case studies of corporate gender equality strategies, change processes and innovative management practices in seven European countries (Finland, France, Germany, Italy, the Netherlands, Spain and the UK). Olgiati and Shapiro analysed strategies and actions in companies in the light of four dimensions:

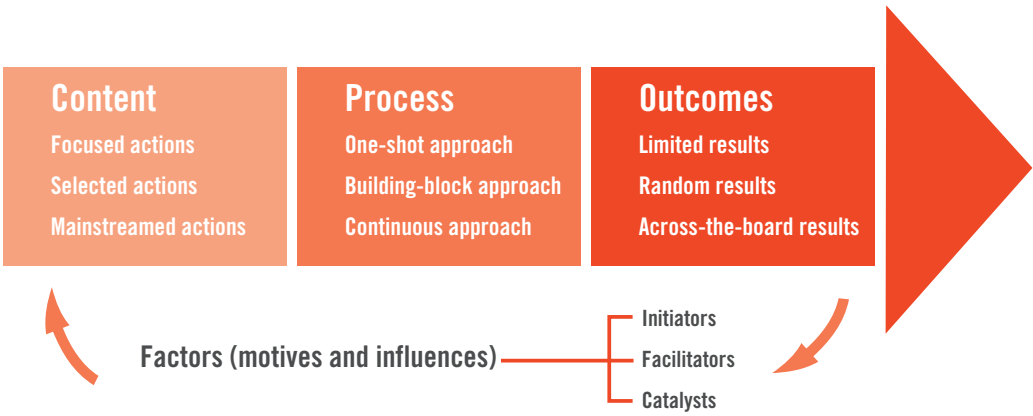
1. Motives for the actions – in terms of external factors influencing the strategy such as legislation, national programmes, allocation of funding for gender equality projects and changes in market conditions or internal factors in the companies such as values, culture and Human Resource Management.

2. Content of the actions – in terms including the introduction of new recruitment and selection practices, professional development for employees and measures aimed at changing the organisational culture to overcome gender stereotypes.

3. Process for implementation of the actions – in terms of different steps in the strategy such as collection of baseline data and analysis, definition of goals and targets, involvement and mobilisation of different actors and monitoring and communication of results.

4. Outcome of the actions – in terms of impact for the employees (women and men), the organisation and the business objectives.

The researchers found that actions pushed only by external factors often had limited impact. Meanwhile, in companies that made the link between a gender perspective and competitiveness, actions were more likely to yield long-term effects for the business, the organisation and the employees. Olgiati and Shapiro identified three different levels of motives, content, processes and outcomes of actions, plus the interrelationships between the various levels and dimensions.



...there is a relationship between the content of equality plans, the implementation process, adopted and the final outcome or results achieved. These three dimensions of equality action are affected by the different factors (categorised as initiators, facilitators and catalysts) that influence an organisation to engage in such action; factors which may in turn be affected by the outcome, with the results achieved themselves becoming facilitators or catalysts for further action.⁹⁶

On this basis, the different levels of motives were divided into: initiators, referring mainly to external factors influencing companies to initiate actions; facilitators, referring to factors influencing companies to engage because they saw a link between equality actions and organisational objectives; catalysts, referring to external and internal factors influencing companies to align equality actions with their strategic goals.

The content of the actions was categorised by the researchers as focused, scattered or transversal. We have chosen to use the terms focused, selected and mainstreamed,

in line with our discussions in previous chapters of this book. Some companies are engaged in focused actions targeting a specific group, theme or part of the organisation, whilst others initiate broader selected actions targeting different groups, themes or departments. In companies characterised by mainstreamed actions, cultural and organisational change are important features of the corporate strategy as well as embedding a gender perspective in policies, procedures and practices.

Olgati and Shapiro found that many companies carried out short-term projects characterised by a one-shot approach. Companies looking for a wider impact of their actions often had a medium-term outlook and building-block approach for continued efforts towards specific goals. A long-term perspective and a continuous approach featured in companies where the business case for gender equality was constantly affirmed and actions were integrated into the overall strategic planning.

The outcomes in the companies were affected by different motives, content and processes and the interrelationships between the different dimensions and

levels. Limited results were more likely to occur with focused actions and a one-shot approach, whilst across-the-board results were likely with a mainstreaming and a continuous approach.

Random results, which Olgiati and Shapiro labelled “leopard spots”, describes outcomes visible in different parts of a company and achieved (in theory) by selected actions and a building-block approach.

If read vertically, the three different levels of each dimension – content, process and outcome – can be identified in the model described on page 77. If read horizontally, the development of a company’s approach at different stages can be tracked towards the highest level with mainstreamed, continuous and across-the-board actions and results.

In practice, the analysis of case studies in different countries showed a wide variety of “non-linear” processes along the horizontal line of the model and ways in which companies progressed (or did not progress) to more advanced actions. Some companies achieved randomly distributed results even though they started off with focused actions and a one-shot approach. In some companies with ambitions to mainstream, the outcome was limited due to a lack of a continuous approach and/or obstacles encountered during the implementation phase. Nevertheless, in some of the case studies it was possible to identify a one-level linear relationship between the dimensions.

This model can be used for tracking progress and outcomes in cluster programmes, in an innovation milieu and/or a single company. Analysing the programme,

cluster or company in the light of the different dimensions and levels can provide practitioners and researchers with ideas on promoting further progress. In-depth analysis of the four dimensions by quantitative and qualitative techniques such as case studies, surveys and narrative stories, provides valuable knowledge of the stage of development and which methods to use to achieve visible results and bridge gaps between policy and practice.

7.2 Sustainable Results

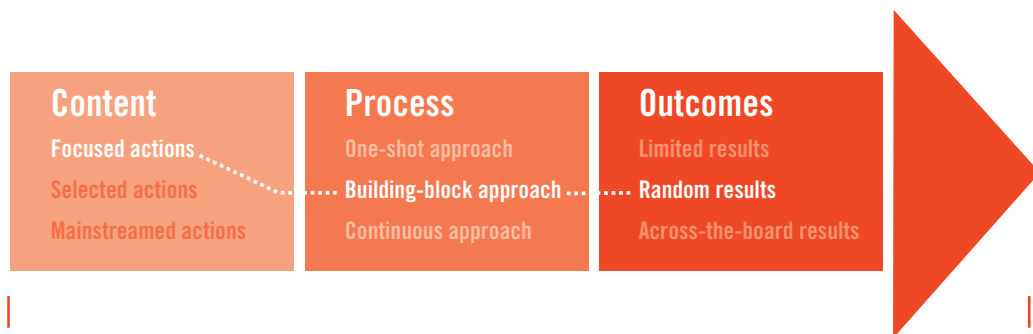
As stated above, external drivers are important but they are not enough to achieve sustainable results of actions aimed at stimulating gender diversity in enterprises. Policymakers, researchers and experts often underline the importance of interaction between obligatory and voluntary measures⁹⁷. In the Nordic countries, actions in innovation milieus are influenced by requirements from public funding agencies to integrate a gender perspective, i.e. initiators as per the dynamic equality tracking model. External factors such as rapid changes in the labour market are increasingly motivating businesses and clusters to make links between innovation and gender and their overall objectives (facilitators). In many innovation milieus, discussions on the future lack of qualified workforce are the main driver of gender diversity actions. Internal drivers (such as values and cultures) are seldom catalysts for actions but feature in individual organisations in various innovation milieus and in the strategic goals of some clusters.

Reviews of the first generation of cluster programmes in Sweden show that ambitious mainstreaming initiatives were not sustained over time and that without a continuous approach, results are limited⁹⁸. Similar initiatives in the future might also be dismissed by cluster professionals due to a lack of tangible results. On the other hand, we have found that innovation milieus launching thoroughly designed and targeted action as a first step can proceed to more advanced stages and comprehensive strategies. These actions are often characterised by a mixture of the methods presented in section 6.1 such as communication, target-setting, monitoring and networking. In the initial phase, focused action might lead to better results than mainstreaming even if in a long-term perspective the latter will produce more sustainable results and competitive advantages.

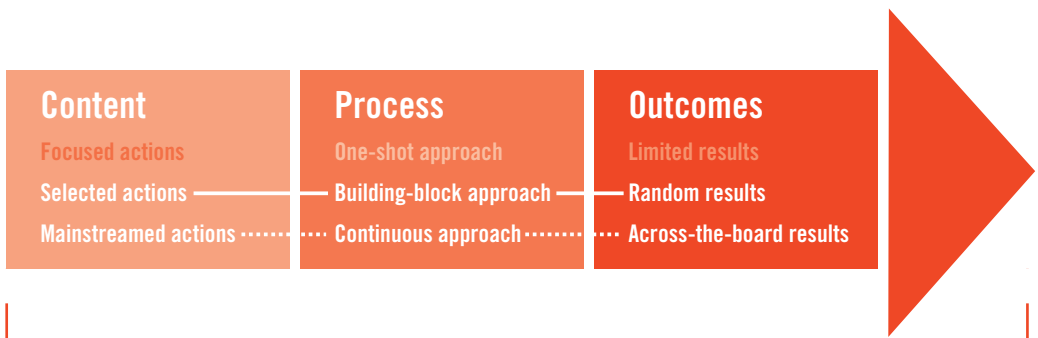
Cluster professionals who aim to stimulate the innovation and gender connection

must select the appropriate levels on which to act and not necessarily act on all levels at the same time. They need to be strategic at all stages of the process and select the development issue on which to focus, acting on opportunities that are likely to yield tangible results in the innovation milieus. Getting results on the ground motivates the actors and lowers their threshold for resistance. Demonstrable results serve as models for replication and a pragmatic approach enables results corresponding to strategic operational opportunities.

In Triple Steelix, the R&D project (see page 35 of this book) funded by the TIGER programme was preceded by a focused action targeting (potential) women leaders in the steel industry. This action led to visible results and a progression to a more advanced approach in the ongoing project with selected actions involving a mapping of companies followed by staff seminars, which produce randomly distributed results.



In the case of All Aboard (see page 64 of this book), the project focuses on a leisure concept boat but its approach is characterised by building blocks and a well-designed communication strategy. This is expected to facilitate progress towards actions and results in different parts of the cluster.



Raufoss Women's Arena (see page 67 of this book) has a long-term perspective and the potential to move from selected actions towards mainstreaming and a continuous approach. This will enable the cluster to secure across-the-board results in future.



Considering the complexity of innovation milieus, it is likely that the timeframe to reach beyond limited and random results to ones which impact across the board will be quite long. In Olgiati and Shapiro's case study research into seven European countries, cultural changes were most evident in companies that had implemented actions for at least three years.

Fiber Optic Valley (see page 41 of this book) began its first actions to integrate a gender perspective in 2004 and, six years on, is moving towards across-the-board results. Senior and middle managers from several organisations are involved in the process and actions have been aligned with the overall goals of the innovation milieu. This progression has been reinforced by a continuous approach with external support from action-oriented gender researchers.

7.3 Change and Absorptive Capacity

In terms of methods and approaches for introducing a gender perspective in innovation milieus, one size does not fit all. Some aspects influencing the course of action are the location and core businesses of the milieu, access to resources and absorptive capacity⁹⁹. The dynamic growth of a cluster depends on its capacity to absorb external knowledge and diffuse it into the intra-cluster knowledge system. An ability to assimilate, manage and apply knowledge to improve innovation performance and competitive advantage differs among clusters. This is one of several explanations as to why some clusters progress faster than others to more advanced actions for integrating a gender perspective. Actors in innovation milieus which access knowledge capital and agents of change will move forward faster. Programme and cluster managers with a basic understanding of the innovation and gender connection and gender experts with sector-specific knowledge will be able to offer better tailored, more effective support to actors involved in cluster initiatives.¹⁰⁰

As programme or cluster managers, we must find ways to stimulate knowledge spillovers between companies as well as from the public sector and universities to enterprise. Learning by doing and participatory processes can create a more favourable environment for transferring individual learning to organisational capacity. Lundvall differentiates between the DUI (Learning by Doing, Using and Interact-

ing) mode of innovation and the STI (Science-Technology-Innovation) mode of innovation. The DUI mode is characterised by experienced-based, embedded and embodied knowledge. It highlights the interaction between groups of employees inside a company, between employees in different companies and interactions with customers. By contrast, the STI mode is characterised by a scientific approach, formalisation and codification. According to Lundvall, businesses and clusters which combine these modes are the most innovative.¹⁰¹

Nevertheless, participatory approaches will not automatically bring about change and cultural aspects are the most difficult to tackle in a change process. A survey of the largest companies in the world in 20 countries conducted within the Corporate Gender Gap Report 2010 from the World Economic Forum showed that respondents perceived the main obstacles to closing gender gaps to be general norms and cultural practices, plus corporate culture and a lack of role models. In companies from the participating Nordic countries (Norway and Finland), corporate culture was perceived as the main obstacle.¹⁰²

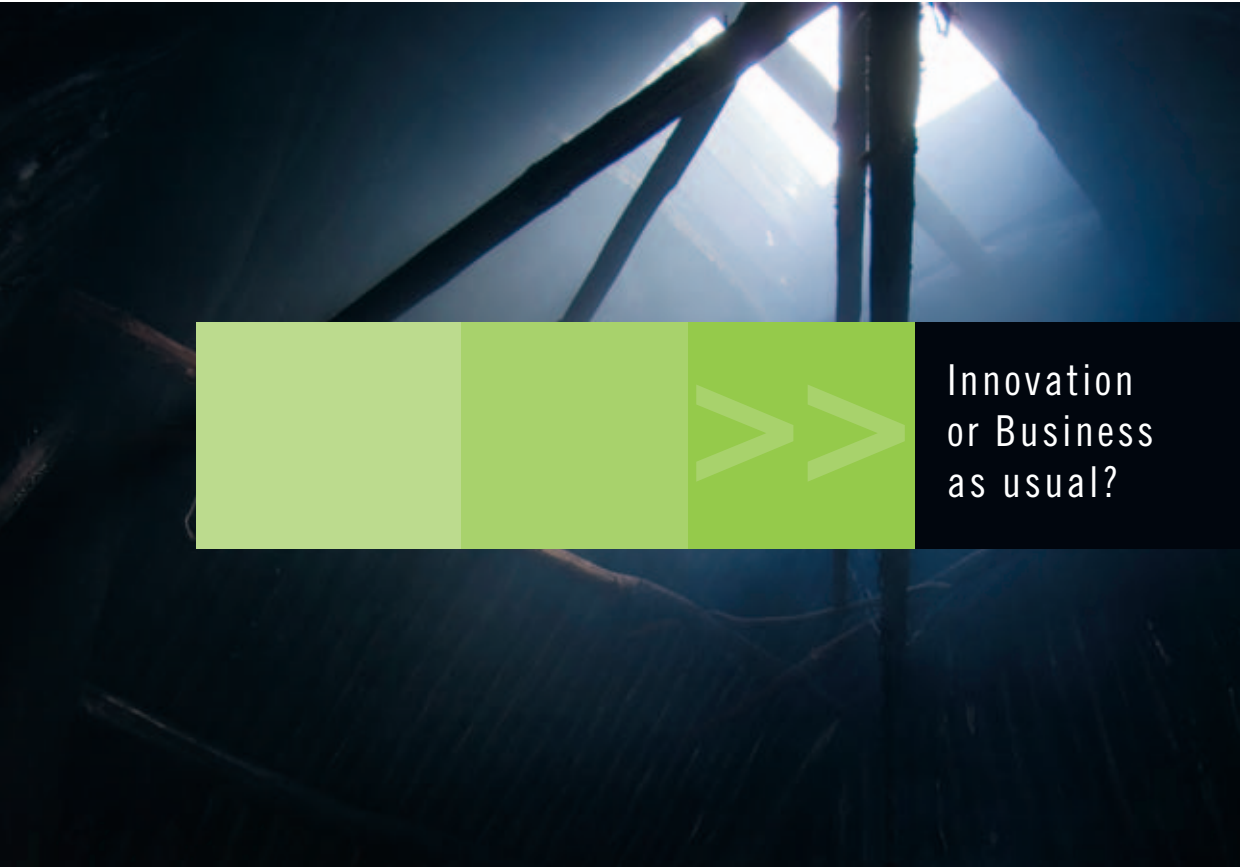
How different companies and clusters respond to the rapid changes in the surrounding environment depends on the existing cultures and internal pre-conditions. The values and practices permeating different industries and the society are reflected in the innovation milieus. Within a complex innovation milieu, different sub cultures co-exist and change processes occur in the presence of opposing forces.

Some of these forces support the integration of new perspectives, whilst others are interested in “business as usual”.

We often assume structures and activities to be gender-neutral and when stereotyped patterns are questioned, it triggers resistance. Stone-walling, characterised by arguments that other priorities come before innovation and gender, is one recurrent pattern of resistance. A strategy for dealing with resistance is important for any change process and a catalyst team in an innovation milieu can mobilise resources (actors) and keep the topic of “gender, growth and competitive advantage” on the agenda. Unfortunately in our contacts with project leaders, we found that some of them felt like “lone pioneers” rather than catalysts in their innovation milieus. Hopefully, some of the ideas in this book can also create pathways for the lone pioneers and sufficient arguments for them to break through the barriers. A pathway that questions business and innovation “as usual”.

Gender change agents: The Swedish International Development Cooperation Agency has identified different roles for gender change agents that can also be applied to practitioners in innovation milieus.¹⁰³

- The lone pioneer: Frequently stigmatised. Needs support base. Primary support often comes from outside.
- The fighter: Charismatic, fast-moving, risk-taker. Not afraid of conflict. Has a small internal support base.
- The bureaucratic entrepreneur: Analyses institutional opportunities and obstacles.
- The player: Plays the organisation. Recognises opportunities. Negotiates and is diplomatic.
- The catalyst: Rather than implementing, seeks to help others implement.



Innovation
or Business
as usual?

8. Innovation or Business as usual?

The business enterprise sector in the Nordic countries and elsewhere in Europe must increase its capacity to connect innovation and gender. Looking at research, practice and experiences on the ground the innovation case for gender diversity is strong. Tangible results have been achieved through pilot initiatives in Norway and Sweden in terms of development of products, working environments, management practices and organisations. (Potential) female employees have become more visible and women have been able to advance in industries with a high degree of horizontal segregation due to actions in innovation milieus.

Looking at statistics, we draw the conclusion that the most gender-segregated industries in Europe face unprecedented challenges. Accessing human capital and unlocking the potential in the existing workforce is a necessity for businesses in the knowledge-based society. Some enterprises such as German Deutsche Telekom have introduced quota systems to strengthening their position on the market. At the end of 2015 the goal for Deutsche Telekom is to have 30% women in senior and middle management positions¹⁰⁴. Women's educational level increase faster than men's throughout Europe and companies need a critical mass of women – usually reported to be 30% – in leadership positions before the advantage of gender diversity can be utilised¹⁰⁵.

Investments in programmes and actions to promote gender diversity in Europe derive from the needs of future employees and access to workforce (labour market) but also the needs of customers and activities among competitors (product markets). Business conduct and recognition by customers, employees and investors is something that companies have to take into account. Capital markets are changing and the views of investors are influenced by wider social values on commercial activities. Gender investments indexes, investment funds focused on gender diversity and funds for investments in companies with a high number of women in senior positions are emerging. Different charters and codes have been launched for the corporate sector and designed for enterprises located in the same region, linked to the same cluster or companies operating in a specific sector. Regional and global top performers can be identified via these different systems for comparisons between companies.

New global standards are also external drivers for change in companies and innovation milieus. At the end of 2010 ISO will launch the new social responsibility guidance, ISO 26000, which is already influencing organisations throughout Europe¹⁰⁶. ISO 26000 underlines the connection between gender and economic development and according to the European Competitiveness report from 2008 Corporate Social Responsibility (CSR) impact cost structures, human resources, customer perspective, innovation capacity, management of risk and reputation as well as financial performance¹⁰⁷. The CSR dialogue in

Europe (as well as the gender dialogue) is shifting towards an opportunity perspective away from a focus on additional costs and demands on companies. A renewed CSR strategy will also be part of the European 2020 strategy presented on page 21 in this book.

Looking into current trends and the developments outside the Nordic and European arena, our confidence that we are on the right track has been strengthened. We need a transition, from the current state where few Nordic innovation milieus align a gender perspective with their strategic goals, to a future where all of them do.

“We need to have patience, a long term perspective and the ability to refer to cases where the innovation and gender connection has contributed to practical results in order to increase the awareness that gender diversity is important for the competitiveness of all innovation milieus. (Eivind Petershagen, Innovation Norway)”

We can continue with business and innovation as usual if we want to produce “more of the same” and take the high-risk track associated with a lack of a gender perspective. If on the other hand, we would like to communicate images of modern industries, clusters and companies to attract human resources, capital and investments, then we need to improve existing practices and sometimes also break with the existing order. As programme managers at public agencies we try to create pathways between policy aspirations and implementation of new practices in innovation milieus. In this book, we have “pushed” for the innovation case for gender diversity by providing the reader with arguments backed by strong research and some generic methods backed by practical experiences. We hope the reader will be inspired to actively “pull” these methods and practices into their own context and stimulate a change of mindsets.

A Global Standard for Gender Equality: At the beginning of 2011, a global label and certification system will be launched for companies implementing gender equality policies and practices. The assessment methodology has been developed by a Swiss Foundation – the Gender Equality Project – in partnership with the World Economic Forum and a core group of multinational corporations. Five areas will be covered by the label: (1) Equal pay for equivalent work (2) Recruitment and promotion (3) Training and mentoring (4) Work-life balance and (5) Company culture. (www.genderequalityproject.com)

The Gender Equality Principles Initiative (GEP Initiative) is a groundbreaking programme assisting companies around the world to build more productive workplaces through implementation of Gender Equality Principles. The GEP Initiative provides companies with standards, tools and resources that can be used to improve gender equality, from factory floor to boardroom. It addresses: Employment and Compensation; Work-Life Balance and Career Development; Health, Safety and Freedom from Violence; Management and Governance; Business, Supply Chain and Marketing Practices; Civic and Community Engagement; Transparency and Accountability. The initiative was launched by the San Francisco Department on the Status of Women in cooperation with the Calvert Group and Verité. (www.genderprinciples.org)



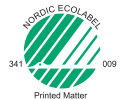
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What innovation is really about is questioning what is taken for granted – challenging the norm – and finding new pathways to things. In challenging the norm, we need a critical perspective and undoubtedly a gender perspective can be helpful.