

# WELL DRESSED IN A CLEAN ENVIRONMENT

Nordic action plan for sustainable fashion and textiles



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# 1. FOREWORD

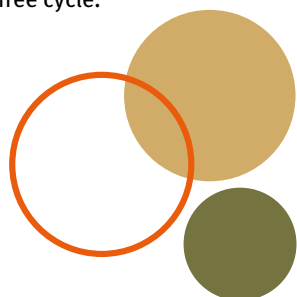
## – POLITICAL DECLARATION

Today, 27 April 2015, the Nordic Council of Ministers for the Environment (MR-M) has endorsed a Nordic action plan for a sustainable fashion and textile industry.

The action plan underlines the importance of sustainable development in fashion and textiles, an area in which the Nordic Region leads the way. Our ambition is to develop the framework conditions for sustainable design, production and consumption in the period up to 2020. We hope that the textile industry will take the lead in these areas.

There is much to be done, and the challenges we face are considerable. But the bigger the challenges, the bigger the opportunities. The fashion and textile industry is an important exporter for some of the Nordic countries, but at global level it is also one of the most polluting and resource-intensive industries. The Nordic Region consumes huge amounts of textiles, and clothes are a key part of our “buy-it-and-throw-it-away” culture.

This trend must be reversed – for the sake of both the environment and the economy. We need to significantly reduce the environmental and social footprint of the Nordic Region’s textile consumption and to improve the industry’s position in sustainable fashion and textiles. Work on this issue needs to be done at national, regional and international levels. Textiles should instead be part of a circular economy, in which product life is extended and textile fibres are kept free of substances of very high concern (SVHCs). They should be used again and again as part of a toxic-free cycle.



The Nordic Region has unique potential to act as a beacon and create sustainable textile solutions. The Nordic countries share a whole range of values and traditions that revolve around sustainability and security. As such, there is ample opportunity to develop new business models, which will also contribute to green growth and create jobs.

The Nordic action plan places emphasis on measures that will generate new synergies and increase the value of initiatives already launched by the individual countries. The action plan also represents an important joint Nordic contribution to the growing international focus on the environmental impact of the fashion and textile industry.

The plan outlines the main challenges we face, our shared Nordic values and objectives, the areas in which efforts will be prioritised and joint Nordic initiatives.

If the action plan is to be a success, it is absolutely essential to approach the issues on many fronts. We will therefore place great emphasis on broad-based, intersectoral co-operation in all related policy areas within the Nordic Council of Ministers, and on constructive co-operation with all relevant stakeholders.

We look forward to working together to implement the action plan for the benefit of the environment, health, growth and employment in the Nordic Region.

The Nordic Council of Ministers for the Environment (MR-M), 27 April 2015

## 2. INTRODUCTION

### **Intensive production and rising consumption have an impact on the environment**

The fashion and textile industry is one of the world's most polluting and resource-intensive industries. Its high consumption of energy, water, chemicals and pesticides affects both the natural environment and the working environment. At the same time, global population growth means an overall increase in textile production. In the EU, textiles represent the fourth most environmentally damaging area of consumption – after housing, transport and food<sup>1</sup>.

The Nordic Region may produce fewer textiles than it did in the past, but the fashion and textile industry is still a major exporter in both Sweden<sup>2</sup> and Denmark<sup>3</sup>. In 2011, the Nordic countries produced a total of 34,400 tons of textiles. In 2012, combined net imports into the Nordic Region amounted to 316,000 tons. Sweden has the largest domestic production and net imports of any Nordic country<sup>4</sup>. The industry had a turnover of approximately SEK 237 billion in Sweden in 2013 and approximately DKK 38 billion in Denmark. Earnings from exports were 62% (Sweden) and more than 80% (Denmark) of the turnover.

In Sweden, the textile and fashion industry employs almost as many people as the timber and paper industry<sup>5</sup>. In Denmark, the industry employs approx. 10,000 people<sup>6</sup> in design, development and sales.

The Nordic textile and fashion industry has the potential to exert huge influence on textile production. It can make demands on the materials and chemicals used, the consumption of water, energy, etc., and where in the world manufacturing takes place.

However, given the long and complex production chains from raw materials to finished products, the industry faces major challenges in terms of guaranteeing standards for environmental friendliness and working

conditions. The Nordic fashion and textile industry also has a global responsibility for its own production, as the majority of its environmental impact takes place in the producing countries, far from the Nordic Region.

We in the Nordic Region are heavy users of textiles. Average per capita consumption in the Nordic countries is between 13 and 16 kg of new textiles p.a. (clothes and household textiles)<sup>7</sup>, and this figure continues to rise. In Sweden, textile and clothing purchases rose by 40% in the period 2000–2009<sup>8</sup>. In Denmark, annual household consumption of clothes and other textiles increased in economic terms by 30% from 2000 to 2010<sup>9</sup>. During the same period, clothes also became cheaper. As a result, Nordic consumers now buy more clothes than before (by weight)<sup>10</sup>.

Over half of the clothes are neither reused nor recycled<sup>11</sup>, and almost certainly end up in the bin. Huge amounts of barely used clothes and textiles, which could easily have been used for a long time to come, are thrown out.

Producing the amount of textiles purchased p.a. by the average Nordic consumer uses far more water than would be used by a Nordic household of three people. It also generates CO<sub>2</sub> emissions equivalent to approximately 2,000 kilometres in a family car<sup>12</sup>.

Textile production also uses a very large number and quantity of chemicals. The Swedish Chemicals Agency has identified 2,450 different chemicals used in textile production, of which 1,150 are classified as hazardous. Of these, 368 are known as “function chemicals”, i.e. they carry out a function in the final product and therefore may pose a potential risk to consumers and the environment while the textiles are being used. Chemicals that do not have a function in the end product may also still be present in the textile, and therefore potentially pose a risk to both health and the environment<sup>13</sup>.







## **Nordic positions of strength as the basis for sustainable textiles**

The Nordic countries share a range of values and traditions in social development, including:

- **Nordic design**

The Nordic Region is world-renowned for its textile design (Scandinavian design), which signals purity, ethics and minimalism. Nordic clothing is characterised by its functionality and the industry's focus on smart clothes for all ("democratic fashion"). Nordic design is based on a long tradition of good craftsmanship and quality.

- **Focus on democracy, the environment and social responsibility**

The Nordic Region is recognised by the rest of the world as a region in which democracy and close co-operation between the citizens, business and authorities is taken for granted. Our society is built on mutual trust, and solving environmental problems is an integral part of social development. Environmental awareness is high among both companies and the general public, and the same goes for social responsibility. This position of strength must be exploited and turned into a competitive advantage for the Nordic textile industry.

- **Frontrunner in green growth and new business models**

All of the Nordic countries focus on green transition and are, in international terms, among the leading countries in green growth. The Nordic countries actively support the development of greater energy and resource efficiency, lower consumption of chemicals, etc., by introducing political and tangible measures. There is also a pronounced focus on education, research, innovation and cleantech solutions that can contribute to green growth and create new jobs. The Nordic Region must

exploit this position of strength to carry out a green transition, stimulate growth and create jobs.

- **Nordic co-operation**

The Nordic Region has a long history of working together on joint solutions that benefit both the environment and business. This co-operation is characterised by a balanced focus on both shared values and respect for the countries' cultural differences. For example, the Nordic Council of Ministers has spent 25 years developing and implementing the Nordic Ecolabel. Co-operation in the Nordic Council of Ministers provides a good basis for the development of joint initiatives that can lead to a more sustainable fashion and textile industry.

## **A Nordic beacon – the sustainable textile solutions of the future**

The major challenges facing the textile industry in terms of resources and the environment, combined with Nordic positions of strength, mean that the Nordic Region has unique potential to serve as a global beacon for sustainable fashion and textiles. Although the Nordic industry must be regarded as a minor player at international level, it can serve as an attractive, global role model by leading from the front on green solutions. Internationally, there is momentum in this area, and the Nordic fashion and textile industry is well placed to play an active role.

This is an obvious launchpad for future growth, and the Nordic Region should seize this opportunity and take action. If the green transition is to take advantage of growth potential and improve competitiveness, significant changes in behaviour will be required on all fronts. Development, research and innovation will be needed at many different levels and national initiatives can support the Nordic initiatives.



## On our way

Co-operation on a sustainable fashion and textile industry has already started across the Nordic Region, and several important initiatives have been launched. Here are some examples:

The Nordic Strategy for Corporate Social Responsibility (CSR)<sup>14</sup> was launched in 2012 to strengthen the competitiveness of Nordic companies in CSR in the long term and increase Nordic co-operation at international level.

Since 2013, the Nordic prime ministers' green growth projects<sup>15</sup> have focused on the reuse and recycling of textiles. Several of the projects have mapped and analysed the area in order to find the best solutions, e.g. in 2015 the implementation of the Nordic Commitment concerning collection of textiles for reuse and recycling. In addition to this, in 2014 the Nordic Council of Ministers launched a campaign to prevent textile waste<sup>16</sup>. In preparation for this action plan, a Nordic roadmap project was conducted in order to identify relevant initiatives and input<sup>17</sup>.

In recent years, the Nordic Council of Ministers has focused on the bioeconomy<sup>18</sup>. This entails exploring opportunities in relation to the cultivation of Nordic crops for use in the manufacture of textile fibres.

The Nordic Fashion Association (NFA), a collaboration between ten Nordic fashion organisations, focuses on a more sustainable fashion industry via education, networking, knowledge-sharing and dialogue. As well as producing a range of different tools, NFA held the Copenhagen Fashion Summit in 2009, 2012 and 2014, attended by politicians and key figures from both the

Nordic and international fashion industries. The biggest event of its kind in the world, the Copenhagen Fashion Summit builds on the ambition to make the Nordic fashion industry a world leader in sustainability.

The project LAUNCH Nordic focuses on green innovation in materials, and aims to develop a global innovation platform for the use of sustainable materials in all stages of the value chain. The basic idea is that Nordic and global stakeholders work together to create better growth conditions for green innovation. The project focuses in particular on Nordic positions of strength. The theme for 2014 was sustainable textiles, and LAUNCH Nordic nominated nine innovators in the textiles area.

In addition, each of the Nordic countries has launched a range of initiatives, forming a joint platform for knowledge and learning. In this way, the countries' national differences, focal points and instruments generated a synergy greater than the sum of its parts.

The Nordic textiles mapping project<sup>19</sup> shows that Sweden and Finland have a particular focus on technical solutions in cellulose-based fibres and recycling. For example, Sweden has launched a major research project focusing on the entire value chain<sup>20</sup>. Sweden also focuses on chemicals in textiles and the development of improved collection systems for used textiles. Norway emphasises consumer behaviour and, like Iceland, has launched initiatives with a focus on wool. In Denmark, textiles are included in the work on green growth and the use of environmental accounts in the textile industry.

The Nordic action plan should build on these efforts, enhance potential synergies and launch new initiatives (as described in the following chapters).



# 3. TOWARDS SUSTAINABLE NORDIC TEXTILES AND FASHION

## Vision 2050

The vision is for the Nordic fashion and textile industry to be the world leader in sustainable design, consumption and production, and to make a positive contribution to sustainable development and green growth, both in the Nordic Region and globally.

Making radical changes to the way in which clothes and textiles are designed, produced, sold, looked after and recirculated can significantly reduce the environmental and social footprint of the Nordic Region's fashion and textile consumption. Fashion and textiles will be part of a circular economy, in which product life will be extended and textile fibres will be retained within a closed circuit, to be used again and again.

This vision will be achieved by joint Nordic co-operation on the development of ideas and solutions, and by interacting with international initiatives.

## This action plan is the start

The action plan is the first step on the path toward realising the vision. The tangible initiatives it outlines will be implemented up to and including 2017.

The overall aim is to create the basis for a more resource-efficient and sustainable Nordic textile and fashion industry that will be free of harmful chemicals by 2020.

This will be done by:

- significantly reducing the environmental impact of textile production
- significantly reducing the consumption of textiles throughout the value chain
- working to make the Nordic Region a leader in the development of new business models for textiles in a circular economy
- contributing to increased competitiveness and job creation in Nordic companies
- profiling the Nordic countries internationally in the areas of sustainable design and production
- making it easy for Nordic consumers to choose environmentally friendly fashion and textiles, e.g. via more and better information
- reducing the use of harmful chemicals in textiles.

## Scope of the action plan

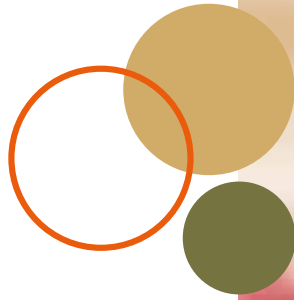
The action plan focuses on product groups that involve textiles, e.g. clothing, curtains, bedclothes and furniture.

The target audience consists of all Nordic stakeholders in the textile and fashion industry, as well as relevant authorities in the Nordic countries.

The 1987 Brundtland report Our Common Future<sup>21</sup> sets out a definition of “sustainable development” that encompasses economic, environmental and social







conditions. The action plan focuses in particular on the environmental dimension of sustainability. The aim is to exert an incremental influence on the development of Nordic textiles and fashion in order to limit the environmental footprint as much as possible.

The action plan is based on existing knowledge and initiatives in this area, both in the Nordic Region and elsewhere. In the action plan, the Nordic environment ministers place particular emphasis on knowledge-sharing, communication and activities aimed at generating dialogue. This will create a foundation for and further develop a sense of Nordic affinity within the fashion and textile industry. Initiatives under the plan will greatly benefit and add value to Nordic co-operation. They must also be practical and possible to implement by the end of 2017.

The action plan comprises four focus areas:

- Promoting sustainable Nordic design (Chapter 4)
- Lowering the environmental impact in production (Chapter 5)
- Increasing the market for environmentally friendly fashion and textiles (Chapter 6)
- Encouraging a market trend toward more recycling and reuse (Chapter 7)



# 4. PROMOTING SUSTAINABLE NORDIC DESIGN

## **Design is crucial for environmental friendliness**

Design plays a significant role in determining the environmental impact of textiles during the various stages of their life cycle. According to the EU Ecodesign Directive, 80% of a product's total environmental impact can be attributed to choices made in the design phase.

In this context, the concept of design is defined not only as the choice of materials and form, but also the textile's functionality throughout its life cycle, e.g. in relation to durability and the need for washing. The regularity with which textiles are laundered while they are in use has an effect on the environment in terms of water and energy consumption, as well as CO<sub>2</sub> emissions. Poor quality and short life cycles also have significance for the overall environmental impact.

This means that Nordic designers play a central role in the development of sustainable and environmentally friendly end products, e.g. by choosing suppliers whose textiles are made using cultivation methods that have limited environmental impact.

Sustainable design may also mean choosing longer-lasting materials or reusing existing textiles in order to extend their life cycle. It can also include "smart" and "new-design" clothes, e.g. made of dish towels or used Indian saris. Last but not least, design should also focus on the final phase of a textile's life cycle, during which the fibres are recycled into new materials.

It is a clear precondition for more sustainable development that Nordic designers know, or learn, how

their products can be made more sustainable during the various stages of a textile's life cycle.

## **Designers lack knowledge**

In the Nordic Region, there have been various scattered efforts to communicate the potential for sustainable textile choices. The Nordic design schools are involved in various forms of collaboration, but these have not been systematic.

Various teaching materials on sustainable textiles have been developed, e.g. Guidelines II: A Handbook on Sustainability in Fashion<sup>22</sup> and Bæredygtighed i designprocessen (Sustainability in the design process)<sup>23</sup>. The Sustainable Fashion Academy in Sweden runs continuing education courses on sustainable textiles for Nordic companies.

A materials library for the fashion and textile industry supplies materials aimed at encouraging designers, production managers and purchasers to make more sustainable choices. The library is located at the Danish Fashion Institute in Copenhagen.

The Nordic Council of Ministers for the Environment (MR-M) will support joint, co-ordinated Nordic efforts in this area to make it easier for Nordic designers to work with sustainable design. This work will help to improve and eventually brand sustainable Nordic textile design, and also strengthen the position of Nordic educational institutions in this area.





### **Initiative: Sustainable Fashion Academy**

The idea is to create an overview of educational and training opportunities and courses in sustainable design in the Nordic Region. This can be a first step towards the development of a joint Nordic study programme or a joint educational module in sustainable fashion and textiles.

The collaboration between Nordic design schools and continuing education must be strengthened in order to train more Nordic designers – both current and future – in the use and promotion of sustainable materials and sustainable design. A space must be created for the exchange of experiences with fabrics sold by the metre, not only in terms of production, use of chemicals, environmental labelling, origin and quality, but also in terms of design strategies that support reuse, recycling, redesign and reduced need for washing. The aim is that, over time, Nordic textile design will be synonymous with a high degree of sustainability.

Specifically, a joint digital education platform will be developed on the sustainable design of fashion and textiles, for use by graduate designers, design schools and vocational training schools. The platform will also disseminate information about study programmes and courses in sustainable textiles, and will be capable of being embedded in a joint association of Nordic design schools.

Knowledge-sharing could also be supported by a joint Nordic competition or awards for the best sustainable design solutions. Another option would be to establish a Nordic materials library.

The platform will be launched in 2015 and run until 2017. Agency responsible for the co-ordination of the work: The Environmental Protection Agency, Denmark



# 5. LOWERING THE ENVIRONMENTAL IMPACT IN PRODUCTION

Production accounts for a huge part of the overall environmental impact of textiles<sup>24</sup>. It is therefore important to focus on more sustainable production methods. The Nordic Council of Ministers for the Environment (MR-M) has selected the following three priority areas:

- Reducing the use of harmful chemicals
- Promoting joint Nordic requirements for suppliers
- Promoting more sustainable materials



# 5.1. REDUCING THE USE OF HARMFUL CHEMICALS

## High chemical pressure

Large numbers of chemicals are used in textile production, some of which are harmful to the environment and health, especially in the producing countries. These include allergenic, carcinogenic and endocrine-disrupting chemicals. Some are washed out during the production process and often end up polluting the environment in the producing countries, while others remain in the textiles. Some of those that remain are so-called function chemicals, e.g. dyes, impregnation and anti-bacterial chemicals. Chemicals that remain in the textiles can cause problems for consumers, e.g. as allergens. It is difficult to prove whether problematic chemicals in textiles pose a risk to consumers. However, several studies indicate that allergic reactions to chemicals in textiles can be a problem<sup>25</sup>.

The big challenge is that production often takes place outside the EU and involves long supply chains. This makes it harder to stipulate requirements and generate an overview of the chemicals used. In addition, many of the chemicals no longer allowed within the EU are still used in the production of imported textiles.

There is a need for greater knowledge about the use of chemicals in textiles – both in the supply chain and among consumers. One solution could be that textiles

are sold with a sewn-in or electronic “label” that lists the problematic chemicals contained in the product. This would communicate the necessary information to the consumer in the way we know from food labelling and make it possible to avoid problematic substances. The label can also be used when the textile is recycled.

## The Nordic Region shows the way

The Nordic countries have called for an EU regulation on the labelling of allergenic substances in textiles. However, in connection with the textile labelling regulation, the EU Commission decided in 2014 that the current requirements on textile products are sufficient. It will require a focused effort by the Nordic countries if a chemical labelling system for textiles is to be made a higher priority on the EU agenda.

There are also other ways of implementing labelling requirements for chemicals in textiles, e.g. via REACH. The EU Commission is currently working on a group limit for carcinogenic, mutagenic and reprotoxic (CMR) substances in textiles, via REACH, Article 68.2. It is also worth considering whether there is a need for specific legislation for textiles in relation to allergenic, endocrine-disrupting and environmentally damaging chemicals.





### **Initiative: Greater Nordic influence in the EU**

The Nordic countries will work together to propose that the EU strengthens the regulation of chemicals in textiles. The focus will be on opportunities and needs, with a view toward reducing particularly harmful chemicals in textiles in the period 2015–2017. In particular, this covers CMR substances, allergenic substances, endocrine disruptors or substances that have an adverse effect on the environment, such as persistent and bioaccumulative substances, and substances on the candidate list (substances of very high concern). Other chemicals could also be included, e.g. azo dyes.

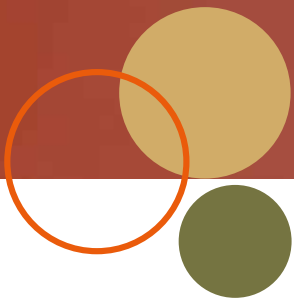
This work in the EU will require documentation of the presence of specific chemicals in textiles, as well as their harmful effects. There will therefore be a need for Nordic prioritisation of the area, in the form of targeted mapping surveys, and to keep up to date with current industry initiatives such as ZDHC (Zero Discharge of Hazardous Chemicals).

As a first initiative in order to strengthen the Nordic co-operation on this issue, it is proposed that external consultants analyse the current initiatives concerning the labelling of chemicals in textiles. This analysis will identify the need for labelling (including positive and

negative side effects) and which substances should be covered, as well as legal and practical issues related to implementation. Last but not least, it is important that the analysis proposes a Nordic strategy for a labelling system for chemicals in textiles. The project will be co-ordinated with other activities in the area, including in relation to international initiatives under SAICM<sup>26</sup> and under the auspices of the United Nations.

Nordic co-operation should also provide input into the strategy currently being developed by the EU for a toxic-free environment, in order to strengthen innovation and the development of sustainable replacements, including non-chemical solutions<sup>27</sup>. The strategy, which is scheduled for publication in 2018, will focus on issues such as exposing consumers to fewer chemicals and endocrine disruptors, including from imported products. This has particular relevance for the textile area.

The initiative will be launched in 2015 and will run until 2017. The analysis of labelling is expected to be completed in 2016. Agency responsible for the co-ordination of the work: The Environmental Protection Agency, Denmark. The work will be embedded in the Nordic Chemicals Group (NKG).





## 5.2. PROMOTING JOINT NORDIC SUPPLY-CHAIN MANAGEMENT

### Transparent supply chains

Textile production for the Nordic market is associated with a range of environmental, health and social challenges. Many of these are linked to the actual production process, which often consists of numerous steps involving multiple manufacturers. It can therefore be complicated to exert influence on the supply chain as a whole – and even harder to stipulate the necessary requirements and document compliance.

Although many industry players have developed their own guidelines, none of these apply to all of the companies involved and set appropriate minimum requirements – such as maximum water consumption or energy consumption per kg of clothes.

### Industry goodwill

Most of the industry players in the Nordic Region are engaged in work with more sustainable textiles, and as such have established their own systems for placing demands on suppliers and ensuring compliance. Big companies in the EU can consult the BREF (Best Available Techniques Reference Document, 2003), which sets production-related requirements for textile manufacturers, among others.

The EU and the Nordic ecolabels (the Flower and the Swan, respectively) have been on the market for many

years and also place particular demands on production. Compliance is voluntary and the schemes are aimed at the leading segment (in environmental terms) of the market. However, few of the textile products available on the market carry an ecolabel. As a result, consumers still only have limited opportunities to make environmentally friendly choices in this way.

In recent years, there has been increasing interest in environmental accounts (Natural Capital Accounting)<sup>28</sup> as a tool that can inform decisions regarding sustainability. The industry is in the process of developing an indicator-based tool – the so-called “Higg Index” – for assessing the sustainability of clothing and shoes throughout the supply chain, including production.

According to the Nordic mapping survey of initiatives in the textile area, there are no Nordic initiatives to promote joint supplier requirements in addition to the systems already in place in individual companies<sup>29</sup>. The new Danish partnership on chemicals in textiles<sup>30</sup> is currently working on, among other things, tools for supply-chain management. A Swedish initiative is helping companies reduce the use of harmful chemicals<sup>31</sup>.



## **Initiative: Voluntary industry agreements on sustainable textile production**

A study will be conducted of whether it is possible to reach voluntary, pan-Nordic, business-driven industry agreements concerning minimum requirements for textile production, based on one or more relevant environmental parameters and social aspects.

In 2015, a working group will be set up comprising industry stakeholders, authorities and independent experts. The group will explore the potential for establishing voluntary industry agreements, and – if relevant – for involving more industry players in such agreements.

It is expected that establishing the Nordic textile industry as a leader in sustainability will also make it more competitive on the global market.

The first part of the process will consist of meetings and discussions in a working group comprising representatives from the industry and the authorities in the Nordic countries. Topics covered will include:

- opportunities for co-ordination with national industry initiatives and with national or international standards being developed in the area
- linking with existing international standards for social responsibility and corporate social responsibility, e.g. the general guidelines in the UN Global Compact
- potential industry partners, e.g. companies and trade associations, including evaluation of relevant types of company (e.g. production companies and retailers) – and, potentially, authorities
- solutions to facilitate supply-chain management and traceability
- areas in which it may be relevant to set minimum requirements, e.g. with negative lists (RSL– Restricted Substances List) for chemicals or to limit pollution; improvements to working conditions; waste management; and water consumption
- whether there is concrete interest in reaching agreements
- how agreements can be reached and kept up to date.

Based on the outcomes from the discussion listed above, the second part of the process could consist of:

- drawing up industry guidelines with relevant minimum requirements
- clarification of possible parties to agreements and entering into actual agreements
- dissemination of knowledge about the industry guidelines
- follow-up on the agreements reached.

The initiative will be launched in 2015 and will run until 2017. Agency responsible for the co-ordination of the work: The Environmental Protection Agency, Denmark.



## 5.3. PROMOTING MORE SUSTAINABLE MATERIALS

### **Environmentally friendly materials wanted**

A very large proportion of the clothes and textiles used in the Nordic countries is produced outside the Nordic Region. However, the Nordic countries also have at their disposal materials that could be used in textile production, and these should be studied in greater depth.

The opportunities for using Nordic materials could strengthen the marketing of the Region as a leader in sustainable fashion and textiles. This work could also help to re-establish textile production in the Nordic Region (re-industrialisation).

Greater use of local resources in textile production can make an important contribution to the Nordic bioeconomy and support growth and new jobs.

In Sweden and Finland, chemical wood pulp is considered to have particularly great potential. Research is also being conducted into the production of textiles from materials such as milk, seaweed and fish scales. The actual degree of sustainability for these materials will depend on the specific production processes.

Another way to develop more sustainable materials is to improve the environmental profile of existing materials, such as wool and cotton. This can be done by reducing the consumption of energy, chemicals and water.

### **New business opportunities in sight**

In Sweden<sup>32</sup> and Finland, research is being conducted into chemical wood pulp as an alternative to cotton.

The Swedish ForTex Innventia Research Project<sup>33</sup> is testing the technology in a pilot plant. In Finland, FIBIC<sup>34</sup> is conducting research into creating new markets for advanced cellulose products, including textiles.

Norway has studied the possibility of bringing back Norwegian wool as a textile material (Valuing Norwegian Wool), while Finland is focusing on the use of hemp in textile production<sup>35</sup>.

In Denmark, Novozymes is exploring new uses for enzymes in textile production. The enzymes can reduce a textile's environmental impact and improve the durability of finished products. Test results have shown a reduction in the consumption of water, energy and chemicals<sup>36</sup>.

At Nordic level, LAUNCH Nordic is working to develop a global innovation platform for the use of sustainable materials throughout the value chain. Nordic and global players must work together to create better growth conditions for green innovation. Work is also being done at Nordic level on textiles' bioeconomic potential<sup>37</sup>.

Given the number of current initiatives – at both Nordic and national level – there is no immediate need to launch further Nordic initiatives. However, this should be reconsidered at a later date.





## 6. EXPANDED MARKET FOR ENVIRONMENTALLY FRIENDLY FASHION AND TEXTILES

Market developments and changes in consumer behaviour are inextricably linked. There is a need for work on multiple fronts in order to prepare the way for a more sustainable fashion and textile industry. In addition, there is growing interest on the market and among consumers. The Nordic Council of Ministers for the Environment (MR-M) is in favour of joint efforts to encourage this trend.





## 6.1. LARGER MARKET SHARE



### **More environmentally friendly textiles wanted**

The present market for sustainable textiles is too small and needs to grow if the objectives in the action plan are to be achieved. However, increasing the market share necessitates changes in both supply and demand.

At present, consumers who want to buy sustainable textiles have the option to demand ecolabelled products (the Nordic Ecolabel (The Swan) and the EU Ecolabel (The Flower)). Sweden also has its own label “Bra Miljöval” (Good Environmental Choice). A number of other labels cover individual areas, e.g. GOTS (organic textiles) and Ökotex (harmful chemicals). In addition, individual companies have developed their own labels, e.g. H&M Conscious.

Nevertheless, the supply of Nordic- and EU-ecolabelled textiles is still limited. A Nordic project in collaboration with Indian textile manufacturers in Tiripur shows that companies do not believe that consumers are willing to pay extra for ecolabels on their clothes. In addition to lack of demand, the Nordic companies also experience a number of other barriers to ecolabelling, e.g. uncertainty regarding documentation and the timescale for the labelling process. The project recommends that the Nordic Council of Ministers supports branding, training and information about the advantages of ecolabelling. In addition, the project recommends co-operation with green textile clusters such as the one in Tiripur<sup>38</sup>.

Authorities are able to influence the market directly via the public procurement of textiles. Textiles are one of ten product groups for which the EU has set a voluntary target of 50% green procurement and has developed criteria for green procurement. The new EU procurement

directive also makes it possible to demand ecolabelled products and services.

In the future, there may also be other options that provide easier access to more sustainable textiles for both consumers and procurement professionals. The EU is working to develop an environmental footprint for products, based on shared European methods and for use by both consumers and procurement professionals. These methods are currently under development. T-shirts are one of the products selected for the pilot phase during 2013–2016<sup>39</sup>. Nordic co-operation has been initiated to follow up on the work in the EU.

One recurring question is how to guarantee a market for resource-efficient textiles with long durability. A Nordic quality label may be one option, but the question is whether this would be relevant, as a wide range of quality parameters are already included in the EU’s criteria for public green procurement and for the Nordic ecolabels and the EU Ecolabel, e.g. light resistance, washability and shrinking. These criteria are based on European standards (EN) that are commonly used throughout the industry.

### **Public sector showing the way**

The Nordic countries have different guidelines for the public procurement of sustainable textiles. The EU criteria are used to varying degrees. It is not known exactly what proportion of textiles is sustainable. The European Commission’s latest study showed that many calls for tenders for textiles in Sweden included at least one of the criteria (89%), whereas far fewer included all of the criteria (22%)<sup>40</sup>.



Consumers do not appear to place much focus on whether textiles carry the EU Ecolabel and the Nordic Ecolabel. A number of licences have been issued for textile products in the Nordic countries, e.g. 135 in Norway<sup>41</sup> (early 2015) and nearly 500 in Denmark<sup>42</sup> (mid-2014). This is a marked increase on previous years. The licences are mainly issued for children's clothes, work clothes and ordinary clothes. By contrast, ecolabels are rarely found on the latest fashions. Very few textile products carry the Nordic Ecolabel. Most of the licences issued to textile products are for the EU Ecolabel.

At national level, the Swedish Environmental Management Council produced a buyers' guide for textiles and leather<sup>43</sup>, and developed criteria for public-sector green procurement<sup>44</sup>. The Swedish Competition Authority is working on procurement criteria for schools and nurseries, which also covers textiles. Region Västra Götaland is also developing the "Green List", which aims to simplify public procurement<sup>45</sup>.

In Norway, public-sector guidelines focus on social responsibility in connection with the procurement of clothing and shoes<sup>46</sup>, while the Nordic ecolabel helps buyers by setting environmental requirements for textiles, including work clothes<sup>47</sup>.

In Denmark, the Partnership for Green Public Procurement is working toward the adoption of green procurement targets for textiles and textile services. The Partnership accounts for public procurement worth more than DKK 40 billion. Binding targets for procurement will therefore make a major impact. The municipality of Herning (also in Denmark) has published its own guidelines for purchasing work clothing, including reuse.

### **Initiative: Nordic guidelines and co-operation on green procurement**

The guidelines will make it easier for public-sector procurement staff in all of the Nordic countries to place requirements on more sustainable textiles and textile services. It is proposed that the guidelines focus on an area in which there is major potential and homogeneity.

The guidelines will make it easier to implement the various stages of the tendering and procurement process, including applying national criteria in the procurement of textiles. They will also allow tenders for public procurement contracts to stipulate criteria for ecolabelling, environmental management, reuse and the durability of textiles, and set out business cases for environmental requirements for textiles. The guidelines will include examples of green procurement in practice in the Nordic Region. They will also contain a policy section detailing how environmental targets can be integrated into procurement policy.

The guidelines will be drawn up in collaboration with a range of public-sector procurement staff. Once the guidelines are completed, a Nordic workshop will be held for textile procurers, to share knowledge as widely as possible.

The focus will be on raising awareness in political circles of how public procurement can act as a driver for ambitious environmental targets. The project will also study the potential for public-sector institutions entering into joint voluntary agreements on the procurement of sustainable textiles and textile services.

The initiative will be implemented in 2015–2016. Agency responsible for the co-ordination of the work: The Environmental Protection Agency, Denmark. The work will be embedded in the Working Group for Sustainable Consumption and Production (HKP).

### **Initiative: Promoting the supply of ecolabelled products**

Joint Nordic ecolabelling initiatives will boost the supply of ecolabelled textile products (the Nordic Ecolabel, the EU Ecolabel and Good Environmental Choice). In general, the work will focus on the supply of ecolabelled textiles and increase the visibility of these products.

The initiative will encourage Nordic brands and retailers to improve their promotion of ecolabelled textiles and make them more visible. This will be done by the ecolabelling organisations and the industry working together to develop new joint marketing ideas. The appointment of ecolabel ambassadors for textiles could also be considered.

The second part of the work will focus on supporting manufacturers and brands who apply to have the ecolabel on their products. The work will focus on solving the challenges that producers face in relation to the application procedure, including speeding up the issuing of licences.

Producers need more information about documentation requirements and about the opportunities for pre-approval of, e.g. subcontractors and colour palettes.

The ongoing co-operation between textile producers in Tiripur in India and the Nordic textile industry will also be supported.

The initiative will be implemented in 2016. The work will be co-ordinated and implemented by the Working Group for Sustainable Consumption and Production (HKP).



## 6.2. PROMOTING ENVIRONMENTALLY CONSCIOUS CONSUMER BEHAVIOUR

### **Not enough wear and tear on clothes**

Consumer behaviour is a crucial factor in the environmental impact of clothing and textiles. The impact can be reduced substantially if consumers become more aware of how to reduce wear and tear on their clothes – e.g. during the washing, drying and ironing processes. This would also lead to a smaller CO<sub>2</sub> footprint and a less negative impact on the aquatic environment.

The fashion industry is continually offering new collections, brands and products. “Fast fashion” has become common, and encourages greater consumption and rapid changes of wardrobes. At the same time, a wide range of clothing is also available at low prices, as these garments are of relatively low quality and less hard-wearing. Low prices and poor quality also mean that there is little to be gained by repairing clothes or buying second-hand outfits.

In addition, consumers often only have limited knowledge of how hard-wearing a garment is, the chemicals it contains, how to wash, dry and iron it, options for disposal after use, etc. This information is rarely adequately displayed on the garment. It is therefore difficult for the consumer to choose to act in an environmentally friendly manner.

Focused efforts will be needed on several fronts if consumers are to change their behaviour in favour of buying fewer, better and more hard-wearing textiles – especially if these are a little more expensive.

### **Recycling is the new black**

Luckily, it is not only the consumption of new clothes that is increasing in the Nordic Region. In Sweden, Finland and Denmark, interest in and sales of redesigned, second-hand and vintage clothing have risen, and markets selling second-hand clothing are increasingly popular. A Swedish study notes that people buy second-

hand clothes because they are unique, cheap and good for the environment<sup>48</sup>.

However, it still seems that people are not particularly likely to make an effort to extend the life cycle of clothes they already own. A small survey shows that over 60% of young people have never been to a tailor to have garments repaired or adapted. Over 90% of young people would not consider using a tailor if their clothes needed repairing<sup>49</sup>. However, there is a tendency for them to be more willing to repair expensive clothes or clothes with great sentimental value.

In recent years, there have been several initiatives in the Nordic Region aimed at making it easier to extend the lifespan of clothes and textiles. Efforts have also been made to collect more discarded clothes for reuse (and recycling)<sup>50</sup>. Other developments include the online sale of vintage clothing; shops with subscription schemes for lending and hiring clothes; clothing libraries; places to donate used clothing; repair cafés; and swap markets.

There is a great need for consumer-directed initiatives on textiles. The most relevant path can often be to implement tailor-made national initiatives adapted to local conditions. Nordic co-operation can, however, generate synergies and facilitate exchanges of experience. At Nordic level, in 2014 the Council of Ministers published the consumer guide “Brug tøj – Brug hovedet – Skån miljøet” (Use your clothes – Use your head – Spare the environment) and released a short film featuring good ideas about protecting the environment by making changes to clothes consumption.

The Nordic Council of Ministers for the Environment (MR-M) is calling for ongoing Nordic co-operation on consumer-directed initiatives designed to encourage consumers to change their lifestyle by using textiles in a more environmentally friendly manner.





# 7. MARKET TREND TOWARDS MORE RECYCLING AND REUSE

## **We throw resources away**

In the Nordic Region, there are very limited opportunities for recycling and reprocessing textile waste into fibres to be used again. Previously, it has been uneconomic to develop technology for and operate a textile-recycling plant, partly because waste volumes have been too low, and partly because textiles typically consist of many different materials. In addition, there is very little demand for recycled fibres.

None of the Nordic countries has in place requirements for the collection of discarded textiles for reuse and recycling. Charity organisations are key players in this area, but interest in the market is growing among private stakeholders. Charity organisations usually collect textiles for sale in their own second-hand shops or for export to sorting plants abroad for reuse and recycling (with a remainder disposed of along with other waste).

The Nordic fashion and textile industry has limited experience of the circular economy, including knowledge of the environmental effects. Studies show, however, that there are environmental benefits to be gained as long as textiles are reused and recycled in ways that reduce the need for the production of new textiles.

The Nordic environment ministers want to contribute to job creation and green growth. They have therefore initiated work to establish more closed circles and commercial business models that can help to prolong the life of textiles and increase the volume of recycled textile waste. The business models will make it easier for consumers to prevent waste and avoid spill at the end of the life cycle. For example, it may be possible to share, rent, lease, loan or recycle products instead of buying new ones.

One of the main challenges is the severe lack of data about textile volumes, harmful chemicals and material

flows. In recent years, attempts have been made to map the textile flow in the individual Nordic countries, but no overview exists of the actual volumes – neither for reuse nor recycling. It is particularly difficult to quantify the volumes of the collected textiles once they leave the Nordic Region. This lack of transparency leaves room for people to collect and export used textiles and clothes outside of the well-established systems by setting up illegal containers and stealing from official ones.

## **Toward a circular economy**

The Nordic Council of Ministers has put a great deal of effort into mapping textile flow in the Nordic countries, including calculating textile volumes and identifying stakeholders in the industry.

The focus has also been on mapping and evaluating different business models that can extend the life cycle of textiles. Sweden has set a target for toxic-free and resource-saving life cycles. A major analysis is being conducted of the potential for implementing an extensive system of producer responsibility for textiles and setting criteria for the approval of collection systems.

In 2013–2014, as part of the Nordic prime ministers' "green growth" initiative, a proposal was drawn up<sup>51</sup> for a voluntary Nordic commitment to ensure greater transparency in the collection industry, which would make life difficult for illegal operators. The commitment defines the ideal process for the collection of textiles for reuse and recycling. Another project<sup>52</sup> has analysed and developed proposals for relevant producer-responsibility schemes and new business models.

At the start of 2015, the Nordic Waste Group launched a Life Cycle Analysis (LCA) project, which will improve knowledge of the overall environmental effects of the reuse, recycling and incineration of textiles.



### **Initiative: Focus on market barriers and drivers**

A stakeholder analysis will be conducted to identify attitudes and perspectives regarding increased reuse and recycling of textile waste in the Nordic Region, including opportunities for using recycled fibres in the production of new textiles. The objective is to identify existing barriers and how the necessary market drivers can be stimulated. The analysis will involve stakeholders from national and local authorities, industry, collecting organisations, etc.

The analysis will form the basis for a catalogue of proposals for relevant initiatives and measures that will create market momentum. A process will then be implemented to ensure dialogue and facilitate practical co-operation throughout the value chain, in order to “nudge” the market along.

The initiative will be implemented in 2016. The work will be co-ordinated and implemented by the Nordic Waste Group (NAG).

### **The Nordic prime ministers’ green growth initiative**

In extension of already implemented projects, and as the natural next step in the process, the Nordic Waste Group decided to launch several new activities in 2015:

#### **Nordic textile reuse and recycling commitment**

In the light of the proposal drawn up for a voluntary agreement, further work will be done to establish the necessary frameworks, including clarifying who can and will be responsible for managing and following up on the agreement, disseminating knowledge, etc.

#### **Socio-economic evaluation of selected take-back schemes**

To qualify decisions on the implementation of producer-responsibility schemes (both compulsory and voluntary) and new business models in one or more Nordic countries, the existing analysis of the potential will be supplemented by a socio-economic analysis of issues such as:

- job-creation potential
- environmental benefits
- cost to the industry.







# 8. FOLLOW-UP ON THE ACTION PLAN

## **Dialogue with stakeholders on progress**

Knowledge-sharing and ongoing broad support across the entire Nordic Region are important for the implementation of the action plan. As such, all relevant stakeholders will be involved in the action plan initiatives. Two dialogue sessions will be held focusing on the development of a sustainable Nordic textile and fashion industry – the first in 2016, the second in 2017.

The dialogue will be the catalyst for the action plan and generate synergies with other Nordic initiatives. It will also ensure that relevant knowledge is disseminated to companies, authorities and NGOs.

The aim is to further develop Nordic co-operation within the parameters of the action plan and, where appropriate, to disseminate information in the Nordic Region and globally, e.g. initiatives for international work may be taken under Nordic auspices. This could take the form of work to encourage the use of environmental accounts in the textile industry, or of the Nordic countries suggesting that textiles be the theme of a new programme under the UN's 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP).

The initiative will be implemented in 2016 and 2017.

The work will be co-ordinated and implemented by the Environmental Protection Agency, Denmark.

## **Responsibility for following up on the action plan**

The Danish Presidency of the Nordic Council of Ministers in 2015 has overall responsibility for the implementation of initiatives under the action plan until the end of 2017. The name of the organisation responsible for co-ordination and implementation is listed below each initiative.

A progress report on the development and status of the action plan will be submitted to the Nordic Council of Ministers for the Environment (MR-M) in late 2017 or early 2018.

# INITIATIVES UNDER THE ACTION PLAN:

## **Focus area: Promoting sustainable Nordic design**

Initiative: The Sustainable Fashion Academy

## **Focus area: Reducing the environmental impact of production**

Initiative: Greater Nordic influence in the EU on chemicals

Initiative: Voluntary industry agreements on sustainable textile production

## **Focus area: Expanded market for environmentally friendly fashion and textiles**

Initiative: Nordic guidelines and co-operation on green procurement

Initiative: Promoting ecolabelling of products

## **Focus area: Market trends towards more recycling and reuse**

Initiative: Focus on market barriers and drivers

## **Follow-up on the action plan**

Initiative: Dialogue with stakeholders on progress



# NOTES

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- <sup>25</sup>See note 13, p.42.
- <sup>26</sup>Strategic Approach to International Chemicals Management.
- <sup>27</sup>The 7th EU Environment Action Programme “Living well, within the limits of our planet”, 54 (iv).
- <sup>28</sup>Natural Capital Accounting (NCA) is a wide-ranging concept that covers several approaches, including Environmental Profit & Loss (EP&L). An EP&L analysis is an attempt to account for the ecosystem services on which a company and its entire value chain are dependent in financial terms.
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