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REPORT

State of the Art in research on 'Policy for Future Fashion'

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introduction

This report will focus on policy recommendations and proposals for advancing sustainability in the fashion and textile industries. What is the current state of the art?

The report considers and summarises policy suggestions and proposals that range from specifictobroad---brushproposals.Thematerialassessedincludesacademicresearch,agency and research centre reports and government sponsored work. The purpose is to highlight what is 'on the agenda' in terms of policy for sustainability in the fashion and textile industries. It is important to state early that the aim is not to develop an independent argument about what the impact of potential policy proposals might be in terms of environmental efficacy. That is the work done by environmental scientists, environmental economists and life---cycle analysts who generally author the material examined here. The function of this document is to firstly, identify what policy proposals are currently most salient in the ongoing research discourse represented by contemporary reports and secondly, engage with these policy ideas in a distinct manner by evaluating what may be politically achievable and where near---future policy change and advances are most likely to come.

There is a wide range of definitions of 'sustainability'. It can be an idea, a property of living systems, a manufacturing method or a *way of life*. Most definitions include the following three aspects: (1) living within the boundaries of what the environment can afford; (2) understanding the complex interconnections between economy, society and the environment, and (3) the equal distribution of resources and opportunities. The broadness of the concept entails a challenge for analytical precision, and perhaps even more so due to the fact that the mostly used definition is from the so---called Brundtland report (WCED 1987). The report focuses on sustainable *development* and states that sustainable development is "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Since the Brundtland Commission first defined sustainable development a numerous of scholars and practitioners have put forward their own definition; yet a fixed meaning remains elusive. This has led some observers to call sustainable development an oxymoron "which prompted a number of discursive interpretations of the weight to be attached to both 'development' and 'sustainability" (Redclift 2005:225). Sustainable development has however become a mainstream concept and has proceeded rapidly since the publication of the Brundtland Report. The risk of co---optation and misuse of the concept has been discussed repeatedly (see Lélé, 1991; Luke, 1995; and Fernando, 2003). These discussions has not hampered the use of the concept and it is now commonly used by governments, companies, NGO:s and financial institutions. The success of the concept can probably be explained by its ability to providing a common ground for discussion among a range of actors who are frequently at odds (Pezzoli, 1997). It was early on described as the "new paradigm for development" (Lélé 1991). Although problematic, it is considered by many researchers to be a valuable concept since it functions as a guiding institutional principle, a concrete policy goal, and as a focus of political struggle (Snodder et al 2006:253). Dryzek compares sustainable development with the concept of democracy and concludes that the fact that the concept is contested does not in any way mean that it should be dismissed (2005:147). The contestation over the essence of the concept is what makes it interesting. However, he suggests that it might make more sense to see it as a discourse rather than a concept "which can or should be defined with any precision" (ibid).

Dryzek´s view is backed and elaborated by Kates *et al.* who states that: "sustainable development draws much of its resonance, power, and creativity from its very ambiguity. The concrete challenges of sustainable development are at least as heterogeneous and complex as the diversity of human societies and natural ecosystems around the world. As a concept, its malleability allows it to remain an open, dynamic, and evolving idea that can be adapted to fit these very different situations and contexts across space and time.

Likewise, its openness to interpretation enables participants at multiple levels, from local to global, within and across activity sectors, and in institutions of governance, business, and civil society to redefine and reinterpret its meaning to fit their own situation." (2005)

Others argue that the ambiguous theoretical basis of sustainable development and the lack of consensus about its meaning make its implementation almost impossible (Sneddon 2000). Another line of criticism is on how the concept is used by the powerful to hold on to their privileges. Shiva notes that, in its mainstream guise, sustainable development is in danger of privileging global environmental problems and global institutions to put focus, for example, on the *problem* of poverty rather than the origins of *poverty production* (1993). Therefore the prospect for the concept to be an instrument for 'transformative politics' is limited. One suggested solution to counter these limitations is the use of the concept 'sustainability' which is considered as not having been co---opted into the mainstream hegemony to the same degree (Sneddon 2000; Adams 1990; Sunderlin 1995). 'Sustainability' is seen as having a 'multiplicity' of meanings, (Paehlke 1999:243), whereas sustainable development assumes that growth is both possible and desirable. Both terms view the economy, the environment and society as inevitably bound up with each other; but sustainability does not assume that economic growth is essential (Paehlke 1999). Like sustainable development, *sustainability* has a 'complex conceptual structure' (ibid 1999:246), and is also criticised for its vague, ill---defined character (Becker *et al.* 1999). Thereby it is considered to introduce more normatively based obligations to growth and pleas for justice for future generations – implying that the economic process should be 'subordinated to social and ecological constraints' (Becker *et al.* 1999:5). Most researchers and practitioners would agree on that from a more realistic perspective it is difficult to see policy shifts that do not take economic growth into account. The challenge ahead is rather "de---coupling environmental pressures from economic growth" (OECD 2001:9).

Even though the understanding of a concept is essential this is not a report on the genealogy of 'sustainable development' or 'sustainability'. In this report we will for practical reasons use the concept sustainability in its broader meaning and consider it to be an umbrella for policy initiatives *aiming to lower overall environmental impact*. Since actual policies often are intended for political action they are bound to balance economical, societal and environmental concerns. In this report less attention will be directed towards the social dimension of the concept.

disposition of the report

This report contains three parts, each more concrete than the previous. Firstly, a review of policies for sustainability will be presented. Policies for sustainability do not differ substantially from policies used for other purposes. There are no specific sustainability policies. Still, there are a couple of features that in sum make policies for sustainability particular, in way make them unique. In this section the idea of policy---mix and the questions concerning constructing such a mix will be discussed. The following section will be a more detailed discussion about more specific policy instruments. The idea is to present the current debate on more specific means for achieving sustainability. In this discussion the proposal of extended producer responsibility will be covered, as well as other instruments for reducing consumption and resource efficiency. The final section will cover proposals specifically aimed for achieving **sustainable fashion.**

policy-making and sustainability

The policy literature has since long been divided into different theoretical streams. At times these have almost been regarded as incompatible since they stand on different ontological grounds. As in many other theoretical discussions the policy debate is nowadays more about how to combine different approaches and more often they are seen as complimentary rather than conflicting (Cairney 2013:1; Knill & Tosun 2012:283; see Adelle & Weiland 2012 for a similar discussion regarding policy assessment). Combining theories is particularly high on the public policy agenda, since the policy literature is "often characterized as *ad hoc* and case---study based,

rather than driven by the testing of hypotheses derived from "generalizable theories" (Smith & Larimer, 2009:15–17). This is partly a result of what is perceived as the complex nature of policy studies in which "the practice of decision---making rarely arranges itself in a manner suitable for the testing of hypotheses" (John, 2012:9). Understanding policies and how they come about is sometimes describes "as much an art as it is a science". (Collins et al 2003:3) This is in contrast to the study or assessment of the effects of policies – the outcome of measures taken – that, traditionally, to a larger extent have been quantitative and rationalistic in nature.

The theoretical strands dividing the policy debate are the conceptions of power, the rationality of policy---makers, the importance of networks and the importance of institutions (as explicit and implicit rules for behaviour). Regardless of which approach taken, policies are usually seen as processes and a number of different conceptions of the policy process have been developed. (John 2012)

Theoretically there are several ways of "giving an account of policy, which stress different aspects of the processes at work" (Colebatch 2009:24). The spectra of policy---making can be categorised as consisting of: (a) policies as the result of governmental decision---making; (b) policies as the interplay of a range of stakeholders; and (c) policies as a result of shared understandings, values and practices (Colebatch 2009:24). To date no study have been conducted that focus on these spectra of policy---making in regard to fashion and textiles.

Regulators can improve sustainability through the use of rules, incentives and demands (Bemelmans---Videc 2007; Collins 2003). It is commonly thought that strategies that combine these means are more effective than the singular use of only one of them (Foxon & Pearson 2008). Promoting compliance to more sustainable actions and processes is thus done by a systematic combination of different policy instruments, based on both compulsory and voluntary means. Howlett and Rayner described the history of instrument mix analysis in terms of three generations of thought. They argue that first generation studies of instrument choice focused either on technical or political explanations for choice, on the debate between 'good' pro---market approaches and 'evil' non---market approaches, and were detached from practices on the ground. Second generation analysts attempted to become more policy relevant, for example by considering the role of policy networks in instrument development, but still tended to focus on single instruments, albeit acknowledging that others are present. Third generation thinking has now recognized the need to develop 'optimal policy instrument designs in complex multi---instrument settings' (Howlett & Rayner, 2007). One important and widely agreed conclusion is that many different policy instruments ought to be used to obtain environmental goals. The rationales for relying on policy mixes rather than isolated policy instruments are several. Moreover, several policy instruments affect different parts of the targeted system and may address different types of market failures. Apart from environmental effects, policies are needed to address information problems, recycling design incentives *etcetera*. Policies must also take into account different political constraints and issues of public acceptance – apart from economic efficiency concerns and environmental effectiveness. (For a discussion on policy mix of waste management system see; Finnveden 2013:870)

Gunningham's work is considered particularly influential in calling for 'smart regulation' (Gunningham & Grabosky, 1998), proposing that policy designers should consider all instruments available, employ a carefully designed mix responding to context---specific features, consider non---state options to do more with less, and actively consider procedural options such as information---based and network management approaches. These designed mixes are called 'new governance arrangements' (NGAs) and are used to reshape regulatory structures where the goals of policy may be incoherent, and mixes of instruments inconsistent. They argue that 'integrated' NGAs are both coherent in goals and consistent in mix, and they caution against attempting to develop NGAs by 'layering' new instruments on top of old, 'drifting' by shifting policy goals leaving inconsistent mixes, or attempting 'conversion' of a consistent existing set of instruments by adding new

incoherent goals. This view builds on Howlett's previous work (Howlett et al., 2006) that explores the challenges of identifying what the component parts of a mix of instruments are in reality, highlighting the considerable effort required even to establish an inventory of instruments in a given policy area, and the lack of data that they found to describe each part on which to base reform (Taylor et al. 2012:282---283). Still, most theories on public policy adhere to the concept of bounded rationality and take into consideration the context where decisions are made, as well as taking the limited resources of policymakers and their limited ability to change previous decisions into account (Cairney 2012:7).

A lack of coherence with other instruments may limit the effectiveness of instruments in practice (Tojo & Lindhqvist 2010). Confusing, complex or inconsistent regulation seems unlikely to encourage business compliance. The effectiveness of instruments may also be affected by their consistency over time, as businesses and individuals may prefer clear long---term signals about policy direction against which they can plan. Honkasalo et al. (2005) emphasize the importance of consistent requirements and signals that improvements will be needed, in the short and long term, as elements of the ideal permitting process, and these principles. Poorly integrated mixes of instruments are expected to be complicated, be costly to administer, provide conflicting incentives and be difficult to change (Howlett and Rayner, 2007), so the coherence of regulatory design has been highlighted as a key factor influencing efficiency and effectiveness (OECD 2001:8; Taylor et al. 2012:284).

Another important issue concerning discussed is that the lack of flexibility could result in regulatory instruments ceasing to be suitably targeted and their effectiveness diminishing. The necessity for change may arise as a result of social, economic or environmental change, or as a result of new information becoming available (Howlett & Reyner 2007). Policy instruments may be deliberately designed to change over time since policy instruments always will be in a state of flux. This means that policies need to be maintained, adjusted and complemented at intervals. Governance of an environmental policy instrument must be active. Finnveden et al argue that political solutions, or policies, should to our minds be seen as associated with the negotiation of rules, restrictions and sanctions for the protection and management of natural resources. This view on the necessity of seeing policies as something temporary give that it is important to qualitatively assess how the regulations function for people's ways of thinking and acting. Here, the concept of negotiation provides a perspective on the relationship between actors with the power to introduce regulations and the groups whose everyday lives is affected. (2013)

Jones (2007) has identified seven approaches in which environmental regulation exhibits adaptability to address scientific uncertainty, ranging from simply acknowledging that uncertainty needs to be taken into account in decision making through to 'adaptive management'. Adaptive management explicitly recognizes managers' uncertainty in knowledge about a system, and holds that if no single best policy can be chosen a set of alternatives should be trialled and monitored to learn about the effects of different courses of action (Linkov et al., 2006). While an adaptive management approach has been adopted for various ecosystem management and remediation challenges (Linkov et al., 2006), it is unlikely to be appropriate for all regulatory problems, for example where a monitored failure could still have a major impact.

It is crucial that the target which policy aims to influence, for example industry and citizens, understand and are made aware of the policies; have the resources to enable them to comply; and are, at least in principal *willing* to comply. Thus, in studying policy, its motivations, success and implementation it is important to focus both on the instruments at the disposal of regulators and the way in which these instruments are received (van der Doelen 2007:130---131). Often the effectiveness and results of a specific policy instrument is depending more on the implementation phase than on the design or character of the instrument itself. Since successful implementation is dependent on the compliance of the recipient, policy failures can often be understood in terms of lack of understanding, resources or willingness. In the policy literature there is strong emphasis placed on the necessity of willingness (Knill & Lenschow 2005). Unsurprisingly,

implementation has a greater chance of success when the recipient is willing to comply, otherwise there are many ways to neglect or ignore the policy signals. The challenge for policy---makers to have a great impact is primarily about their capacity "to redefine the parameters of what is socially, politically and economically possible for others", or what can be seen as *context---shaping* (Hay 2002). The work done by the Swedish Chemical Agency in their industry dialogues could be seen in this light. That is, through deliberative discussions with representatives from the industry set a common frame of understanding a policy issue. An important lesson in understanding the reality of implementing policies is seeing it as a learning process taking place in a specific type of politico---administrative regime. An awareness of the specific institutional setting is crucial since the specific context shape the outcome of the policies (Pollit & Bouckaert 2004). So, this contextual knowledge is necessary to identify policy instruments supporting or hindering change. For example, it is necessary to identify policy's current and potential role in aiding the fashion industry's move towards sustainability. This needs to be studied by a focused research agenda designed to pinpoint how well---constructed policy can influence, even create, new social contexts through supporting and pushing compliance.

The discussion on willingness corresponds with the idea that policy instruments must be grounded in everyday life and 'mind'. They must correspond to something that is fairly straightforward to do and understand, and it must give a real or abstract gain. If these criteria are met it means that the instruments should be intelligible, comprehensible and perceived as legitimate. Even if an instrument is perceived radical, and therefore meets resistance, it does not mean that it is wrong to introduce it to begin with. In this case, the policy instrument could function as a 'stage for reflection'. (Finnveden et al. 2013)

When introducing a radical measure, significant social consequences could in many cases be expected. There is always a risk for a backlash, with people or stakeholders finding ways not to co---operate or comply with the measures. But in addition to protest the affected public is also likely to be stimulated to come up with ideas and demand improved or new options for patterns of actions in everyday life. This means that parallel introduction of supplementary measures could seem reasonable in the public view. Such measures could also be used to adjust for perceived unfair distribution effects (of costs and inconveniences). However, somewhat paradoxically, negative publicity from features such as dramatic political processes or conflicting interests can lead to debate and media coverage that enhance public knowledge concerning how the instrument works. Such knowledge could actually pave the way for the understanding of a policy instrument and its implementation. (Finnveden et al. 2013)

One recommendation for empirical policy studies would be to study the sector that is subject for the intervention. Important questions for such a study could be to: (1) identify key actors and their relations; (2) evaluate existing policy interventions and their effectiveness and their appropriateness to achieve the goals of the new intervention, and, thereafter; (3) identify suitable intervention points based on the knowledge gathered from the first two points. Here it is wise to investigate if there has been any development of the problem and who has knowledge. (Tojo & Lindhqvist 2010:56)

Since the seventies there has been a substantial growth in the deployment of 'new' environmental policy instruments (NEPIs) in the western world. Since the early 1990s the growth has been quite extraordinary (Jordan et al 2003). NEPIs usually refer to market based instruments using economic incentives or disincentives to influence behaviour. The use of NEPIs is driven by a belief that they are functional superior over command---and---control regulation, in practice research shows that variations in their design are better explained by national institutional traditions than by their effectiveness (Bailey & Rupp 2003). Also, there has been a hope that agreements have the potential to make industry more involved and engaged in cooperating in policy---making (Karamanos 2001). There seems to be a consensus regarding the effectiveness of using economically oriented policy means to achieve environmental goals, as both the EU and the OECD are promoting them (Börkey 2013). However, the consensual view on the effectiveness of NEPIs

does not mean that there is consensus regarding how these should be designed and implemented. There are difficulties in comparing and valuing them since the performance of each instrument is difficult to compare – both between countries and between different products or policy areas (Jordan et al. 2003). Economic incentives and disincentives are put forward to the

forefront in many assessments of what needs to be done to achieve a more sustainable society, both in general but also specifically for textiles. It is also policy options promoted by influential policy---initiative bodies such as OECD and EU. The experience with market---based environmental policies "has deepened over the past two decades, so has the ability to adapt instruments to complicated and heterogeneous contexts—but we are only just beginning, and the need to be further along is dire." (Damon & Sterner 2012:143)

The main challenge for sustainable policy studies is taking actual politics into account. This is missing in most studies. Probably since it is not in the role of traditional academics to advise policy---makers and since it entails a more multidisciplinary effort. But in many cases it is not more or better policies that are needed but political action based on available policy instruments (Castell et al. 2004:6; Hammar 2005:177), and further research developing technology (for textiles see: Porse 2013). As Compston & Bailey (2009) argue in their policy---maker oriented report regarding emission of greenhouse gases: "Numerous policies, initiatives and instruments have been developed over the last decade in an effort to curb human emissions of greenhouse gases. Some have been more effective than others and to an extent the search for the "holy grail" policy goes on, with emissions trading perhaps the nearest to achieving this status. This "policies---and---instruments" approach has focused attention on many core concerns for climate policy (effectiveness, economic efficiency and equity) but arguably pays insufficient attention to the problem of how to build political support for climate policies, despite the fact that the short history of climate policy in Britain and elsewhere is already littered with good ideas that, due to lack of support from the public, industry and special interests – as well as obstacles within governments, legislatures, departments and political parties – had to be abandoned or diluted to the point where they lost most of their impact." (2009:53)

Stockholm Environment institute has from a number of case studies extracted suggestions, some collective lessons, on how to enhance policy impact of sustainability knowledge (SEI 2009). The main idea is to take the nature of policy---making and adjust, frame and present research knowledge so it fit the realities of politics. Since their case studies give quite different answers to the question on what is needed to enhance policy impact of research their suggestions seem to be more a result of the long experience SEI has of providing policymakers with sustainability research. Their suggestions entails points as taking the differences in timing between research and policy---making into account, being aware of policy---making norms and context, maintain a balance between collaborative and independent research, identify the appropriate receivers, facilitate joint learning processes, trust and continuity, take other policy spheres into account and finally they have a presentation and communication advice (SEI 2009:65---66). The over time acquired knowledge of SEI on how to interact with and present research to policymakers is useful for anyone aiming to influence policy---making.

On can argue about which role academia should play when it comes to politics – and different opinions in such a discussion inevitably rest on our understanding of democracy (Hedlund 2007), that is if it´s a democratic system being the recipient. An understanding on why and when sustainable policies are used and implemented is an important and crucial research field.

Most empirical research within the field of sustainability does not match the theoretical sophistication of dimensions and analytical frameworks. In reality the different suggestions for basing policies on solid and reliable empirical results seems to be rather naïve. In reality we know quite little, and particularly little is known about the effects and appropriateness of different policy styles or policy instruments. The methodological challenges for measuring and comparing are huge, and actual policymaking has to take this into account. Science might

be the best place to look when searching for suitable policies, but it does not mean that it provides a solid base for policymaking.

policy instruments for sustainability

The challenge for any environmental policy mix is to present a policy response to the perceived need – forcefully expressed in the 1987 Brundtland Report (WCED, 1987) – to connect the seemingly incompatible goals of economic competitiveness, social development and environmental protection, and thus to ensure sustainable development. (Jordan & Lenschow 2010:147). Mickwitz (2003) argues that environmental policies and the prerequisites for them to some extent are characterised by the following aspects: they are complex; they have long time frames; they concern geographically remote regions; they have very unequal distributions of impacts on different groups in society; they have been formulated as problems largely by scientists; they involve huge uncertainties; and they involve stakeholders with conflicting objectives and different belief systems. To a large extent Mickwitz aspects are not specific for environmental problems. However, we would argue that another characteristic of importance is the cross---policy character of environmental policies. Governmental politics is sorted into different political sectors and then handled by ministries and agencies. Political issues that cross over ministerial boundaries needs to be dealt with in negotiations between ministries or agencies. Even though this often is the case it may differ in the number of actors that needs to be involved – and environmental policies usually involves a large number of actors. Examples are plentiful, but one could be that waste policies are intertwined with a number of policy issues. Thus, so waste policies will have an impact on policies in other sectors and vice versa. For example, waste incineration accounts for 16 percent of the district heating produced in Sweden (Finnveden et al. 2013:844). Policies and policy instruments within the energy sector will consequently influence the waste management sector. Consider further that the energy sector is influenced by a number of policies affecting (for example, climate change, energy security and industrial competitiveness) new and existing policy instruments for the energy sector are likely to evolve (ibid).

Mickwitz work on describing the characteristics of environmental policies is of some value, but in our opinion, the scientific ground for policies for sustainability are comparable to other policy areas and the degree of uncertainty is a difficult issue to deal with. Good policy and regulation is said to be 'evidence based' and 'risk informed'. However, evidence for the efficiency and effectiveness of specific instruments in managing public risks is frequently lacking. It may be limited by incomplete or non---existent evaluation of existing instruments. The evidence available may be withheld by stakeholders and difficult for policy makers and regulators to obtain. Scientific understanding of risks may be limited, and will always be open to change as new evidence emerges. It is difficult even identifying the full set of regulations and influences that need to be included in an analysis of a policy mix to support regulatory reform. The task is made more complex by the range of business motivations and capabilities of different sectors and of individual businesses within sectors. Yet this is the task faced by policy makers and regulators. How should policy makers go about performing this task? How then can they understand the complex system of society, the environment and regulatory action that they seek to improve? (Taylor et al 2012:288). There is no obvious or clear answer to these questions. Nevertheless it is an important insight that policymaking involves a large amount of uncertainty. This leads us to the conclusion that there is a need for more politically oriented research in order to understand how scientific research is used and bargained in political processes.

An organizational solution to handle the cross ministerial dilemma is 'environmental policy integration' (EPI) (Lafferty & Hovden 2003). The idea of mainstreaming environmental policies is usually put forward by researches taking a more holistic view on what needs to be done. The existing literature on EPI shows that the agenda for EPI has certainly been set, i.e. most jurisdictions have put in place some instruments (Jacob *et al.*, 2008), but they tend to be quite 'soft' in the sense that they carry no legal force or normatively influential

obligation to give the environment 'principled priority'. Furthermore, Jordan and Lenschow argue that there are only a few jurisdictions that have made their strategies or plans operational. Sweden stands out in this regard with its system of indicators and environmental quality objectives. Sustainable development strategies tend not to have had much effect on sectoral policy dynamics, often environmental ministries and agencies remain their greatest, and in many respects only, supporters (Steurer, 2008). In a Swedish context it is often said that all new policies and regulations needs to go through the ministry of finance.

In the contemporary debate regarding policy suggestions for sustainable fashion the idea of Extended Producer Responsibility (EPR) has with increasing force been appearing in discussions. EPR is "an environmental policy approach in which a producer´s responsibility, physical and/or financial, for a product is extended to the post---consumer stage of a product´s life. There are two key features of EPR policy: (1) the shifting of responsibility upstream to the producer and away from municipalities, and (2) to provide incentives to producers to take environmental considerations into the design of the product." (OECD 2001,18). In essence EPR policy seeks to extend responsibility to producers and other entities in the upstream life of a product. It should be done in such a way that producers are given incentives and signals concerning the life cycle environmental impacts of their products. These incentives and signals are then picked up by the producer and subsequently give them motivation for changes in the materials selection and design aspects of their products. This policy option drives upstream change while also making those who create the products responsible for the downstream consequences of their designs and material selection (Shannon 2011:5).

The hope is that the establishment of infrastructure for collection and the recovery of discarded products under EPR programmes would not only help improve waste management practice *per se*, but would also enhance possibilities for closing material loops. It may also increase opportunities for manufacturers to re---obtain products or components for re---use and re---cycling (van Rossem et al. 2006:5). One aim for policy instruments could be to stimulate the establishment of a recycling market. For example, a tax on virgin raw materials could be one way to stimulate the development of technology and market for recycling. When recycling of the material is possible but markets are not established further technological development could be supported as well as tools to establish markets: for example, information systems, certifications, procurement requirements, waste brokers, and requirements for design for recycling. When a market has been established a requirement to recycle could be introduced together with other policy tools to support the supply of recyclable materials (Finnveden et al. 2013:872). There are some indications from other waste streams that if a sufficient and steady supply of high---quality recycled material were available it could help create a demand for recycled materials (Lee 2002; Peck 2003). An effective strategy for decreasing the environmental impacts of waste management is in most cases to increase recycling. What policy instruments contribute most to an increase in the global recycling rates depends on whether or not there is a well---established, international recycling market. For materials where such a market exists, Swedish policy instrument should primarily focus on increasing the collection for recycling. The collected recyclables can be assumed to displace virgin materials in the international market where the two compete. This is because the marginal production of the material is likely to be based on virgin materials.

A policy instrument that focuses on increasing the use of recycled materials only in Sweden may be relatively ineffective in a situation where the established recycling markets are international. In such situations, an isolated Swedish support to the use of recycled materials can result in a lower recycling in other countries. It should instead be combined with policy instruments supporting the supply of recyclable materials, in order to increase global recycling (Finnveden et al 2013).

For materials where a recycling market does not exist, or as in the case of textiles when a market is not well established, the reason is often a low demand for the recycled material. In such cases, policy instruments could also focus on stimulating the demand for the recycled material, hence helping to establish a market. Examples of

initiatives and policies that can be used to help establishing recycling markets include support for developing new recycling technologies (e.g., pilot and demonstration plants) and initiatives to decrease transaction costs. Green public procurement requirements can be used to demand a certain amount of recycled material in products and materials, which may be instrumental in developing a market (Finnveden et al. 2013). There is a guideline for public procurement that goes beyond levels and norms in current legislation promoted by the Swedish Environmental Management Council (Miljöstyrningsrådet 2013). Empirical research shows that there is reluctance at local level to follow the recommended criteria due to organisational factors (lack of communication between juridical experts and environmental experts) and an uncertainty of what is legally doable. Therefore many local and regional procurers have chosen to neglect environmental aspects (Hall & Peters, forthcoming). New legislation from the European union is supposed to make it easier for procurers to buy with environmental and social considerations. This new directive will be translated into Swedish law and implemented during spring 2013 (Regeringskansliet 2014).

EPR has been a popular policy initiative since the nineties and in Europe there are a number of EPR---schemes including a number of products up and running, but to date France is the only country with a compulsory EPR---scheme for textiles. Despite some success, the concept of EPR remains controversial. Whether it is environmentally effective and economically efficient is two key questions around much of the debate are centred. The question of getting efficiency is closely connected to the more practical challenge of how to arrange an optimal scheme. Since there are no definite answers or convincing data to answer these questions the judgement of EPR are diverse and the call for more research is common (Fleckinger & Glachant 2010:66; Damon & Sterner 2012:143).

It is not surprising that there are few convincing analyses on effectiveness and efficiency. The data and accounting challenges in calculating and allocating costs and benefits in EPR programs are truly daunting. EPR is used to manage a wide variety of wastes under vastly different approaches. Governments, producers, and PROs are often reluctant to expend the resources to collect the relevant data or they object to disclosure of what they view as proprietary information. Therefore one common option is to assess programs by comparing the cost per ton of EPR systems as experienced by PROs. Since systems are noticeably different in their scope and requirements comparing them by the cost per ton is not ideal. As Lifset et al. concludes: "To know if EPR makes sense and/or how it might achieve its very attractive goals, we need much more data and consistent and transparent accounting systems. Until we get that we will remain in the weeds." (Lifset et al. 2013:165)

The knowledge gained from policy studies in other areas would also suggest that choosing appropriate policy instruments is not only an issue of what is most effective or efficient but also a matter of what is feasible. And the choice of policy instruments is often better explained by other factors then by rationalistic judgments, for example political bargaining, policy history or the presence of policy entrepreneurs can be decisive factors. Political feasibility often hinges on risks to competitiveness and employment (or is so perceived), or on the distribution of costs rather than on considerations of pure efficiency (Damon & Sterner 2012:143)

Another aspect is where measures would have most impact. Some argue that for maximum impact focus should be on the countries where clothes are produced. Textiles provide an inherent lack of sustainability over the entire production chain and to a large extent the countries where the production is taken place carry the environmental cost. Textile production have a significant environmental impact regardless of environmental impact category (global warming, acidification, eutrophication, toxicity, etc.) due to a heavy use of pesticides; herbicides; chemicals; salt; water and energy (Palm 2011:21). Even so, most political initiatives done by governments are based on a nation state rationale. The efforts towards the production countries are mostly indirect through standards.

There are of course risks associated with drawing general conclusion from specific waste streams. But conclusions regarding the organization and the way responsibility is divided should be of importance regardless of waste stream. In a study on the effectiveness of implementing the WEEE directive one recurring aspect of significant divergence across states was the role of local government. Overall it is clear that the EPR systems across Europe differ primarily due to the governments' view on the legitimacy of local authorities as stakeholders. That is to which extent local authorities have been engaged in: (i) the establishment and operation of national EPR systems; (ii) consultation on aspects of system design, including contractual agreements, financial mechanism systems for co---ordination and communication; and, in some cases, (iii) enforcement activities. Given these factors a forum for transparent and structured stakeholder consultation seems to be crucial in facilitating a fruitful relationship between stakeholders, as well as the long---term stability of the system. Their conclusion is that "in countries where local government have been engaged in the design and implementation of national systems, existing waste infrastructure used and designed roles established for producers and local authorities, results have been significantly more positive than in the cases where local authorities have had limited engagement." (Cahill et al. 2010:478)

Extensive research is clearly still required on regulation issues. Combining EPR with corrective taxes to reduce distortions in the product market might improve social welfare. But if regulations were too intrusive they would contradict the essence of EPR, which is delegation. A comparison between EPR and other waste policy instruments (for example, product taxes and unit---based pricing) remains to be drawn. (Fleckinger& Glachant 2010:66)

One often commented aspect regarding the effectiveness of EPR is the weak incentives for promoting eco---design changes. Some research indicate that EPR laws can lead to eco---design changes. It is, therefore, argued by some researchers argued that the motivation for eco---design could be strengthened if there is feedback on the total end---of---life costs to individual producers; namely collection, dismantling, re---use and high---levels of material recycling – individual producer responsibility. Some studies on EPR programmes for WEEE and ELV show that implementing IPR is possible (van Rossem et al. 2006: ix---x). Even though it is said that these changes have been more the result of anticipating such regulatory requirements than the actual incentives that are provided when the EPR programme is implemented and in operation. It is worth remembering that most producers during the beginning of EPR discussions viewed EPR as a future demand to manage their own products. One key lesson from the European WEEE implementation to ensure that IPR can become a reality is the need to level the economic playing---field between various EPR schemes (ibid).

From the industry there has been scepticism about the benefits of an individual EPR---scheme. For example, Jacques Fonteyne from the European Recovery and Recycling Organisation argue that "If individual manufacturers become responsible for collection, sorting, and recovery or disposal of their own products, there will be a tendency toward a separate, parallel, or segregated waste management system. Those systems lose the benefits of economies of scale and synergies between different treatment options enjoyed by integrated systems [and] tend to be less efficient, both economically and environmentally." (in Hanisch 2000:172)

Another connected issue is which instruments that will aim to reduce the environmental impacts arising from hazardous substances and chemicals (2010:27). Here the following instruments can be of use: (1) Emission standards; (2) Material restrictions; (3) Environmentally sound treatment standards; (4) Tax on hazardous substances; and (5) Information provision (Tojo & Lindhqvist 2010:56). The policy options put forward for reducing the use of hazardous substances usually argue that a European initiative is needed. Sweden Chemicals agency argue in their road map for a non---hazardous society that it is necessary to pressure the European union to harmonize product rules and to increase the numbers of inspections since the level of hazardous substances often are higher than the levels set in REACH. (Kemikalieinspektionen 2011:12---13)

A common proposal is that policy interventions should be based on a LCA---analysis. In this line of argument it is important to consider impacts arising from each phase of the life cycle of a product and identify what measures are in place. Interventions should also estimate the complementarity of the new measure and existing measures. (Tojo & Lindhqvist 2010:56)

Tojo and Lindhqvist presents a quite exhaustive list with policy options that seek to – directly or indirectly – address the aspects of resource efficiency from various stages of a product's life cycle. When focusing on resource efficiency they regard the following policy instruments as viable: (1) Waste prevention targets; (2) Source separation; (3) Collection targets; (4) Reuse/recycling targets; (5) Producer take---back requirements; (6) Deposit---refund systems; (6) Minimum recycled materials content standards; (7) Tax on virgin materials; and (8) Informationprovision.(2010:10)

It seems clear, as Sparrow (2008) has argued, that in many cases, rather than attempting to identify standard approaches to managing environmental risk across whole industries or sectors, instead regulators must become expert in the process of picking important problems, and fixing them, using whatever methods are appropriate to tackle a specific harm. Whether designing national frameworks or local solutions, policy makers and regulators need to understand the subtleties and nuances of how different actions undertaken by regulators (state or otherwise) influence business behaviour in practice. This remains a significant gap in research that needs to be urgently addressed. (Taylor et al 2012:289)

The issue of how to handle waste is one of the major issues regarding policy measures for textiles. Reducing the amount of waste can be done in several different ways. One may be to reduce the production volume and thus the waste from the production and after consumption. Another may be to change the production from more waste intensive products and services to less. A third is to change the production process to become less waste intensive. A fourth may be to make sure that products and materials are re---used or recycled before they become waste. (Finnveden et al. 2013)

The waste issue is currently probably the most discussed sustainability aspect of textiles. The multi---disciplinary research project 'Towards a sustainable waste management', initiated by the Swedish EPA, cover a wide range of policy instruments – even though not specifically addressing textiles (Finnveden et al. 2013). In their conclusion they urge the Swedish government to take the following policy instruments into consideration:

Compulsory recycling of recyclable materials. The idea is to recycle everything that is recyclable and to ban incineration on everything that could be recycled – except for materials where incineration leads to a lower lifecycle environmental impacts. They estimation is that the environmental benefits would counterweigh for the extra costs (Finnveden et al. 2013:874). There are currently only a few general policy instruments that support waste prevention and increased re---use and recycling. One example is the extended producer responsibility, but it includes only a limited number of waste fractions and it does not require any recycling above the target level. In a study analysing the cost and environmental impacts of maximizing materials recycling for different products textiles scores remarkably higher than any other fraction (Ambell et al. 2010). Although this proposal is quite radical it is the policy instrument with the largest potential of decreasing environmental impact.

Weight based waste fees. Many municipalities have introduced a weight based waste fee and this has lead to increased volumes going to recycling. In an evaluation of the reform introduced in 1995 in some Swedish municipalities results indicate that mixed residual household waste in bins and bags was reduced by 31 percent (Ålander 2013:21). This proposal is also one of the instruments put forward as effective – especially in combination with information and developed recycling systems (Finnveden et al. 2013:866).

Compulsory labelling of hazardous substances. A prerequisite for a well functioning recycling is that the products do not contain hazardous substances. Currently there is no way for consumers to know whether clothes contain dangerous substances. A compulsory label would enable consumers to consume more responsibly and thereby facilitate recycling. (Finnveden et al. 2013:864)

Differentiating VAT. Higher VAT on products and lower VAT on services (that are less burdensome on the environment). This could be one way to reduce waste without putting burden on the economy. This is an option that according to their estimations would be rather unproblematic to implement, even though indicated waste reduction is small. (Finnveden et al. 2013:862)

Tax on raw materials, this could stimulate material efficiency by increasing the purchase cost of materials. It is an instrument that could be used to be more effective in material reuse. (Finnveden et al. 2013:859---861) A tax on virgin raw materials could support the establishment of recycling markets, since it might stimulate technology and systems that make recycling feasible.

Emphasise eco design. There are no incentives for producers to produce products that are easy to reuse or recycle. There is a need to put demands on designers so they design for reuse and recycling. In order to achieve this an Ecodesign directive would be needed, or an extended producer responsibility if the responsibility is individual. (Finnveden et al. 2013:868)

A wider tax on waste disposal. Fewer exceptions would create incentives for the development of new technology and adheres to the polluter pays principle. It may be necessary to tax different types of waste differently.

Information campaigns, in order to create a resource efficient society with waste prevention measures and increased volumes for recycling and reuse it is necessary with general and smart information campaigns. Information should be combined with other policy instruments when implemented.

Waste prevention is not only about reducing the amounts of waste, but also at reducing the hazardousness of the waste and the environmental impacts from treatment of the waste, which suggests that policy instruments, focusing on waste prevention, should not only address waste reduction. This implies, for instance, that policy instruments in the chemicals field may have important positive impacts in this regard. Policy instruments focusing on raising awareness and measures promoting individuals to recycle are also needed (Von Borgstede & Andersson 2010; Henriksson et al. 2010).

Nevertheless, there are no clear scientifically grounded answers on which policies that will be most effective. As declared in most policy studies – good data is hard to come by and to measure impact is a highly complex matter, since each policy is affected by a multitude of factors. But not to forget, one obvious conclusion is that effective policies that will lead to less consumption will have most impact for the environment. Which is especially sad to realize due to the fact that consumption of clothes has increased by forty percent in Sweden from 2000 to 2009 (Tojo et al 2012:4).

policy proposals for future fashion

Finally, this section will focus on policy measures specifically focused on textiles and clothes. There are few studies on the specificities of textiles and the fashion industry – that provide more context sensitive suggestions. A common approach is to relate policy suggestions to some sort of life cycle based analysis. Noticeable is that the discussions for textiles are, compared to other waste streams, to a larger extent more focused on the importance of reuse. This is probably due to the fact that: (1) Many clothes are discarded even though they are still of good quality; (2) Material recycling is not a viable option due to lack of effective technology. Fiber

material recycling (an alternative that may be viable in the future) is regarded the only treatment method that has the potential to decrease the environmental burden related to primary production, even though it requires resources as water and chemicals (Youhanan 2013), and; (3) According to life cycle analysis the largest cost reduction are achieved by extending product lifetime – that is reduce the level of post---consumer clothing waste (WRAP 2012a: 10).

There are several studies on textiles and clothing industry and its impact. Some of the more recent ones include Gardetti & Torres (2013), Slater (2000), Allwood et al. (2006), Fletcher (2008), and Gwilt & Rissanen (2011). This research gives a good insight to the realities of the clothing and fashion industry – such as production technology, design and business models. There are however not much of explicit politics or policy suggestions. However, the analysis and their conclusions could, or perhaps should, be taken into consideration when formulating evidence based policy recommendations. Although, it is task that still awaits to be done.

The fashion industry is also showing awareness and many initiatives for lessening environmental impacts are launched (see for example initiatives by NICE; H&M; Sustainable Apparel Initiative 2009). A report based on interviews and surveys among fashion companies in the Nordic market shows that many companies commit to sustainability but few put their commitment into action and very few communicate to consumers about their actions and results (Deloitte 2013:9).

When it comes to addressing the environmental concerns regarding textiles and considering effective policy tool mix some would suggest that a product---oriented approach is most relevant. It is commonly agreed that textiles and clothes are a specific category of product with quite specific qualities (Gardetti & Torres 2013). The arguments for a product---oriented approach could be the following considerations: (1) Adherence to the prevention principle: specifically avoidance of environmental impacts at source; (2) Necessity of coordinated measures throughout the life cycle: various environmental impacts occur at various phases of a product's life, and considerations are needed to avoid transfer of problems from one media to another and from one life cycle phase to another; (3) Sector specific dynamics: each industry sector has its unique dynamics with their own chain of actors interacting in varying ways; and (4) Globalised economy: The above three points require even more consideration in the globalised economy where manufacturing of products often involve actors in a number of countries. (Tojo & Lindhqvist 2010:56)

In a report focusing on improving waste management on textiles it is argued that the following measures are needed. The objective of the report is to suggest appropriate policies and measures to reduce the consumption of virgin textiles. In the conclusion (Palm 2011:22) they put forward four recommendations focusing on four different areas

The first issue concerns formulating policies and measures for reuse. There is a need for policies or voluntary agreements to make reused clothes more competitive compared to new clothes. They regard the current system for reuse as purely market based and not optimised from an environmental point of view. They underpin that any chosen policy must be carefully designed not to reduce informal reuse. The issue of reuse and how to collect textiles is discussed in another report from IVL, but then with focus on how this can be organised at local level at waste collection sites (Ljunggren Söderman et al. 2011). Their conclusion is that local governments ought to collect textiles since the environmental gains are comparatively high. A number of options on how to organise this collection is presented, but none of them are put forward as more preferable than the others. The primary differentiating issue between the options are whether the collection site should be manned or not. Although, some hints could be interpreted as a manned alternative is to prefer, since it signals seriousness to visitors and creates jobs. Then this can both be a responsibility for local government or it could be delegated to a voluntary second---hand organisation. WRAP has written a guide for local authorities and textile collectors and they argue that increasing the amount of textiles for reuse can, (1)

reduce waste disposal costs; (2) generate income; support local charities or community groups, and (4) create jobs (WRAP 2012b:4). They provide practical guidelines for good practices for primary three arrangements, kerbside collectionservices, bringbanksandre---useinitiatives.Theiranalysishasastrong Britishbias, especially when their suggestions are put into a policy context, but still provides a good practical guide covering aspects from choosing the appropriate method to monitoring and evaluation.

The second issue concerns measures for recycling. To be able to run efficient recycling that can compete with virgin material prices, the recycling needs to be highly automated with large material flows. This is hardly possible on the Swedish market alone and one must therefore look at recycling at a larger market. Research on new recycling techniques are needed both in the area of separation and production based on recycled fibres. Focus of recycling research should be on high grade recycling (preferably closed loop). When it comes to recycling measures to be taken should probably be oriented towards financing or incentivising research.

The third issue concern materials and the suggestion are that new materials need to be introduced. Some of the materials used in textiles today (e.g. cotton) are not sustainable even with a rather high grade of reuse and recycling and new materials therefore need to be developed.

The fourth issue concerns the need for designing for environment. To reduce the environmental impact from textiles, the design of clothes need not only be focused on fashion but also on the life cycle of the clothing item. A short lived clothing item (due to fashion, inherent properties or other) needs to be designed with recycling in mind while a long lived clothing item should be designed to last long, perhaps with some parts interchangeable to enable easy repair and to make it suitable for the second hand market.

An overall conclusion in the report is that the main hindrance in moving into more sustainable textiles is economical (Palm 2011:21) and that policies taken should primarily be economically based policy instruments. The report is rather identifying areas of concern or in which areas action is needed rather than proposing a number of more sharp policies for change.

One more specific policy measure is to set targets and then measure the fulfilment of these by using indicators, for example in order to effect textile waste, as suggested by supporters of Environmental Policy Integration. This is an approach taken by the Swedish EPA. A report written for SEPA three different indicators is proposed. Targets and indicators for reused textiles out of the total textile waste. The total amount of textiles is equal to the total inflow of clothes and textiles every year. The indicators proposed are amount of collected textiles and clothes; the amount of reused textiles and clothes; and, amount of household textile waste. They do though state that the possibility of measuring the flows by these indicators is to be seen as somewhat unsure. (SMED 2011:35)

Tojo et al (2012) is focusing on textile waste prevention in a Nordic context and they develop policy measures for the enhancement of textile waste prevention. They do a somewhat extensive study of the possible application of interventions based on the concept of Extended Producer Responsibility (2012:3). Their proposal for policy action takes both governmental and voluntary stakeholders initiatives into account. But to a large extent they restrain themselves from proposing sharp suggestions and instead point out that more research is needed. They highlight the following issues as specifically in need for more research:

1. More knowledge about the quality and type of textiles that are being discarded as waste
2. Acost---benefitanalysisofrecyclingtherecyclablesversusothermeansoftreatment
3. More knowledge about the paths and destinations of second hand clothes that are beingexported
4. A cost---benefit analysis and a life---cycle analysis of recycling outside of the Nordic
5. countries

In their opinion these issues needs to be studied before assigning of responsibility for collection and recycling of textiles can be a policy option. However, attention needs to be taken in regard to the existing initiatives, that is the work done by second hand actors and individual producers and emphasis should also be made to ensure that producers receive some sort of incentives in making upstream changes (Tojo et al. 2012:86). There is a widespread consensus among stakeholder and policy suggestions that whatever policy recommendation that are put forward it should not undermine the conditions for second hand charity organisations (Porse 2013:64). Tojo et al. also promote the use of cost differentiation based on the recyclability of the material and number of components used. Differentiating between products that tend to end up in the waste stream and those with a higher potential for reuse can be another way of differentiating costs (2012:87). They also suggest more environmental specific criteria for green public procurement and adopting eco---labelingschemes.RegardinganEPR---schemefortextilestheydointhereportdiscussthis policy option, but rather in terms of which policy instruments that could be included in such a scheme rather than promoting such a scheme. There is no final judgment on whether this is a preferable path for policy action.

The issue of motivating the consumer through policies to purchase more sustainable is another field for research (see for example Ekström et al. 2012, Mont et al. 2013). The policy instruments proposed for this is usually information, labeling or certification schemes. The research program SHARP has studied this (Naturvårdsverket 2008). There are however few studies done with a specific focus on the fashion industry. There are a number of brands that offer eco---labeled collections. There are also a number of labels to inform the consumer that sustainable considerations have been taken. For example, organic cotton has been one of these alternatives, and the labels have been the ÖkoTex and EU---flower (the Higg index can also be seen as a self assessment initiative from the industry). There are a number of quite sophisticated labelling proposals Consumer research seems to be quite pessimistic on the possibility to influence consumers through information. Another question is if mandatory labeling could be introduced. There is of course a possibility that behaviour can change, but to date there are few signs for optimism. Sometimes the rise of ecological food is put forward as an example of changed consumer behaviour. In Sweden today five per cent of food sold is ecologically produced and twenty five per cent of the food cooked in governmentally funded institutions, such as schools, is ecological (Ljungdahl 2014). So there are many examples of a switch of mind---set among consumers, even though the shift is rather slow. Still though, the statement in a report for Defra in 2003 seems to capture the common concern: 'Eco---labelling is perhaps the best example of a policy that relies on a naive conceptualisation of human behaviour'. The assumption is that information drives action, so that an eco---label on a product will be sufficient to change purchasing decisions. However, all the available evidence suggests that this is a false assumption: people do not purchase in a rational, information---seeking way' (Collins et al 2003:24). It remains to be seen to which extent information in the form of labelling will be a factor for change. Probably it is a policy option that is best as a compliment to other initiatives, such as taxes and/or subsidies.

Environmental policy design for individuals is moving increasingly to influence other drivers of individual behaviour beyond the financial, new policy packages towards the consumers draw insights from psychology and behavioural economics and are based on the theory of the bounded rationality of human decision---making (see Collier et al. 2010). From this the MINDSPACE model are constructed, the model identifies nine important influences on behaviour from theory and emphasizes the need to 'exemplify' behaviour change in individuals, suggesting that people will be influenced by the behaviour of peers, and to 'engage' the public to increase their commitment (ibid 2010:40). This correlates with discussions by Finnveden et al regarding a more behavioural approach to incentivise individual change. They argue that today's well working, and publicly accepted, policy instruments seem to be grounded in a certain kind of reciprocity, 'the authorities arrange environmentally sound recovery so I pull my weight', or more generally, people perceive they give something in order to receive something else. So, policy instruments could be seen as a way of negotiating environmental problems or conflicts. Policy instruments could actually be a rather good way

to create large---scale cooperation. If we are to see policy instruments as a way of negotiating, then the negotiating parties are industry, authorities and people, with the internal conflict between the roles of the citizen and the more self---interested consumer or producer/employee. (Finnveden et al. 2013)

We have seen the last few years that the Nordic governments are setting the stage for sustainable fashion and starting dialogues in order to identify feasible paths for change. A Norwegian report on measures for material recycling calls for a target at 80 per cent recycling and reuse through combining a number of policy instruments. (Laitala et al 2012:156). A similar approach is suggested by the Swedish EPA in their proposal for textile waste, even though their targets are lower (around 40 per cent in the initial phase). They argue for a combination of collection points in order to achieve convenient collection for citizens. They foresee a future where clothes can be discarded in shops, kerbside bins, bring banks and local government recycling or waste stations (Naturvårdsverket 2013). The importance of convenience for citizens seems to supported by research as a crucial element in order to collect a high proportion of the discarded clothes (Wagner 2013; Mueller 2013; McKerlie et al 2006)

Introducing EPR for textiles has been proposed as a possible alternative in a Swedish Government Official Report, even though, cautionary calling for the more thorough investigation of the desirability of such a scheme. (SOU 2012:56). In a recent roadmap for textiles from the Swedish EPA to the government an EPR---scheme for textiles is proposed (Naturvårdsverket 2013). There has however been an intense debate among stakeholders the last year regarding the possibility to introduce such a scheme in Sweden or in the Nordic countries. The idea has many supporters in academia and among policy makers but also many critics among industry stakeholders. The Swedish EPA has investigated the environmental gain of tax---reduction for repair on clothes, and concluded that the effects are difficult to predict (Alvsilver 2013). Still it is a policy instrument recommended by some researchers, and especially in combination with information, campaigns and other efforts to raise public awareness (Ekström et al. 2012:114---115).

A discussion on the user phase has been limited in this report and will be expanded upon elsewhere as a large proportion of the environmental costs are connected to the handling of clothes in the user phase. A useful report on environmental issues connected to washing machines was published by the Nordic Council of Ministers and included a number of policy recommendations (Bundgaard et al. 2013). Particularly worthy of note is a discussion on the consequences of ecolabels. The conclusion of the report observes that mandatory and voluntary instruments should support each other but that in the case of household washing machines the case is rather that ecolabels have not been a driver for eco---innovation in terms of energy and water efficiency. Actually, the ecolabelled washing machines were the worst performing on the market in these aspects. Therefore their conclusion is that a life cycle sensitive label is needed (Bundgaard et al. 2013:61).

conclusions

The political agenda seems to be primarily focused on the waste phase of textiles and possibilities for reuse and recycling and the issue of chemicals. This is the primary concern for the government and their agencies, and this is also, probably, most likely where new policies will develop in the coming years. The Swedish EPA has written a roadmap for textile waste and presented it for the government for approval or comments (Naturvårdsverket 2013). There are currently no signs whether the government´s answer will be; accept, revise or resubmit. Among many presumptive suggestions the producer responsibility (although no recommendation whether it should be compulsory or voluntary) is put forward as the most effective in combination with information directed towards citizens (Naturvårdsverket 2013:43).

Certainly, Sweden will continue to play close attention to what is happening on the European level. Since the European union and the OECD seem to be promoting economic initiatives this will probably be of Swedish alternative as well. Even though, the European level is to some extent absent in a number of the presented reports (except for the issue of chemicals), there are studies from other policy fields that conclude that Sweden tends to await policy signals from Europe before introducing new policies.

An important reflection from the reading and reviewing proposals of policy suggestions for sustainable fashion is the issue of "methodological nationalism". It concerns the (to some extent) necessary focus on states and that problems and solutions both starts and ends with states – or often a single state. However, this state centred view also hinders a broader search for sustainable global measures and solutions. Still, in the case of Sweden it is motivated to ask what a small country can achieve with an ambitious policy agenda. Michael Hoel (2012) has looked at this question and identifies two reasons for small countries to move forward (even though the effects will be negligible), they are indirect effects and moral obligation. Concerning indirect effect he concludes, "the most probable to occur is that an ambitious climate policy might affect the development of climate---friendly technology (Hoel 2012:9).

There is consensus among researchers that something needs to be done and that new and sharper policies are needed (Wrap 2012a; Laifata et al. 2012; Palm 2011; SMED 2011; Tojo & Lindhqvist 2010; Ekström & Salomonson 2012). There is also an agreement that a comprehensive policy mix is the preferable option. In summary what should be done is through economic instruments and regulation incentivise (or force) stakeholder change and through information and campaign raise consumer awareness. There is also consensus regarding the need for more research – especially compositional data (Morley et al. 2006) and cost---benefit analysis is called for (Tojo & Lindhqvist 2010). What we would argue for is a closer link between policy suggestions and life cycle analysis. There are often references to some life---cycle assessment, but mostly only to a specific phase. A more thorough analysis from a life---cycle perspective has not been found. The British Department for Environment, Food and Rural Affairs (DEFRA) do present and structure the work they are doing in a life---cycle frame (DEFRA 2010; DEFRA 2011). However, this is more a way to present their work and their projects than taking a life---cycle analysis as the rationale for their actions.

A more tentative reflection, not supported by studies or data, is that there is quite a distance between policy suggestions from the reports presented in this text and the suggestions put forward in the many network meetings and industry sponsored events taking place. Researchers seem to be more state---oriented, while the fashion industry (probably due to its global character) tends to distrust or be sceptical about market interventions. Our experience is that when the fashion industry meets the political is absent and all hopes are coupled to brand---driven and consumer driven change – except for change in work conditions for the factory workers in the producing countries, then legislation in the production countries is called for. There seems to be a belief that the issue of achieving a more sustainable fashion industry is an issue best

handled by the industry itself, and this belief is nicely summarised in the call that it was the textile industry that caused the era of industrialisation and now it is up to the industry to transform the world and push it into a new era characterised by responsible and sustainable action.

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