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## **GENDER ACROSS THE BOARD**

**GENDER PERSPECTIVE ON INNOVATION AND EQUALITY** 



ULRIKA LORENTZI

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#### VINNOVA develops Sweden's innovation capacity for sustainable growth

VINNOVA is Sweden's innovation agency and our aim is to increase the competitiveness of Swedish researchers and companies.

Our task is to promote sustainable growth in Sweden by funding needs-driven research and the development of effective innovation systems. To this end, we have 220 million euro to invest in new and ongoing projects each year.

An important part of VINNOVA's activities consists of increasing the cooperation between companies, universities, research institutes and other organisations in the Swedish innovation system. We do this in a number of ways, including long-term investment in strong research and innovation milieus, investment in projects to increase commercialisation of research results and by creating catalytic meeting places in the form of conferences and seminars.

VINNOVA is a Swedish government agency under the Ministry of Enterprise, Energy and Communications and the national contact agency for the EU Framework Programme for R&D. Some 200 people work at VINNOVA's offices in Stockholm and Brussels. VINNOVA was established in January 2001.

The programme *Needs-Driven Gender Research for Innovation* is part of VINNOVA's strategy aimed at strengthening the Agency's opportunities to develop its operation in terms of gender perspective and equality aspects, whilst working for an equal society.

The VINNOVA Report series includes external publications and other reports from programmes and projects that have received funding from VINNOVA.

## Gender across the Board

Gender perspective on innovation and equality

by

Ulrika Lorentzi

#### **Foreword**

VINNOVA (Swedish Governmental Agency for Innovation Systems) is Sweden's innovation agency. Our aim is to increase the competitiveness of Swedish researchers and companies and promote sustainable growth in Sweden by funding needs-driven research and developing effective innovation systems. 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 the creation of catalytic meeting places in the form of conferences and seminars.

VINNOVA provides funding for research within the area of Gender and Innovation, including women's entrepreneurship programme and Applied Gender Research for Strong Research and Innovation Milieus (TIGER). This funding is part of a strategy by which the Agency aims to fulfil its official mission of funding gender research and contributing to gender equality in relevant areas of activity. These tasks are united under VINNOVA's R&D programme entitled *Gender and Innovation*. This book describes a selection of the projects funded under the programme during the period 2004-2008.

As commissioned by VINNOVA, Ulrika Lorentzi conducted interviews with researchers and those from the various companies and organisations participating in projects. The results provide a multi-faceted portrait of how a gender perspective can be integrated into an operation and remove barriers to growth by connecting innovation and gender. The English translation was prepared by Jonathan Dellar.

We hope this book may inspire those who have considered starting up development work for increased innovation capacity and gender equality but who, for one reason or another, have not yet realised their aims.

VINNOVA, February 2011

Annika Zika Viktorsson Head of Organisation and Management Department Jennie Granat Thorslund Programme Manager

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# 1 Maybe a skirt would be better?

Consumers want goods which break with male and female stereotypes. Gender-crossing goods like the work kilt and the YCC car have aroused a great deal of attention. By latching onto that desire, the Gender and Design project will bring a new dimension to equality work.

Visitors to the Blåkläder company's Svenljunga premises are greeted by a huge image of a rugged, bearded man standing resolutely in front of a brick wall, his arms crossed. He wears a check work shirt and grubby kilt made with the white stitching and cut-away nail pockets so typical of Swedish work trousers.

"The work kilt is great," says Jan Andersson, MD of Blåkläder. "It's quite tough, daring to wear it in this macho trade. I was in Gothenburg yesterday and ran into a bearded guy with loads of attitude who was wearing a kilt. He said he does get comments but doesn't give a damn because it's so pleasant to work in."

Both Andersson and his marketing coordinator Tomas Kristiansson are obviously proud of the kilt. Kristiansson talks about his thoughts when design student Marcus Jahnke presented his idea of a kilt for tradesmen:

"I couldn't stop laughing. There was so much of Blåkläder in it; the tongue-in-cheek challenger. But at the same time I was wondering, 'how could we use this?""

Blåkläder decided to produce a test collection primarily envisaged for PR material. Kristiansson wanted to include it in the 2005 product catalogue but since it was not in production, it was placed under the heading of Product Development. An advertising agency produced the picture which still hangs outside the company's front entrance.

"That image laid the groundwork for the kilt," says Andersson. "It created the symbol of a kilt wearer."

The company was surprised by the reaction it got. Users started asking for the kilt and the 500 kilts which Blåkläder had made up sold out immediately.

"We realised that the kilt-wearer was real," says Kristiansson. "Then in 2006, the kilt was included in the standard range and is now available in hi-vis."

Blåkläder is the second largest manufacturer of working attire in Sweden, after Fristads. Both companies produce functional, durable clothing. In its battle against the larger company, Blåkläder has profiled itself as the challenger: younger, tougher and better looking. Amongst other things, Blåkläder was first to market work clothing using TV adverts.

"More fashion has got into our industry," says Andersson. "Workers want their clothes to look fresh. The colour choice and fit requirements are very different."

Kristiansson thinks the kilt strengthens Blåkläder's brand as an innovative challenger whose thinking is new and "outside the box". The kilt breaks the conventions of what work clothes should look like. At the same time, it is functional and cooler than work shorts. The heavy cotton fabric used in working attire is very dense to cope with wear and tear from things like tools, nails and so on. Even shorts in this dense fabric gets hot, but the kilt is more airy.

Once Blåkläder realised there was interest in the kilt, a press release went out. In terms of mass media, the work kilt has been an enormous success and in 2007 was named Product of the Year by TEKO, the Swedish Textile and Clothing Industries' Association.

"The media penetration the kilt made was quite unparalleled," says Kristiansson. "It shows how quickly it is possible to change opinions on how somebody should look in a workplace. From having been a crazy idea, suddenly there was a market."

Kristiansson thinks there is a difficult line to tread between being tongue-incheek and being taken seriously. "A common question from journalists was, 'is this a joke?"

"We told them, 'no, it's completely serious'," says Kristiansson. "The important thing is the kilt isn't a skirt and it's a good, functional garment. It would've been easy to laugh at a skirt."

Kristiansson believes a kilt challenges the views of a conservative target group on work clothing. However, for Blåkläder the important thing was not challenging ideas or contributing to equality. It was a matter of business; what sells and what produces good PR. Kristiansson stresses that the most important thing is always functionality, even in the women's collection which Blåkläder produced a few years ago.

"It's important that women's clothing is faithful to men's in function, with the same pockets and other practical details. The development of the women's collection wasn't an external designer's idea but travelled the normal product development route via product panels and customer contact.

Kristiansson believes that a change has taken place in the industry and that today there is greater awareness that both women and men are using work clothes. One of the new items in Blåkläder's 2009 catalogue is a collection of clothing for gardening and forestry work.

"It's the first time a collection has been produced aimed at both women and men as users and in which both women and men have been interviewed in the product development stage," says Kristiansson. Marcus Jahnke designed the kilt in 2004 as part of his design studies at the School of Design and Crafts (HDK), University of Gothenburg. He is essentially a development engineer, having worked in such fields as the construction industry.

"I used a pair of work shorts when I was off on paternity leave and needed a lot of pockets for nappies, bottles and so on," explains Jahnke. "It was the summertime and very hot. I was thinking, 'this is no good. Maybe a skirt would be better?"

Still, he understood the norms inherent in a skirt. Here was a functional need being hindered by norms of what men should wear. It was this very paradox which became his motivation. The challenge to make a skirt-type garment which would be in real demand by men in a strictly male-coded industry. To achieve this, he was forced to link the garments to traditional masculine norms.

"Making a kilt became a solution. Also, the whole manual work thing with smart pockets and functional details was clearly male-coded. Having Blåkläder, a well-known company in a traditional industry, adding its logo to the kilt played a major role."

"That logo signalled trustworthiness. This isn't just a conceptual design but a commercial product."

Even the image of the stern-looking man was important. Jahnke was not involved with that; he had envisaged a picture in which lots of tools "loaded" the kilt with masculine attributes. Instead, the pose and shabby surroundings did the same job. The kilt was linked with a traditional, almost pre-industrial masculinity; there is even a hay fork standing behind the man. Any notion of male and female clothing norms being broken down really seems remote.

"As a designer, you're occasionally forced to pinch some values in order to make things happen," says Jahnke. "The ends justify the means. It can be more important to make a small change that really gets done than to be so radical that you only reach other radicals."

"Design work is a balancing of symbols and functions," thinks Jahnke. "When a product subsequently reaches its users, new meanings are created." In this way, he has created a very masculine garment but it has become unisex. "Women are buying the kilt, probably women working in production in rather hot workshops. Guys on building sites are also buying it. It isn't a fully integrated garment or merely a ploy, but something in between. The kilt feels like a functional garment. It's been included in newspaper reviews of work shorts."

The work kilt was one of the objects studied in the Gender and Design research project at the Centre for Consumer Science (CFK), Gothenburg University, funded under VINNOVA's Gender Perspective on Innovation Systems and Equality call. The project combined two parallel, overlapping methodological trails. One was artistic design research in which Master's design students at

HDK reflected on and interpreted gender perspectives on design. The process was led by Marcus Jahnke, who had just completed his design studies with a thesis on better equality in children's clothing. The other trail was technological studies in which gender researchers interpreted how products come about and are attributed significance.

"The kilt is ambiguous, which makes it interesting," says Magdalena Petersson McIntyre, a doctor of ethnology and one of the researchers in the Gender and Design project.

"The advertising agency which produced the image of the stern-looking man packaged the kilt and made it intelligible," according to Petersson McIntyre. In keeping with this image, the description of the kilt was set as a laddish garment with a transcendent image.

"The fact that it's a functional garment also linked the kilt with a heterosexual masculinity. Functionality is clearly male-coded. It's also interesting that Blåkläder had not anticipated such a success," thinks Petersson McIntyre. "The consumers came on board and created a value."

"One of the bases of the Gender and Design project is that there are goods with alternative gender stories which people want. By latching onto that demand, we can bring a new dimension to equality work."

Petersson McIntyre wants to relax the idea that what is commercially viable always affirms stereotypical notions of gender and sex. The project has studied a number of products which consciously break with traditional gender stories.

"It simply isn't the case that objects always repeat old patterns; they also create new ones."

Products which break with traditional norms can attract a lot of attention; the kilt being one example. Another is the Volvo YCC (Your Concept Car), Volvo Cars' biggest marketing success ever. Its media penetration had an estimated advertising value of SEK 2.5 billion. Volvo invested SEK 10 million in building the car.

YCC was designed by nine female car designers. Their starting point was creating a car by women for everybody and they were inspired by marketing consultant Marty Barletta's saying, "if you meet the expectations of women, you exceed the expectations of men". When the car received the Swedish Design Award 2006, the jury explained its reasoning as "an attractive and user-focused concept which became a unique PR success and which is generating major desire to own without even having been launched".

"YCC highlights a number of opportunities for gender-aware design," says Petersson McIntyre. "Choosing a gender as the basis for designing a car was something entirely new. The major interest shows that there is a market for cars that are distinct from traditional ones."

It was never the idea that YCC should go into production. The project produced a marketing value and had a major impact on the market. Consumers got in touch and wanted to buy the car. The project group said that many people expressed surprise and disappointment when they realised the car would never be on sale.

The researchers have not been able to trace how consumers can influence the market by purchasing a gender-transcendent car, in the way that they did with the work kilt. However, Petersson McIntyre believes the car raised questions and ideas which had influenced Volvo as a company. The fact this car was designed by women and targeted European women with high spending power made it clear how many cars had routinely been designed by men for men.

"One impact of YCC is that Volvo's distributors opened their eyes to female consumers and adapted both their sales style and furnishings to women," Petersson McIntyre says. "In the past, many women had indicated they did not feel welcome in car showrooms."

The design team's explicit user focus was a new way of working with cars which involved a number of innovations. Some were used in the new C30 model, such as the idea that everybody in the car should be able to see each other and that the driver should easily be able to see where the car begins and ends. The rear seats are closer together than the front seats which means that front and rear passengers can more easily talk to each other and those in the back get a better view. There is a gap between the rear seats so that the driver can see right through the rear windscreen, which also extends right the way down.

"At the same time, there are pitfalls which show how complicated gender is," continues Petersson McIntyre. "For example, the car wouldn't have stirred the same interest if the design group had had an even gender distribution. It's based on and strengthens the stereotype of women being different to men."

For the design team, it was important to emphasise that these were proficient engineers and designers with the task of producing a car for a new market. They did not want to be associated with a "woman's car" or an equality project. Just as Blåkläder does not regard the work kilt as being about gender and equality but about business, the design team preferred to talk about profitability. However, they are clearly gender-aware in building the car and dealing with notions of women and men themselves. Petersson McIntyre points out that every detail was potentially controversial.

The design team was compelled to relate to the image of a "woman's car" as a small, cheap, practical, brightly coloured family car to hold shopping bags and kiddie seats but comprising no driving pleasure. YCC breaks this stereotype in several ways. It is grey and beige and the exterior is almost as sporty and powerful as other Volvo cars. There is no child seat; this car has been conceived for an individual – a successful woman in a European city who likes cars.

Within the motor industry, exterior design is afforded a higher status than interior design and upholstery. As a rule, the few women who do work on car design are involved in interior design. To be taken seriously, it was necessary for the design team to put a great deal of effort into the car exterior, as overemphasising its interior would have confirmed prejudices about female carmakers. However, the interior of YCC is better thought out than most cars, a fact which garnered the team a great deal of media praise.

One controversy within the design team where gender became acute was the hand-embroidered, flower-pattern seats. Some of the team did not want them because they looked far too feminine; others defended them by saying that they were not feminine as such but could be considered stylistic, almost Japanese.

"Several people in the design team were terrified of a feminine idiom," says Petersson McIntyre. "There's nothing wrong with grey and beige, the problem is that feminine things were being subordinated again."

Don't Think Pink is the title of the book about marketing to women. It sums up the fundamental perception that women with high purchasing power do not like things associated with low value such as pink and flowers.

"The issue of pink is exciting," continues Petersson McIntyre. "Companies doing serious production work on things like tools which are better ergonomically adapted to women are careful to observe a feminine idiom. Pink or flowery tools are simply taken as second-rate products. It's that inept feminine thing again; it seems very hard to break out of."

The need to get away from traditionally feminine things is seen in the work kilt and YCC. Legitimising the work kilt, which might have been seen as a skirt, required a range of masculine attributes: connections with the Scottish kilt, the trade details and masculine pose. The fact that the kilt was almost exaggeratedly masculine was not a problem. On the other hand, the design team which made YCC cannot legitimise a car for a female target group simply through female attributes. If a car is perceived as exaggeratedly feminine, it is also seen as boring. When it comes to cars, pleasure is male-coded and practical, low-priced cars are female-coded.

The YCC team's vision was an equal design motivated by pleasure for women as well, rather than just what was practical. An example where the researchers consider the team succeeded in defending its vision is in the argument for not being able to open the bonnet on the YCC. This was defensible using practical arguments, such as the appearance being better and ordinary car owners being unable to do anything under the bonnet other than topping up the coolant — a detail which the design team solved by having the coolant topped up from outside. However, the team also chose to justify the closed engine compartment with the argument that in normal cars, designers have to spend money on the engine compartment to make it look nice. By staying away from these decorative

touches, the design team had money left over to embellish what was actually visible. In other words, the motivation was pleasure.

"YCC shows how complicated it is to work commercially with gender," says Petersson McIntyre. "There is always a balance between breaking norms and reiterating them."

The car also shows how arbitrary the male and female coding is. Cars are used by both men and women but are still male-coded. Functionality is male-coded and decoration female-coded but, particularly where it concerns cars, beautiful lines are male.

In one part of the Gender and Design project, a group of business people examined what their products say about gender and whether they can aid change and at the same time increase profitability. Since there is a demand by consumers for goods which break with gender stereotypes, Petersson McIntyre believes money can be made by incorporating a gender perspective in design.

"Profitability isn't the only argument for working with equality," Petersson McIntyre emphasises. "Our point is that gender awareness *can* be commercially profitable. It's exciting to see what it brings about. Many people in the commercial sphere see equality as a tedious diktat from above. We want to show that there is interest from below, from the consumers."

Blåkläders women's collection is an example of how consumer demand can lead to new products. Another example is Polarn and Pyret's unisex children's clothing collection. During the 1990s, there was an explosion in girls' and boys' children's clothing. Now, criticism against gender-divided clothing has become so great that a market has been created for non-gender-tagged children's clothes.

"It's a clear example of how consumer demand for equality led to a new design," says Petersson McIntyre.

She finds it interesting to look at the connection between market and equality. Does gender-aware design spill over in the organisation?

"The work kilt may contribute to a new understanding of masculinity. It loosens up the image of the construction worker and of who can wear Blåkläder's clothing and ultimately who belongs on a building site. The attention aroused by the kilt loads the brand with youth and transcendence. Perhaps this in turn can influence the culture of the company?"

Design objects both reflect and create gender. The project has highlighted the similarities between gender theory and design work. It is a question of seeing connections and noticing what, say, a colour, go-faster stripe or flower means and how it can influence the consumer. In that connection, there is a hotbed of innovations. These are ideas which Marcus Jahnke took into his new role as a doctoral student at HDK and Business & Design Lab, where he is researching into how design can lay the groundwork of innovation.



Work kilt from Blåkläder. TEKO made it Product of the Year 2007 in the Fashion category.

"The kilt relaxes the image of the construction worker, of who can wear Blåkläder's clothing and ultimately perhaps who belongs on a building site." Magdalena Petersson McIntyre, researcher. "When I started at HDK, I only saw innovations as new technology," says Jahnke. "When I left, I had realised that we must weave social aspects into the innovation concept in order for it to be complete. Design is a good way of starting with a user perspective instead of technology. When you add an interest in values and norms influencing the user plus the opportunities which arise when values and norms change, there are all new opportunities for innovation."

"The media penetration the kilt made was quite unparalleled," says Kristiansson. "It shows how quickly it is possible to change opinions on how somebody should look in a workplace." Tomas Kristiansson, Marketing Coordinator, Blåkläder AB

"Design is a good way of starting with a user perspective instead of technology. When you add an interest in values and norms influencing the user plus the opportunities which arise when values and norms change, there are all new opportunities for innovation." Marcus Jahnke, designer and doctoral student.

#### 2 Some take needless risks

Stories of mining are transforming the outlook on masculinity and safety in LKAB's project, Future Mining Culture – On Equal Terms. The goal is for men and women to work safely without being called "wimps". Quite the opposite, they should be rewarded.

"The managers may say we should close the mine if there are risks, but they don't know what it's about," says Ann Sofie Dagbro, a truck driver in the loading area of LKAB's mine in Malmberg.

LKAB excavates ore by sub-level caving, a method involving blasting and then "mucking out" the ore from below. A common problem with mucking out is "hangups" in other words, ore which has been blasted ready for mucking out but fails to cave in because a large boulder is stuck.

"Just being underground is risky, but some take needless risks," continues Dagbro. "It's enough to take a mirror to see how the hangup is situated instead of leaning in there yourself and risking a stone to the head."

Sometimes, it is enough to push a small charge up onto the rock to bring down the hangup. If the rock is larger, miners have to drill into it and set explosives. The space into which the blasted ore falls is known as a "stope" and standing in it is considered quite deadly. If the rock comes loose, no-one standing in the stope has any chance of saving themselves. Dagbro explains how it is possible to stand on the edge of the stope and push up a small charge or drill and set explosives but that it is somewhat more awkward than working from directly below.

"Some years ago, I was working with a guy who just jumped down into the stope and started drilling. My job was to place charges. I refused to jump down and tried to place the explosives from the edge. This didn't work because he'd drilled from right underneath and I couldn't reach the hole from the edge. It ended up with him taking the explosives and pushing them up there as well."

Dagbro's experience is that there are men, particularly older men who have worked for a long time in mining, who take unnecessary risks. The main reason is that it makes the work easier and quicker. Younger men don't always venture to object in the way that she did.

"Now the bosses have said that anyone who jumps into the stope will get fired. I haven't seen anyone do that in recent years."

Jumping down into the stope exemplifies behaviour which the management of LKAB wants to see gone from the mines. Safety is high priority within the company. Dagbro was one of the participants in the company's change project Future Mining Culture – On Equal Terms which was implemented between 2006 and 2007. Over the course of two years, 21 Mineworkers (16 men and five women) met to discuss workplace culture, gender and safety. The unique thing about this project was that gender and above all masculinity were discussed from a safety perspective. Berith Nilsson, Head of Personnel Planning, who led the equality work at the start of the change project, explains:

"Research has shown 90 percent of accidents in the workplace are due to incorrect conduct. We want fewer accidents and increased wellbeing. For this reason, we needed to develop a structured way to discuss attitudes and behaviours. The idea was to make mineworkers care more about themselves and their own bodies and thereby also care about the person next to them."

Mining is closely associated with men and masculinity, due to the history of mining and also on a symbolic level. In Sweden, women were forbidden to work in mining from 1900 to 1978 and even after the ban was overturned there has been very great male dominance. Stories about mineworkers are usually about a big strong chap doing it tough, dangerous job. This symbolic image endures despite a range of improvements in the working environment.

Previous research has shown that values of importance to safety – care, consideration and accuracy – run completely counter to the image of the mystical, dangerous mine and the strong, competent man. Nilsson had heard mention of the study which Lena Abrahamsson, a professor at Luleå University of Technology, had done in Australian coal mines and wanted to know whether notions of masculinity were getting in the way of the safety work at LKAB's mines. Abrahamsson describes how the Australian mineworkers, all men, created a workplace culture in which risk-taking and a competitive spirit were important elements. This macho masculinity was getting in the way of the safety work. Part of creating safer workplaces in the Australian coal mines was also the shaping of a new masculinity; a fitness masculinity in which it became manly to be concerned about one's body and working safely.

Is there also a macho masculinity at LKAB hindering the safety work? This was one of the questions in the project. Another was whether the work culture at LKAB alienated women.

"One of LKAB's problems was, and is, that we have very few female metal workers," says Nilsson. "When the project started, we had 30 women underground out of around 1,000 employees – 1.3 percent. We also observed that women were leaving of their own accord twice as often as men. Extreme minorities, such as women in mining, are in a vulnerable position and generally run greater health risks than other groups. How do we create a workplace which women want to get into and then stay? We needed to learn more, not just tell men that they were wrong."



A bucket loader moving excavated ore in the mine. (Image: LKAB).

"Just being underground is risky, but some take needless risks," continues Dagbro. "It's enough to take a mirror to see how the hangup is situated instead of leaning in there yourself and risking a stone to the head." Ann Sofie Dagbro, truckförare LKAB

Thus, there was a need for renewal and development at LKAB. At the same time, Lena Abrahamsson and her doctoral student Eira Andersson were interested in studying masculinity and safety in Swedish mines. A proposal was produced for an integrated research and development project.

"A great deal of support was needed for the project, both amongst management and the unions, says Nilsson. "The Metall union was initially dubious about starting a project which they felt called men into question, but they changed their position. The subsequent role of the trade associations was important and essential to the project being so good."

Doctoral student Eira Andersson, who had led the project and studied it for her thesis, had to go around and inform various workplaces in order to "collar" participants for the project. She was surprised at how easy it was to get a group together.

"Initially, things went a bit sluggishly but then one of the supervisors said, 'take four guys from my group'. After that, more ventured along and soon I had 21 people. Most of them came along because they wanted to but some of them were ordered to. It was valuable to have different points of view, even from those who did not find equality to be natural. It gave a little bit of bite to the discussions.

The group met 10 times and had discussions on various themes such as the history of mining, safety and risks and also masculinity and femininity in mining.

"We took an open approach," says Andersson. "I gave the group space to bring their own stories. When we spoke about mining in the past, we were in the LKAB public mine and museum. Stories came up, either their own or from a father or other relative who had been miners. Someone would start talking and others would add things. My role was mainly to ask follow-up questions like 'how were women and men interpreted in mining?' and 'what are the differences between then and now?'

On occasions, Andersson used values clarification exercises to get the discussion going. However, she thinks the most important thing was the miners' own stories from their daily work which came out when they were just sat talking.

"To change issues of gender, things needed to be related personally to your own life. It can be scary and challenging. An advantage of group discussion is that people can support each other. Once, one of the older men was telling a story about how he was so afraid that he sat down and cried; this gave the others courage to speak up."

It was crucial for there to be an open climate in the group in order for the miners to give their accounts, according to Andersson. The fact that the focus was on a better working environment and safety also became an incentive for change which everybody could sign up to.

Torbjörn Sandin works as a flow operator at the underground control centre in LKAB's Malmberg mine and was a member of the project group. In his view, the best thing about the project was the opportunity to speak to other miners from different working groups and different workplaces.

"It was very interesting to have a discussion based on your own situation and listen to the others," says Sandin. "At the control centre, we perhaps have a totally different perception than those doing the loading. It became very clear how important communication between working groups is. Previously, it was 'us and them'. You didn't give things a second thought but assumed it would be all right. There's more understanding now."

Where Sandin is critical of the project is over there being such a long time between meetings. However, he does not believe there was a macho culture where he works.

"Proving herself to be tough, that's history. It doesn't arise amongst those of us in the control centre. But you do want to stay fresh. On my shift of four people, we're like a big family and we look after each other. Of course it does happen that I go out to jobs alone but I take some equipment with me if I have to lift something. Generally, two of us go.

There are no women on Sandin's shift. Out of the 20 employees at the control centre, there are two women and some women have worked the shift in summer. Sandin thinks that sometimes the younger people have noticed opportunities for working safely which the older ones haven't considered.

"You may take a risk sometimes; some operations, you can't work safely because you couldn't complete the tasks, but it has got better. For example, nowadays when we're scaling shafts we use a harness. We didn't do that before because there wasn't the equipment."

Scaling means levering out loose rock from walls and ceiling to protect work sites against collapses. After scaling, the rock is strengthened by cementing in steel bolts and cables.

"This thing about a macho culture," continues Sandin. "Sure, there are dangers; we can't ignore that. In the past, there wasn't much auxiliary equipment. So, maybe they were macho for still daring to do the job anyway. Tales of big risks emerged in the group but we don't work like that on my shift. I'm sure for some of them, those stories were a wake-up call."

For Eira Andersson, macho attitudes became a concept which the group could discuss. Not that there was an issue with the men per se so much as negative attitudes and behaviours.

"There are two aspects to traditional worker masculinity. One is exaggerated masculine characteristics; physical strength, risk-taking and emotional control. The other is a suspicion towards management, an us-and-them, management versus the collective. It's important to distance yourself from things that are seen

as unmanly, which in this environment was showing weakness and asking for help."

The miners in the project group told stories of how they would rather get stuck in to the point they physically ache than carry something between two of them. "Dealing with tough situations still equals being a good miner," according to Andersson, who maintains that change is afoot but that many things linger on, especially suspicion of management.

"No-one's going to shoot their mouth off about how I should work,' is the way many miners think."

The idea of the project was to show that masculinity is broader. There is a wide range of behaviour which is acceptable amongst both women and men.

"Our method was to discuss what was used to be deemed manly and what myths live on regarding women and men," says Andersson.

Even today, there are miners who think that women can't work in mines because they are not strong enough. Torbjörn Sandin believes some operations in his job require physical strength.

"When you're shovelling manually, you don't need neck and back problems; or when you're scaling with an iron bar."

The control centre where Sandin works is responsible for the rock flow, from blasting and loading to crushing and upwards to the plant where the ore is refined. Flow operators do a little bit of everything. Sometimes they sit in front of a computer and sometimes they go round the mine checking the charges have gone off. They are responsible for sending in workers to do scaling and they give the all-clear to the loaders when it is safe to go in. They may have to do manual scaling, or get into a kibble and pull down loose material. Sandin stresses how important it is that women who intend working in mines can do all the jobs.

"The project was called 'Future Mining Culture' from the outset, but I came up with the idea of adding 'On Equal Terms'. If women are going to get involved then it should be on equal terms.

Ann Sofie Dagbro doesn't think she has any problems coping with mining work and that the operations requiring physical strength are few. She has worked underground for six years as a truck driver and previously on blockholing. Blocks are boulders created by dynamite. When blasting leaves the rocks too large they must be re-blasted with a small charge or by drilling a hole and setting larger one.

"With blockholing, it's a good thing if you're agile and can climb onto the rock and drill where needed. As a truck driver, the hardest job is tightening lug nuts on trucks."

Notions of what women and men can manage affects the way they work. "There are women who drive their trucks into the shop and tighten their nuts mechanically," explains Dagbro. "It takes longer than doing it manually outside

the workshop because it's cramped in there and the trucks can't turn. Some of the guys also think they ought to help the women do their lug nuts." In Berith Nilsson's view, this can mean the assisting man runs a greater risk of strain injury.

"It's important that the load is distributed as evenly as possible between everybody," says Nilsson. If the work is too heavy then the working situation needs to be changed. We've also seen women slipping behind in competence development if the men are too helpful. For example, when a woman works as a mechanic and her male colleague always allows her to stay and eat her lunch when they're called out to an urgent job. Those urgent jobs where mechanics have to solve things alone are often the ones where they develop. The women don't develop as much unless they do that kind of job."

Nilsson believes there is reason to factor in physical strength occasionally, but it is not a question of women versus men.

"Mainly, it's important to ensure that people who are working together on certain operations are not too mismatched in strength or height if they have to carry things together."

According to Andersson, the women working in the mine are "tough cookies" and not afraid of pitching in or getting dirty. The dividing line she sees between women and men in the mine is not a matter of physical strength or whether men are more courageous than women.

"There again, women find it easier than men to request equipment and weigh risks," says Andersson. "Thus, the women in the mine play a key role in the change which is underway. For men, it is still not accepted to say that you can't do something or feel afraid. When men and women are working side-by-side, there's a risk the men will remain in their macho role and the women have to take responsibility and say 'stop'. New stereotypes are appearing! It's a positive thing that it is permissible for someone to be more cautious but in the long-run, the goal is also for men to be like that."

Nilsson explains that some men from all male worksites in the mine have complained that sites where there are women have been given new equipment.

"'Does a woman have to come here before we get any equipment?' I've heard them say. They think it's unfair, even though they haven't requested any equipment. Perhaps they daren't say they can't manage."

The group in the project Future Mining Culture – On Equal Terms produced a questionnaire which was sent out to colleagues from their home sites; about 100 people.

"The questionnaire was interesting," says Dagbro. "You could see the attitude was different between younger and older people and also between different sites. Those who had never worked with a woman thought women didn't belong in mines."

The discussions in the project group and questionnaire responses laid the groundwork for the discussion brochure "Creating the Future LKAB Culture Together". Discussion topics have been gathered under five themes: Traditions, New Employees, Working Camaraderie, Jargon and Safety. "'We are the ones who shape, preserve and live in the prevailing working climate. If we want to change, we must start with ourselves!' says the brochure, challenging the reader to deal with one theme at a time during the coming site meetings.

The brochure was ready at the start of 2008 but has gone unused. This is partly due to a tragic and fatal accident which took place in February 2008. An unexpected tremor caused a rock slide which the reinforcement could not withstand. A truck driver perished in the resulting collapse.

After the accident, some pundits said LKAB should not worry about the macho culture and work instead on the falling rock. Nilsson believes LKAB is big enough to deal with multiple development issues at the same time.

"You always have to work with falling rock, but it's not enough," puts in Dagbro.

Berith Nilsson will shortly be retiring and has handed over responsibility for running the equality work to Kirsten Hallman-Petersson who is head of the Recruitment and Operational Development Department. Hallman-Petersson found that the site managers wanted to help by taking up the issues in the brochure, so she hired the consulting firm Vardagens Dramatik. During the spring of 2009, they will be holding seminars at LKAB. The material from the Future Mining Culture – On Equal Terms project has been included as source material for Vardagens Dramatik. They have also interviewed the project participants.

"Vardagens Dramatik acts out everyday scenes from LKAB on various themes such as equality, a manager's average day and the prevailing culture," says Hallman-Petersson. The play stops on a cliff-hanger and the audience must then participate in order to resolve it."

Hallman-Petersson stresses that the equality work takes a long time. Some improvements can be seen. LKAB's goals for 2008 of having more than 13% female employees and 30% female new recruits have been met. The proportion of women underground has increased from 1.3% when the project commenced to 5% today. No measurement has been taken and how much safer the workplace has become and whether the work culture has changed.

With the advent of the new anti-discrimination law, Kirsten Hallman-Petersson sees new opportunities to work with LKAB's values on several issues at the same time. She thought the debate at the start of the Future Mining Culture – On Equal Terms project was too narrow and mostly dealt with whether men were macho or not.

"The discussion on macho culture has settled down now. It caused a bit of disruption that was badly needed. Today, you can see women working more

safely without being opposed. The goal is for men to also choose to work more safely and not be called "wimps" but be rewarded for it. Acceptance is needed for safer working methods which can ask more of those working but which are ultimately sustainable."

Nilsson believes the work with Vardagens Dramatik may get discussion going but it's not enough to change the workplace culture. She thinks the discussion on culture needs to be kept alive in various ways within the company.

"For instance, we could do what we did with our initiative on alcohol and drugs and give the managers a clear mandate to discuss these issues in their work teams," says Nilsson. We also know that if it doesn't get measured it doesn't get done, so we have to find some way of measuring what's being done. Things don't just happen on their own; especially not in equality work."

Both Torbjörn Sandin and Ann Sofie Dagbro are disappointed that the continuation of the project has been so protracted.

"If you get together in a group, it's easier to reach a solution instead of whining and whingeing," says Sandin. The questionnaire and survey deal with most things. When it comes out it could be really big."

"An advantage of group discussion is that people can support each other. Once, one of the older men was telling a story about how he was so afraid that he sat down and cried; this gave the others courage to speak up." Eira Andersson, doctoral student at Luleå University of Technology.

"The goal is for men to also choose to work more safely and not be called "wimps" but be rewarded for it. Acceptance is needed for safer working methods which can ask more of those working but which are ultimately sustainable." Kirsten Hallman-Petersson, Head of Recruitment and Operational Development Department at LKAB.

### 3 Middle management – the values powerhouse

Middle managers have direct contact with employees and can create differing roles for women and men. In the Gender Network at Fiber Optic Valley, middle managers have caught a glimpse of their own power for change and are being trained to strengthen equality.

"What's the hardest thing to change when challenging the gender order?" is the message on the flipchart. It is the closing conference of Fiber Optic Valley's Gender Network in November 2008 at Högbo Bruk in Sandviken and facilitator Eva Amundsdotter is encouraging the participants to go to one of four corners:

- Structure (skills development, salary, recruitment)
- Interaction (how people behave towards each other in meetings, staffrooms etc.)
- Symbols (images of the organisation and different professional roles)
- Open corner

The largest group goes to the interaction corner. A couple of people place themselves in the Symbols and Open corners. The Structure corner is empty. First of all, those who selected the same corners must discuss their reasoning with each other. Then Amundsdotter starts a discussion with the whole group on why the Structure corner is empty. From the Interaction corner Torbjörn Jonsson, Logistics Manager at Ericsson Network Technologies in Hudiksvall, responds.

"I can take formal decisions about structures like gender distribution and skills development. Changing the interaction between people requires an informal impetus from me."

"Writing a policy isn't enough," adds Moniqa Klefbom, head of a department at the Centre for Development and Learning in Hudiksvall. "How do we bring the staff with us, so we can change the way we relate to each other?"

Åsa Claesson, a departmental head at the research company Acreo, is standing in the Symbols corner because she believes the image of a technician to be the greatest obstacle.

"The icon of an engineer is a heterosexual man in his mid-forties," she says. "They get noticed and they count."

IS THE REGION WE LIVE IN CONTROLLED **BY GUYS WHO ONLY LIKE OTHER GUYS?** 

In the Open corner is Lars Johansson, Managing Editor of the building information company Sverige Bygger in Hudiksvall. In her view, the hardest thing to change is the personal attitudes of staff to gender. Several people are saying that they would have liked to be somewhere between corners. Symbols, Interaction and personal attitudes go together and affect each other.

It is apparent that the participants have thought along these lines before, even if the actual issue of what is hardest to change is new. The corners in the values clarification exercise come from the model the Gender Network used to systematically elucidate on the gender order. This model is based on a description by the American sociologist Joan Ackers on how gender is "done" in four different organisational processes:

- 1 Gender distribution or segregation patterns.
- 2 Interaction.
- 3 Symbols and notions.
- 4 Identity and personal attitudes.

Since the Four Corners values clarification exercise must always have an Open corner, Identity was left out; but it still came up in the discussion.

The Gender Network is a research and development project which started in 2005. The Network consists of 13 managers and 12 organisations involved in the innovation system Fiber Optic Valley, an organisation which supports companies working on the development of products based on fibreoptics. Fiber Optic Valley is one of VINNOVA's VINNVÄXT winners.

"The equality perspective has been an important driving force for change right from the beginning," explains Marita Svensson, Project Manager at Gender Network and involved in building up Fiber Optic Valley.

Fiber Optic Valley is situated on the southern coast of the Swedish county of Norrland, between Sundsvall and Gävle and based in Hudiksvall. This is a region characterised by a factory mentality with traditional organisational patterns, a segregated workforce and few women in leading positions. Moreover, there is a major shortage of well-trained staff.

"If you lose about 50 percent of the population, then your choice is halved," continues Svensson. "It's a matter of competence supply and creativity."

She has worked in a number of the region's companies herself and has a background in operational development. Her contacts and ability to link gender to business benefits has been vital to the Gender Network. "I've been able to answer the question from companies, 'what's in it for me'."

Rather than maintaining a separate but parallel existence, as gender projects often do, the Gender Network has served as an important support process in the innovation system. The gender perspective is in use as a strategic tool to achieve Fiber Optic Valley's long-term goals. Svensson argues that the Network is living

up to the innovation system's wish to be an arena for inter-organisational exchange and ultimately something more than just strictly business.

"There's a trust and openness in this group which is an innovation in itself. It's in keeping with Fiber Optic Valley's toughest aim of bringing about collaboration between member organisations."

An important task for Svensson has been active communication of the fact that Fiber Optic Valley is working strategically and purposefully on equality. The project has produced effective information including its interim report *A Roadmap for Active Gender Work* and a yellow brochure whose front cover is emblazoned with "IS THE REGION WE LIVE IN CONTROLLED BY GUYS WHO ONLY LIKE OTHER GUYS?"

"The marketing deals both with positioning Fiber Optic Valley outwardly as a gender-aware innovation system and getting several of our partners to be involved in the gender work," explains Svensson.

The project management of the Gender Network comprises three people with clear roles: Project Manager, Research Manager and Facilitator. As Project Manager, Marita Svensson's responsibility has been to spread information and get in touch with management groups. The Research Leader, Susanne Andersson, a gender researcher at Stockholm University, has been focusing on the project's research ambition of highlighting the role played by middle managers when doing gender in organisations and how they can work for change. The Facilitator, Eva Amundsdotter, a consultant and doctoral student in work sciences at Luleå University of Technology, has concentrated on starting processes in the Network based on discussions in the meetings and Susanne Andersson's observations when accompanying middle managers in their workplaces.

"The research generates no changes as such," says Andersson. "So it's is important to have a facilitator who works with different methods."

Both Andersson and Amundsdotter know about combining the roles of research and facilitator and believe it can easily be detrimental to either research or development. With the tripartite management group, it is clear that the project is a research as well as a development project. The project's grounding in gender science has been vital to achieving results, both for the change management and in the research.

"We've been inspired by the researcher Patricia Martin who says that gender can be done routinely and with great precision," says Andersson. "Martin compares it to riding a bike. When we learned to cycle, we knew exactly how to do it but had difficulty verbalising it."

The first stage in the Gender Network's efforts could be likened to a photographic developing process. Lectures based on the four organisational processes in Acker's model were interspersed with time for reflection and dialogue. The change managers, as the participants in the Network are called, also had to chart

their organisations using the model. The objective was to catch a glimpse of gender being done routinely.

The second stage was a workshop in which the change managers produce action plans on how their organisations will work to change the doing of gender. The first stage is action; implementing the action plans.

"We aren't really there yet," says Andersson. "The process from individual analyses to action took longer than we'd thought. One of the reasons was that middle managers have managers over them and they kept wanting to look upwards for confirmation that their work was okay."

The research into equality work has shown that the management's support is very important. As a support process to the Gender Network, the Innovative Leadership training course was held, aimed at executive bodies and future managers. In the spring and autumn of 2007, some 80 managers from 24 different organisations took part in a tailored training course developed in partnership between Marita Svensson and the Business Leadership Academy. However, Andersson believes there is a risk of emphasising the importance of leadership so much that middle managers will be hamstrung.

"There's great untapped potential at middle-manager level. We saw a change in the project when the participants realised that they could act on their own authority. Middle managers have direct contact with employees and their actions can create differing roles for women and men."

In her research into the role of middle managers, Susanne Andersson has developed a method for action-orientated gender research in which the analysis is conducted in dialogue with the managers she is studying.

"In the research training, I learned to be like a fly on the wall. Ideally, the researcher observes and then processes the information privately so as to publish the analysis some years later."

This research ideal clashed with the change managers' wish to be developed. They wanted to know what Andersson saw when she sat in on their staff meetings. She tried discussing with the managers straight after the meeting what she had observed from a gender perspective and comparing it with the manager's own interpretation of the situation.

"The actual point is to catch a glimpse of the *unintentional* doing of gender. In the discussion, I also found out what the manager's aim was which of course something entirely different than creating inequality."

Andersson thinks that the method leads to better research since, as a researcher, she gains a deeper knowledge of the organisation. For the business managers, there was also a kind of gender coaching in which they were helped to see what they were actually doing and change that behaviour. One example was a male manager who, out of unconscious concern for the women in the workgroup, did not place such great demands on the women as on the men.

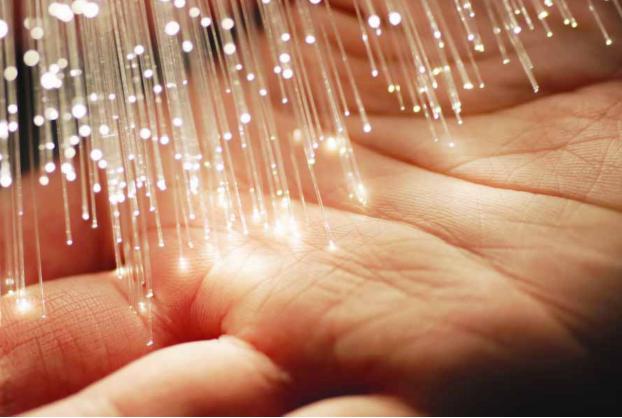


Photo from Fiber Optic Valley

"There's a trust and openness in this group which is an innovation in itself. It's in keeping with Fiber Optic Valley's toughest aim of bringing about collaboration between the region's strong organisations." Marita Svensson, Project Manager of the Gender Network

"There's great untapped potential at middle-manager level. We saw a change in the project when the participants realised that they could act on their own authority. Middle managers have direct contact with employees and their actions can create differing roles for women and men." Susanne Andersson, researcher

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"When he became aware of it, he started to place equally great demands on both female and male staff. The women coped with it and grew in their professional roles."

At the conference in Högbo, the participants are back in their seats and Eva Amundsdotter asks what has happened to them personally as managers during the three years they have been involved in the Gender Network. A number say that they used to think they were acting equally, but realised they weren't.

"I've discovered that I expect women to be more socially competent than men whilst I would get more irritated with men than women who didn't live up to the results," says Monica Klefbom. "It hasn't gone away yet – I'm having to work on it."

"It takes time," comments Amundsdotter. Gender awareness in managerial roles has grown during the course of the project. Over three years, the Gender Network has had 13 network meetings totalling 20 days.

Outside the meeting room, Åsa Claesson explains that she gets impatient about the slow progress of the change management but at the same time realises a lot has happened in three years and that the group has needed that time.

"It's important to remember that it will take time where I work too."

Acreo, where Claesson is a head of department, is a knowledge company which thrives on the creativity of its staff. Attracting the best workforce and getting them to stay is crucial.

"Acreo is meant to be a workplace for everyone. I envisage tools from that project being used in the work I but can't use the word gender; it's too loaded. On the other hand, gender is part of our values clarification work. We've held training for our managers and in the autumn the Acreo conference will gather the entire staff to concentrate on values."

Creativity is influenced by managers' expectations and how the staff are utilised. For Claesson, an important realisation was that not only does she have strategic and economic power but also the power over values. If she allocates high-status projects to the men who normally get such projects, she reinforces their high status. When projects are distributed between several people, the workplace simultaneously becomes more equal.

"I've learned a great deal about my power of change as a leader and what takes place during change."

Claesson was a group manager when the Gender Network began. During the course of the project, she moved up in her career to head of department. Several of the women in the network have climbed the career ladder, which contradicts a common fear that equality work would be a career obstacle.

Claesson believes she would have taken this career step even without the project. "But I don't think it's been a disadvantage."

Another of the change managers, Kajsa Svaleryd, an equality and diversity strategist in Gävle Municipality has long experience in equality work. She too has found the network meetings instructive and has been challenged on her own adaptation to the gender order.

"I've thought, 'I'm free, but why aren't I doing more?' What's stopping me from taking this issue to the executive group? I also adapt to the setting and people saying they're tired of equality. How can they be tired of something that doesn't exist?"

Above all, what she takes back with her from the Gender Network is more tools to discuss issues regarding values.

"I strongly believe if there's to be any fundamental change then we need knowledge of gender. The fantastic thing about gender is that it can be changed. In the Network we've had the opportunity to practice redoing gender. We've been active and have been challenged to go home and do and grow in what we've seen. Högbo is a final conference, but it's not the end of the Network. The Gender Network has been given support to continue, with the emphasis on spreading knowledge from the Network to more organisations and more actors within their own organisations. The project will study how traditional notions of gender limit development."

"Essentially, it's a logical argument," says Andersson. "Antiquated notions of gender restrict people's development and that of new products. We've already seen it but we want to know more about why."

Torbjörn Jonsson, Logistics Manager at Ericsson Network Technologies in Hudiksvall, is convinced that equality influences efficiency. His main motivation has been to break up single-sex groups, both on the factory floor and in other parts of the organisation.

"Ineffective subcultures get created in single-sex working groups," he says.

The fact that several people from the same organisation are involved in the continuation of the project is a strength. Ericsson Network Technologies has sent two change managers to the Gender Network – Torbjörn Jonsson and Magdalena Lindström Eriksson, the HR Manager.

"It's been worthwhile having two people from the same company," says Jonsson. "We've been able to discuss issues in other contexts and support each other."

"When I raise the issue in the executive group, at least Torbjörn understands," adds Lindström Eriksson.

In Hudiksvall, Ericsson is a major employer with a good reputation and many have been long-term employees. Equality is not an unfamiliar issue; there is actually a central policy on equality upon which the change managers have based their draft action plan.

"It's a question of daring to get started," says Lindström Eriksson. "Helping people see new ways and do something different to what we've always done."

In the future, Lindström Eriksson hopes equality will be included in measurements made by managers.

"Managers are always being measured, for things like customer satisfaction and in staff surveys. I wish we could reward managers who do strong gender work."

#### 4 If that isn't an innovation...

In two years, the proportion of female job applicants at Indexator AB has increased from one tenth to half. A needs-adapted working model and a committed and knowledgeable CEO succeeded in changing both the working environment on the shop floor and the image of the company to a workplace suitable for women as well as men.

Fifty kilometres inland from Umeå on the River Vindel, one of Sweden's unspoiled watercourses, is Vindel Municipality with its 6,000 inhabitants. The municipality's largest private employer is Indexator AB. With just over 200 employees, it is the world's leading manufacturer of rotators for the forestry, transportation, industrial and contracting sectors. The company has been expanding and in 2005 began planning a new factory. The crucial issue was whether there would be sufficient workforce.

"In 2005, we had 11 percent women employed in Indexator," explains Pär Lärkeryd, CEO of Indexator. "If we're successful in attracting women, our recruitment base would practically double."

Investments as big as this new SEK 100 million factory are uncommon in the interior of Norrland. Margareta Berggren, then Director of Equality in the county of Västerbotten, heard news of the plans. She asked Indexator whether they wanted to join a newly started project entitled Equilibrium. The Business Leadership Academy, which had received support from VINNOVA and the European Social Fund to run the Equilibrium project, was aided by the Director of Equality in finding suitable project participants. Companies were offered the chance to join the project at no cost other than their own working time. A requirement was that they desired change.

"The recruitment was our initial motivation," says Lärkeryd. "Gradually, we realised there were other benefits; for the working climate but also in terms of results."

One aim of the Equilibrium project was to develop leadership training based on research into women's and men's working conditions and change management. The goal was for the managers to learn to develop their own methods of integrating equality into their operation. They were to become method developers. Three line managers from each organisation were offered the chance to take the training.

"The model of three managers was probably conceived for a larger organisation," says Lärkeryd. "We thought it better to concentrate on a smaller area of the company."

Assembly with some 20 employees was chosen. From there came production manager Robert Hedman and Åsa Ekström, who worked in transport and planning for Assembly and who had previously worked in payroll. Also attending the method-developer training was the then HR manager, Jeanette Nordström.

"When we started Equilibrium there were no women," explains Hedman. "After Equilibrium, we'd employed seven women out of 28 people. With the economic crisis in the autumn of 2008, all the women in Assembly were laid off because they were part of the last-in group. However, they changed the attitudes of the workplace whilst they were there."

"Now, when I'm doing performance reviews many people say they hope prosperity will soon return so that the women can come back," says Hedman.

The training consisted of three two-day meetings mixing knowledge sessions with time for discussion and reflection. It was a bewildering and exciting journey.

"'Oh, I'd no idea they did this,' I thought," says Åsa Ekström. "All of us were pretty green and seeking knowledge."

"The first time, I said women are great but it just won't work here in Assembly," continues Hedman. "It's too heavy and too mucky; women won't want to work here. During the training, I realised we had zero equality and highly objectionable jargon."

Equilibrium was arranged so that the method developers produced proposals for change management which they then presented to the leadership. The leadership then took the decision about change management and were responsible. At Indexator, the management decided to conduct an attitude survey in Assembly, hold two seminars on equality for all Assembly staff based on the responses and then repeat the survey. In addition, the locker rooms were rebuilt and some changes made so that the work was less heavy. For example, each workstation had two suspended power drivers. A decision had already been taken about salary surveys and a review of recruitment routines.

"The biggest job is with attitudes and working climate," says Hedman. "It goes on all the time. If I hear some say 'women's work', I get right in there and tell them it isn't acceptable."

Working climate is fixed on the agenda at the weekly Assembly meetings. Initially, telling people they were going to talk about equality just did not work. "On went the earmuffs," says Ekström.

Now, the tone is different. Amongst other things, the follow-up to the attitude survey after the Equilibrium project showed an increase, from 65% in June 2007 to 86% in November 2007, of people who considered the workplace a suitable atmosphere for both sexes.



A priority area within Indexator is increasing the number of women in production. Photo: Indexator.

"When I started in Assembly 10 years ago, all we talked about was hunting and scooters," continues Hedman. "Now, there's just as much discussion about prams as scooters and it's obvious the guys want to be home with the kids."

Attitudes to family responsibilities have changed a lot during the project. Previously, only one third said it was important to share responsibility with things like parental leave. After the project, almost three quarters supported shared family responsibility.

"I think they also wanted to be at home before, but didn't know if it was okay," says Pär Lärkeryd.

An important lesson for Hedman is that what he does as a manager influences other people.

"I have to change myself and when I've done that, other staff members also change their behaviour," he says. "Without that personal journey which the training brought me I would not have managed to behave differently."

A number of things contributed to the Equilibrium project being so successful at Indexator, such as the company being gathered in one place and it being a family company with a long-term owner. The expressed support of the top management was quite crucial.

"Without Pär's support, this project would have fallen over," says Hedman.

"In the Equilibrium project, we were the only company with a leader who really pushed," adds Åsa Ekström.

Pär Lärkeryd's main insight from the project is that equality work needs to be management-guided.

"Initially, I thought it would be okay to delegate this, just like all other projects," he says. "But Equilibrium made me realise that changing the company's fundamental values involves major effort. Equality gets into your very being. In a tough environment there's the risk of being branded a drip. Essentially, the person leading the work needs to be strongly placed, so I think it's important that responsibility rests with top management."

Equilibrium included a training course for four people from top management. Pär Lärkeryd and three others from Indexator's executive group attended two two-day seminars.

"Making this journey fairly quickly was really good fun," says Lärkeryd.

In particular, he remembers an improvisational theatre group which had to act out all the clichés which the participants could think of relating to equality. "'You're working like an old biddy, 'of course we're equal'. It was clear these notions weren't grounded in fact."

Pär Lärkeryd, Robert Hedman and Åsa Ekström think this training has affected their entire lives, including with their families and friends. After the seminars, Lärkeryd began to wonder whether he was making different demands of his

eleven-year-old daughter and 15-year-old son. For instance, he noticed his daughter always puts her plate in the dishwasher whilst his son doesn't bother.

"My 15-year-old son leaves his plate on the table too," says Ekström. "I told him off saying, 'who gets to take that out?' His answer was, 'you do' then I saw that it was also about how I act. I needed to mend my ways!"

As well as the staff seminar, Indexator also arranged a one-day training course for all managers in the company.

"The aim was for managers to gain an insight into what takes place in Assembly so that the project would not be opposed," says Lärkeryd.

"It was needed," interjects Ekström. "When we set off to the equality seminar, by the first junction we were getting comments like, 'is this necessary?'."

Whilst the project was underway, the company was under enormous pressure to produce. In order to lay on the seminar for everyone in Assembly, they were compelled to make the time up as overtime.

"It was a clear signal we weren't dumping the project even though there was major pressure on," says Lärkeryd. "This is about our long-term competitiveness."

Lärkeryd believes the Equilibrium project has enhanced Indexator's competitiveness in two ways. It has changed outside opinions of the company and Indexator has got more people in with different backgrounds.

"Now, skilled men and women apply to come here," he says. "When people who've worked in healthcare or the post office start here, they see completely different things. The productivity figures for the last two years show that growth has been more rapid than the two years prior. I'm convinced the equality work has contributed to that."

Of the five companies and two municipalities which took part in the Equilibrium project, Indexator achieve the best results. Amongst other things, this was because the company CEO was involved from beginning to end. All the other companies changed CEOs during the course of the project.

"It's taught us that structure comes before process," says Christina Franzén, CEO of the Business Leadership Academy. "In order to achieve sustainable change, we must work through the entire management. It works when the top management takes the issue seriously, gets involved and obtains knowledge."

Traditionally, equality has landed on the personnel manager's desk. The Equilibrium project began with the realisation that equality and inequality are generated in the company's normal activity. This was the reason the project offered training for line managers. Nevertheless, some companies such as Indexator still sent a personnel manager.

"Those who chose to bring a personnel manager had perhaps thought one step further ahead than we had," continues Franzén. "Line managers and personnel managers have different roles. When equality was just a matter for the personnel manager, it would've been an impossible assignment but now the responsibility for equality work resides with the operations manager, personnel acts as a support by producing facts."

Line managers are generally not experienced in equality work. One idea with the project was to see how much knowledge was required to review the business and produce draft measures.

"I'm impressed by the method developers," says Sabina Sjölander, a consultant in the Equilibrium project. "When we started, they didn't know what equality was. After six training days interspersed with meetings with the supervisor they have developed into professional change managers."

"No academic degree in gender is needed to run change management, but a knowledge base and reflection are," believes Franzén. "Some days do need setting aside for training."

"A lot of people had their ideas about equality turned upside down," says Sjölander. "This research is enjoyable and relevant to our operation,' was the astounded comment from several of them."

"What knowledge is required also depends on the attitude of management," says Jack Borgström, a consultant in the Equilibrium project. "If it's plain to see from the management that the company will be integrating equality, then the line managers need to survey and interpret the operation. There again, they don't need to spend time learning to argue for equality."

Sjölander says it is common for equality work to go direct from survey to action and miss out insight. Running change management means translating the knowledge into our own organisations and lives.

"The most important integration is what takes place here, inside everyone," says Borgström, placing his hand on his chest.

Insight is achieved through reflection and dialogue. So as to get a dialogue going, the first meeting started with the participants saying what they thought about equality without being criticised.

"They relaxed a bit," says Sjölander. "Then we helped by sorting out the myths from the facts. We also discussed what's changeable. The conclusion was really that everything can be changed except muscle mass."

The Equilibrium project was planned in cooperation with researchers. Also accompanying the project as a participant observer was Jenny Lantz, a researcher at Stockholm School of Economics. Two things which surprised the researchers were that the project met with so little resistance and that presenting the same knowledge to different groups worked; from management to workers on the factory floor.

Christina Franzén believes the most important reason for the project not encountering resistance was the method of management-guided work.



Indexator rotators getting to grips with the work. Photo: Indexator.

"One of the method developers fixed her eyes on the CEO and said, 'This is serious, right? otherwise I'm not taking part.' We deal with so much opposition in developing equality work. Perhaps we should look at how projects are run instead?"

Jenny Lantz thinks an interesting example of the importance of management is the one-day training course for all middle managers (all of whom were men) at Indexator. The day was introduced with a run-through from Pär Lärkeryd in which he emphasised that equality work is needed if the company is to be competitive.

"If you don't think this is important it affects my opinion of you, because it's important to me," was how he concluded his presentation.

"There was no open resistance during the day," says Lantz. "If there was resistance under the surface, it didn't come out."

The participants asked a lot of questions and occasionally looked uncomfortable, but took the issue seriously and were not glancing sidelong at each other to see how they were reacting. The consultants were able to spend their time passing on knowledge.

"These managers report directly to the CEO and he was clear," says Lantz. "In other groups where the authority is not so clear, it's often necessary to allow the participants' own opinions and prejudices in an initial exercise."

Lantz thinks there are several reasons why the project met so little resistance.

"A requirement for involvement in the project was that the organisations must expressly desire change. Also, the consultants were very capable at passing on knowledge and managing groups. There was opposition, but the consultants were quick to identify it and discuss it."

The consultants were able to express research about sex and gender in a simple, intelligible and dedicated fashion. Lantz thinks the success in presenting the same knowledge in all groups was down to the consultants' ability to read the groups and incorporate small group discussions or time for reflection as needed.

Some research models led to a discussion about class, for instance Rosabeth Moss Kanter's theory on structures of opportunity. A number of factory floor workers felt they did not have any opportunities. This led on to a discussion about the roles of different people in the company.

"At the seminar in Assembly at Indexator, the staff learned a great deal about how the organisation works including the pressures on middle managers," says Lantz. "Gender became a battering ram. Workers, office staff and CEO were assembled in the same room and the consultants created in an atmosphere in which other things could also be discussed."

According to Pär Lärkeryd, the Equilibrium project has changed his outlook of the way equality is done at Indexator. "Prior to Equilibrium, most thought equality was something for the management which the other staff couldn't influ-

ence. Those involved in the project have realised that all staff have a responsibility."

"And an opportunity," adds Robert Hedman. "An open mind is a basis of the equality project. It's a strength even when we're making other changes."

When Pär Lärkeryd explains to other companies that Indexator's equality work was supported by VINNOVA and compares with other VINNOVA projects the company is involved in, he is normally met with raised eyebrows. For him, it is obvious that the working model which Indexator produced (with an attitude survey, needs-adapted seminar and follow-up to the survey) is an innovation.

"In two years, we've gone from being a male workplace with 10% female applicants to half the applicants being women. Now if that isn't an innovation..."

As well as the equality work helping Indexator to be an attractive employer and mixed groups giving better work results, Lärkeryd believes the company has a social responsibility. The equality work at Indexator is spilling over into the surrounding community.

"Since we started employing women, the health service has noticed a difficulty in getting staff," says Robert Hedman. "Maybe they should raise the salaries."

Knowledge of Indexator's equality work has spread in various ways. The Business Leadership Academy has documented the work of the Equilibrium project in its book *Equality*. Pär Lärkeryd has spoken at a number of conferences and Västerbotten County Administrative Board has taken the initiative to shoot *Invest in Equality – a film about corporate equality work*. It covers Indexator's equality work and will be completed in March 2009.

Now Indexator is going on to a new project which will involve the entire company working on core values and with an element of equality. They will monitor business ratios to see whether it can be shown that the change management has paid off. No study so far has shown the actual numbers, but Pär Lärkeryd is optimistic.

"I'm used to succeeding."

"Equilibrium made me realise that changing the company's fundamental values involves major effort. In a tough environment there's the risk of being branded a drip. Essentially, the person leading the work needs to be strongly placed, so I think it's important that responsibility rests with top management." Pär Lärkeryd, CEO, Indexator AB.

"A lot of people had their ideas about equality turned upside down," says Sjölander. "'This research is enjoyable and relevant to our operation,' was the astounded comment from several of them." Sabina Sjölander, consultant at the Business Leadership Academy.

### 5 Realistic innovation policy

"We need a more realistic innovation policy that corresponds to where women and men find themselves," thinks doctoral student Malin Lindberg who is part of the project Lyftet. "Equal and female-dominated industries can contribute to sustainable growth and, when linked with male-dominated industries, can create a focus for entirely new innovations."

"It's fascinating, how many millions have been pumped into male-dominated industries even as we're told they've grown strongly by themselves," says Malin Lindberg, a doctoral student at Luleå University of Technology.

Lindberg is involved in the Lyftet project being run by Luleå Technical University in partnership with Mälardalen University. Its aim is to compare the efforts of regional networks to promote female enterprise and innovation. She has also investigated the priorities of innovation policy. Her research shows gender and innovation to be mutually construed.

"Basic and manufacturing industries and new technologies like IT and biotechnology are receiving a lot of support from innovation policy. This is enhancing the labour market for those working there – predominantly men – as well as the notion that these particular industries create more growth and drive more innovation than others."

Female-dominated or gender-balanced industries have not received anything like the same development support. Lindberg's survey of a range of regional and national programmes promoting innovation systems in clusters shows that around 80% of the innovation systems granted funds are within male-dominated industries such as basic industry, manufacturing industry or new technology. Only 20% of the formations and areas singled out are female-dominated or gender-balanced industries, such as the service and leisure industries.

"The story on female-dominated industries is that they've got internal growth problems. It's said they can't grow by themselves which in turn becomes an argument for not supporting them. They're described as uninteresting from a growth perspective."

The general pattern is a clear imbalance, but Lindberg has seen a change in recent years. A number of government initiatives have been implemented in service and creative industries, like music and catering.

"I believe we've come to a window of opportunity. Various actors including researchers, officials and entrepreneurs have become vocal enough to effect a breakthrough of the idea that the service sector is contributing to the economy. There are several examples of increased interest in the service sector: the Institute for Growth Policy Studies (ITPS) had a service sector theme for its 2008 state of industry report; the Knowledge Foundation has shown that the creative sector turns over more than the car industry in Europe and in Norrland, there is talk of tourism as a new basic industry."

An example of an industry in a strong growth in which both women and men work is the equine industry. There are 300,000 horses in Sweden, which means the country has one of the densest equine populations in Europe after Iceland. The equine sector turns over SEK 20 billion per year, plus spillovers with a turnover of up to SEK 26 billion. <sup>1</sup> Employment in the sector averages 10,000 full-time posts and up to 18,000 people in ancillary businesses.

Aud Rendal started her equine company in Ekerö outside Stockholm in 1985.

"I started with four ponies and doing riding camps for eight children. Then I got the chance to buy the Karlshem Stables where I'd liveried my own horse as a teenager. I gradually added a few more courses each year and now have 45 horses and a turnover of millions of kronor per annum."

The basis of Rendal's company is summer riding camps. Karlshem Stables holds 10 one-week riding camps during the summer with 32 children per week and a staff of five. For the time being in the winter, there is just Rendal working at the company but she buys the services of a freelance riding tutor.

"Running a riding business means the company has to stand on all four legs. In the winter, I hire out horses to private individuals; it's one way of seeing what owning horses like without making a major outlay. Additionally, those with horses get my support. I also purchase young horses in the autumn, break them in during the winter and sell them in the spring."

Hiring out horses in the winter was uncommon when Rendal started her business. This may be considered an innovation. For a long time the equine industry received virtually no public support, but in recent years government actors have begun to see innovativeness and development opportunities in working with horses. Having run her company unsubsidised for 24 years, Rendal has just been told she will be receiving business support from the County Administrative Board for one third the cost of building a riding school, to boost her business in the winter.

"There's been talk of strengthening equine companies for at least five years. Now something is happening! I've just come from a meeting at the County Administrative Board in which we discussed the possibility of applying for EU funds to get equine companies working together on riding trails and training."

The riding school will make it possible to have riding camps on weekends and public holidays during term-time. Private lessons for adults may also be a

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<sup>&</sup>lt;sup>1</sup> Socio-economic importance of the equine industry in Sweden (2004) the Swedish University of Agricultural Sciences (SLU).

niche as a few companies in the Stockholm area offer them. Rendal also wants to train as a riding therapist which will enable her to give therapeutic treatment with horses. She initially trained as a psychologist and is already working with mentally disabled children.

"When the riding school is ready, I'll be able to run the riding business for mentally disabled children throughout the entire winter. I'll also be able to offer wellbeing therapy, to those with burnout for example."

Other plans include activities for children with special needs. One equine company in Järfälla welcomed a group of rowdy boys from Rinkeby, which was appreciated.

"The boys were very proud and spent almost as much time taking pictures of themselves and sending them to relatives abroad as they did riding."

It is unusual for foreign children to ride in Sweden, even if riding is a highly valued activity in their home countries. Rendal thinks this may be because in some places, such as the Arab world, riding is male-coded whilst in Sweden it is really only girls who ride.

"Perhaps families from abroad think their sons should be riding but the boys refuse to because it's 'girly'. However, I'm seeing a change. In recent years, girls from abroad have started to come to the riding camps. It would be good to get some boys too."

Rendal is looking into further possibilities of starting up an equine afterschool recreation centre combining riding with other activities and homework. However, a traditional riding school is not currently on the cards because there are already five riding schools in Ekerö and a large one in Bromma.

In case the business with different riding activities does not work, Rendal has also started to learn trotting. The equine industry is divided into trotting, racing and riding companies and it is very unusual for one company to operate in all three areas. Trotting is male-dominated, whilst riding is female-dominated. There is money in harness racing and more research is being conducted there. Although trotting is not really what Rendal would prefer to be doing, she thinks of it as a safety net, knowing she can do it if needs be. She stresses that anyone wanting to work with horses must realise it is not an easy way to earn a living.

"I get rather a lot of work experience trainees from equine colleges. They dream of making a living rearing horses, but it doesn't work in Sweden. I try to bring them round to something where they can support themselves. In trotting, you can get a paid job. Those wanting to work in riding must be prepared to be entrepreneurs."

Ekerö has just under 25,000 inhabitants. Five riding schools may seem like saturation; however Rendal finds the network of other equine companies essential to hers.

"We lend each other horses and let the others ride on our land. Or we get help setting up bridle paths. Those of us in closest contact with the landowner in a given area will talk to him or her."

Moreover, the riding schools are Rendal's principal marketing channel for the riding camps. For all intents and purposes, Karlshäll Stables is part of an informal equine cluster of riding schools, riding clubs, veterinary businesses, farriers and feed merchants. There are even knowledge organisations involved in equine businesses such as the riding school in Strömsholm which trains riding teachers and the Swedish University of Agricultural Sciences, which trains veterinary surgeons and does equine research. The County Administrative Board is an important actor from the public side. A number of municipalities lend active support to the equine industry through such things as building bridle paths, but in Rendal's view Ekerö municipality itself has not been helpful.

There are no organised equine clusters in Sweden yet, but it is being discussed. For Rendal, terms such as "cluster", "innovation system" and "sustainable growth" are still new. The first thing she thinks of when it concerns sustainable growth are the youngsters growing up.

"My business definitely contributes to sustainable growth. The riding camp means a great deal to the children. They need close contact and therefore it's important to have that small scale in which everybody knows each other."

Rendal has also seen economic growth in her company and created an opportunity for things like feed merchants. The equine industry also helps make areas attractive and keep the countryside accessible.

The fact that equine companies are seen as driving growth is an example of a new thinking which is breaking the connection between male-dominated industries and innovations. Malin Lindberg has several broader examples.

"In 2004, Sörmland County Administrative Board conducted a study of the alternative health industry entitled *Healthy Growth in the Health Sector*. The study showed that the female-dominated health industry is in strong growth and may show stronger growth if it receives public support."

By combining different SNI industrial classification codes, including retail trade in health foods, body care and skincare, a previously hidden cluster of 320 companies was identified within the alternative health sector in Sörmland. 85% of the business people were women. In 2006, based on the study and idea seminars, some 60 companies joined the Hälsosam network and are working together for greater impact and concept development.

The idea of a cluster is to bring together companies and other actors within a geographical area which may benefit each other. They may belong to the same industry or different ones.

"Clusters can be cross-industry," says Lindberg. "It should also be possible for them to be gender-crossing. If innovation policy were less based on segregated notions of gender and sex, more businesses would be possible."

An example of a cluster which crosses industry and gender is Guldriket in Västerbotten. This is a platform on which the mining industry collaborates with tourism, small-scale food manufacture and handicrafts.

"Mining and forestry receive a lot of money," continues Lindberg. "Is it reasonable to go on focusing just on the male-dominated industries if we want both women and men to be able to live in Norrland?"

The idea of linking tourism and mining was put forward by Emma Resource Center in Västerbotten<sup>2</sup> back in 2004, after it had taken an inventory of which industries and development processes were missing from the regional growth programme. By bringing together the male-dominated mining industry with gender-balanced industries such as tourism and handicrafts, a hotbed of new innovations was also created.

"If the mining industry cluster focuses on mining and minerals, the innovations will be about extracting and refining metals," explains Lindberg. "However, if the cluster brings together tourism and mining it may lead to all-new combinations of mineral working, adventure and services."

This kind of gender-crossing cluster is not common. Indeed, Lindberg's research shows that innovation policy more often helps keep female-dominated and male-dominated industries separate. Paradoxically enough, even equality projects can help strengthen male-dominated activity. For example, some of VINNOVA's equality funds have been set aside to assist equality in projects that are already receiving support from VINNOVA and which are primarily being run within male-dominated industries.

"It's commendable that resources are being given to equality work in VINNOVA's projects and what is being done is very interesting," stresses Lindberg. "However, only working in that way means we're once again tied in to promoting male-dominated industries."

Lindberg believes it is important to broaden women's and men's career choices, but at least equally important to question how we evaluate different sections of the economy based on our notions of gender. The female-dominated and equal industries are also contributing to growth.

At the end of the 1980s, women's enterprise and rural development networks began to grow up. During the 1990s, these networks developed into women's resource centres and now there are around 160 regional and local resource cen-

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<sup>&</sup>lt;sup>2</sup> Emma Resource Center is one of the four regional networks for women's business and innovation which took part in the Lyftet project. The other networks are SAGA in Norrbotten, Winnet – Enterprising women in Västmanland and Equal Terms in Södermanland.

tres in Sweden. They are organised in different ways, with some as non-profit associations, others as part of a municipal office and some being run by consultancy companies commissioned by the municipality. One aim of the Lyftet project is to show that the work being done by women's enterprise and innovation networks can be seen as part of innovation policy.

"The networks have had equality as a motivator. Women should be able to do what they want and earn money from it, if it leads to sustainable growth. Developing new activity on the basis of equality and gender is a kind of innovation in itself."

By studying resource centres as constituents of innovation systems, Lindberg has also observed flaws in the Triple Helix model used to describe the interaction between public sector, research and industry.

"Triple Helix obscures civil society. Non-profit associations, foundations, trade unions and educational associations may have several different roles in an innovation system. In my research, I've seen that they serve to drive ideas as well as buffering resource centres."

In the informal equine cluster in Ekerö, of which Aud Rendal's equine company is a member, civil society plays an important role. Non-profit riding clubs organise riders and run activities connected with riding. Lindberg believes that civil society is involved in most innovation systems and has therefore drawn up the Quattro Helix model which, in addition to industry, knowledge organisations and public sector, also looks to civil society.

"There is a knowledge point to the model, as theory is better weighed against empirical fact," says Lindberg. "Innovation and economy are better described if you can also see the interface between non-profit and profit-making sectors."

The model highlights the contribution of several people to innovation, particularly women. Lindberg has observed many women working as volunteers in women's resource centres.

"NUTEK's funding of women's resource centres is based on the fact that they don't need such major basic funding as other operations. The resource centre receives around SEK 80,000 per year, which should be enough for premises, personnel and day-to-day running. Women are having to work as volunteers in resource centres."

The idea is not that more women should work voluntarily in order to generate innovations. Lindberg stresses that women's resource centres should be regarded as part of innovation policy and be resourced accordingly. The object is to obtain a broader idea of which actors are contributing to innovations and not just regard men as actors and male-dominated industries as interesting.

"We need a more realistic innovation policy, consistent with where people are and what they're working on, rather than a notional world in which only manufacturing and new technology are relevant," concludes Lindberg.

"It's fascinating, how many millions have been pumped into maledominated industries even as we're told they've grown strongly by themselves." Malin Lindberg, doctoral student.

"Developing new activity on the basis of equality and gender is a kind of innovation in itself." Malin Lindberg, doctoral student.

### **Appendix**

Projects funded under the programme, Gender perspective on innovation systems and equality – research and development for sustainable growth

### Lyftet

Project manager: Maria Udén, Luleå University of Technology,

E-mail: maria.uden@ltu.se

The challenge faced by innovation systems and regional policy is how to highlight and safeguard the experiences and results from those initiatives being run by women. This is Lyftet's aim. Lyftet is rooted in two research milieus: Luleå University of Technology and Mälardalen University. For several years, research and development work has been run at both these milieus comprising local projects and initiatives working to promote women's enterprise and innovation. The accrued knowledge and contacts generated during this work have been incorporated into the Lyftet project. By carrying experiences from North Norrland, Södermanland and Västmanland onto a joint knowledge platform, the knowledge about inclusion and exclusion in innovation systems can be systematised, developed and made available. Lyftet aims to gather experiences of women's initiative in innovation systems onto a knowledge platform shared by participating researchers, government agencies, industry and the non-profit sector. Lyftet comprises: 1) research into mechanisms of inclusion and exclusion in innovation systems; 2) research into the innovation content of initiatives; 3) development of a method of gender integration in innovation systems and innovation policy for presentation in a methodology book; 4) problematisation of an innovation index from a gender perspective.

Project staff: Anders W Johansson and Lina Stenmark at Mälardalen University (MdH) and Maria Udén and Malin Lindberg at Luleå University of Technology. Co-financing: The EU's structural fund Objective 1 North Norrland and Luleå University of Technology and also NUTEK (via the project "Women's enterprise and regional development"), the County Administrative Boards of Södermanland and Västmanland plus Mälardalen University.

Contributing parties: LTU and MdH, Emma Resource Center, Equal Terms, Enterprising Women in Västmanland, the Sámi Network Connectivity group, the SAGA network, the County Administrative Boards of Norrbotten, Västmanland and Södermanland, Priorum, Internet Bay, Robotdalen, NUTEK and consultants. Website: www.ltu.se/web/projekt/lyftet

#### Safety at work and masculinity in the mining industry

Project manager: Lena Abrahamsson, Luleå University of Technology.

E-mail: lena.abrahamsson@ltu.se

This project lasts four years and aims to provide increased knowledge about constructs of masculinities in mining and ore processing. Primarily, the project aims to examine how constructs of masculinity change both spontaneously and by design and how this can be linked to safety at work and other changes in production. The emphasis is on the extremely male-dominated sites in mining and ore processing with empirical material from LKAB Division Mining.

The project also aims to achieve actual changes in workplace culture and values at LKAB sites and, above all, changed attitudes regarding safety at work and masculinity. The project takes an interactive approach and is rooted in a case study on attitudes, work safety and masculinity in which the researchers shape, contribute to, support and evaluate a change management project at the mines of the Kiruna and Malmberget ore dressing plants. The change management project, which deals with safety at work, runs for two years and is part-funded by LKAB directly.

Taking a longer perspective, the anticipated results are a modern working organisation with a more equal workplace culture and more female staff.

Project staff: Eira Andersson, Luleå University of Technology.

Co-financing: LKAB and LTU.

Contributing parties: LKAB and LTU.

Website: www.ltu.se/depts/arb

## Partnership for social and economic growth – a matter of gender, trust and learning

Project manager: Gun Hedlund, Örebro University.

E-mail: gun.hedlund@sam.oru.se

The purpose of this project is to integrate a gender perspective into the activities of the internationally strong research milieu, the Center for Urban and Regional Studies. In the work of internal discussions on research milieus, seminars and presentations, this is taking place by raising questions about extending the terms of adjacent projects. By problematising the governance concept, we aim to examine obstacles and opportunities to creating a gender awareness which opens the way to trust and learning within networks/partnerships in the County of Örebro and parts of Värmland, with particular focus on Bergslagen. The University's role as knowledge mediator and sanctioning authority is key to the project, which is creating a process within the university (research and training) as well as outside it (knowledge brokering of trust and learning).

Anticipated results include an integrated gender perspective in the University's training courses plus assistance in developing measurements and a reckoner.

Project staff: Katarina Larsson and Ann-Sofie Lennqvist-Lindén, Örebro

University

Co-financing: Örebro University

Website: www.oru.se

## Innovation systems and homosocial structures: the example of Värmland

Project manager: Gerd Lindgren, Karlstad University.

E-mail: gerd.lindgren@kau.se

The purpose of this project is to conduct an analysis of the innovation systems in clusters comprising the Värmländ growth programme and make a gender-based description of ideas of regional development and regional innovation systems as well as the regional power structure within which this programme will be implemented. Methodologically, the study will be designed with an interactive research approach and with actors in the region. It will thus analyse the development of the most important innovation systems/clusters in Värmland, based on how they are organised and the composition of networks and partnerships. The degree of homosociality from cluster and innovation policy on the one hand and equality policy on the other will be examined and analysed.

Amongst other things, the study aims to create better prospects for sustainable change management within regional development policy and develop a more gender-aware focus for innovation systems. The anticipated results are also an increase in multidisciplinary gender knowledge about regional development.

*Project staff:* Marcus Ednarsson, Anna-Lena Haraldsson and Gunilla Lönnbring, Karlstad University. Elisabeth Grähslund Berg and Gunnel Forsberg, Stockholm University.

Co-financing: Karlstad and Stockholm University, public and private organisations and a collaborative group:

Contributing parties: Karlstad University and Stockholm University, Värmland County Administrative Board, Värmland Police, Karlstad and Forshaga municipalities, the County Labour Board, Quality Hotel Selma Lagerlöf and Spa, Broby Grafiska Utbildningar, Cramo AB, LBC Frakt, Almi Företagspartner AB and a collaborative group with representatives from Cerut, Genusvetenskap, the County Administrative Board, the Regional Resource Centre and Verkstadsmaterial-teknikscentrum i Värmland.

Website: www.kau.se

### Job evaluation as an equality strategy

Project manager: Kerstin Rosenberg, Karlstad University.

E-mail: kerstin.rosenberg@kau.se

Job evaluation as a remuneration survey instrument has been tested and developed in an increasing number of organisations. The actors talk of timeconsuming work and a lack of simple, effective tools for evaluating jobs and surveying pay differences between women and men. Traditionally, wage formulation has been kept separate from other forms of equality work. Despite job evaluation and wage formulation exposing such gender patterns, they find it difficult to create and sustain the gender perspective that gender has a hand in the wage formulation process. Three county councils are involved in the project and have observed the positive side effects of the job evaluation work. We will be monitoring and supporting the staff policy work and analysing the extent to which this leads to equal working conditions. The project will demonstrate whether job evaluation and remuneration surveys may be a powerful tool for equality work. Documented processes will suggest general systems and methods which can then be commercialised as a practical manual. Documented experiences from focus groups and the processes that are studied will raise a number of new questions for ongoing research.

*Project staff:* Eva R Andersson and Birgitta Jakobsson (consultants). *Co-financing and contributing parties:* Karlstad University, consultants, Jämtland, Norrbotten and Västerbotten county councils.

Website: www.kau.se

### Women as a power resource in change processes

Project manager: Pia Höök, Fosfor, KTH.

E-mail: pia.hook@kth.se

The purpose of the project is to initiate change processes for equality and innovation processes based on equality. The project focuses on increased equality in workplaces and is based on theories of gender-organised processes in organisations and the theoretical concept of "women as a power resource". It is based on knowledge from gender studies and particularly ones concerning change processes in organisations. The overall aim is to strengthen women's position in organisations by developing methods for this and creating models for learning about these methods. By developing methods in which women are construed as power resources, the position of women as construers of the organisation and of the use/development of technology is strengthened. This aim will be operationalised through the research questions: How can women as a power resource operate in change processes? And what role does the memory of past equality work play in how the process looks now?

The partner organisations Vattenfall, Volvo and the Royal Institute of Technology (KTH) are large, male-dominated and heavily technical organisations with different histories where it concerns past equality work.

Amongst other things, the project will develop methods for expanding equality work and for evaluating and measuring it.

Project staff: Anna Wahl and Karin Olofgörs.

Co-financing and contributing parties: Vattenfall, Volvo and KTH.

Website: www.kth.se/fosfor

# Equilibrium – Equality, intent and knowledge offering prospects of sustainable growth

*Project manager:* Christina Franzén, Business Leadership Academy. *E-mail:* christina.franzen@ledarskapsakademi.se

The aim of the Equilibrium project is to help organisations work successfully with equality for sustainable growth. Professional equality work requires an intention to change, knowledge to understand what needs changing and active change management. The Equilibrium project is a development project whereby organisational consultants work with organisations in a management-guided change management process. Researchers will guarantee the scientific grounding, evaluate and document the project. Uniquely, this project's work will be based on the Equality Act and employer's liability as well as gender mainstreaming in businesses. The Equilibrium project will be implemented in four stages: planning; the development of working models, comprising equality work based on the Equality Act and gender mainstreaming; testing of working models with managers and other staff in businesses; documentation of learning and results. Corporate and operational management, managers and staff from nine organisations will be involved; a total of at least 400 people. The project aims to explore possible business ratios and the experience gained will be distributed in an easily accessible, packaged form enabling other organisations to benefit.

Project staff: Jack Borgström, Sabina Sjölander and Jennie Lantz Co-financing and contributing parties: Business Leadership Academy, Östergötland County Administrative Board, Stockholm County Administrative Board, Västerbotten County Administrative Board, the Ministry of Enterprise, Energy and Communications and several other governmental and private organisations. The project is also supported by ESF (the European Social Fund). Website: www.ledarskapsakademi.se

### Equality from inside – a method development project 2

Project manager: Birgitta Jordansson, Gothenburg University.

E-mail: birgitta.jordansson@av.gu.se

The project aims to develop a method of working with equality in a qualitative change perspective. The method development will take place interactively with a number of different organisations (industry, public administration and university). The work will be based on "change laboratories" in which the participants have leading positions within their respective businesses. The laboratory consists of around seven or eight participants led by an instructor/gender tutor. The group will meet five times in all to discuss cases drawn from its particular business. The examples dealt with will thus illustrate the equality issues linked to the operation concerned. The aim is to use insights to guide the participants to declarations of intent regarding the ongoing equality work in the organisation. These change laboratories will be preceded by an initial stage in which the project is introduced into the organisation and established with the leadership and amongst future participants. Also included is an introduction to equality issues from a gender perspective. During this initial stage, a situation analysis is conducted so as to get to know the organisation and highlight any defences and locks. Additional required knowledge is also gathered at this point for the supervisors'/gender tutors' subsequent contributions to the change laboratory. A third and final stage follows in the change laboratories. In view of this, the aim of the work is to assist the actual organisation in taking over and advancing the equality work and establishing action plans based on the insights that have been achieved - "from insight to intent". This stage also involves a situation analysis but one which supports the participants in their ongoing equality work. The project will supply a method book and accompanying training concept.

Project staff: Gunnar Gillberg, Hans Lindgren and Agneta Lundquist, Gothenburg University, Amanda S. von Matern, Resource Centre for Gender Equality. Co-financing: the European Social Fund, Volvo and Gothenburg University. Contributing parties: Volvo, Gothenburg University, Alingsås Municipality. Website: www.au.gu.se

### Equality development in public healthcare

Project manager: Ann Fridner, Karolinska University Hospital.

E-mail: ann.fridner@karolinska.se

The aim of the project is to begin continuous change management in order to increase the level of equality amongst doctors and thereby also prevent stress and ill health amongst female doctors. The aims of the project are: to change organisational structures, attitudes and norms so as to increase the number of women in leading positions within medical enterprises; to create opportunities for doctors to reconcile professional and family life; for equality to be an integral part of the act at all levels; to test and develop a method of practically measuring and developing the equality within an organisation; to disseminate the content and working method of the project to other public organisations in Sweden and Europe. The project is the Swedish part of a transnational research project entitled HOUPE – Health and Organisation among University Hospital Physicians in Europe.

*Project staff:* Birgit Pingel, Niklas Hansen, Karin Schenck-Gustafsson, Inga-Britt Drejhammar, Karen Beltic et al, Karolinska Institutet.

Co-financing and contributing parties: Azienda Ospedaliera di Padova, Stockholm County Administrative Board, St Olav's Hospital (Trondheim University Hospital), Landspitali University Hospital Reykjavik, the Swedish Medical Association and Karolinska Institutet.

Project duration: June 2005 – June 2008.

Website: www.karolinska.se and www.houpe.no

#### Visions of a sustainable future - for women and men?

Project manager: Mattias Höjer, Royal Institute of Technology.

E-mail: hojer@infra.kth.se

This project analyses sustainable visions of a sustainable future from a gender power perspective. Its analysis is a way to clarify the difficulties of including gender in foresight studies. It aims to find a way to combat this by learning from the difficulties and developing methods of analysing the gender-specific effects of certain social changes.

The project includes three subsidiary studies of dimensions important to the innovation system, the environment and gender power relationships (primarily regarding ecologically sustainable changes to time consumption, region size and transportation system). Each of the subsidiary studies analyses the degree to which the gender perspective is present or absent in existing foresight studies and plans. A synthesis is conducted in a final subsidiary study which attempts to form visions of the future in an equal society whilst highlighting the difficulties of such an excise.

Inclusion of the most important partners in terms of physical planning in the project will lead to increased knowledge and increased awareness of the importance of the gender power order when using and extending the physical infrastructure.

The project will contribute to an exchange of knowledge on methods of equality based on gender theory.

*Project staff:* Ulrika Gunnarsson, KTH and Tora Friberg, Linköping University. *Co-financing and contributors:* Linköping University and KTH, plus the National Board of Housing, Building and Planning, the National Rail Administration, the National Road Administration, Stockholm County Administrative Board and Gotland County Administrative Board. East Sweden Region and the Centre for Municipality Studies in Östergötland.

Website: www.infra.kth.se/fms

# Pushing, changing, equalising – crystal clarity in Fiber Optic Valley *Project manager:* Marita Svensson, Fiber Optic Valley.

Equality is one of the most important driving forces and essential to sustainable growth within the Fiber Optic Valley innovation system. By working actively with the gender perspective in all our processes, the gender issue can be linked to organisations' normal operational development and ultimately achieve genderaware workplaces. Targeted gender work within Fiber Optic Valley is opening the way to much-needed fresh ideas and initiating and supporting the change processes within the innovation system. The emphasis is on an action-orientated approach and methodology linked to learning so that the development will move forwards.

The project, known as the Gender Network, aims to generate change management processes to develop gender-aware organisations. This will be achieved by further developing and working with various interactive methods and models in which gender researchers, process supervisors and organisational change managers collaborate.

The platform for the change management work is a network of 12 middle managers from the member organisations. The interactive research work focuses specifically on the role of middle managers and how their behaviour facilitates or inhibits change in relation to gender. The participants' increased knowledge and involvement enable them to serve actively as change managers, initiating and implementing a gender perspective within the individual organisations.

It is anticipated that the project will yield results on many levels, including: disseminating new methods and models of equality work; illustrating the correlation between equality and business benefit; more female entrepreneurs and more women in leading positions within the innovation system.

Project staff: Susanne Andersson, the Centre for Gender Studies, Stockholm University, Eva Amundsdotter, Luleå University of Technology.

Co-financing and contributing parties: member companies and organisations involved in Fiber Optic Valley and the ESF council, Equal.

Website: www.fiberopticvalley.com

### Design, gender and organisation

Project manager: Magnus Mörck, Gothenburg University.

E-mail: magnus.morck@cfk.gu.se

The goods market is full of stereotypical depictions of women and men. Reactionary gender policy can be effected using design and goods, but is the reverse possible? The project seeks to highlight opportunities to bring a new dimension to equality work. It concerns goods sold for profit but which at the same time become "contributions" to or comment on the equality debate. In this context, we refer to contemporary thinking on brands. Products are linked with reports of desire and benefit but also alternative images of gender. Different companies are interested in linking to equality in varying ways. Is it possible for such products to also influence the organisation? The project examines various companies in different formats and with different emphases. All of them are united by having designed products with something different to say about gender by surpassing stereotypes. The aim is to collect and feed this knowledge back to all interested companies, those involved in equality work, designers, the media and researchers. The project will explore, problematise and generate a debate on gender in design and equality.

*Project staff:* Marcus Jahnke, Magdalena Pettersson and Lena Hansson, Gothenburg University

Co-financing and contributing parties: Gothenburg University (HDK and the School of Business, Economics and Law), manufacturing companies, advertising companies and the City of Gothenburg's Business Unit, Business Region Gothenburg etc.

Website: www.handels.gu.se

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   Projektkatalog. Branschforskningsprogram för IT & telekom

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