

Cross-cutting issues for boosting innovation through new cluster policies

Innovation and Gender

1st Draft

Dr. Petra Püchner

Steinbeis-Europa-Zentrum

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It is clear, that innovation not only needs research and transfer of knowledge, but also the right environment, often called the innovation milieu. The case for gender in technology development as well as in business benefits has been made several times in the last years – not only by McKinsey or Accenture but also by the Anita Borg Institute in Silicon Valley. But nevertheless, gender as a topic for innovation is – in reality – often not more than a nice add-on in speeches or annual reports.

Moreover, gender equality is – most of the times – understood as a pure social issue, a matter of social inclusion or equal rights. Subsequently, gender measures are seen as a constraint to business development and even as producing costs rather than bringing income or even economic growth. This view will hinder companies, clusters and even policy makers to promote gender and innovation in their environments. And thus, only few ambassadors for this issue are found, not even thinking of clusters.

It is time to have a closer look at the role of gender in innovation milieus and thus on shaping policies to support a more equal share of gender in all innovation areas.

CluStrat cannot deliver a thorough gender study with the limited resources. But CluStrat should deliver a good understanding of the status of gender in the innovation milieus of clusters and develop ideas, which can be taken up for future programmes.

The most important change will be achieved, if decision makers in all cluster stakeholder organizations and policy makers understand that diversity and equality are means for creativity and innovation, and thus enhance business performance (micro level) and even economic development (macro level).

A challenge that we face in Europe is, that few women decide to go for technical educations and thus technology – a key driver for innovation – is male dominated. Social scientists and their studies give food for the thought, that this link of male = technical creates the automatic link of female=non-technical = non-innovative. Several studies have raised the question, if women entrepreneurs can be innovative. In a European project of DG Enterprise related to innovation, Steinbeis-Europa-Zentrum and its partners found out, that certainly women entrepreneurs in all cultures are very innovative, even without technical backgrounds but acting in

technical companies (WENETT)¹. And whoever spoke to women entrepreneurs will soon understand, how their business ideas indeed had their source in creativity and innovation – bringing their creative ideas to markets. Often, those companies are market driven: women see a special need on the market, which is not or not sufficiently targeted. Thus, they react and built their company.²

- A UK woman invented the “anywayupcup” for small children, where the content cannot leave the cup/bottle, even when it falls down, but children can always easily drink from it. She created a business around this and was so successful, that her patent was infringed by a huge cooperate from the US. She went to court and finally won – today her company is a plastic manufacturer of different articles for different clients
(www.mandyhabermann.com)
- When going on camping trip vacations with her family Viviane from Sweden noticed how other campers ran between their car and tent to fetch things in pouring rain and became soaking wet on the way. She started to think about a solution and founded a company around her new car-tent idea
(www.vivinova.com)

Today’s working life is gender segregated

- Horizontally, implying that we have working sectors dominated by men (mostly in manufacturing) and those dominated by women (mostly in services and non-technical sectors)
- Vertically, implying that women and men dominate different positions in working life. Statistics show the low participation of women in higher management positions, in business, in governments and in research.

None of this has biological reasons but is a result of socialization. Gender is made up of what and how we do things in society – and this is manifested in the role of the 2

¹ WENETT was financed under FP6 as a support action within the Innovation Programme, New Methods for Technology Transfer. The role model videos and papers are to be found under http://www.steinbeis-europa.de/wenett_en.html

² The Author of this paper has listened to a high number of female entrepreneurs, e.g. during conferences of the European Female Ambassador Network for female Entrepreneurship (Steinbeis-Europa-Zentrum is Coordinator of the German Network) or European Commission SME events staging female entrepreneurs.

sexes. Just think of the time, where women were not allowed to learn to write or read (middle ages lower class women), women were not allowed to vote as they were told to have no political understanding (beginning of the 20th century until the 1950s), or women were not allowed to run marathon, as medical doctors were convinced they would surely die (1950ies). None of this – as we know today – had anything to do with the biology of women, their knowledge or their talent, but was purely a decision by a society used to male normative behavior. Can it be that the gender segregation we see in our today's society has a similar reason and can indeed be changed?

We don't need more support to women but we need a change in the business and research environment, meaning in the innovation milieus, so that women are willing to stay and take responsibilities!

Gender equality as an opportunity for enhanced innovation

We don't need to repeat the facts, that more than 50 % of purchase decision, even in the automotive sector, are taken by women; or that more than 50 % of university graduates are female; or that mixed teams, diversified teams are more creative and thus more innovative, Many research studies show, that companies will lose in the innovation competition, if they do not take the opportunity to have women and men involved in their innovation processes – from idea to market.

Gender is thus no longer an issue of social responsibility, but rather of innovation and competitiveness.

The Nordic countries give us good examples of how a gender perspective can make a change in regard to innovation and competitiveness. Innovation Norway, VINNOVA Sweden and the Swedish Agency for Economic and Regional Growth have summarized the results of research and implemented actions on gender and innovation within clusters in the Nordic Countries. From this summary, we can get a lot of ideas why gender is indeed supporting innovation and competitiveness of clusters. A lot of the benefit of gender awareness and gender inclusion in the innovation milieu is related to new products and markets, but also to workforce.

Thus it can be stated, that the overall economic and innovation policy targets in regard to gender in clusters are related to workforce issues on the one hand and the innovation milieu itself on the other.

Workforce is an issue due to the demographic challenge and a need for well educated staff. Also, employers cannot close their eyes towards the fact, that women are the majority of university graduates, thus they form the majority of the workforce potential and talent. This goes together with the societal change, in which young women and young men aspire both: a fulfilled work life and a satisfying family life.

Workforce also includes the issue of gender segregation, as explained already – which also influences the innovation potential.

Possible Targets for workforce driven gender policy are:

- Getting more women in technology based sectors (with or without technology education)
- Getting more girls into technology based education

- Getting more women in higher management positions / leadership in research and innovation
- Retaining women in the research and innovation workforce

Related cluster case studies (Ref. 1)

- Women Arena at NCERaufoss, a cluster of 40 companies in manufacturing and materials technology. All female employees in the cluster companies were invited to form a network and help to increase the % of women working in the cluster and in leadership positions. Topics included
 - o Promote women to management
 - o Recruitment and retention of female employees
 - o Training and education
 - o Shaping an attractive working environment
 - o Cooperation with local communities, schools etc. to inspire girls for technology educations
 Result: after 2 years the number of women in boards and PhD studies in the Cluster increased

- Gender Agents in Optic Fibre Valley : new internal processes and structural changes in the organizations / companies in the cluster have lead to a better awareness of “normative thinking on gender”, meaning identifying stereotypes and male dominated thinking when it comes to product development.

Certainly, workforce implies other policy areas as well:

- labor market related policies, which include among others child-care facilities and part-time working cultures.
- Education related policies, as we also find a high gender segregation in child care and school environments

Innovation should be the main driving force for organizations to look out for a gender balanced working and research culture. Gender balance in research and innovation teams enable the teams to look and think out of the box, to identify

possible normative thinking (male = norm) and enable new viewing points on technologies, products, processes and services.

For the **maritime cluster** a market analysis among women had shown, that there was a high potential of future clients, but that this client group had never been taken into consideration for marketing or even less for designing leisure boats. Intensified communication and exchange along the innovation cycle has opened completely new product opportunities for the cluster members.

For the **food cluster**, an analysis of the gender segregation within the food market opened the door for new products in new market. No one of the involved companies had thought, that there is gender segregation – but with the new knowledge it is logical to involve more diversified teams in the innovation process, to be able to respond to the open doors.

Possible Targets for innovation driven gender policy:

- Better understanding of gender segregation in the innovation cycle (this could be easy, as in most industrial sectors, women are not visible in any of the innovation cycle steps)
- Incentives for industry and research to create a gender balance in research and innovation teams

Cluster Case Studies on gender inclusion for new product development:

- All aboard project at the Maritime Technology Cluster Sweden for boat design, including end users like women networks in a communication process to get new ideas and thus win new markets (like women) for their products.
- Skane Food Innovation Network: foresight workshops including gender researchers enabled the cluster members to identify new products and markets
- Gender diversity enhancing open innovation and user-driven innovation in Food Sector

Result: new product ideas, better understanding of new market areas/customers

Mapping of Gender & Innovation in CluStrat

As already pointed out in the beginning, CluStrat does not have the resources for a thorough study of gender issues in clusters in CE. But we have the chance, to aim at some key issues and thus derive important data from the Mapping process.

Possible Actions for Mapping

- Data collection on representation of women in
 - o cluster member organizations
 - o cluster management
 - o in research
 - o in management
 - o business owners
 - o industrial sectors
 - o education sectors³

- Identification of highly gender segregated sectors
 - o Horizontal segregation: female or male representation is very low in one sector compared to another
 - o Vertical segregation: female or male representation on management level within one sector is very low

- Gender SWOT of clusters (one cluster per region?)
- Gender analysis of a full innovation cycle in cluster member organizations (PhD Thesis?)

The final aim of this mapping could be to help policy

- To identify key performance indicators to track progress (quantitative and qualitative)
- To enable a monitoring of change

³ There may be countries, which have less gender segregation in the education labor market, especially for early child and school education.

Without indicators, policy can ask for changes or create incentives for changes, but will not be able to follow and monitor those changes. Certainly, there are many publications and experts, who have already developed gender monitoring processes. Thus, the mapping should also identify those available tools, which then have to be checked for transferability to clusters during the strategy development process.

Certainly, any activity on this issue needs to bring a benefit to companies. The business case for gender & innovation in CluStrat is thus to support

- better understanding of market / end-users
- new ideas for product/process/service development
- attracting and retaining talent
- more creative and innovative thinking rather than normative thinking

As a result of CluStrat, a list of potential tools and concepts for future policy measures and instruments should be available. Possible areas of intervention could be

- Incentives for industry and research to involve gender measures in their innovation cycles
- Gender in product development – product design
- networks of gender agents / women networks
- mentoring or coaching for management level to raise gender awareness (cross-sector mentoring) / reverse mentoring – a young female employee mentors a senior manager to raise awareness of needs, views, etc
- search and dialogue conferences to support a process of change
- etc.....

References

- (1) Danilda, Inger & Thorslund, Jennie Granat (eds.)(2011): Innovation & Gender. Vinnova Information VI 2011:03, Sweden
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Plus the many years of experience on gender & innovation projects on European Level, discussions and conferences, meetings with female researchers and entrepreneurs etc.