Innovation Topics in the Baltic Sea Region

A report of innovative Baltic Fashion projects

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Foreword

This report is a summary and analyses of the innovation topics that have been the basis for activities and workshops carried out within the Baltic Fashion project. All responsible partners have done a roadmap with analysis of barriers, ideas of how to overcome these, and some learning outcomes for the innovative topic. These roadmaps are the basis for this report.

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Introduction

One of the aims with the Baltic Fashion project has been to strengthen the fashion industry with a focus on small and medium sized enterprises. The Baltic Sea Region has a large textile industry but all countries have different traditions and characters in regards to textile and fashion. Some countries are strong in textiles and production but not in fashion branding, and vice versa. Some countries still have a large textile manufacturing industry, whereas other countries lost most of the textile manufacturers 30-40 years ago. One of the work-packages within the Baltic Fashion has therefore focused on developing innovative topics as basis for carrying out activities that will support the fashion industries in different ways. One aim has also been to transfer the innovations and learning outcomes between the partners.

With the aim to find out different ways to support Fashion small and medium-sized enterprises a focus on innovation was concluded as an important part of the Baltic Fashion project. Seven of the Baltic Fashion Project partners defined eight topics, sometimes two partners in collaboration, with the aim to explore new ideas and concepts and find out how fashion can become more innovative. Often sustainability and social issues have been the driving force behind these topics and in that sense also with the aim to challenge the current fashion industry. The seven topics became the basis for the organisation of different activities and workshops to which fashion designers and students were invited. The outcomes of these activities and workshops were then analysed in the form of roadmaps to see what potential could be seen for further development. The roadmap contains 1) description of the topic, 2) vision 3) activities within the project; 4) barriers identified, 5) how to overcome these barriers and 6) the learning outcomes.

In this report the topics, the activities and learning outcomes are summarized and briefly described. This is followed by an analysis of the findings of these topics, the barriers, and a discussion of how these can be overcome and contribute to the aim of the Baltic Fashion project. The seven topics that were developed in the beginning of the Baltic Fashion project were:

1. Zero Waste Pattern Cutting,
2. Trash-to-trend
3. Fashion Empowerment
4. Textiles for public spaces
5. Traditions and Trends
6. Smart textiles
7. To make clothes that matter.

Within all topics several documents and presentations have been produced and these are published on the Baltic Fashion web portal (http://www.balticfashion.eu/SE/3/innovation/57/baltic_fashion_eu_innovations.html).

Innovation in the fashion context

The fashion industry is mature and the competition is intense and global. Many young fashion designers still dream of starting their own brand and company. Few of them survive more than three years according to an investigation of the Swedish fashion industry in 2006 (Sundberg, 2006). A general notion is that if you are going to survive you have to have something unique and be innovative. It is however rather difficult to be innovative in the fashion industry.

Fashion is basically about change, changing the existing into something new. Every year fashion designers and fashion enterprises launch new designs with new ideas that reflect the capability of the designer to catch trends of the time being. The market expects something new and different compared to last season. And new fashion concepts are launched at increasingly higher speed. Although the ideas are creative and products are new rarely we define them as innovation. But this is also depending on what we mean with “innovation”.

When searching for ‘fashion innovation’ on Google you get more than 160 million hits. It is a frequently used word, and even if most of these hits are irrelevant from what we discuss here, there are still many definitions to what we traditionally would associate with innovation. The central meaning of innovation relates to renewal or improvement, with novelty being a consequence of this improvement (Loschek, 2009). One of the older definitions of innovation is the one by Schumpeter (1934)¹ who stated that: “innovation changes the values onto which the system is based”. When people change their value system, the old (economic) system will change to make room for the better one. When that happens innovation has occurred. A new collection is about change but not necessarily about changing the value system of fashion, but one can say that when a new design concept for fashion is accepted as the new fashion the old one has ceased to be considered as fashion.

¹ The definition by Schumpeter is found on http://sv.wikipedia.org/wiki/Innovation
It is also necessary to see innovation on different levels and in different parts of the value chain. Some innovations are radical but these are not as frequent as the incremental innovations (Christensen, 1997). New design, including pattern and colours, of the garments are launched every season and could be referred to as incremental innovations. Even if new materials can be more radical news these materials are mostly incorporated into the existing process of fashion design. But it is also “the journey to the reward of innovation” according to Loschek (2009, p 100) that can show whether the innovation led to a creative destruction of breaking with old ideas, i.e. radical innovations; or deriving the new from the existing idea in a route of continuity, which Christensen refers to as incremental.

As innovations are defined as new concepts or inventions that succeed on the market and create values, these innovations occur when there is an experienced need or a problem that suddenly finds a solution (Christensen, 1997). New business and competitive advantages occur when entrepreneurs discover the needs and find new solutions that then find appreciation on the market. We could also try to examine what problems or needs that exist in the fashion industry. With the abundance of clothing and brands available in the fashion market, it is difficult for young entrepreneurs to find new niches. And still, it is not difficult to find problems and needs in a fashion context. These apply to everything from better fits to the bodies we actually have, the demands of different situations we are in, to the fashion industry’s over-supply and sustainability problems. While these needs and concerns can be overpowering for small and emerging fashion companies to solve, they still can be an important source of inspiration or driver for young entrepreneurs. Research in fashion is therefore an important source of innovation in fashion.

Summary of the Baltic Fashion innovation topics

In this section we will describe the different innovative topics, activities and the learning outcomes. The partners have been responsible for the analysis of their topics respectively, using a roadmap to investigate the potential of the topics for further development and exploration. This report summarizes the result of these roadmaps, and all documents of the topics that have been published on the Baltic Fashion website.

The topics are in different ways addressing the challenges of the fashion industry, like sustainability and social issues, but also research of new materials as well as the strengths of traditions and craft to re-think and re-new fashion. The topics could be seen as quite diverse but could actually be categorized into four themes:
Sustainable Fashion

Social and Public Contexts

Renewal of Traditions

Innovative Materials

These themes are very much related to the current discussion of how the fashion industry is changing and responding to the challenges of society at large. With questioning of the current system, economically, environmentally and from a consumption perspective it is obvious that fashion designers and fashion companies need to relate the development of their business to these themes as well in order to stay in tune of how society and markets are developing.

**Sustainable Fashion**

Two topics have been explored with aim to achieve more sustainable fashion. The first one is Zero Waste Pattern Cutting, which was initiated by Aalto University in Finland. The second is Trash to trend, the development of a web-based platform for recycling of textiles in Estonia and initiated by Estonian Academy of Arts.

**Zero Waste Pattern Cutting**

Zero Waste Pattern Cutting (ZWPC) is a method of pattern making that particularly aims to eliminate fabric waste from garment production. The design researchers who brought this approach to light again, and started refining it, are Timo Rissanen and Holly McQuillan from New Zealand, who also participated at the workshop in Helsinki.

**Activities**

A workshop was coordinated by Aalto University School of Arts, Design and Architecture in August 2012, and the participants included teaching faculty, students and designers from partnering organisations of the Baltic Fashion Network. The objective was to gain practical knowledge of the innovative technic, which could provide new perspectives for fashion design, while also developing sustainable design practices.

**Learning outcome**

The technic challenges traditional thinking and a different way to patternmaking. A few designers have started to use it but the technic is not wide spread. Designers – and also design students at schools and at universities – need to learn this method to be able to practice it. Evidence for its efficiency from a sustainability perspective is still at a level of argument.
**Trash to Trend**
The Trash to Trend platform provides a way to extend the life of textile leftovers by bringing them back into the production cycle. The web platform connects manufacturers with leftover textiles, designers in need for textiles, and retailers as well as consumers looking to buy up-cycled designs. The concept Trash to Trend emerged out of the doctoral research of Reet Aus, at Estonian Arts of Academy. Up until now there has been no clear overview of the producers of textile waste or of the sources and volume of waste produced in Estonia.

**Activities**
The Trash to Trend workshop was held in November 2012 for students from the Estonian Academy of Arts in Tallinn and from abroad. Reet Aus, the founder of Trash to Trend, organized the workshop. The workshop offered lectures, seminars, company meetings and practical work. Its aim was to introduce the students to up-cycling fashion design, and ultimately to bring them closer to this process. The workshop linked practical skills with theory. The students learned how to strategically apply sustainable design—from collecting material to production and promotion.

**Learning outcome**
Re-cycling and Up-cycling of fashion is evoking more and more interest even if it is still practiced at a very small scale. Some countries, e.g Finland and Sweden have started to organize the collection of textile material, but in most countries better infrastructure for collecting textile materials or second hand clothes is needed to enable re-use in a larger scale. The concept attracts media, which will also contribute to spreading the concept for further use and development. The Trash to Trend website also shows that it is possible to realize this concept.

**Social and Public Contexts**
Fashion and textiles engage and concern us all in different ways and in different contexts with potentials to change and inspire us. Two topics deal with this issue. The first one is Fashion Empowerment, initiated by Novia University of Applied Sciences in Turku, Finland and Estonian Academy of Arts in Tallinn, and the second one is Textile for Public Space, initiated by Estonian Arts Academy.

**Fashion Empowerment**
While high street fashion gets the main attention in media and consumer market, many “real world” clothing problems remain unsolved. For instance, the elderly people and disabled struggle constantly to find clothes that would not only be functional and practical, but also
beautiful and empowering. Mainstream fashion market does not cater the needs for the diversity of human bodies and the society as a whole. The project is based on the concept of social design. In this context, design is seen as a methodology of creative problem solving where the attributes of design process are employed to facilitate social needs.

**Activities**

Fashion Empowerment was run by the Novia University of Applied Sciences in Turku and the Estonian Academy of Arts in Tallinn between March and November 2011. Design students tried to find out: can fashion empower? Six teams worked with different target groups to come up with a new, socially sustainable perspective on clothing design. They developed a design-for-all concept, which was aimed to empower marginalized groups that do not fit the high-end fashion profile, such as wheelchair users, nursing mothers, blind, and homeless people.

**Learning outcome**

There are numerous people, marginalized from the mainstream fashion business, waiting for designers emphatic enough to address their needs and desires, and there are designers ready to seize the challenge for changing the world with fashion. Although this is a next to none-existing concept in the fashion industry this could be a niche for some fashion design companies. The project also led to a new project “Fashion Liberation”, which solves real-world problems with critical thinking and analytical skills. Main idea is to think outside of the box, to have multiple perspectives and solve real-world problems with critical thinking and analytical skills.

**Textile for public spaces**

While the home represents a private space for individuals and families, the public space is shared by everyone and needs to accommodate multitude of needs. The requirement of robust constructions is reflected in the materials used in public spaces, which are usually hard materials such as concrete, stone, wood and iron. Textile materials in public spaces are mostly materials the clothes worn by the people using the area, which means a transitory participation. The vision is to make old plain building more eye-catching and live up “grey” public places.

**Activities**

A workshop was held in 2012 with Estonian Academy of Arts and Estonian Museum of Applied Art and Design that was selected as the public space. Swedish School of Textiles participated with one supervisor. By using different design methods and textile materials it was explored how an extended use of textile materials could improve functional as well
aesthetic values in a public space. The result of the workshop was three different concepts to be used in museum’s courtyard.

**Learning outcomes**
There is a growing interest in textiles as a material, also for public spaces, but it is still more on a project base. There are not enough designers in this area and also not enough financial support by the state even if the economic situation has stabilized. Technology development is more important as there is a lack of technology for complex projects.

There could be public discussions on this topic to see what areas should be revived and which sites are focused on design and innovation and start cooperation with them. In some countries, e.g. Finland, textiles have always been used for public spaces, but it could still be more developed and textile waste could be used and developed into products. In that sense it could also contribute to the aim of more sustainable solutions.

Events, workshops etc., also in cooperation with foreign supervisors, to combine art, design and technology could trigger the development.

**Traditions and trends**
All regions have traditions when it comes to design of textiles and fashion. Some traditions are no longer “fashionable” but can still act as a source of inspiration for new designs. Two topics have been explored, the first one *Innovation, Traditions and Trends*, initiated by University of Technology, Business and Design in Wismar and the second one *To Make Clothes that Matter*, initiated by Swedish School of Textiles, University of Borås.

**Innovation, Traditions and Trends**
The topic aimed at creating new product design for the textile and clothing sector based on traditional handicrafts and patterns and the use new technics, for instance digital printing in textile production. The aim was not only to create new innovative product ideas with market potential but also to learn about cultural heritage as source of inspiration and identification of local values in new products, interpretation of handicraft in a modern way.

**Activities**
A workshop with interactive collaboration between designers, technologists, and producers was organized in April 2013 in collaboration with University of Technology, Business and Design in Wismar. The workshop dealt with the fusion of tradition and innovation as cultural identification in the German region of Mecklenburg-Western Pomerania. Eight designers from the field of clothing, textile, product, jewellery, and graphic design developed conceptual ideas for new product designs based on the local Pomeranian Freest
Fisher Carpets. They drew, developed prototypes, and designed concepts under consideration of innovative textile technologies in knitting, weaving, and printing. The samples mirrored the variation in Baltic symbols, signs, and colours of the Freest Fisher Carpets.

**Learning outcome**
The factors that could stop realizing or commercializing the products are that the cost will be too high, new technology might be too complex, therefore too long time to develop and that there is no interest. It might also be difficult to find partners for serial production.

The main drivers for this are innovative enterprises and organizer for special events and the designers themselves. In many BSR countries the use of traditional patterns and technologies is a popular source of inspiration, especially among SMEs.

**To Make Clothes that Matter**
The topic is an inquiry how fashion designers can base their design on values and cultural heritage and thereby giving designers and product developers a new point of departure within the design process. One aim was to make clothes that matter based on the result of discussions about different traditions and values at workshops organized by the Swedish School of Textiles (THS) and thereby ask how we can communicate selected values through garments and accessories. The perspective is multicultural and tries to view clothing from a broad inclusive perspective. Another aim of the project was to find new skills and ways to work with design through collaboration of a mix of competence of designers, product developers, Swedish producers, artists and design students as well as to investigate and provoke the identity of Swedish clothes and fashion.

**Activities**
The Swedish School of Textiles (THS) organized a series of workshops from September 2013 to December 2013, to which practicing designers and design students were invited. During the first workshops, values, traditions were discussed and technicians from laboratories at THS presented new techniques from the projects “Expanding the boundaries of knitwear” and “Expanding the boundaries of printing”. In the following workshop the participants selected a value that they then used for designing and producing a new product. These products were then presented and photographed.

**Learning outcomes**
To focus on values, to try to reveal your own values as well as traditions, it is possible to identify hidden values that can be utilized for new design. By revealing the values at an early stage of the design process, new concepts can emerge that can lead to higher quality of the clothing and clothes that matter. Companies may use the same method and process of a
project to enhance their performance in their area of expertise, e.g. fashion design, production, work wear, craft, sportswear, art or others. By focusing on the values within their own as well as other traditions, they may identify expressed or hidden values. By revealing the values, the aim for designers, product developers and other stakeholders within clothing is to work with values at an early stage of the design process in order to make clothes that matter.

Innovative textiles materials

Textile materials are evoking a lot of interest from a research perspective and especially the field of Smart Textiles, which is one of the innovative topics in the Baltic Fashion project. The topic Smart Textiles and Wearable Technologies is led by Swedish School of Textiles, University of Borås.

Smart Textiles and Wearable Technologies

Smart textile is a generic term for textiles, which in some sense react to their environment in a pre-defined manner. The idea behind smart textile is to create textile products that interact by combining smart materials and integrated computing power with textile application. In the smart textile concept, clothing is not something we wear to express ourselves, but rather used for measuring health status, facilitating communication and expressing our feelings in real time. The concept idea behind the project Smart Textiles and Wearable Technology within the Baltic Fashion project, led by The Swedish School of Textiles (THS), is to find out how these materials have been introduced in the fashion and clothing sector, what their future prospects are, and how to get there.

Activities

This has been a research project with the goal to analyse the relation between research and commercial activities. For this purpose, THS conducted a survey on Smart Textiles and Wearable Technologies among European projects and activities in both an academic and a commercial context. This survey was then analysed and presented at Baltic Fashion conferences and published as a report on the Baltic Fashion website.

Learning outcome

The survey revealed that EU projects and universities strongly focus on the area of health care, and workwear, whereas clothing companies specialize in sports and fashion. Besides production costs and ethical issues of being monitored, one of the reasons why smart textiles have not had a breakthrough in fashion yet is the issue of necessity. There is a gap between research and customer needs. It is also noted that industrial and commercial activities in smart textiles are still in its infancy.
New technologies and textile materials in general are however of great interest to companies. New materials with new functions are mostly introduced in sportswear and workwear, which is also the case for smart textiles. But there is a growing trend to find new fibres and new textiles for sustainability reasons. Also designers are interested in finding new material, both for the reasons of sustainability but also when seeking new expressions.

Findings of the Baltic Fashion Innovation Topics

From a national perspective the fashion industry is important due to its many new entrepreneurs in general and female entrepreneurs in particular. The fashion market is however dominated by large, global design and retail companies who set the trends for fashion as such but also triggering changes at a speed that makes it a huge challenge to keep up for small companies. To compete in the fashion market, which essentially is a global market, these entrepreneurs need to be innovative and if possible find new niches and new approaches to the fashion design process that also will bring new fashion concepts. Below we will discuss the findings of the innovative topics that have been explored in the Baltic Fashion Project. We can identify several opportunities that could be further explored by fashion design companies and fashion design researchers. But there are also barriers that we have found during the project development, which we highlight below. We conclude with some ideas of how to overcome these barriers.

Opportunities for small and medium sized fashion companies

New materials and technologies also available for small and medium sized companies

- This is probably the topic most difficult for young and small fashion companies to explore, as these companies mostly have to rely on existing materials and technologies. There is a huge interest in new materials and technologies, but it is to a large extent among researchers and larger companies with resources to conduct research and explore its result. Technologies like for instance digital printing, is something that probably soon will also be accessible for smaller companies with less resources.
- Smart textiles is probably still too expensive and costly for small companies to invest in but it is still an opportunity if the company can find niches that could be explored with new materials and functions. New ideas that are interesting enough are more likely to raise the interest of investors.
Interest for sustainability could be explored by small and medium sized fashion companies

- Sustainability is not a new topic but fashion industry has been slow to consider the problems. Sustainable fashion is currently a strong trend despite that it sounds like a paradox and with the consumers being sceptical. It might seem as more of an academic research interest we can also see that the interest in environmental protection has moved to more complex issues such as minimizing logistics, the environmental impact of global business systems, water use (water footprint), carbon emissions (carbon footprint), and finally the environmental impact of the use phase (wet cleaning, dry cleaning, line drying, need for ironing, temperature during laundering, etc.). But there are also other opportunities for small and medium sized fashion enterprises to engage in creating a more sustainable route, for instance through the concept of recycling and up-cycling, creating return systems for their own brands if they want to engage in the increasing interest for vintage, etc. Collaborations with non-profit organizations, for instance the Red Cross, is one opportunity to get access to existing materials and have a way to return their own non-usable garments.

New niches could be explored for fashion designers and small and mediums sized fashion enterprises

- Fashion designers need not to compete with the large, global fashion design and retail companies but can find niches through looking at the needs of society in large and to the needs of “real” and different consumers segments. This was demonstrated in the projects within Social and Public Contexts, i.e Fashion Empowerment and Textile for Public Spaces. But also the result of the discussion in the topic “Clothes that matter” showed that the revealing of values can lead to new and unique ideas for fashion concepts that can specifically address and meet certain consumer needs and values.

Traditions can be a source for creating new values and unique design

- There is an asset in traditions, often ignored by young designers who rather look at the global designers trendsetters. Also global designers are always seeking out new expressions and finding these in regional traditions and translate them into something new. But traditions can also be something that locks one in and makes certain issues hidden or taken for granted. The workshops held in Germany and Sweden in the Baltic Fashion project show that when given the opportunity the designers are very positive to explore what traditions we actually have and can be regarded as inspiration for new designs.
Barriers for exploration and implementation

This summary of what barriers have been identified to explore the innovative topics in the future is based on what the responsible partners have seen as a result of organizing the different workshops and activities.

- Economic issues are often mentioned as a barrier as many of the ideas and concepts addressed in the different topics will require investment and a change of how to design. Especially for small, medium sized and young enterprises that rarely make any profit at all it is difficult to find resources, also the time, to change the current procedures of how to make the products. High costs for developing and implementing new technologies and materials and too small markets for niche products are also concerns of the fashion SMEs.

- Traditions in the fashion system can be seen as a barrier, especially if it is about questioning the system as such. But probably it is more the tradition of the fashion design process and thinking about fashion that is a barrier for seeking new technical approaches, new ways of using material innovations and new ways of approaching the use of the garments that is a hindrance. Very few young and SME:s in the fashion industry have regularly relations with research institutes and universities which means they miss opportunities to learn about new thinking, and new materials.

- Too few designers that are interested have been mentioned as one obstacle for developing some of the fields like developing return systems, traditional exploration or moving into new fields like public spaces.

How to overcome barriers

- To prepare today’s fashion students and future entrepreneurs within fashion for being innovative in relation to fashion concepts and fashion entrepreneurship there is a need to start already in the education. To think creatively about new fashion concepts is probably taken for granted among students. This is obvious when looking at the very creative, artistic and conceptual ideas at exam shows. This is the time to test your ideas and boundaries before entering the harsh reality. But the question is how much of the values and questioning of the fashion as it is today are taken for granted. Universities can be in the forefront of highlighting the hidden values throughout the educational programs. It is therefore discussed if we need new academic social design programs and initiatives also in fashion design education.

- Developing innovation management in fashion companies through better contacts with university and education. Several of the topics are example of how this can be
done. But also a need for creating career pathways and opportunities for students and fashion designers.

- Government agencies for funding research and development could organize a system and other support mechanism for small and medium sized fashion companies to apply for funding for the development of new business concepts and new technologies.
- There are also possibilities for small companies in many countries to apply for funding to develop new technologies and to test new materials. Often small fashion companies do not consider this opportunity because they also lack a relation and communication of research and universities and therefore miss it.

Conclusion

In this project we have worked with innovative topics that are based on change, renewal but also ideas that could radically change what we perceive as fashion. These topics have been identified as potential for solving needs on the market. At the same time they are aiming at increasing the value of fashion design and to support young designers to face the challenges of for instance sustainability.

Fashion entrepreneurs are often locked into traditional processes and techniques. This is not anything that differentiates small and large fashion companies. There is a need to develop research that can contribute to renew the education of fashion designers but also to increase collaboration between research and practitioners.

The positive aspects from the activities within this work package called Innovation topics is that there will be a lot of research directions and fields, but also collaboration with companies, where research result can be tested. The main learning is that many opportunities do exist, but new and radical thinking is needed. This could also be the basis for network and new kinds of collaboration cross the boarders.
References

