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With contributions from: Nikola Kjørboe, Copenhagen Resource Institute, Denmark, Nicole Harper, International Institute for Industrial Environmental Economics at Lund University, Sweden

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Nordic Council of Ministers
Ved Stranden 18
DK-1061 Copenhagen K
Phone (+45) 3396 0200

www.norden.org

Content

Preface

This report presents results of the project "Bridging the gap between research and policymaking on sustainable consumption – a Nordic perspective."

The overall purpose of the research project is to dispel myths that thwart sustainability by bringing forward existing evidence on consumer behaviour and consumption in order to aid the development of efficient consumption policies in Nordic countries.

Each myth is analysed according to:

1. its origins,
2. consequences for society, consumption patterns and levels, actors and policy actions,
3. arguments, evidence and data that dispel each myth,
4. implications for existing and future policy strategies.

The project is based on a meta-analysis of the existing international research on consumer behaviour from psychology, sociology, behavioural economics, policy and anthropology. The empirical part included 22 interviews with Nordic decision- and policy makers, two focus groups with researchers and citizens (20 people in total) and two webinars with 76 representatives of Nordic and international research community, civil society organisations and decision-makers.

The project is financed by the Nordic Council of Ministers (NCM), and guided by the sustainable consumption and production working group. The project was initiated by the research team including: Professor Oksana Mont, Lund University, Professor Eva Heiskanen and Research Associate Helka Kuusi, Finnish Consumer Research Centre and Helsinki School of Economics and Business Administration, Finland, and Kate Power, Sustainable Consumption Consultant, Copenhagen Resource Institute, Denmark.

The main message of the project is that there exist numerous opportunities for policy makers to create and implement sustainable consumption policy packages that would enable sustainable lifestyles and meet the need for change at institutional and infrastructural levels.

The lead authors would like to thank those who participated in interviews, in webinars and in the review of the final reports and policy brief.

Sigurbjörg Sæmundsdóttir
Chair of the Nordic SCP working group,
Ministry for the Environment, Reykjavik, Iceland

Summary

Reason for this study

Despite 20 years of policymaking on sustainable consumption (UNCED 1992), levels of material consumption and environmental impacts continue to increase in Nordic countries and Europe. As Nordic countries have an ambition to be sustainability leaders, enabling and facilitating sustainable consumption and lifestyles with efficient policies is an important part of the societal effort to reduce resource use and environmental impacts. Although a large share of environmental impacts depends on consumption patterns, research demonstrates that evidence from behavioural and social science is not routinely incorporated into policy design. Consequently, some persistent misconceptions – myths – about consumer behaviour have perpetuated in the mainstream discourse on sustainable consumption, especially in policy circles. Holding on to these myths encourages policy makers to place the main focus on technological innovation aiming at production and product efficiency, leaving social innovation, alternative value-creation models and sufficient consumption without much needed support.

Goal of this study

The goal of this study is to dispel myths that thwart sustainability by bringing forward existing evidence on consumer behaviour to aid the development of efficient consumption policies in Nordic countries.

Methods used in this study

To provide a more balanced picture on consumer behaviour, a meta-analysis of the existing international research on consumer behaviour from psychology, sociology, behavioural economics, policy and anthropology was conducted. The project uses a knowledge brokerage approach that exchanges and transfers the vast academic and practical multi-disciplinary knowledge between science, policy makers and prac-

titioners in an accessible and easy-to-use format to enable and facilitate application of existing knowledge in real life policy. The empirical part included collection of data through semi-structured interviews[1] with 22 Nordic policy makers and experts about myths on consumer behaviour and their implications for policy-making to promote sustainable consumption. Two focus groups were conducted with 10 researchers in sustainability field and with eight citizens, members of the Swedish Association of Sustainability Psychology. Dissemination and finalisation of findings included soliciting feedback from the target group – primarily Nordic policy makers – through a webinar. A second webinar was also organised to test the accessibility of the knowledge and findings on a group of SCP researchers and practitioners, civil society experts and students from Europe and USA. In total 68 people participated in the webinars. The second webinar provided additional feedback about some of the more nuanced and controversial issues, and added strength and validity to the final findings of the study.

Summary of key messages for policy makers

It is unrealistic to expect a sustainable society to materialise from current political strategies on sustainable consumption. The changes needed are significant, and the research explored in this study shows that policy makers have *a plethora of opportunities to create positive change using strategies and tools synergistically.*

Our society is consumptogenic: the structures of society promote consumption patterns that Nordic people think of as normal, but which are unsustainable. On the other hand, citizens who attempt to make significant lifestyle changes for sustainability face insurmountable sociocultural barriers to sustainable practices. This highlights *the need for governments to lead the shift to cultures of sustainability*.

Governments need to lead the shift to sustainability by creating the societal structures that *make sustainable living the default option*. Innovation in technology and infrastructure, regulation, pricing, marketing and new social norms can be used in combination to create *sustainable choice architecture.*

[1] In semi-structured interview the same questions are asked to all interviewees and questions have open answers.

Regulations are often the most effective policy tools for changing consumption patterns. Although regulations may be more challenging to implement, evidence is available showing practical techniques for successfully implementing stronger policy interventions. Regulations are often more effective when used in combination with other policy instruments, e.g. economic and information tools in *policy packages.*

Building positive social norms is essential for embedding sustainable practices in everyday life and for increasing public acceptability for stronger consumption policies. Even coercive, proscriptive policies that require significant lifestyle changes (e.g. switching from private car use to public transport) can gain higher public acceptance by using appropriate framing techniques, reinforcing pro-societal and pro-environmental social norms, and by providing safe, comfortable and cheap sustainable alternatives to unsustainable behaviours.

A policy focus is needed on facilitating change *away from high-impact consumption areas* (e.g. flying, consumption of meat and dairy products and car driving) to lower-impact consumption areas (e.g. vegetarian diets, public mobility, local leisure and cultural activities, and personal development).

Understanding and supporting the drive of humans to become happier and healthier, there is a need to discuss a much greater diversity of paths to well-being than is currently offered. It may be useful to communicate a *wider vision of well-being,* which includes pro-societal values such as resilient[2] communities, equitable, fair and sustainable resource use, health, education and personal development, peace and stability, environmental and social justice and other macro-issues that indirectly influence individuals and families. To support and encourage sustainable ways of living *new metrics of societal prosperity* needs to be developed.

[2] Resilience is a long-term capacity of systems to withstand change and to be able to further develop.

1. Introduction

Already in 1975 two Swedish researchers, Bäckstrand and Ingelstam (1975), outlined principles for more sustainable consumption and ways of living that are more than ever relevant today. Tangible progress in sustainable consumption field remains to be seen.

Despite 20 years of policy-making on sustainable consumption, environmental impacts and resource use associated with material consumption continue to increase in Nordic countries. Nordic countries have some of the highest per capita ecological footprints in the world: Denmark has the third highest per capita ecological footprint, surpassed only by the oil-producing states of United Arab Emirates and Qatar. Finland, Sweden and Norway rank at 12th, 13th and 17th highest per capita ecological footprints in the world (WWF 2010).

It becomes clear that current consumption policies are not as effective as they need to be. In order to devise effective and efficient policies and strategies, a solid understanding of what influences and shapes consumer behaviour, as well as consumption patterns and levels is required. However, research demonstrates that policy makers do not routinely make the link between environmental issues and consumer behaviour or incorporate evidence on consumer behaviour into their decision-making (Bio Intelligence Service 2011: 147). As Nordic countries have an ambition to be leaders in sustainability work, addressing sustainable consumption with policy tools and strategies is an important element in shifting Nordic societies in a sustainable direction, especially in the areas of consumption with highest environmental impacts, e.g. food – 25% of GHG emissions (especially meat and diary), housing – over 30% (especially heating systems) and mobility – under 30% (especially car and air travel) (Swedish EPA 2010).

Existing policies that directly or indirectly address consumption mostly promote "green" consumerism and thereby aim to promote sustainability through the existing consumer culture, even though it is becoming increasingly clear that these approaches do not lead to aggregate reductions of environmental and social impacts associated with consumption (EEA 2012). The few that exist in Europe sustainable consumption and production strategies focus on efficiency, e.g. the UK and Finland. Sweden

was one of the few countries, which in addition to technical approaches, included some sufficiency strategies[3] into its National Strategy on Sustainable Consumption and Production (Berg 2012), which was however abandoned in 2006. Analyses of existing national SCP policies reveal a lack of clear visions and roadmaps towards sustainability in the sustainable consumption and lifestyles area, unlike the large number of roadmaps on sustainable energy or sustainable transport or even sustainable food (Schrader and Thøgersen 2011). There is also a certain reluctance by governments to engage with SCP; attempts to "outsource" responsibility for SCP to other actors, such as businesses, NGOs or individuals are becoming more and more prominent in the sustainable consumption discourse at Nordic and European level.

On the other hand, there is an emergent interest in learning from and applying the existing body of knowledge on consumer behaviour to environmental and sustainability policy, as highlighted by the workshop titled "From Behaviour to Environmental Policy, and Vice Versa" organised by DG ENV/DG SANCO on May 4, 2012 (European Commission 2012) and by several European projects on knowledge brokerage[4] that aim to bring forward existing evidence on consumer behaviour to aid the development of effective and efficient consumption policies in Europe. The Swedish EPA has also recently published a report that investigated whether a greater focus on human well-being can be a driver of sustainable development (Holmberg, Larsson *et al.* 2011). The use of behavioural science in environmental policymaking has been institutionalised in the UK, where a special group – Behavioural Insights Team and Centre of Expertise on Influencing Behaviours – has been created at DEFRA[5], the role of which is to provide support to policy-making and implementation with regard to consumer behaviour.

Numerous studies have investigated the development of sustainable consumption policies in Europe and Nordic countries and identified some possibilities to further strengthen them (Lorek 2009; Berg 2012). Other studies have specifically studied the reasons for the "knowledge-to-action gap" that has been identified in sustainable consumption field. One of the hypotheses about the reasons for difficulties with moving

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[3] "…efficiency supports principles such as intensification and economies of scale, whereas sufficiency relates to issues such as respect for natural limits, and aims at diminishing the demand for more resources" (Berg, 2012).

[4] Responder http://www.scp-responder.eu/knowledge_base and FOODLINKS www.foodlinkscommunity.net and http://purefoodlinks.eu/ and CORPUS: The SCP knowledge Hub http://www.scp-knowledge.eu/

[5] DEFRA – the British Department of the Environment, Food and Rural Affairs.

towards stronger sustainable consumption is the idea that despite the long history of consumption studies, and perhaps due to the complexity of the subject itself, there are many misconceptions, simplifications and generalisations about consumer behaviour that have penetrated the discourse on sustainable consumption in society at large and especially in policy circles. These misconceptions, which are called *myths* in this report, are simplifications or commonly held truths that are valid to certain extent, under certain circumstances, or for specific groups of people. They lead policy makers to mainly focus on the supply side of the production-consumption continuum by greening products and increasing their sales with the help of eco-labelling, leaving the demand side of the continuum up to the preferences of individuals and relying on the limited success of information provision tools. The myths thus prevent policy makers from seeing the complexity of consumer behaviour, the futility of the half-measures advocated in many sustainable consumption policies and therefore from effectively addressing the sustainability challenges associated with consumption.

We believe that these myths exist not due to lack of knowledge about consumer behaviour and sustainable consumption, because there is a substantial body of illuminating international research on consumer behaviour and pro-environmental behaviour from a broad range of disciplines, including psychology, sociology, behavioural economics, policy and anthropology that is of great use for Nordic countries. We believe that the myths exist because the vast body of knowledge does not seem to have reached many policy makers working with sustainable consumption issues. And thus we believe that increasing knowledge brokerage between scientific community and policy makers on consumer behaviour, ways of addressing unsustainable consumption patterns and on the potential role of policy makers and other stakeholders in shaping the institutional frameworks within which consumers act could benefit sustainable consumption policy-making. We define *knowledge brokerage*[6] as the transfer and exchange of knowledge from where it is abundant to where it is needed in the form that enables the transfer and better use of the knowledge. This task is especially timely, as countries are faced with the task of implementing the 10-year Framework of Programmes for Sustainable Consumption and Production during 2012–2022 approved at the Rio+20 conference (UN 2012).

[6] See more on knowledge brokerage in section 3.

The primary target audience for this study is policy makers, governmental representatives and public servants from Consumer Protection Agencies, Environmental Protection Agencies etc, working with sustainable consumption issues in the Nordic region and especially the working group on sustainable consumption and production at the Nordic Council of Ministers. The study might also be of interest to policy makers working at the EU level with sustainable consumption questions, e.g. the European Commission's Unit on Sustainable Consumption and Production or for local authorities working with sustainable consumption issues at city or community level.

Secondary target groups are other stakeholders working with consumption and sustainability issues, such as non-governmental and civil society organisations and businesses.

2. Goal

This 1-year knowledge brokerage project aims to assemble and disseminate scientific evidence that clarifies some of the misconceptions and provides a balanced view of research findings about consumer behaviour that have penetrated the sustainable consumption policy discourse.

The *goal of the study* is to improve and increase the knowledge base of Nordic policy makers by dispelling the myths about consumer behaviour and consumption based on the existing multi-disciplinary research and discussions with Nordic policy makers and other stakeholders on how the improved knowledge may contribute to devising more successful policies for sustainable consumption.

By dispelling these myths we aim to highlight and demonstrate that relying on any of the beliefs as the primary or the only solutions is unwarranted. Many of these myths are persistent and support prevailing institutions by propagating easy solutions by individuals, thereby leaving the need for change at institutional and infrastructure levels unaddressed.

The intention is also to ensure that the knowledge is not only presented, but is also created, shared among and exchanged with policy makers. The study also tests knowledge brokerage tools, e.g. policy brief, webinars, and blog in order to show the nuances of the vast theoretical and applied multi-disciplinary research in a simple and accessible manner, while balancing this by accurately reflecting the complexity of the issues.

3. Methodology

3.1 Research design

The study comprised four stages:

1. A desk-top study included meta-analysis of the existing body of knowledge on misconceptions related to behaviour of consumers and on strategies for promoting sustainable consumption. Specifically the study analysed each myth according to: 1) its origins; 2) consequences for society, consumption patterns and levels, actors and policy actions; 3) arguments, evidence and data that dispel each myth; and 4) implications for existing and future policy strategies.
2. The empirical study included collection of data through semi-structured interviews with 22 policy makers, politicians, representatives of governmental agencies and ministries working with consumption issues and national Consumer and Environmental Protection Agencies from the Nordic countries (Appendix 1). In addition, representatives of DG SANCO were interviewed. The empirical material was also collected in two focus groups one with ten researchers in sustainability field and second one – with eight citizens, members of the Swedish Association of Sustainability Psychology.
3. Analysis and synthesis brought together the academic research with the real-life experience of Nordic policy makers and other stakeholders in the field of sustainable consumption. It provides a comprehensive evaluation of the issues relevant for sustainable consumption policy-making and knowledge brokerage as a tool.
4. Dissemination and finalisation of findings included soliciting feedback from the target group – primarily Nordic policy makers – through a webinar. A second webinar was also organised to test the accessibility of the knowledge and findings on a group of SCP researchers and practitioners, civil society experts and students from Europe and USA. In total 68 people took part in the webinars. The second webinar provided additional feedback about some of the more nuanced and controversial issues, and added strength and validity to the final findings of the project.

3.2 Knowledge brokerage

Sustainable consumption as a field of scientific inquiry builds on the long history of consumption studies. Recent addition is knowledge produced within sustainability studies that incorporates environmental disciplines, economics, policy and technology, as well as sociology. As a result, the main body of knowledge on sustainable consumption is compartmentalised in different disciplines and the language used is often hard to understand for non-experts, such as policy makers or the general public. This is especially problematic as sustainable consumption is an applied field that uses scientific evidence in order to inform and influence real world policymaking (Reisch 2011).

Therefore a new method for communicating between different branches of science and between different actors in society is being developed: knowledge brokerage. It uses the results of existing research, but explains them in a language and through innovative communication tools that are easily understood by various actors. Knowledge brokerage is a new way of producing applied knowledge that is useful for sustainable consumption as it connects different actors – scientists, policy makers, civil society organisations and other stakeholders – in discussions that help clarify their views, unveil potential conflicts of interest and provide opportunity to find synergies and ways forward. The goal of these knowledge brokerage projects is not only to bridge the gap between science and policy, but equally to improve the understanding and awareness about divergent views on various sustainability-related issues.

This study makes use of the knowledge brokerage concept as a point of departure: we have chosen to structure the research findings about consumer behaviour and sustainable consumption in terms of dispelling myths to make evidence more accessible to our audience. Each section highlights and communicates the policy relevance of research from a variety of disciplines. Rather than disseminating the results as a *fait accompli* at the end of the project, this study is being used as a springboard for dialogue with policy makers and other stakeholders through interviews, focus groups and webinars. We believe that the relevance and impact of the study is enhanced by this engagement of the target audience throughout this study, as the knowledge is created *with* the policy makers, as well as *for* them.

3.3 Definition of myths

A myth is an unproven or false collective belief that is used to justify a social institution[7]; it comes from the Greek word *mythos*, meaning story or word. Commonly held beliefs about human behaviour and sustainable consumption often stem from false assumptions, simplifications of reality or only partly true notions: these myths constrain policy makers from devising effective strategies for positive change. Dispelling the myths facilitates more realistic and effective policy-making for sustainable consumption. However, in dispelling the myths, care must be taken not to inadvertently propagate alternative myths, for example we are not suggesting that eco-efficiency is unimportant, only that eco-efficiency alone is not enough due to economic and behavioural rebound effects[8] and it should be accompanied by sufficiency strategy.

In the coming sections ten myths will be analysed and the policy implications of the presented knowledge discussed.

[7] Definition from Dictionary.com

[8] Rebound effects are increases in activity, resource use or environmental impacts that outweigh efficiency gains.

4. Consumers and green consumption

Can consumers drive a shift to a sustainable society by choosing eco-products and thereby "greening the market"? The research and the experience of Nordic policy makers demonstrate that although it is vital to provide sustainable goods and encourage consumers to choose them, it is over-optimistic to assume that this is the key path to sustainable consumption patterns.

4.1 Myth 1: Green consumption is the solution

Perhaps the most powerful conviction that permeates the entire society is that sustainable lifestyles can be reached merely by technological solutions, such as improving the efficiency of processes and products. The myth propagates the idea that producing and selling green (eco-, organic, fair trade, etc.) products will lead to significant environmental improvements that are able to offset and surpass the impacts associated with our high and increasing consumption levels. The belief in green consumption as the solution perpetuates among policy makers also because the majority of experts advising on sustainability issues come from political science, technology or economic disciplines.[9]

4.1.1 Consequences of the myth

Policy tools and approaches developed within this technocratic worldview are typically supply-oriented and include pollution prevention, cleaner technologies and eco-design strategies. In recent years, they have resulted in significant reductions of production-related emissions

[9] Only recently DEFRA – the British Department of the Environment, Food and Rural Affairs – has established a unit, in which social and behavioural scientists have possibility to offer their insights to the process of policy-making.

in Nordic countries. On the other hand, the significant reductions in emission levels and improvements in resource efficiency are outstripped by increasing levels of consumption on individual, national and international levels. As expressed by a Nordic policy maker:

> "I think what we witness now is procrastination – postponing the solution of the problem. Consuming less is politically not a desirable solution. But I hope we will find the solution one way or another."

Another interviewee questioned the current state-of-the-art in sustainable consumption strategies by asking:

> "Are we greening greed?"

So the question is: can buying and using an ever-increasing range of products – even if they are "more sustainable"– result in the necessary environmental improvements?

4.1.2 Dispelling the myth

Although *technological improvements* no doubt have great potential to reduce the environmental impacts of current lifestyles, their contribution to sustainable consumption still *has limits*. Despite the impressive results in process and product efficiency and the increasing share of eco-labelled products on the market, the aggregate levels of emissions from product consumption are increasing, the amount of products per household and per person is growing and the overall size and speed of resource and waste flows in society are mounting.

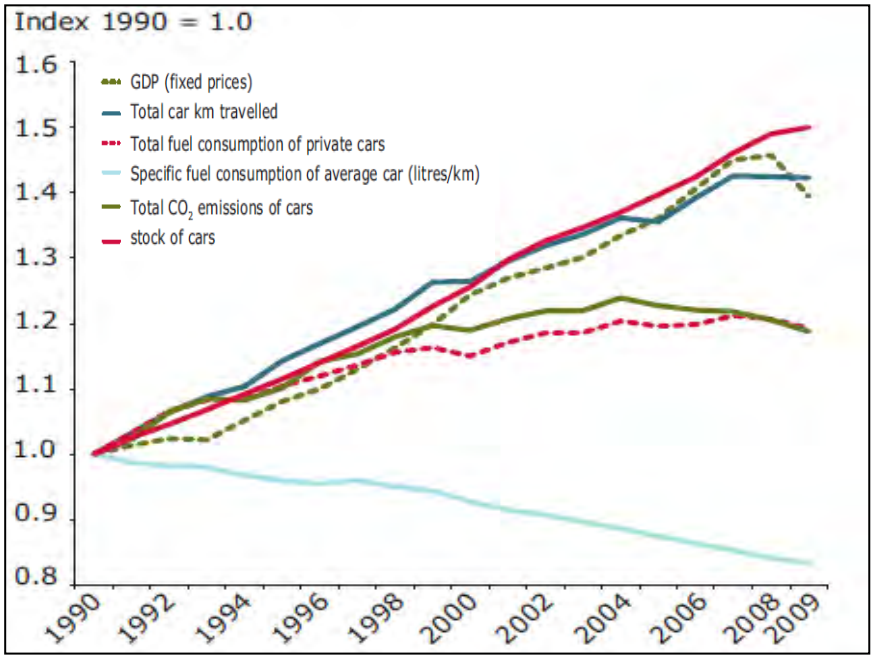
Recent EEA data clearly shows how the fuel efficiency from cars has improved over the recent decades, while the *savings have been offset* by an increase in the amount of travel by car (EEA 2012). Fuel efficient cars have enabled people to drive longer distances for the same amount of money (Figure 1). Of course, the amount of travel by car is in direct correlation with the increase of GDP and consequent private consumption expenditure[10] as people have more money to spend on fuel than they had some years ago. So the increased GDP also contrib-

[10] In the EU-27 average private consumption expenditure per person increased by 33% between 1990 and 2010. EEA (2012). Consumption and the environment – 2012 update Copenhagen, European Environmental Agency: 70.

uted to the growth of the total fuel use and kilometres travelled by car, thereby outstripping the efficiency savings (fuel/km).

Similar trends can be seen in energy used on heating: while energy consumption per m^2 for space heating has been decreasing since 1990, the growth in floor area of housing in 19 EU member states has been increasing since the 1990's leading to an increase of the total energy consumption of residential heating (EEA 2012). Together with this trend, research also identifies other types of rebound effects when people save money from installing energy efficient equipment in the home and spend it on potentially carbon-intensive behaviours, e.g. flying on holiday more often (Platt and Retallack 2009).

Figure 1 Developments in fuel efficiency of an average car alongside trends in private car ownership and GHG emissions (EEA 2012)



Even *"green products" have associated environmental impacts* stemming from all phases of their life cycle. So, similar trends as mentioned above can be seen in product eco-design: on the one hand, many products are getting more efficient per unit of volume (e.g. m^3 of fridge volume), while on the other hand, many products are getting larger (TVs, appliances and car engines) and use more energy and resources per product than before, thereby outweighing the efficiency improvements per unit, e.g.

m^3 of fridge or cm^2 of TV screen size. In many cases this is very confusing for consumers, as for example, large SUVs can become eco-cars based on their efficiency per volume unit of engine, but not if judged by the total volume of their engine. Other products, e.g. electronics, are getting smaller, but reductions in their size often go hand in hand with increases in the level of energy used to produce them in super-clean conditions, or/and with rising levels of toxicity or scarcity of materials that are used to produce them, e.g. rare metals. Thus even "green products" in various product categories have environmental impacts, so while improving their efficiency should be the standard procedure, additional ways for reducing their impacts need to be pursued (see myth 9 for ideas).

Green consumption relies to a large extent on consumers' awareness and purchasing choices. Therefore, large investments have been made in Nordic countries into eco-labelling of products. Consumption of organic products has risen by 83% since 2003 with organic dairy having a 35% market share, the largest organic sector. To support organic farming the Danish Ministry of Food, Agriculture and Fisheries sponsored a cam-

paign in 2007 to inspire more farmers to convert to organic produce as demand for organic food is growing. Organic produce in Denmark has seen a tripling of exports from 2005–2009. Still, studies demonstrate that many consumers are hesitant to pay a price premium for ecological products or changing their consumption patterns (Thøgersen 2010). As a result, the overall sales of sustainable food products in supermarkets remain at niche level, e.g. sales of organic products in Denmark[11] represent only 7% of the total food market with exceptions of few product categories (Padel, Jashinska *et al.* 2008). A Nordic policy maker also raised concern over pricing of ecological products:

> "Why does it have to be expensive to be green? Organic food prices are on average twice as expensive! 60–70% of consumers say they want to buy sustainable products, but organic food sales in supermarkets are about 7% and fair trade is even less, so price is definitely one factor that is a real obstacle."

Of course, one reason for this is still the low availability of organic food in shops, the other being the so-called "attitude-behaviour" gap between the expressed preferences for green products and the actual consumer purchasing behaviour. Perhaps another explanation is in the framing that is used when marketing the "grey" products: as expressed by one Nordic policy maker:

> "Why is it called 'organic milk'? It should be called 'milk', and the other 'milk' should be called 'pesticide milk'."

All these problems reduce the potential of green consumption to be the only tool for reaching sustainable consumption patterns.

4.1.3 Nordic insights

The interviewed Nordic policy makers had different views with regards to the ultimate benefits of green consumption, but everybody agreed that while *greening the markets is a very important first step*, it should not discourage policy makers from taking further action towards reducing consumption related environmental impacts.

[11] The second country after Austria in terms of the size of organic food market in Europe.

> "Green consumption as the solution to sustainability problems is clearly a myth. Consumption of natural resources is always consumption."

> "There is a widely held belief that our country is very environmentally friendly, whereas actually we have the largest ecological footprint in the world. People would like to maintain their consumption levels, but just switch to greener solutions. People think that if they buy an eco-labelled product, then everything is OK."

> "Even our green consumers have ecological footprints that are way beyond what they should be. But people with similar income levels who don't buy green products have even larger footprints! Green consumption is a step in the right direction: we would be worse off without it and green labelling should not be skipped just because it's not perfect – it's a part of the solution. But we also need to stress that just consuming green products will not bring us where we need to be, not today and probably not in the future either."

Our interviewees also recognised that green consumption can be seen as a *temporary solution* to environmental problems, not solving, but rather slowing down the downward spiral we are in regarding environmental degradation.

> "Both green consumption and green economy buy us a bit of time, without addressing the critical issues – they need to be complemented with time to invent new things, new models and initiate more profound changes in the reasonable time span."

> "Green consumption is an easy answer, but it does not question the main premises of the economy. It is a belief that we can have both – growth and sustainable living. Consuming less is not sexy, but saying that we can fix it with technological innovation creates more enthusiasm."

> "Not many people really believe in this myth, they understand that green consumption helps, but they also realise that people should consume less. Green consumption is easier to talk about as it is associated with concrete strategies and that is why it gets more attention than other measures."

Some of our interviewees were convinced that there is a *growing understanding of the limitations of green consumption among policy makers*, but on the other hand they also highlighted the barriers for policy makers to engage in more bold activities, at least at the present moment, especially in the climate of the financial crisis and the economic downturn. There seems to be a difference between various authorities in terms of their level of awareness regarding sustainable consumption.

> "Even in policy circles it is understood that green consumption cannot be the only solution, but policy makers are locked-in by the system. So there is a need for out-of-the-box thinking. There is a need for a strong political signal – policies to reduce consumption. Policy makers have some tools, but not sufficient knowledge about how to move to reduced consumption."

> "There is no discussion in this agency even about green products! It is not interesting for them; what is interesting is growth. The rest is seen as a luxury that we can't afford right now. It's a time perspective – we need to solve the crisis now, we can't afford a long term perspective."

> "In our organisation we always talk about green growth, green jobs, sustainable development. It's almost forbidden to think in other terms. But we never discuss degrowth or anything related to lower levels of consumption (that is in the last 10–15 years). We have developed a couple of indicators but they are not being used for policy-making yet."

The interviewed Nordic policy makers provided specific *examples for where green consumption* presents just *a partial solution*.

> "Ideally we should have all green products, not eco-labelling of better ones."

> "You can buy every type of product in an eco-labelled version – the government wants it to be possible for every person to have the choice. But many products are not even needed, although they are heavily promoted by commercials on TV."

4.1.4 Policy implications

As demonstrated above, green consumption is one way to bring about more sustainable consumption and lifestyles, but it needs to be further advanced to have much larger effects on the markets and undoubtedly it need to be accompanied by other strategies.

Increase choice of green products in existing product categories
The low penetration of green products on the market suggests that more efforts are needed to ensure that consumers have much greater environmental options than they currently do. Several alternative strategies could be suggested. The percentage of green products in existing product categories needs to be increased. Only a few product categories, e.g. paper products, washing powder and some toiletries, can boast very high penetration rates of green products, while in others, e.g. food, private cars and housing sectors, the situation is very different.

Increase the number of product categories with green options

In addition to increasing number of eco-products in existing product categories, the list of product categories with green alternatives needs to be expanded. In addition to products categories of consumer goods even product categories that are used in business-to-businesses transactions should be specifically targeted. Green consumption is not only a matter of concern for individuals, but also for businesses and governments in their role as consumers.

Advance not only green public procurement, but also green purchasing in companies

Green public procurement, which has been heavily promoted by Nordic governments in the last decades, seems to be most progressively applied at the local and regional levels. The great potential of public procurement as an instrument for change at national levels can be further explored. Both green public procurement and green purchasing in companies could include not only specifications for green alternatives in some product categories, but could also suggest that services and especially various kinds of collaborative ways of consuming would become a preferred environmental choice, e.g. leasing office equipment or sharing cars in public organisations or collaborative use of agricultural equipment for farmers.

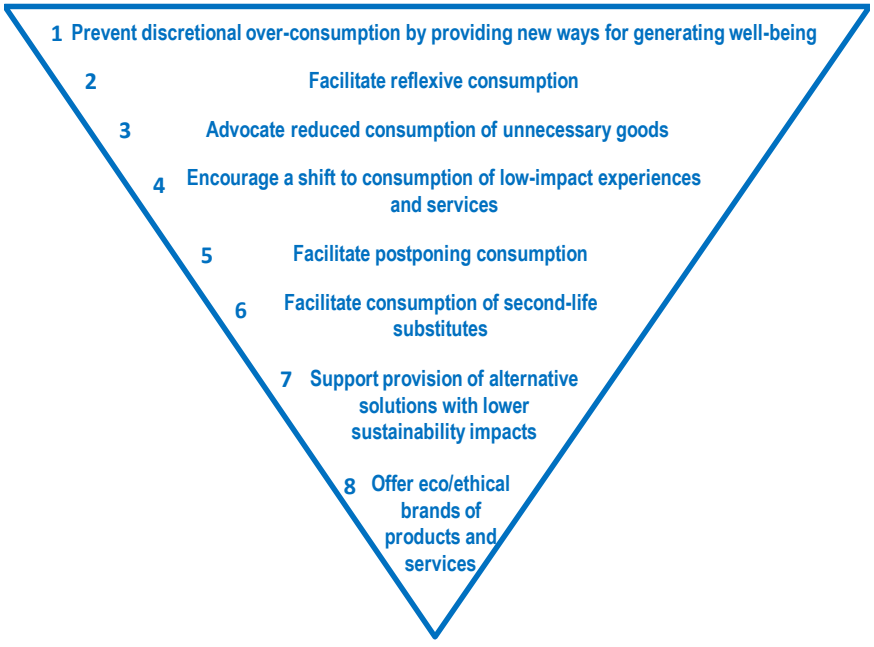
Support green consumption with economic instruments

The aforementioned efforts to green the markets by providing green products should be further supported by economic instruments, e.g. taxes and charges on products, raw materials, substances and environmentally damaging activities, which could ensure that the products' price incorporates the environmental costs, thereby steering production and consumption in a more sustainable direction. Some Nordic states have initiated a green tax reform, with the aim (in the long term) to substitute income related taxes with taxes on natural resources and energy. This has the potential double dividend of shifting consumption towards less environmentally-damaging products and services and providing more jobs in labour intensive sectors, e.g. personal services, which are typically less resource intensive. However, it appears that the green tax reforms that have been initiated in some Nordic countries in recent years are progressing slowly, if at all, or have in some cases even halted (Rutqvist, Sköld *et al.* 2012). On the other hand, environmentally harmful subsidies are still common. Thus, even green consumption appears to be a challenging task to implement.

Advance beyond greening markets towards sustainable consumption and lifestyles

Policy-making needs to go beyond increasing consumption of greener products and focus more on significant shifts in consumption patterns that result in lower levels of resource use and environmental impacts. To avoid negative connotations associated with talking about reduced levels of resource use, the sustainable consumption discourse can be framed in positive terms of the provision of well-being and enabling sustainable lifestyles. This could expand the landscape for action from greening markets to providing community spaces for leisure activities, engaging the education sector in offering possibilities for personal development and lifelong learning, developing new value provision models for improving physical and mental health of people, etc. The shift from buying sustainability on the market towards enabling sustainable lifestyles does not need to be drastic; it can be a step-wise process, where actions are placed in hierarchical order. As a policy maker, one can choose different levels of ambition, similar to the waste management hierarchy[12], which has become an accepted way of prioritising actions for policy makers at local, regional, national and international levels (Figure 2).

Figure 2 A suggestion for a consumption hierarchy (in the order of priority)



[12] (1) Reduce, (2) reuse, (3), recycle, (4) recover.

The consumption hierarchy shows that sustainable consumption strategies used today – offering environmentally and ethically labelled products – should be preceded by other steps aimed at reducing the volumes of over- and unnecessary consumption, finding alternative ways to satisfy our needs in a more resource-efficient manner and at facilitating the transition to less environmentally detrimental solutions. The consumption hierarchy is explained in more detail below:

1. Circumvent discretional over-consumption by providing new ways for generating well-being: creative and more environmentally sound ways to spend free time.
2. Facilitate reflexive consumption, which questions needs and wants and demonstrates how needs and wants are currently satisfied in resource intensive way and promoted with advertising. The reflexive consumption may help find alternative ways of satisfying needs and wants in more sustainable and resource-efficient ways.
3. Advocate reduced consumption of unnecessary goods – don't buy if you don't need it or if you need it later, which could help avoid impulse-shopping; e.g. find alternative messages in advertising campaigns: change from "buy three for the price of two" to "buy three for the price of two, but take only as many out of three as you need right now and get credit for the remaining products you will need later".
4. Utilise instruments such as Ecological Tax Reform[13] to encourage a shift from consumption of material goods to consumption of low-impact experiences and services.
5. Promote a delayed purchasing strategy and facilitate postponing consumption by repair and by extending product useful life, which can lead to reduction of associated environmental impacts through closed resource flows in society.
6. Facilitate consumption of second-life substitutes provided by second-hand shops or peer-to-peer networks, e.g. among neighbours or online.

[13] Environmental tax reform is defined as "reform of the national tax system where there is a shift of the burden of taxes, for example from labour to environmentally damaging activities, such as unsustainable resource use or pollution". http://www.eea.europa.eu/highlights/environmental-tax-reform-increasing-individual

7. Support businesses in provision of alternative solutions and innovative business models with lower environmental and social impacts, such as renting or leasing.
8. Offer eco/ethical brands of products and services that can be used instead of traditional products and services to a large extent within existing and new product categories.

These ideas need to be further developed as the policy makers and other stakeholders voiced opposing concerns about them during the webinars. For some who welcome a greater focus on strong sustainable consumption policy (including coercive policy tools such as regulation and economic instruments), these ideas still put too much focus on consumer decision making and changing shopping habits, rather than focusing on changing the major consumptogenic factors of society, i.e. the prevailing economic model, infrastructure, culture of consumption etc. Conversely, other participants questioned the realism of measures that promote lower levels of material consumption, due to their possible negative impact on economic growth within the current economic context.

Become pioneers in sustainable consumption and lifestyles

Greening the market by producing better and more sustainable products can also be seen as a future competitive advantage for Nordic countries, as was emphasised by several Nordic interviewees, e.g.:

> "Nordic governments and businesses need to think – do they want to do as they always have done? Nordic products, services and lifestyles could be known as sustainable and could be marketed as such in different countries. We cannot compete with low wages and low production costs common in many developing countries and emerging economies, so we need to find a different strength with which to compete on the international market and it could be sustainability."

Main message for myth 1: Green consumption is one, but not the only strategy for reducing resource use and environmental impacts stemming from consumption.

4.2 Myth 2: Consumers should lead the shift to sustainability

It is often argued, especially by policy makers and businesses that consumers should take the lead in the sustainability shift since consumers are responsible for driving markets. Of course individuals indeed have an important role to play in the quest towards sustainability as household activities are responsible for a large part of overall environmental impacts of the society. Among these activities, energy use for house heating/cooling, transportation and food consumption amount to 75% of the environmental load from households (Tukker, Huppes *et al.* 2005). On the other hand, there is also mounting evidence demonstrating that consumers are not the most salient agent for promoting sustainable consumption and thus, "expecting the consumer through green consumerism to shift society towards SCP patterns is consumer scapegoatism" (Akenji 2012).

4.2.1 Consequences of the myth

The consequence of this myth is that political efforts tend to focus on raising public awareness about environmental and social issues, rather than developing more effective tools, e.g. administrative or economic instruments that directly address unsustainable consumption patterns and levels. For example, governments often choose softer, more politically acceptable, but often less effective tools such as information campaigns, which tend to shift the responsibility for greening the market to the consumer.

Some Nordic policy makers saw the idea that consumers should lead the shift to sustainability as a pragmatic way of dealing with the problem:

> "The myth partially exists, but it is not outspoken. If consumers take part of the responsibility it is less costly for the policy makers. Sharing responsibility reduces the costs. It is just a pragmatic approach."

The myth also releases businesses from responsibility and close scrutiny, instead of encouraging companies to take a strong lead on promoting sustainable consumption.

> "We don't regulate so much; we make voluntary agreements with businesses. This is good when it works, but of course we don't get as far as we would if we used regulation instead."

More effective policies, such as choice editing[14] (whether led by governments, businesses or industry associations) are often considered to be too proscriptive.

4.2.2 Dispelling the myth

Although we make choices individually, decision-making is influenced strongly by the social *context* and collective norms – the collectively agreed rules on how to behave in mainstream society**.** The individual is undoubtedly an important actor in creating a sustainable society. However, overreliance on the power of individuals may lead to poor results since our behaviour is also greatly influenced by the context we find ourselves in, particularly the social norms around us and the infrastructure in which we live and work (Rubik, Scholl *et al.* 2009: 35). Interdisciplinary studies of the factors that influence consumer behaviour, see e.g. (Jackson 2005; Bio Intelligence Service 2011) show that human actions and decisions are shaped by a range of economic, political, psychological, technological, social and infrastructural factors that are outside the control of individual actors.

As the sustainability agenda has not yet penetrated mass culture or become a normal part of everyday life, individuals who are making sustainable choices often feel that they are going against *prevailing unsustainable social norms*. This is a significant barrier for individuals to embark on a sustainability journey since a person's sense of self and well-being is based on relations with a reference group (Howarth 1996). We use consumption to signal belonging to a certain social group and adherence to social norms. Therefore, most people find it stressful to have practices or entire lifestyles that are significantly different from their peers (Isenhour 2010). As prevailing social norms often support unsustainable behaviour, e.g. car ownership, high meat consumption or long-distance holidays, individuals attempting to live sustainably feel that it is challenging to live outside the accepted societal norms. They also often

[14] Choice editing and choice architecture is an idea that since humans tend to make poor choices about money, health and other issues, it is possible to design circumstances and environments in which it would be easier for people to make decisions that are beneficial for themselves and the society at large. For example placing ecological products close to the cashier makes them more visible and increases sales.

feel obliged to have to justify their choices to the others. One example of a social norm that has penetrated our practices around the globe and that leads to environmental impacts is our business dress code. The UN summit in Rio de Janeiro took place in June when the temperature was +30 °C. Yet, the dress code for the conference is suit-and-tie and thus a lot of energy was spent there on air conditioning. A different dress code might not have been accepted. On the other hand, there are examples of Cool Biz from many countries, e.g. Bangladesh, China and Japan, in which governments have prescribed to dress down during summer months to save on electricity for air conditioning. These examples show that it can be relatively easy to change aspects of normal standards of behaviour, especially if powerful actors, e.g. governmental officials take the lead in the issue and also act accordingly.

On rare occasions, however, *consumers* do succeed to create a shift in the market, but even in this case support by other actors is needed to make the transition. As expressed by a Nordic policy maker:

> "As consumers we do have responsibility and should think about the effects of the things we buy. But it is very difficult to find information about the effects of products. For example 95% of our consumers have heard about endocrine disrupting chemicals, but it doesn't mean they know what to do. It's a policy issue – can these products be banned? At least they should be labelled so consumers can choose. Thus there is role for both governments and businesses."

One positive example of a change lead by consumers is from the UK where consumers have initiated a shift and contributed to growing the UK market for free range eggs from 7% in 1987 to 30% in 2005. However, a national health scare[15], high profile information about animal welfare, legislation and labelling and a small price difference all helped the shift in the market (NCC and SDC 2006).

Thus, *governments and policy makers* are constantly shaping values and social norms, through mechanisms and signals such as the structure of the education system, public sector performance indicators, procurement policies, planning guidelines for public and social space, employment policy, trading standards, regulation of advertising and the media, and support to community initiatives and faith groups (Jackson 2009: 94–95). One can find other numerous examples of how individuals receive conflicting messages all the time. For example, travel by car is of-

[15] UK outbreaks of salmonella in the late 1980's were linked by some politicians to egg production, leading to fear among consumers and a temporary but dramatic drop in sales of eggs.

ten compensated by employers; airlines encourage plane use by bonus and membership schemes; tobacco farmers are subsidised by the EU; and while environmental issues are gaining importance in the eyes of the public, environmental taxes are no match to labour taxation. So often, even if consumers are willing to make sustainable choices, they find themselves locked into unsustainable practices and infrastructures (Sanne 2002). Even in the choices of products and services individuals are facing everyday conflict: on the one hand they are asked by politicians to choose greener products; on the other hand, the price premium for environmental features of products makes them less attractive or even out of reach for many people.

These contradictions individuals are facing in their daily lives are accompanied by another message that is propagated by businesses and the advertising industry that "there is a product for every need" (Durning 1992). And thus, consumers often find themselves locked in also by *business interests*. For example, the mainstream textile industry produces less and less durable products in order to speed up fashion cycles and entice consumers into new purchases. The result of this strategy is the growing amount of textile waste in many Nordic countries (Tojo, Kogg *et al*. 2012). In Sweden, in the period from 2000 to 2009 the quantity of textile products offered on the market increased by 40% (Carlsson, Hemström *et al*. 2011). In 2010, out of 14.2 kg of textiles bought by Swedish consumers 7.6 kg entered waste management stream or were sent to second-hand shops (Tojo, Kogg *et al*. 2012). Does this situation reflect consumer preferences or consumer lock-ins? A survey among 1,000 Swedish consumers found that people dispose off their clothes after 2–4 years and the main reason for this is that they are considered as not modern (Ungerth 2011). The study also reports that 70% of respondents were positive towards a more regulated system for collection of used garments. A Norwegian study supports the Swedish results and shows that people would use the clothes longer if they were of better quality (61%), if they would not change their shape in wash (50%), if they had less pilling (49%) or had better resistance to colour changes (44%) (Laitala and Klepp 2012). So rather than expecting individual consumers to lead the change to sustainability, we should be pleasantly surprised that – despite the infrastructural and regulatory constraints, continuous advertising and marketing efforts, incentives for unsustainable choices, and social norms that celebrate increasing material consumption – some people are actively changing their consumption patterns and choosing more sustainable lifestyles.

4.2.3 Nordic insights

The Nordic interviewees had a common understanding that sustainable consumption is about *sharing responsibility among different actors*. Each actor has a specific role and niche to fill in and all actors depend on and influence what other actors are doing.

> "There are thus other important actors such as businesses and governments, media, education that need to act and facilitate consumers to act more sustainably."

It was a common understanding that in addition to consumers, especially *retailers, advertising agencies and marketing* departments of companies are the actors who have significant influence on what is being bought, in what quantity and quality.

> "People are busy and need the right things to be easily available and easy to find in the shop without having to take in and interpret complicated information. Retailers and producers have a role to play too – it helps if good products are at the front of the store and bad products are at the back and harder to find."

> "Policy makers are concerned with how sustainable consumption measures could be perceived by the public and they don't want to use regulatory measures for consumption and consumer behaviour. So in this context it becomes important how information is presented."

> "Are supermarkets paying the right price for products coming from the developing world? For instance, pineapples from Costa Rica can be produced in horrific conditions: no union allowed, harsh pesticides, bad working conditions, chemicals spilled in the local water supply – but consumers here can't tell whether a pineapple is good or bad – so we want retailers to tell the story and to make fair trade and organic choices available and affordable."

National governments have a role to play in developing framework conditions within which all actors can act.

> "The politicians need to create the framework for retailers to act. It is more expensive to produce organic food – because the externalities of production are not integrated into products, for example pesticide water pollution is paid for by society. We ask politicians if they believe in the 'polluter pays principle', they say 'yes of course'. But in reality the non-polluters are paying to not pollute! But this is not top priority for politicians; they talk about it but don't act on it. If they would set up a framework saying that products which are not organic or eco-labelled must pay a tax, then prices would rise on ordinary products and labelled products would be able to compete more easily, and demand would increase. Retailers would stock more of the good products."

Local authorities were also mentioned as actors who have the responsibility and power to act to promote sustainable consumption at local level.

> "Just because we give advice we can't be sure it will result in a change to better consumption – but to create change we often need (and people expect) some input from local or national authorities, they want to see authorities taking the initiative and being seen to be doing something."

Several interviewees connected work with sustainable consumption to Local Agenda 21[16] ongoing activities. They saw the need to promote not only sustainable consumption but to link it closer to people well-being and thus talk about sustainable lifestyles and not merely consumption patterns.

> "Local Agenda 21 became part of municipal and administrative thinking – a move beyond consumption to sustainable living – you start with the thinking that we do want sustainable living and the question is how we do it."

Consumers were named as important actors in sustainable consumption, but not the actor who could and should lead the work. It was suggested that people in their roles as citizens rather than shoppers were perhaps more susceptible to sustainable consumption discourse. This also is supported by findings from previous research that emphasises that addressing individuals as citizens invokes values of responsibility, community and moderation (Prothero, Dobscha *et al*. 2011).

> "We should activate people in their other roles – not as consumers, but as citizens – encouraging and advocating more sustainable consumption policies."

> "It's still necessary that every consumer has some kind of own awakening. Individually people should find their own way of doing things."

4.2.4 Policy implications

Isolated individuals cannot change the unsustainable societal structures

Consumers are important actors in society, but as isolated individuals they cannot change the societal structures and social norms. Businesses, civil society and policy makers all have extremely important roles to play in promoting more sustainable consumption patterns and levels.

[16] http://www.unep.org/Documents.Multilingual/Default.asp?documentid=52

These three actors form the so-called "triangle of change" for sustainability, in which responsibility for leadership remains with governments and authorities. It is policymakers that have the greatest practical influence on development of the infrastructure, regulations and social norms and priorities needed to promote sustainable consumption (NCC and SDC 2006: 6).

Governments must establish the societal structures for sustainable lifestyles and lead by example

In addition to providing the regulatory and economic framework and infrastructure for more sustainable lifestyles, governments can lead by example – through Green Public Procurement. In Sweden, 76% of public organisations report having taken decision or having set goals specifying environmental requirements in their public procurement processes (EkoMatCentrum 2012). A recent report from Swedish state investigations demonstrated that despite a decade long history with green public procurement in Sweden and relative success of it, further improvements can be made (SOU 2013). Nevertheless, greening the operations of governments and municipalities also provides a good example to businesses. Examples of initiatives are: ISO 14001 standard certification; green procurement practices, such as purchasing organic, fair trade or local produce; buying services instead of products, e.g. car leasing; and substituting business travel with videoconferencing (Swedish EPA 2007). It could also be very motivating for the wider public to see state employees embodying the advice they give about living green lifestyles, to see that this is not only possible, but actually becoming mainstream and normal. Thus, politicians and public servants are important role models for sustainable consumption. A good example in this respect is Denmark, where 63% of members of parliament cycle to work, see picture below (Denmark.dk 2012).

Figure 2 European Cyclists Federation and Danish Politicians riding in the Great Bicycle Parade in Copenhagen

Governmental organisations enable sustainable lifestyles

Governmental organisations can play an important role as enablers of sustainable lifestyles. For example, Peloton is a project by the independent think tank Demos Helsinki, funded (2009–2011) by the Finnish Innovation Fund, Sitra. The aim has been to get key gatekeepers to think about the latent sustainability needs of their customers and develop services to meet these needs. Peer workshops have been the backbone of the Peloton project. In the workshops, more than 250 professionals in a total of 12 sectors have received training in how to create services that help customers lead low-energy lifestyles. Examples of services that emerged from the Peloton process include an Energy Expert service now offered by a major hardware chain, Rautakesko, and a Climate Lunch offered by major lunch caterer Fazer Amica, as well as new startup services offering local holidays, and peer-to-peer car sharing. For example, the Energy Expert service was based on a customer survey which indicated that customers are very confused about the available energy saving options and the abundance of new heating systems. Rautakesko decided to make a strategic shift from the traditional hardware store concept of selling products for self-builders and to build a new service offering. The energy experts are trained energy advisors within the staff of the retail outlets. The Energy Expert service analyses customers' needs holistically, and makes detailed energy audits, thermal camera images and airtightness measurements

when necessary. The energy experts also offer customers a prioritised list of recommendations for primary and more advanced measures to improve energy efficiency (Ahonen 2011).

Different sustainable consumption strategies for different segments of people

The example above also highlights the need to address consumer needs and to realise that there are different segments of people. Indeed, policy makers have started to realise that it is impossible to entice various groups of consumers into sustainable consumption with the same strategies (European Commission 2012). There are consumers who are still unaware of environmental impacts, especially of those associated with the production and end-of-life phases of the product lifecycle. There are consumers who simply do not care about the environmental impacts of the products they purchase and use. There are also consumers who are more environmentally aware, but who still experience problems finding environmentally sound alternatives with similar functional performance as the "grey" products. They also often fail to see that many big brands produce and heavily market green products, which gives the message to consumer that green products are marginal and inferior (European Commission 2012). So when designing and communicating policies it is vital to customise, frame and target messages to specific groups of consumers, for example for a specific Nordic country or a specific segment of consumers within a country (see myth 6 for more on the importance of framing communications). An interesting example was provided by one of the Nordic interviewees.

> "There might be differences among Nordic countries in what arguments work best. For example, eco-labelling in Finland is promoted with arguments that people want to save the world, while promoting eco-labelling products in Denmark builds on the argument that people are making a good choice for their health. These differences are reflected in information campaigns of the Nordic Swan."

Other examples were also provided by the Nordic policy makers exemplifying the importance of reaching out to different segments of people, going beyond the traditional demographic classifications:

> "Some people are very focused on gadgets, so one campaign could target techno-geeks; other people are idealists who want to make world greener so green solutions and sustainable lifestyles offers should be available to them, …. and yet another campaign could use economic arguments to target price sensitive consumers, e.g. 'if you do this you get a smaller energy bill'. Busy working people might be hard group to reach, they don't have time to worry about green stuff, but they are often well-off, so they might be willing to pay for healthy, quick and comfortable solutions and here we need retailers."

Infrastructure that shapes sustainable behaviour

In addition to addressing different segments of people, it is also important to provide formal regulatory and infrastructural frameworks that are favourable for sustainable consumption and sustainable lifestyles. The development of infrastructure forms particular patterns of consumption and determines which behaviours are easy or difficult. Businesses and governments need to ensure that there is an infrastructure in place that shapes household behaviour in a more sustainable direction, whether it is a waste collection system, parking spaces for shared cars, refurbishing or recycling facilities or infrastructure for safe final disposal. If the infrastructure does not exist, it is meaningless to stimulate citizen action. On the other hand, it is important to ensure that once infrastructure is in place it is used properly.

Making profit without damaging the environment

Businesses are important gatekeepers to sustainable consumption as they influence what consumers eat, how they use energy in the home, how they travel and what they buy. The advertising industry continually creates new "needs" to ensure that consumers keep on buying new products and generating profits for businesses. Contrary to the common belief that the main goal of businesses is to keep their customers satisfied, a satisfied customer is of no use to companies, as she/he does not need to be satisfied with products or services. "The appetite of our present materialism depends upon stirring up our wants – but not satisfying them" (Lane 2001). The wants are stirred not only by advertising agents, but also by the meal planners in the canteen at the workplace, the editors of lifestyle magazines and TV programmes, the hardware stores that provide products for home renovations, the real estate agents who sell and rent homes and the facility managers who manage buildings. These business actors also determine what options are available and easy to access by consumers. For example, a while ago Scandic hotel ran a campaign that promoted Staycation – a stay at home vacation – and gave 20% discount to couples who were interested in romantic weekends close to their home.

Businesses need to find ways of making profit without damaging the environment through increased levels of resource use. They can ensure that sustainable options are available in their stores and they can help normalise sustainable practices. Recent research demonstrates the great economic potential associated with new business models based on ideas of product eco-design, remanufacturing and refurbishment which can enable the EU manufacturing sector to "realise net materials cost savings worth up to $630 billion p.a. towards 2025" (EMF 2012). For the global economy the circular business models are estimated to have the economic opportunity in excess of 2 trillion USD (EMF 2012).

Introduce sustainable consumption in education

In terms of which other actors should take part in sustainability work, the participants in the webinars highlighted the role of education, since in addition to other factors, individual behaviour is influenced by education – not only through transmission of information, but also through empowerment and transformation processes. Participants recognised that policy implications can be furthered through education, but felt that there is seldom discussion about inclusion of SCP in educational policy. Suggestions included training teachers and updating the curriculum to enable young people to incorporate sustainable consumption in their work and everyday lives.

Utilise the power of media to benefit sustainable lifestyles

In addition, webinar participants commented on the role of the media, describing it as the "the elephant in the room" in terms of policy-making on sustainable consumption: the role of the media receives little attention in policy-making despite having a prodigious influence on consumers, which is also exacerbated by the simultaneous direct influence on the state itself through lobbying and financing of political parties. Questions were raised about how policy makers can start to address this issue, as well as the possibilities for positive change beyond resorting to regulation. There are a variety of efforts in the Nordic countries and worldwide to make use of the great power of the media to promote sustainable cultures, for example, media outreach is often a key part of social marketing campaigns. Education on media literacy can enable citizens to make more realistic assessments of the enticing lifestyles of consumption created by marketing, and this can be easier to implement than regulation on marketing in the media, which that has been attempted in several European countries, e.g. in Spain and France.

There are interesting examples from retailers that are testing alternative ways of advertising different goods in an attempt to promote en-

vironmentally sound options. One such example is from ICA shop in Södertälje and some others where a more straightforward message is being provided to consumers, see Figure 3. [17]

Figure 3 Alternative advertising of ecological foods: the left label says: "Sprayed bananas", the right label says "Organic bananas"

Main message for myth 2: There is a limit to what individual behavioural change can achieve. Systemic changes in the prevailing economic institutions and business models, regulations and infrastructures are required. Governments need to lead the transition to sustainability; individuals, business and civil society have other vital roles to play.

[17] Web address of the picture: http://www.ecoprofile.se/thread-2621-ICA-butik-skyltar-med-besprutade-bananer-efter-att-ha-sett-Bananas.html

5. Expectations from green consumption

Can we achieve sustainability if everyone makes small changes in their lifestyle? While policy makers are positive that making small changes is a valuable starting point for getting engaged with sustainable living, research shows that small changes are not sufficient and bigger societal and lifestyle changes need be made possible and attractive.

5.1 Myth 3: If everyone does a little we will achieve a lot

Behavioural change campaigns often use the phrase "if everyone" to imply that small pro-environmental actions will result in large environmental improvements if many people join in. This approach is valuable in light of emerging evidence that everybody's actions will be needed to compensate for the environmental impacts society is causing. This slogan encourages behavioural change by emphasising that people's contribution is worthwhile and significant, and that others are also taking responsibility and making changes: this positive encouragement, as well as promotion of sustainable behaviour as normal, is indeed important for motivating sustainable behaviour.

5.1.1 Consequences of the myth

Despite the good intentions underlying this idea, there is some evidence that people may be discouraged when information is framed in this "if everyone" language: people know (and can observe in their own lives) that "everyone" is not doing their part, so this type of language can be de-motivating and discourage action. If it only makes a difference if everyone does it, then what is the point? In addition, the likelihood of meeting someone in our everyday lives who consistently makes sustainable behavioural choices is simply so small, that the incentive for individuals to do their part, quickly disappears.

The interviews with Nordic policy makers revealed a further problem: if people do believe that everybody is indeed doing their bit, this also may encourage free riding: some people might think that since everybody is doing something, the fact that I am not doing it will not have any detrimental impact on the aggregate level. The size of my inactivity will be insignificant compared to "everybody doing their bit".

> "If everybody is doing their bit then I may abstain as my inaction will hardly be visible on the large scale of things."

5.1.2 Dispelling the myth

The myth has some truth in it: small private-sphere actions should undoubtedly be adopted on a much greater scale, but the main problem is that this myth relies on the notion that the sum of small changes in behaviour will result in large aggregate environmental improvements. So in essence we are asked to believe that instead of summative effect we will see a multiplying effect; however, "the cumulative impact of large numbers of individuals making marginal improvements in their environmental impact will be a *marginal collective improvement* in environmental impact" (Crompton and Thøgersen 2009: 6). David MacKay, the Cambridge Physicist and scientific adviser to a UK government Department of Energy and Climate Change, evaluated the balance between UK energy consumption and the potential for energy supply from non-fossil fuel sources and concluded that: "Don't be distracted by the myth that 'every little bit helps'. If everyone does a little, we'll achieve only a little. We must do a lot. What's required are big changes in demand and in supply" (McKay 2008: 114).

Promoting change in individual behaviours without aiming to create new social norms and values is unlikely to have influence on people's overall lifestyle and values (Crompton and Thøgersen 2009), and as a result, such individual behavioural changes risk causing a "*rebound effect*" e.g. people save money from household insulation, cycling to work and eating less meat – but then choose to spend this extra money on flying on long-distance holiday or buying additional IT gadgets.

Rebound effects are also sometimes encouraged by the actions of companies who encourage simple environmental behaviour in one area only to create unsustainable behaviours in another domain. In one poignant example from the UK, a couple spent three months collecting 60,000 pieces of cans for recycling to earn Tesco "club-card points", which they converted to air-miles and used to pay for their honeymoon in the US. They even cut cans in half to maximise the points they received from the recycling machine (Gammell 2009). This behaviour helped Tesco to meet its own environmental targets, but it incentivises air travel at the same time as being branded as "environmental". A further scheme encourages customers to earn points (the example pictured here suggests doing this by buying energy-saving light bulbs) and to convert the points into air-miles.

5.1.3 Nordic insights

The interviewed Nordic policy makers *agreed that everybody should take action* to reduce their environmental impacts, and that it is much better than few people undertaking extreme measures, which also does not lead to drastic changes at aggregate level. The belief in small changes undertaken by others was seen to be valuable in order to demonstrate to people the importance of everybody's actions in creating positive change.

> "The myth makes people do little steps – better than doing nothing or if only few people make extreme solutions. The biggest mistake is to do nothing at all! But of course what is negative is that it is not enough to do just small steps and this needs to be communicated and articulated to people."

While acknowledging the value of small steps, our interviewees also emphasised that *small actions will not be able to lead large scale societal changes*, including institutional and infrastructural developments.

> "Small actions are important, but they aren't sufficient conditions for a larger change. Still they provide a basis for bigger solutions."

> "It could be true that if everyone does a little we will achieve a lot, but not everyone is doing something; only few people are taking action. If every person was buying organic it would make a difference, but we are not."

5.1.4 Policy implications

Don't be satisfied with just simple small solutions

"Never has so little been asked of so many at such a critical moment" (Maniates 2007). The crucial message is to not be satisfied with simple small solutions. But even messages about small actions to be done by everybody could be improved, e.g. they could clearly present the level of impact that can be expected from the actions they propose compared to the level of environmental reductions needed. As an example of this MacKay (2008: 114) quotes a campaign from the UK which states that if everyone of the UK's 25 million mobile phones was left plugged in and switched on, it would use enough energy to power 66,000 homes. This sounds like a huge amount, and that unplugging your phone charger will make a big difference – but not when compared to the overall energy use of those 25 million homes: MacKay (2008: 114) then suggests that it would be calmer to state that "If everyone leaves their mobile phone charger plugged in, those chargers will use one quarter of one percent of their homes' electricity". The relative importance of this behavioural change is now clear. By using similar logic one can in fact promote larger changes in personal lifestyles. For example, if everybody in Sweden reduced their meat consumption by 40% – to the levels recommended by the Swedish National Food Authority – this could result in the reduction of national GHG emissions by 6%, or if all Swedes would change to the most efficient diesel that uses 0.33 litres with mixed driving this could result in savings of 3.2 million litres diesel per year or as much as 2.5 million of the cars that are driven in Sweden per year (Lönngren and Ottosson 2009).

Disseminate positive social norms for sustainability

People are more likely to behave in a sustainable way if they believe that others will do the same; therefore providing information about positive social norms for sustainability is one way to increase both sustainable behaviour and acceptance of sustainability policies (this is discussed further in myth 10). In addition, highlighting positive emerging social norms can be useful in correcting misconceptions about "normal" levels and patterns of consumption, and for demonstrating that others are also playing a role in building a more sustainable society. This is demonstrated by the Open Homes campaign in rural Finland where people who have invested in a sustainable energy system are invited to display it to neighbours. In addition, although pro-environmental attitudes do not have a strong effect on consumption patterns, they have an important indirect effect by increasing people's willingness to accept structural changes (Holden and Linnerud 2010).

Link impacts of actions to results at different levels

Link impacts of actions to results at different levels (local, regional and global) where possible: providing specific feedback showing the impact of a community or society's actions encourages the development of new positive social norms (McKenzie-Mohr 2011). This can also demonstrate that their contribution matters and leads to wider changes. For example, Malmö municipality introduced food waste separation in households. In order to support the action, once a month the company sends people information on how many tonnes of food waste was collected, how many tonnes of biogas were created out of this waste and how many busses in Malmö municipality run on this gas. This creates a feeling of belonging to the cause where everybody benefits from/is responsible for action.

Provide diverse and attractive visions of sustainable lifestyles

It is important to demonstrate why small behavioural changes are vital, but it is just as important to pave the way for larger changes in lifestyles that would result in significant environmental improvements, such as reducing consumption of flights, car journeys, and meat products. Thus, in addition to creating societal structures that promote sustainable living (mentioned in myth 2), policy makers need to provide people with diverse and attractive visions of sustainable lifestyles, followed by goals and demonstrations of the kinds of changes in lifestyles that would be needed to create a more sustainable society. There is a need to show that such changes are both possible and desirable through concrete demonstrations and scenarios of how sustainability can strengthen what constitutes quality of life for people, e.g. health, enjoying family and friends, engaging with community and having and using leisure time. Many studies demonstrate that people's basic needs for social contact, understanding and acceptance by others, participation and identity are not directly linked to environmentally detrimental activities (Layard 2005). A recent Swedish study confirms that many of life enhancing activities have very low associated environmental impacts, but contribute to high levels of happiness (Table 1). There is thus an opportunity for policy makers to promote and support these kinds of activities at various levels.

Table 1 Daily practices and their environmental impacts (Holmberg, Larsson *et al*. 2011)

Energy intensity (J/h)	Activity	Happiness
Very low/zero	Sex	4.7
	Socialising	4.0
	Relaxing	3.9
	Praying/meditating	3.8
	Eating	3.8
	Exercising	3.8
Use of appliances: medium high	Watching TV	3.6
	Shopping	3.2
	Preparing food	3.2
	Talking on the phone	3.1
	Taking care of children	3.0
	Computer/Internet	3.0
	Household work	3.0
	Working	2.7
Commuting: high	Commuting	2.6

Create new norms and mainstream practices in society with award schemes for sustainable lifestyles

One possibility could be to create award schemes for sustainable lifestyles where people interested in living more sustainable lives could participate in and obtain different levels of membership depending on the extent of their efforts, very similar to how currently business loyalty cards increase the level of membership based on the amount of purchases done or the label showing the different extent of use of organic produce – 30–60%, 60–90%, or 90–100% – in restaurants, hospitals, schools and larger businesses, developed by the Danish Ministry of Food, Agriculture and Fisheries. Instead the sustainable lifestyles card could be a tool for collecting information about different level of action taken by people leading to higher levels of reduction of environmental impacts and resource use associated with people's lifestyles. Such award schemes could be promoted by municipalities, schools, working places, etc. Competitions could be organised and winners could be celebrated. Advancing the concept of sustainable lifestyles (not just individual behaviours), as well as promoting social norms around sustainable living

could also help to avoid the rebound effect. The more people will join the more there is a possibility that the number of people will reach the tipping point – a critical mass or the threshold after which small actions tip the system off the stable plateau into an avalanche of action (Gladwell 2000), thereby creating new norms and standard practices in society – the start of a culture of sustainability.

Main message for myth 3: Everybody should contribute to sustainability, but big changes are needed to shift societies to sustainability.

5.2 Myth 4: Small and easy environmental actions will spill-over to bigger changes

Policy makers often believe in the so-called the "spill-over effect" that might occur from one catalyst behaviour into a self-sustaining chain reaction of behaviours well beyond the scope of the catalyst behaviour (DEFRA 2011). For example, it is believed that if people will undertake one green action, e.g. recycling paper, they will go on to undertake further green actions, such as buying organic food.

The idea originates in the commonly tested "foot-in-the-door" technique (Freedman and Fraser 1966), according to which getting a person to agree to modest requests or commitments will increase chances of having her agree with larger requests or behavioural changes. It stems from marketing theory, which encourages us to "start where people are", get them moving in the right direction with an easy action, which should then theoretically make it easier to move up to the next level of behavioural change.

However, judging from data available from environmental behaviour disciplines, there seems to be a gap between the policy makers' and practitioners' belief that such processes exist and the scientific evidence that can actually support it.

5.2.1 Consequences of the myth

Belief in this idea tends to perpetuate campaigns of the "10 easy tips to save the planet" type, e.g. (NCC 2005), which place the main focus on enticing people into easily changing their everyday behaviours that do not need significant efforts on their part. This may provide people with a distorted view: that these trivial and simple actions are sufficient for

combating severe environmental problems, or as expressed by one of the Nordic decision makers:

> "People become apprehensive when they do not clearly see in what way waste sorting or recycling can help save the polar bears."

This may also detract attention from more significant changes that are difficult, large-scale or controversial.

The myth presents a further difficulty: a number of researchers have noted the imbalance between – on the one hand – information about the extremely serious environmental problems we face, and on the other hand, the relatively small actions people are asked to take in response to this crisis (Hounsham 2006). The trivial nature of the suggested actions may undermine the message about the seriousness of the various environmental crises we have created and can be used to "deflate, mock and reject … the very notion of climate change" (Ereaut and Segnit 2006: 21).

This simplified view also enables governments to take rather timid actions towards sustainability, instead of advocating profound changes in consumption and lifestyles that might currently lack public acceptance or the blessing of industries and private interests, but which are urgently needed on environmental and social grounds (Crompton and Kasser 2010). More sustainable examples could be promoting an increase in consumption of local leisure and a decrease in long-haul holidays, or promoting consumption of smaller quantities of meat and dairy products.

For businesses the easy and painless actions provide a reason to claim that they are working on sustainability issues without addressing the really challenging questions. These would include such issues as the reduced durability of products, the almost non-existent repair possibilities, and the promotion of the throw-away society, all of which depend on the model of business profits based on selling more and cheaper material products. This leads to the situation where environmental improvements are made only in cases where a business rationale coincides with environmental goals.

5.2.2 Dispelling the myth

The idea about catalyst behaviours and spill-over processes is partially a myth. It has been criticised with counter-evidence that demonstrates that the "positive spill-over" effects are at best exaggerated. Some researchers demonstrate that spill-over effect might occur under certain circumstances, e.g. in a limited range of behaviours or only among a certain segment of the population, for example, sorting paper for recycling

can encourage people to sort food waste, but does not spill over to significant lifestyle changes in other domains, such as giving up use of a private car or flying (Crompton and Thøgersen 2009).

A spill-over effect has been demonstrated between source separation of waste in the workplace and recycling more at home (Andersson, Eriksson *et al*. 2012). A recent Swedish study (Andersson *et al*. 2012) has shown that a single behaviour – source separation – can *spill over between different settings*: those who recycled less at home increased their household recycling once an environmental management system was adopted in their workplace or *spill-over can occur where activities are similar* (e.g. choosing organic products can spill-over into choosing fair trade products) and a single activity can spill-over from one context to another (e.g. turning down the thermostat at home and also at the office).

The spill-over effects may be more successful when people undertake a sustainable action and then start to identify themselves as a person who cares about the environment and takes positive action (Reynolds 2010). They are much more likely to happen if the suggested action has been framed[18] as "positive for the environment" rather than "saving money" or "being cool". Research shows that framing changes in terms of the environmental benefits is more likely to lead to positive spill-over than framing in terms of personal gains (Crompton and Thøgersen 2009), especially if public acceptance is to be built for ambitious regulatory interventions. This contradicts the traditional marketing approach, which suggests that communications should be targeted according to what different types of people need to hear in order to encourage change, while the values underlying those changes are left unexamined.

The limitation of the spill-over effect is especially clearly demonstrated by comparative studies between *green and brown consumers*. For example, a recent study that compared "green consumers" who self-report high levels of pro-environmental behaviour with "brown consumers" who do not voluntarily take sustainable actions, found no significant difference in environmental footprint between these groups (Csutora 2012). It is suggested that this is due to the promotion of marginal consumer actions and significant rebound effects, such as compensating for "good behaviour" by consuming more and in more environmentally

[18] Frames are the way in which we understand the world and communicate it with one another. When we talk about framing, this includes both the language and communications we use (known as conceptual frames), and the underlying structures in the brain that make sense of our experiences and concepts such as language and metaphors and which are connected to our values (known as deep frames).

detrimental categories. Other studies show that often it is people with higher environmental awareness who have high-impact environmental lifestyles, most likely due to their generally higher levels of income (Davidson, Martin *et al*. 2009). The empirical literature does not offer clear support to the argument that spill-over effects occur with the frequency or certainty that would make them a solid strategy for sustainable behavioural change (Crompton and Thøgersen 2009).

The myth also runs the risk that people may feel good about having taken the small, "token" *behavioural changes*, and use this to justify inaction in other areas (Autio and Wilska 2005; Downing and Ballantyne 2007). Research from Exeter University demonstrates this problem in relation to environmental attitudes and behaviour in the home, compared with travel and tourism activities. "There's not one piece of paper goes in my bin, so that kind of makes me feel less guilty about using my car as much as I do and flying as much as I do" (Barr, Shaw *et al.* 2009).

On the other hand, empirical evidence from civil society programmes show that working with communities to implement behavioural change initiatives can have ongoing positive impacts, including positive spill-over effects. As an example, research from GAP International shows that community groups who work towards sustainable lifestyles as part of an empowerment initiative tend to use small "entry-level" behaviours as a starting point for more significant lifestyle changes (GAP 2010). Also experiences of community-based social marketing demonstrate the important role the community network and the extensive programmes of community-based social marketing can play in supporting the implementation of individual actions and even their development beyond the original catalyst behaviours. Other social forces, e.g. feedback from and competition with peers, seem to contribute to these results (McKenzie-Mohr 2011). The community-based social marketing approach is further discussed in myth 5.

5.2.3 Nordic insights

The interviewed Nordic policy makers had divergent views about the idea that small and easy actions will spill over to bigger environmental changes. All interviewees agreed that even small actions are important as a starting point for introducing changes in society and behaviour.

> "One needs to start somewhere. People want to feel that they are doing something good."

> "Awareness is a starting point. If people don't know about sustainability problems, it is impossible to make any big decisions either. Individual awareness arises from small actions."

The interviewees offered several explanations as to why small actions might be important. They mentioned that in any kind of change it is important for people to feel part of the group. We are social beings so it is important for us to know that we follow social norms and that we are accepted by our peers. Being part of the group also increases the feeling of achievement. On the other hand, it was emphasised that while some environmental actions are accepted and provide the feeling of "belonging to a group", other actions create a feeling of alienation.

> "It is important that people know that they are part of the group and together they create value for society."

> "When people do their recycling chores they are 'part of the group', but if they choose to refrain from air flights they often end up outside their peer group. In fact they feel very much alone as very few people make this choice and they are not rewarded in any way".

It has been also discussed that if people are asked to do certain changes in their daily practices and lifestyle the alternative ways of living should be make as easy and comfortable as possible:

> "When one asks for larger steps from people, one needs to have alternatives to compensate people for losses. For example, if one switches from using a private car to public transport it should be safe, cheap and comfortable."

5.2.4 Policy implications

Facilitate high-impact sustainable lifestyle changes

The empirical evidence shows that spill-over among environmentally sound behaviours mainly occurs between similar actions, and less likely to occur when small easy steps are expected to spill over to more significant sustainable lifestyle changes. However, the belief in catalyst behaviours and spill-over effects remains popular with governments, businesses and civil society organisations and has some positive implications for advancing sustainability: 1) to get a critical mass involved with at least some level of pro-environmental change, and 2) to provide people with some ideas about what they can do personally to reduce their own environmental impacts. However, it is clear that awareness raising for low-impact voluntary actions is inadequate for reducing ecological im-

pacts and the focus is needed on facilitating high-impact changes in individuals lifestyles across society (Csutora 2012). Significant changes in lifestyles, e.g. reducing levels of meat and dairy consumption, shifting from individual car use to public transportation and choosing to spend vacations close to home, would have implications not only for individual ways of life, but would also have wider impacts on the economy, policy and employment etc. (Reynolds 2010). The problem is that the need for high-impact changes in lifestyles is rarely advocated, as it is much less controversial to promote small easy changes than to ask people to make significant changes to their lifestyles especially since large lifestyle changes are rarely supported by existing institutions and prevailing infrastructure (this point is also discussed in myth 2).

Facilitate individual lifestyle changes with large-scale high-impact changes at societal level

The high-impact changes in individual lifestyles need to be accompanied by *large-scale high-impact changes at societal level* that could include large-scale systemic changes to prevailing economic structures, innovation in alternative value provision models by businesses and societal actors, innovation in policy packages comprising regulations, economic and information instruments, and the development of sustainable infrastructures. These would serve to make the sustainable choices normal: i.e., easy, cheap, comfortable and desirable, and unsustainable choices difficult or even impossible to make.

Give highest priority to environmental and sustainability problems
In order to introduce institutional and infrastructural changes in society that enable sustainable lifestyles rather than restrain them, environmental and sustainability problems need to be given highest priority. Several of the interviewed Nordic policy makers were concerned over the fact that to their mind, environmental issues were not given highest priority in various ministries and agencies.

> "We don't have strong policy tools or budget beside information tools at the ministry. Financial and legal ministries have priority when it comes to budget, and then comes the environmental ministry. But it is always last with the smallest budget."

Develop visions and roadmaps towards sustainable society
The large-scale high-impact changes at the societal level could become an integrated part of visions and roadmaps towards sustainable society supported by step-by-step strategies and actions for different actors. Such visions and roadmaps could help people realise the scale of challenge we are facing without scaring them off into denial, but rather offering them solutions and steps to be taken at each level, incentivising and stimulating people to action. As mentioned by one of the Nordic policy makers:

> "In my work I cannot present all the currently available information regarding sustainability problems – the picture would be too grim, so the challenge is really to keep hope alive, but still trigger changes (not to scare people)."

For an example of such a vision, see the vision and roadmap to sustainable lifestyles 2050 developed in a European project, where high-impact changes in individual lifestyles are combined with large-scale high-impact changes at societal level where all actors have a role to play (European Commission 2012).

Main message for myth 4: Spill-over effects are only likely to happen between similar actions.

6. Communicating sustainable consumption

It is widely assumed that raising awareness about environmental problems is the only way to encourage behavioural change and that appealing to the personal, typically financial, benefits of sustainable choices is the main method to sell sustainability to people. Research shows that these assumptions are only partially true, and Nordic policy makers provide interesting insights on the pros and cons of self-interest as a motivator for sustainable lifestyles.

6.1 Myth 5: More information leads to sustainable behaviour

One of the most dominant myths that has laid the ground for many policy instruments in recent decades is that if consumers had more information they would make the "right" choices and would choose to behave and live more sustainably.

This myth stems from an understanding of human behaviour developed in economics, according to which people are viewed as very rational creatures continuously weighing their costs and benefits of everything they do and choosing options with the highest benefit for themselves. This is referred to in the literature as the Rational Choice Model of consumer behaviour.

6.1.1 Consequences of the myth

The Rational Choice Model led to the perception that it is our attitudes that inform our behaviour. This in turn forms the belief that if we can change people's attitudes (through information provision) this will lead to a change in their behaviour. A range of consumption-oriented policies or policy instruments have been developed based on these assumptions. The majority of them focus on adjusting for market failures by providing more accurate information to consumers (e.g. ecolabelling and awareness raising campaigns) and by correcting prices (EEA 2009).

Policy interventions based on this myth are favoured due to being relatively cheap and simple (especially information campaigns), and relatively uncontroversial for businesses and the public. This type of intervention perpetuates the idea that sustainable consumption is most appropriately tackled through individuals making different choices, rather than through institutional and infrastructural changes and leadership from governments or businesses.

Another explanation of the prevalence of the Rational Choice Model in mainstream policy-making is the fact that public bodies that are involved in policy and decision-making typically employ people with educational backgrounds in technology, economics and policy sciences who are professionally trained to adhere to the Rational Choice Model.

6.1.2 Dispelling the myth

This myth has been widely criticised on several accounts. Perhaps the most telling example was given by one Nordic decision maker:

> "The myth that more information leads to sustainable behaviour exists; but also a good example that it does not work is available – eco-labelling – it exists, but not everybody is buying eco-labelled products and services."

Several arguments against this prevailing idea have been offered. *Information provided by policy makers is only a small part of the consumers' information environment* and it competes for consumers' attention with several other sources of information (Aspegren 2002). Advertising, media communications and the information gained from daily interactions and the physical environment are much more influential and visible to consumers than any individual public information campaign. Consumers are also overloaded with information, and hence, the impact of public campaigns is limited from the outset. Some studies demonstrate that people in consumer societies can be exposed to up to 3,000 advertisements per day (de Graaf, Wann *et al*. 2002: 165): in the media, on TV and the Internet, in public transport and on roads, in parks and sport facilities, at working places and schools, in shopping malls and cinemas.

Decision-making is not only rational: emotions and habits also play a role as demonstrated by a long history of studies. Some behaviour, such as large investments, involve more information processing, whereas most daily behaviours, such as driving to work or using energy at home, are habitual. Because they are not consciously selected or controlled, they are not readily influenced even by the best information campaigns (Verplanken 2011).

People's attitudes are not always consistent with their behaviour The provision of information also does not always lead to changes in attitudes (Aspegren 2002). In some areas the link between information and attitude is more often translated to changes in behaviour, e.g. condom use (Albarracin, Johnson *et al*. 2001), while in others, e.g. environmentally relevant consumption or energy efficiency, evidence is less consistent (Jackson 2005). Environmental information may have an effect on behaviour, but better results are reached when strong instruments are used at the same time. In addition, as demonstrated by the example of the Stockholm congestion charge, the effectiveness of policies may increase when people are given the possibility to behave differently by testing the policy before deciding whether they want to support it. Before the Stockholm congestion charge was introduced, people were offered the opportunity to try the system in addition to providing them with customised for different segments of population information. As a result of the trial, people changed behaviour and the change in attitude followed once the system was implemented permanently (Börjesson, Eliasson *et al*. 2012).

The *rational behaviour model is being questioned* not only in sociology and psychology, but also in economics itself. In the wake of the financial and economic crises, there are more and more critiques of the assumptions underlying macro-economic models (including the Rational Choice Model), which are rarely confirmed by empirical evidence, see e.g. (Colander, Föllmer *et al*. 2009). In reality, people cannot get access to all information they might need to make rational decisions; they may not be able to process available information or they may simply not have time for careful calculation and weighing of different alternatives. In addition, people rely on the opinions and actions of other people, contextual cues and institutions to function in the market. Moreover, what is considered to be rational depends on the values and goals of individuals and their social context. Unlike the Rational Choice Model, behavioural economics is based on empirical evidence and experimental research rather than assumptions. Policy makers in several countries (e.g. the UK and the US) are currently drawing on behavioural economics to solve policy problems like health, consumer and environmental issues, see e.g. (Thaler and Sunstein 2008). The idea is to create policies that draw on how people actually behave in real life. Since many consumer "decisions" are made automatically and are subject to various biases, better "choice architectures"[19] can lead to better decisions without limiting the freedom of choice of the consumer (Thaler and Sunstein 2008).

6.1.3 Nordic insights

The interviewed Nordic policy makers agreed that providing information is important and even vital, but not sufficient.

> "If information provision would result in behavioural changes most Western countries would already be sustainable."

> "The information-behaviour correlation is too simple… people only listen to information that supports their own values."

Of special relevance for Nordic countries with already relative high environmental awareness is the insight that the *choice of information and its amount is a critical issue*. Our interviewees recommended that infor-

[19] See footnote 14 for definition.

mation must be contextualised, i.e. general messages work only for very general issues, while many solutions and actions take place locally.

> "Information needs to be contextualised – the water issue is of relevance in Africa, but not in Norway or Sweden."

If the goal is to reach a specific part of the population or a specific area, messages need to be formulated in the way that make it clear that they are customised for the specific audience. It was also pinpointed several times that information has the best effect if it is provided from several sources, which reinforce each other and continuously strengthen the message over time. This increases the *trustworthiness of the information*, which is extremely important in our society, which is overloaded with information and polluted with advertising.

> "We need to be careful as much information is already available, so we need to ensure that people are listening and can still process the information."

One critical issue expressed by several interviewees is that presented *information has to be factual*, outlining the situation, offering readily available solutions, action strategies and coping mechanisms.

> "Moralising does not help."

For example, a Swedish study discusses the changes needed to halve CO2 emissions from 10 tonnes per capita per person to 5 tonnes in 2020. They suggest that if people follow the dietary recommendations of the Swedish National Food Administration, heat their houses with other fuels than oil, use electricity reasonably and avoid commuting to work alone in the car and taking long-distance holidays, then they can reach the goal (Swedish EPA 2010). In order to reach the two tonnes target in 2050 more advanced strategies will be needed. Long-distance flights are perhaps the main challenge, as one return trip to Asia produces 2 tonnes of CO2. In comparison driving a petrol car emits around 2 tonnes of CO2 per year (Swedish EPA 2010).

6.1.4 Policy implications

Focus on the quality of information and communication channels
Since information is vital in raising the awareness of the population on sustainability issues, but the provision of information is associated with some challenges, the quality of the information and the way it is provided have to be in focus. Latest guidelines highlight best practice of infor-

mation provision for policy makers to devise environmental communication, including the following suggestions (Bio Intelligence Service 2012: 30):

Carefully consider the content, the messenger, the choice of media and tone. Do not use jargon.

Avoid patronising, guilt-laden or disapproving messages – be positive.

Use the drama of the challenges and the excitement of the solutions to make the message inspiring and motivating.

Communication must be supported by other measures in policy or infrastructure.

Due to the abundance of diverse marketing messages in the mass media, consider alternative channels.

Target specific audiences with a specific message

Targeting specific audiences with a specific message is cheaper and more effective than large advertising campaigns. So, the interviewed Nordic policy makers suggested that perhaps in addition to public large-scale campaigns on general environmental or sustainability issues, people could be targeted with information provision when they buy new household devices and systems, e.g. heat pumps, as there is a tendency to leave these devices on the manufacturers' default options. Considering that producers are nowadays spread around the world in different climatic conditions leaving a default option of a Chinese producer in Nordic conditions might not be very energy efficient.

Increase ambition for information campaigns

Other important lessons on providing information through public campaigns can be drawn from a relatively successful climate-related information campaigns is the "One Tonne Less" campaign in Denmark, which ran during 2007–2008. Its aim was to inform Danes about their personal responsibility for climate change and urge people to take pledges to reduce their environmental impact by 1 tonne of CO2, which is about 10% of the average Dane's CO2 emissions (Danish Energy Agency and Ministry of Climate and Energy 2009). The results of the evaluation showed an increase in environmental awareness.[20] According to the Danish Energy Agency "By the end of the campaign there were over 92,000 climate pledges that together represent a saving of approximately 163,000 tonnes of CO2." However, as with all information campaigns, it was difficult to assess whether such pledges actually translated into real savings of CO2, as there were no follow-up activities planned to measure the real-life impact of the campaign (Resenbo & Partners 2008). In addition, the campaign relied purely on the commitment of individuals and did not stress the need to change the institutional and infrastructural settings to enable more environmentally sound behaviour. The campaign ran for two years, which is also a rather short period both for people to change their behaviour and to establish new habits. Thus it remains unclear how many people continue their new practices five years after the campaign. This example demonstrates that even if the design and execution of the campaign itself was a success story in terms of increased awareness, its results in terms of environmental impacts are less clear. Information campaigns need to be long-term, have to be combined with monitoring activities and stimulate changes in institutional and infrastructural setting, and not merely rely on raising the awareness of individuals (Rubik, Scholl *et al*. 2009).

[20] E.g. an increase in the percentage of the population who think that they can do something to prevent climate change themselves from 71%–85%, and an increase in knowledge about climate change, with the number of correctly answered questions about climate change increasing from 59% at the baseline to 75%. In addition, the percentage of the population who state that concern for the climate motivates them to act sustainably increased from 25%–40%. Rubik, F., G. Scholl, et al. (2009). Innovative Approaches in European Sustainable Consumption Policies. Berlin and Heidelberg, Institute for Ecological Economy Research (IÖW): 155.

Increase the use of Community-Based Social Marketing

Research is available on the type of information that is useful as part of a broader policy mix than awareness raising campaigns. Community-Based Social Marketing offers strategies for using information effectively and choosing the most credible tools and messengers. Techniques include using positive rather than threatening messages, deciding when to include opposing viewpoints in the message, ensuring specific straightforward steps are offered rather than general goals, creating easy to remember messages, and using personal communication and community goals (McKenzie-Mohr and Smith 1999). Rather than mass media campaigns, effective communication strategies draw on social diffusion: changes in behaviour are more likely to occur when information and behaviour models come from friends, family, peers or community leaders as people tend to trust information gained from personal sources.

Apply innovative techniques in communication strategy

Interesting techniques to promote the diffusion of environmental behaviours are available, e.g. publishing the names of people who have made a commitment to carry out a new activity, such as cycling to work or

switching to a vegetarian diet. As discussed in myth 3, providing feedback, spreading information about the positive changes that others are making and the created positive impact is a useful communication strategy. In one experiment signs were placed above aluminium can recycling containers giving information about the number of cans that had been recycled during the previous weeks: recycling rates increased by 65% with the addition of this information (Larson, Houlihan *et al*. 1995).

Use policy packages instead of stand-alone policy tools

The realisation that people's actions sometimes contradict their stated attitudes and values is important to keep in mind when reading surveys of public opinion, or thinking about policy interventions: many policies are based on the rationale of changing people's attitudes in the hope of changing their behaviour. However, information and education are usually not sufficient to persuade people to change to behaviours that may have disadvantages in terms of time, money, enjoyment or learning new skills and habits.

Information instruments are more effective when used in combination with other instruments (OECD 2008), such as pricing or infrastructure developments, which create a more effective framework for change for consumers. Information should be one of several policy instruments in a policy package that addresses unsustainable behaviour, as it is rather pointless to advocate for abolishment of private cars in the absence of a good public transport network or to encourage people to separate waste without adequate local recycling facilities. Using integrated 'bundles' of tools and actions can also help to mitigate rebound effects (Bio Intelligence Service 2012). A mix of policy tools is seen as more promising in terms of reaching policy objectives in a more efficient and effective way. In such policy packages, information plays a vital role in helping ensure the acceptance and effectiveness of individual policy instruments and their packages or serving as link between them, for example raising awareness about specific environmental issues and solutions can increase public acceptance of future regulations and increase uptake of sustainable options such as eco-labelled goods (Bio Intelligence Service 2012). The use of positive social norms to increase policy acceptability is discussed further in myth 10.

> "There are examples that information has had some impacts in consumer behaviour, but it was usually supported by other political instruments. For example in the case of smoking it was not only the information about the dangers of smoking, but also political instruments such as regulations and tax increases. But the most effective [element] was the ban on smoking in public places!"

Give word to social and behavioural scientists in shaping sustainable consumption policy

Finally, in order to facilitate the design of more behaviour-sensitive policies for sustainable consumption, social and behavioural scientists need to be employed by governmental agencies working with consumption and behavioural issues. This is, however, a long process, and Nordic countries are not leading in this regard, as demonstrated by one of our interviewees.

> "Many of my colleagues trust the 'rational economic man' perspective. They actually still believe in the 'invisible hand' of Adam Smith's economics. I am the only sociologist here – they do often ask for my 'unique perspective' but when I give it, it is ignored."

Main message for myth 5: Information alone does not usually change behaviour, but it is a vital part of policy packages.

6.2 Myth 6: Appealing to people's self-interest is the path to sustainable behaviour

One of the recently emerging perceptions among policymakers and NGOs alike is the belief that appealing to peoples' self-interest is the best path to encouraging sustainable behaviour (European Commission 2010). This idea stems from the traditional marketing wisdom: tell people what's in it for them.

6.2.1 Consequences of the myth

Behavioural change campaigns and messages are often run according to the same principles as product marketing, emphasising the personal utility to consumers. This approach can indeed be successful for changing individual behaviours in the short term and for specific behaviours that are easy to link to increasing personal utility. The problem arises when the more challenging and currently unpopular behavioural changes, such as reducing meat and dairy consumption and taking fewer holiday flights, need to be "sold" to the public.

Another consequence of heavily relying on the self-interest argument is that it further condones and embeds materialistic values and behaviours. Research shows that people exposed to commercial marketing are more likely to express materialistic, "extrinsic values" (such as acquisition of material goods, financial success, image and social recognition) and to be less concerned with pro-environmental action (Crompton 2008; Reynolds 2010).

6.2.2 Dispelling the myth

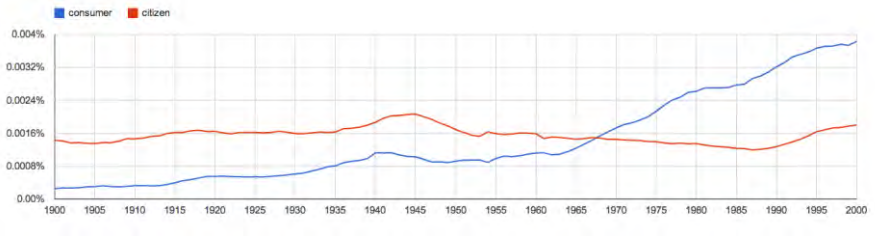
Appealing to self-interest when promoting pro-environmental behaviours might *backfire when there is a need to promote policies without personal benefits* or which might cost money. It can also be risky when there is a need to introduce disincentives for popular behaviours, as is the case with flight taxes. Another problem is that with no appeal to values other than self-interest, the possibility of rebound effects increases (Platt and Retallack 2009), unless the underlying values of society are to act sustainably. These unintended side-effects of trying to promote sustainable behaviour by appealing to self-interest and personal benefits may inadvertently exacerbate environmental problems in the long term by further promoting the values that lead to lack of regard for the environment and quality of life for other people (Crompton and Kasser 2010). Hence, while it can be

helpful to highlight the practical benefits of sustainable lifestyles, a reliance on this strategy alone can backfire in the long term.

The language of self-interest, competition and in general the economic framing of our lives is increasingly a part of our everyday lexicon. Not long ago, one of the political parties in Sweden announced their plans to run the Swedish society as a company. This is an interesting development indeed considering that at the beginning of 21 century 51 out of the 100 largest world economies have in fact been companies.

In official policy documents on sustainable production and consumption people are seldom called individuals or citizens, but they are called consumers. In books, archived by Google Ngram 1800–2000, the word "citizen" was used more often than the word "consumer" until about 1967, after which the word "consumer" confidently took over. In public and media spaces, such as the Internet, the number of hits in Google search engine for the word "consumer" results in 808 million hits, while the word "citizen" – in 317 millions.

Figure 4 The incidences of "consumer" vs. citizen in books archived by Google Ngram 1800–2000 (Sanderson 2013)



A variety of experiments have shown that framing games, tasks and surveys with *economic frames* such as "consumer" rather than "citizen" *triggers materialist values of self-interest, competition and exploitation* and reduces willingness to trust and cooperate, see e.g. (Bauer, Wilkie *et al*. 2012). This research shows short term impacts from exposure to single words; the impact of economic language in politics and the media are likely to be greater (Sanderson 2013).

6.2.3 Nordic insights

Interviews with policy makers from Nordic countries revealed support to the idea that *appealing to self-interest is a reasonable first step* for introducing and promoting sustainable consumption.

> "The myth is partially true; we need to appeal to people's self-interest. There are very few people who respond to purely ethical or environmental rational."

> "I feel it is always sensible to draw on self-interest, because people are closest to themselves. There is a small group of people who put the environment first, but most people are concerned about daily life, the family. This claim is important because it helps to 'make it my business'. In the end, in the long term, it is in people's self-interest to conserve the environment: they do it for themselves and their children."

> "In Nordic countries, it is hard to link environmental problems to individuals as we don't see them and their effects. So it is even more important to link [effects] to individual choices."

Some of the Nordic policy makers confirmed the *conflict between appealing to self-interest* and *advancing sustainable lifestyles* in the long term, as appeals to self-interest might undermine the collective interests, as suggested by the research above.

> "You cannot build a policy in conflict with people's interests, but you have to discuss the short term and long term perspective, what are the interests of ordinary people, not only economy but also nature."

> "The myth is partially true. Nurturing people's self-interest will undermine actions for common good. Environmental arguments are a hard sell, therefore focus on health and convenience in some cases works better, e.g. bicycle use."

The next steps in facilitating sustainable consumption were also discussed and our interviewees spoke about the *need to redefine what constitutes a good life* and how sustainable lifestyles can achieve it.

> "We have to appeal to self-interest but what is in my interest does not need to be linked to material wealth and may instead include feeling good from doing good things for close people and strangers."

> "I think we need to appeal to people self-interest. But they don't need to be defined in terms of money; it can be time for myself or possibility to spend more time with children and friends."

> "We need to sell another way of living that makes us happier and healthier. The message should be consuming less might be healthier, more satisfying and refreshing!"

Appealing to collective good was also seen as a promising way to addressing sustainable consumption and introducing sustainable lifestyles, which often builds on close community ties.

> "People do react empathically, with good will and good intentions… I do believe in altruism. Going from 'what's in it for me' to 'what's in it for us' should be appealing to people with its community spirit that is still valuable."

> "We need to appeal to people's sense of belonging to community, people like to be part of community and move things together, share good and bad experiences with a group of people – that's a way to move beyond peoples self interest. There is also a need to create institutions and structures that can enable decisions or actions, which might go against interests of some actors, as for example the congestion charge where people had very different interests."

6.2.4 Policy implications

Advocate societal good as a legitimate reason for taking sustainability actions

The issue of self-interest versus collective interest is very much an issue of how sustainable consumption is framed in society and what types of values dominate the policy climate, public discourse and public opinion (Crompton and Thøgersen 2009). A balance needs to be found by policy makers to ensure that societal issues and societal good are advocated as legitimate reasons for taking sustainability actions. Both the Nordic policy makers and participants in webinars suggested that self-interest should be understood in a much wider sense than economic interest and status, and that there is much to be gained from appealing to other aspects of self-interest, e.g. health, which may overlap with wider societal interests*:*

> "Most people care more about other things than about money…so starting where people care can be really good if it activates the values that are not merely money-related."

Combine self-interest with environmental values

The current economic framework promotes intensified competition and condones self-interested behaviour. Even in this framework, there are actions that both serve to reduce environmental impacts and save money for individuals. Energy efficiency is one such broad area, where both individuals and society can benefit in many ways (IEA 2012). However, what is seen from various policy instruments supporting installation of energy efficient equipment is that after the installation people tend to heat verandas or increase temperatures, thereby reducing their own financial saving and the potential environmental benefits of energy efficiency. Thus, in these cases there are clear reasons for combining both the self-interest with pro-environmental values to enhance both the short-term and long-term results.

These ideas are in line with experience from the Good Chemistry campaign, which builds on understanding that people would like to see that all the things that they care for – health, sustainability and the environment – support and enhance each other. The Good Chemistry campaign that promotes environmental issues as part of health and childcare communications is run by the Danish Environmental Protection Agency (Danish EPA 2012). It builds on the understanding that people care for the environment, sustainability and future generations, but they are also busy, and do not have the time to carefully think about how these issues connect with each other. These widespread concerns have formed a sound basis for the *Good Chemistry* campaign from the Danish EPA, which highlights nine good habits for pregnant and nursing mothers regarding chemicals in cosmetics, in products for children and in toys. According to the third good habit, consumers are advised to buy products with Swan label and the EU flower. The study from the Danish EPA suggests that the Nordic Swan ecolabelling has significantly increased its market share in the personal care sector in Denmark as a result of this campaign.

Main message for myth 6: A balance between self-interest and pro-societal values is needed to secure not only short term benefits, but also long term outcomes.

7. Barriers to implementation: culture, infrastructure and policy

There is a strong belief in our society that having more money and owning more things brings us more happiness and well-being. Alternatives to this, such as sharing resources instead of owning them, or simplifying our lifestyles by choosing to have less money but more free time, are therefore seen as a sacrifice. Marketing wisdom tells us that "you can't sell sacrifice"– and so policy makers fear alienating citizens with policies that tackle consumption patterns and levels. However, community level sustainability initiatives and alternative movements offer inspiration for redefining the "good life" to include well-being, community engagement, fairness, equity and sustainability.

7.1 Myth 7: Sustainability means "living in caves"

One idea that is often heard not only among policy makers, but in society at large, is that living sustainably would mean a reversal of progress with fewer material possessions and fewer activities with high energy consumption, which would result in less fun, less convenience and a lower standard of living, which altogether would lead us to living in caves. Some Nordic policy makers recognised the myth literally, while others did recognise it in essence:

> "Yes, the myth exists. People almost use the same words in my country – back to living in turf houses."

> "I don't think the myth exists, but on the other hand, people do feel that sustainable behaviour means that we will not be able to travel."

The myth originates in the understanding that higher levels of material consumption and material wealth leads to higher happiness and well-being. This myth is also exacerbated by calculations showing that an equitable share of GHG emissions would be around 2 tonnes CO2 per

person, which implies significantly lower levels of material consumption than currently displayed in Nordic countries, which range between 6 and 10 tonnes per person and year.

7.1.1 Consequences of the myth

This belief results in reluctance and resistance to addressing consumption-related resource use and levels of environmental impacts and on the other hand, in major but insufficient efforts of policy makers to improve consumption patterns merely by greening markets and encouraging more consumption of eco-labelled products. Opportunities are being missed, for example for product-sharing schemes or promoting closed loop systems that would reduce overall reliance on virgin resources, or for promoting alternatives to intensive consumption that could increase well-being, such as community food-growing schemes. This myth also promotes a tendency to believe that nothing can be done, and that the challenge is too great.

7.1.2 Dispelling the myth

Sustainability does not mean living in caves. In contrast, if nothing is done about unsustainable consumption patterns, more and more people in the world will be condemned to living with severely reduced standards of living.

The link between economic growth, material acquisition and happiness and well-being is also being contested. Studies demonstrate that the continual increases in income, consumption levels and stress tend to perpetuate dissatisfaction rather than improving well-being (Veenhoven 2009; Bok 2010). This is supported by the recent polls of values in EU27 countries that demonstrate that the most important notions associated with happiness are health (73%), love (44%), work (37%), peace (35%) and money (32%) (European Commission 2008). Also some anecdotal evidence is available from a study of workers who have been given short-time contracts during the economic crisis: some workers would now prefer to keep their short-time hours and reduced pay rather than return to their normal working conditions – up to 30% of staff in some companies (Pignal and Schäfer 2009). These examples demonstrate that *well-being and quality of life do not directly depend on the high resource consumption*. Recent findings from an ongoing research on voluntary simplicity at Pufendorf Institute, Lund University demonstrate that people may adopt simpler lifestyles for many reasons, including dissatisfaction with high-

stress lifestyles, desire to spend time on meaningful activities outside of work and due to environmental concern. Some of the Swedish voluntary simplifiers feel they want to decide how to live their lives beyond the ideologies advanced in mainstream advertising and marketing.

Some individuals already today embrace the idea that "less is more", that having time to enjoy the simple pleasures in life and connecting more with people and environment can bring greater rewards than chasing ever greater levels of career success and income. They choose to live lives that rely on less material possessions and more on balance in life: between work and family and friends, between personal development and care for others, between social networks and individual accomplishments (McDonald, Oates *et al*. 2006). There are also examples of movements linked with simplifying lifestyles or living lives of environmental consciousness, e. g. low-carbon communities, Transition Towns, CRAGS, Give What We Can, the LOHAS movement, Slow Living movement, Ashton Hayes (the UK's first self-organising zero-carbon village), Samsø (CO2 neutral Danish island).

Several consumer and citizen groups and local communities have recognised that sustainability does not mean living in caves. However, they acknowledge that the sustainability challenges of the coming years will require a significant transition away from a high-energy lifestyle – not only for environmental reasons, but also to maintain the things that we value about our communities and lifestyles. Hence, these communi-

ties are making plans and initiating practical initiatives that create more sustainable infrastructures of energy, transport and food provision for their citizens.

Transition towns are an initiative that started in Ireland and the UK. They are citizen-driven processes for transforming the local community into a more sustainable one. Local transition initiatives raise awareness, connect with existing groups including local government and hold focused events to examine the sustainability of their community. Groups initiate and implement practical projects, such as community supported agriculture, shared transport, local currencies, tool libraries, energy saving clubs, urban orchards and re-skilling classes. More experienced groups organise community-wide visioning processes and begin creating formal Energy Descent Plans and start local energy companies, social enterprises and cooperative food businesses. In the Nordic countries officially registered transition town initiatives include (autumn 2012):

- Denmark: Fredriksberg (Copenhagen); Syltemae (Syltmae), Omstillning Ry (Århus)
- Finland: Siirtymäliike Hämeenkyrö
- Norway: Bærekraftige liv på Landås (Bergen); Omstillning Sagene (Oslo)
- Sweden: Several (158) larger and smaller initiatives, the largest groups being in Alingsås, Dalarna, Falun, Gästrikland, Huddingsvall, Järn, Karlstad, Lund, Norrbotten, Norrköping, Stockholm, Södernhamn, Umeå, Uppsala, Österleden and Östgötagruppen.

Other similar local initiatives in the Nordic countries include Project Zero (Sonderborg), Norway and Carbon-Neutral Municipalities, which includes 12 municipalities in Finland. Some of these communities are continuing and deepening the process started by Local Agenda 21. There is now more *focus on creating infrastructures for sustainable lifestyles for community members*. The transition model and other sustainable community initiatives in the Nordic countries work on the principle of 'learning by doing', developing shared infrastructures that are adapted to the local context, setting a good example, and creating new social norms – all of which are supportive of sustainable behavioural change (Heiskanen, Johnson *et al*. 2012).

7.1.3 Nordic insights

The interviews with Nordic policy makers revealed a *shared understanding* that sustainability does not mean going backwards in levels of well-being and happiness.

> "Sustainability means living in caves is a phrase people use to stop the discussion and make people scared of the future. This is not a constructive way of having the debate! Some people think it's utopian to live a more sustainable future, but actually it's utopian to think we can continue with 'Business As Usual'! This is what needs to be visualised for people – that sustainable lifestyles do not mean living in caves."

> "I think this is a consciously launched myth. It's a negative myth about the green consumer."

> "We should point out that making sustainable solutions doesn't necessarily lower well-being, but can in fact even increase it."

Some of the Nordic policy makers agreed that *certain restrictions to the current levels of material consumption might indeed be needed*, but they did not associate them with reductions in quality of life, but rather perceived the changes as acceptable.

> "Meat consumption has increased dramatically. And still people are afraid that it will not be enough if we go to sustainable levels. In the 1950's we consumed sufficient amounts of meat. So we need to go to those levels."

Several interviewees expressed the *urgency of promoting good examples and quantifications* of sustainable lifestyles that can dispel the myth and demonstrate to people that living within planetary boundaries can be acceptable and pleasant.

> "There is an urgent need for good examples of sustainable lifestyles – both content wise to show what practices are sustainable and quantitative calculations to see which are high-impact categories in our consumption and what measures lead to which reductions."

> "According to some calculations a sustainable lifestyle doesn't mean that traditional GDP will collapse and people's everyday lives will change dramatically. We will have to reconsider our consumption in Western countries in any case, because we consume ten times more than most people of the world do."

"To have the same standard of living as we have now but with drastically reduced impacts we really have to make great changes. We will still have computers, telephones, etc., but we need a cradle-to-cradle cyclical economy instead of the throwing away mentality – so we need to see drastic change in industry as well as in policy and society. Or we could simply choose a simpler life instead."

7.1.4 Policy implications

Sustainable consumption has to be reframed as a progressive path to societal development

Sustainable consumption needs to be reframed so it is viewed as a progressive path to societal development in contrast to the backwards "business as usual" type of growth that is prone to financial meltdowns, unfairness and inequality and environmental degradation. The goal of sustainable living is to maintain or improve the standard of living for everyone (which means increasing consumption levels for the world's poorest people), while drastically reducing negative environmental impacts and resource use. This is a significant challenge, but as this report demonstrates, it can be approached on many fronts simultaneously: technological and efficiency improvements, promotion of pro-social and pro-environmental values, and using policy to move consumption towards less-materially intensive patterns and levels.

Provide research funds to develop and communicate positive visions and scenarios for sustainable lifestyles

Policy makers are slowly starting to recognise the problems associated with over-consumption, not only in terms of environmental, but also social and equity problems (European Commission 2012). They understand that over-consumption is driven by policies, marketing and economic measures, and also by socio-cultural issues linked to status and identity. Therefore, there is a need to develop and communicate positive visions and scenarios for sustainable lifestyles, showing the benefits of lower-impact lifestyles for the environment, and the possibilities for high standards of living throughout the world. And for that, research funds are needed. Initial research from the EU's *SPREAD Sustainable Lifestyles 2050 project* is a useful example of developing policy roadmaps that show realistic steps towards implementing shifts towards sustainable societies.[21]

Apply a vast range of available cost-effective solutions

As discussed in myth 1, it is also becoming clear that technical solutions are necessary, but not sufficient. There is a vast range of cost-effective solutions available, for example, for cutting wasteful energy use. For example, the IEA (2012) states that it is completely possible to cut projected world energy use by half. This can be done by making energy efficiency a priority, making the energy performance of each sector visible, creating financial solutions for energy efficiency investments, normalising energy efficiency, ensuring monitoring, verification and enforcement of policies, as well as by making the necessary changes to training and qualifications in companies and in government.

Support and facilitate changes in social norms

We also need changes in social norms, and there are examples that show that norms can change relatively quickly especially if powerful and prestigious actors lead the change, e.g. Cool Biz campaign where many governments prescribed lighter office clothes to save on electricity use for air conditioning.

Address practical,emotional and psychological barriers to sustainable lifestyles

Green Engage's survey in the UK showed that people think green lifestyles are healthy, a good idea, and make you feel good. However people

[21] http://www.sustainable-lifestyles.eu/home.html

also think that green lifestyles are hippy, complicated, difficult, expensive, boring, and not cool. Thus there is a need to tackle both the practical barriers to green living (e.g. why is flying often cheaper than taking the train?) and the emotional and psychological barriers (e.g. camping holidays in your own country are not generally seen as attractive or fun). These kinds of issues could possibly be addressed through social marketing campaigns to promote sustainable practices. Old practices like sharing, lending and bartering can also benefit from repackaging for a more modern image, as Botsman's and Rogers' (2010) popular book *What's Mine is Yours* has shown.

Benefit from a closer analysis of the expectations of the younger generation

Policy makers might also benefit from a closer analysis of the expectations of the younger generation, who value leisure over work and are not so eager to reap the doubtful benefits of the work-and-spend cycle (Twenge, Campbell *et al*. 2010).

Main message for myth 7: Examples of sustainable living are emerging. We need a planned transition to sustainable lifestyles in order to avoid lower standards of living in the future.

7.2 Myth 8: People become happier if they gain more money and increase material levels of consumption

One of the most profound drivers of consumption in current economies is the idea that consumption equals well-being. Thus, pursuing consumption paves the way to happiness.

7.2.1 Consequences of the myth

The main consequence of the myth is that many people associate personal happiness with increased consumption and thus spend their lives pursuing higher income and higher levels of material standard, sacrificing their family life and health – domains where aspirations remain fairly stable and where their attainment leads to a more lasting impact on the level of subjective well-being[22] (Easterlin 2003).

[22] According to the new economics foundation, the concept of well-being "comprises two main elements: feeling good and functioning well. Feelings of happiness, contentment, enjoyment, curiosity and engagement are characteristic of someone who has a positive experience of their life. Equally important for well-being is our functioning in the world. Experiencing positive relationships, having some control over one's life and having a sense of purpose are all important attributes of well-being" Aked, J., N. Marks, et al. (2008). Five ways to well-being: A report presented to the Foresight Project on communicating the evidence base for improving people's well-being. London, Centre for well-being and New economics foundation.

This belief also has implications for macro-level economics since increases in consumption (and in the level of economic activity in general) is measured as GDP and thus increasing economic growth is also indirectly equated with increasing levels of well-being. Thus we tend to perceive GDP as a measure of prosperity in society. This assumption is, however, problematic on several counts.

7.2.2 Dispelling the myth

Many scholars suggest that the *link between material wealth and subjective well-being is more complex and intricate* than is typically perceived. The level of absolute income is less important for people's well-being than the relative income (Michaelson, Abdallah *et al*. 2009). Satisfaction with life is also culturally determined, and the increase in income does not automatically lead to improved perceived well-being as views on wealth and poverty adjust over time (Easterlin 2003). Easterlin (2003) demonstrates that subjective well-being correlates well with the level of education, health and marital status, and not very well with income. Other researchers argue that spending increasing amount of time and energy on earning more money and obtaining material goods has negative effects on social life and leisure (Durning 1995). Indeed, a significant amount of consumers in industrialised counties feel trapped in a work-and-spend cycle, in which increasing working hours and levels of stress are being compensated by increasing consumption levels (Schor 1999). The work-and-spend cycle is aggravated by the hedonic treadmill – we work hard to acquire more material goods, but cannot feel satisfied because there is always something better, larger or faster available on the market or in our neighbour's house. So the more we have – the more we want.

On the other hand, a number of studies suggest that *personal happiness is determined by satisfying non-material values* related to social life and interactions (marriage, family and friends) and leisure (education, art, music, religion, creativity) and not exclusively by material acquisition and ownership (Meadows, Meadows *et al*. 1972; Argyle 1987). Complementary to the aforementioned research, there are also studies which demonstrate that increasing individual income directly correlates with life satisfaction, but only to a certain point, after which the two parameters start to decouple – the so-called the Easterlin Paradox (Easterlin 1974; Max-Neef 1995). When considering Europe as a whole, the data shows a general link between higher GDP and higher levels of life satisfaction. However, when looking at the richest countries in this survey – EU15 Member States (the 15 EU Member States prior to enlarge-

ment of the EU in 2004) plus Norway – the correlation between national average level of life satisfaction and GDP is weak. "This is in line with the broadly accepted theory that subjective well-being does not increase with income once a certain income threshold is reached" (European Foundation for the Improvement of Living and Working Conditions 2008). Jackson (2009: p.32) suggests that beyond an income level of about $15,000 per person "the life-satisfaction score barely responds at all even to quite large increases in GDP. In fact the assumed relationship between income and life-satisfaction can be turned on its head here."

The Happy Planet Index (well-being of a society divided by environmental footprint) shows similar results: living a long and *happy life* (once a society is beyond a basic level of security, health and economic prosperity) *is not directly linked to wealth and consumption of resources*. For example, in Germany and the US well-being and life expectancy are at similar levels, but Germany's per capita ecological footprint is about half that of the US. Russia and Japan have similar per capita ecological footprints, but life expectancy in Japan is 17 years longer, and life satisfaction is about 50% higher than that of the average Russian (Marks, Abdallah *et al*. 2006).

This confirms that *above a certain level of income life-satisfaction does not increase significantly even with much higher levels of GDP*. There are many countries, including Denmark, Norway, Sweden, Finland and Iceland, that have higher levels of life-satisfaction than the USA, despite much lower income levels (although still relatively high levels of per capita consumption). At low incomes, a small increase in GDP leads to a big rise in life satisfaction (Jackson 2009: 32). So for poorer countries, increasing income (and quality or quantity of consumption) may result in greater well-being, but for richer countries, it is the other, non-material aspects of life that bring increasing happiness and well-being.

7.2.3 Nordic insights

Increasing consumption levels as the way to happiness was discussed in interviews with Nordic policy makers. Some of them saw it as a prominent myth in society, while others thought that people do not really believe that more money equals happiness.

> "The problem with the capitalist economy is that it builds on the need to increase everything. I was happy in 2005, but going back to that level would be problematic. Moving backwards is problematic, as is now shown by the example of some European countries. Happiness is not only a matter of money, but money is a part of it."

> "Yes, this myth is very common in my country. People totally believe they will become happier with more money or even that it is their civic duty to consume more, because they are bombarded with this marketing message. Bit by bit, people start believing it. People have to work more and everything needs to be faster."

> "The myth is partially true. It supports the hedonistic view that has penetrated our society – shopping for pleasure, not for need. Shopping centres are becoming meeting places."

The majority of interviewed Nordic policy makers agreed that it is not the increase in consumption levels that people associate with happiness, but rather with what the money deliver us.

> "Many people want to have sufficient amounts of money, not to have money problems. Some people prefer to have a lower salary for more free time."

> "I do believe that people want to earn more money, but I don't believe they necessarily want to buy new things; they do want to travel more or consume more services, such as cleaning etc."

> "During job interviews people are looking for and being offered other perks than money: access to the gym, part-time work, and the possibility to work from home."

Nordic policy makers agreed that consumption rewards are short-lived and that it is *important to find different ways of satisfying people's desire for better life*.

> "There will always be a drive to become happier, and [so] there should be. But there is a need to debate different paths to happiness. We need to show in practical terms (and for different groups of people) the various pathways of living and being happy."

> "Consumption leads to a short-lived happiness. But in the long run it is tiring to constantly strive for more, follow the crowd, and make more money. It is also so easy to buy stuff nowadays. But there are good emerging examples, e.g. giving experiences as gifts."

On the other hand, the majority of interviewees agreed that there is *still a lot of "traditional" thinking* that is used in governmental agencies and institutions that undermines the premises of sustainable consumption.

> "People want to earn more money. This is what we are told to do by advertising. Politicians are also saying we need to keep the wheels turning: take out your pensions and spend them on products and travelling to boost the econ-

omy. The whole discourse is growth from left to right of the parliament, but they all use the word green or sustainable."

Some interviewees saw an important role and responsibility of developed economies to *indicate a more sustainable pathway for developing nations* with regards to consumption patterns.

"We need to show to the developing world what we have done wrong and how they can avoid our mistakes by leap-frogging them – go directly to a more sustainable consumption path, as they can still choose."

They also stressed the importance of *engaging role models*, and in some Nordic countries the royal family could be the one that takes the banner of sustainable consumption.

"It would be so cool if the royal family did something publicly e.g. reduced car use or reused clothes when they go to official events or something – that could really change things a lot. And the politicians should also be leading from their personal actions. Many people love the royal family and for them the royal family are trendsetters. They could put solar cells on their castles! It would be so cool! After this it would not be too political to say 'we are citizens of this country too, so in our family we will do x y z', exactly as royals do."

7.2.4 Policy implications

Set goals for increased well-being and not only for increased GDP
The conclusion from these studies is that, in a green economy, economic growth could be seen not as the ultimate goal, but as a means for providing decent standards of living that need to increase up to a certain point. Thus, policy should include the goal of increasing well-being and not merely the attainment of economic prosperity at any cost. In order to reach this goal, policies could perhaps focus more on education, health and time availability for recreational, family and community activities and on creating more resilient communities. Policies aiming at increasing well-being could include improving work-life balance, promoting flexible working hours and part-time working, and investments in strengthening human capital through life-long learning and training.

State support to uncommodified activities

Some studies advocate "strong government support for uncommodified activities, including co-production and local exchange schemes – through research and development, and through commissioning for public services" (Coote, Simms *et al*. 2010). This includes growing, preparing and cooking your own food, repairing things instead of replacing them, using leisure for things that do not involve much commodified equipment, such as walking, gardening, music and other creative pursuits, and sharing skills, caring and support for each other. Further research is needed to evaluate what kinds of macro-economic and local effects these schemes will have.

Governmental support to develop indicators to measure well-being

However, so far these activities and their effects on well-being are not adequately captured by traditional indicators of consumption and economic growth: an appropriate indicator framework needs to be developed, which could include the development of national accounts of well-being (Michaelson, Abdallah *et al*. 2009), based on measurements of personal and social well-being, as well as environmental and social parameters (Jackson 2009). "*Personal well-being measures people's experiences of their positive and negative emotions, satisfaction, vitality, resilience and self-esteem and sense of positive function in the world. Social well-being measures people's experiences of supportive relationships and sense of trust and belonging with others*" (Michaelson, Abdallah *et al*. 2009: 4).

Recently the growing interest in the limitations of GDP as a useful measure of a sustainable and equitable economy has resulted in international research on indicators that take into account more qualitative aspects, as well as distribution of wealth and well-being of societies. One of the EU's projects in this area is called "Beyond Growth" and it studied limitations of the GDP as a measure of well-being and discussed possible alternative indicators (Wesselink, Bakkes *et al*. 2007). A number of alternative to GDP indicators are already available and they include, among others, the Genuine Progress Indicator, the Genuine Savings approach and the Human Development Index. The French Commission on the measurement of economic performance and social progress investigated three main issues: how to improve standard GDP; how to incorporate new measures of economic, social, and environmental sustainability into the data; and how to devise fresh indicators for assessing quality of life. Preliminary findings are already available and open for consultation (CMEPSP 2009).

In June 2012, the next steps towards moving beyond GDP have been taken prior to the recent negotiations in Rio, where it was announced that Denmark among other countries would become a test-nation for a "green

GDP". The measure is being developed by the WAVES World Bank programme and will mean that progress (and set-backs) within nature, environment and climate will have to be reported parallel to the more common GDP measures (World Bank 2012).

Main message for myth 8: In Nordic countries increasing GDP is associat-ed with marginal improvements in well-being. Therefore new indicators to measure societal progress are needed.

7.3 Myth 9: Private ownership of all kinds of products is desirable – sharing is not

Our society is built on the institution of ownership and as a result the main mechanism of acquiring products and services is through owning products. As expressed by an interviewed Nordic policy maker:

"We are afraid to have less stuff, afraid to let go."

7.3.1 Consequences of the myth

More than 50 million large and 200 million small appliances are sold in Europe every year (Haase 2001). Studies demonstrate that the total number of products per household is constantly on the rise (IEA 2009) and people nowadays tend to own more than one product in certain product category (computers, mobile phones, TVs). What used to be a product for satisfying needs of a family rapidly becomes a product for satisfying individual needs and wants. Consequently, environmental impacts associated with product ownership and use are growing**.** In terms of an individual's ecological footprint, consumer goods alone account for 14% of an average citizen's footprint in the UK (Bio-Regional and CABE 2008).

Another consequence of the increasing rates of product ownership is that the actual time spent on using many durable goods is reducing, e.g. an average European car is used for 29 minutes per day, standing still the rest of the day – 23.5 hours; a drill is used on average for 15 minutes per year and is also often designed to last for 90 minutes.

Decreasing prices for many products make it easy to buy them, even though we seldom use these goods. We need more and more space for storing all the stuff we own and as a consequence the storage industry

has become one of the fastest growing segments of the commercial real estate industry over the last 30 years at least in the USA. 53,000 self storage facilities exist in the USA (SSA 2012). In the past 20 years rentable storage has increased by 740% with 70% of the stored stuff coming from households. Interestingly, fees for storing are relatively high – $99–195/month, which means that after 6–8 months the payment for storing goods exceeds the value of the stored items. This faulty logic on the part of consumers, makes perfect sense for the industry, which has a collective $20+ billion in annual revenues (SSA 2012). In Sweden, the situation is drastically different, with 90 self-storage facilities, which makes the ratio 111,000 people per facility, while in the USA the ratio is 600 people per facility. On the other hand, as suggested in a half-serious way in one of the focus group discussions, the self-storage is done in Sweden in a different way as Swedes prefer buying summer homes and use them as the place to "store" all the products they do not use any longer or are tired of using in the main house.

The army of compulsive shoppers is growing, who "say they have cupboards full of shopping bags they never got around to opening" (Hamilton 2005: 3). Hoarding is becoming a psychological problem in many industrialised countries with consequences for well-being of not only hoarders, but also their families and friends. Judged by the new TV programmes on hoarding appearing in Nordic countries this might be an issue here as well.

7.3.2 Dispelling the myth

The institution of ownership is undoubtedly strong in our society, so rather than dispelling it, this section will provide examples of alternative developments emerging across countries that seem to place less focus on the ownership of products per se and rather provide access to products and services in different forms and shapes.

One way to provide access to products and services is through sharing, renting, leasing and pooling schemes. So-called *product service systems* enable companies to offer goods as a service rather than sell them as products (Mont 2004). Goods that are privately owned can be shared or rented peer-to-peer or companies can organise sharing and leasing services. Examples are numerous: car sharing and communal washing rooms, toy libraries and DIY tools and garden equipment sharing schemes, renting of equipment and sport goods. This trend is also witnessed by the Nordic policy makers:

> "Yes, I believe sharing is gaining more and more momentum. I believe there will be a tipping point. There has been product overconsumption, so we already own so many products that people start sharing: garden equipment, but also services. This trend will also lead to people wanting to buy more sustainable products – they last longer and are more durable and robust – easier to share."

Statistical data on car sharing demonstrates this trend. In 2009, there were about 380,000 members of car-sharing organisations in Europe with 11,900 shared vehicles, among which in Sweden: about 15,000 members with 500 vehicles; in Denmark: 5,000 members with 225 vehicles and in Finland: 2,300 members with 38 vehicles (Loose 2010).

Another promising – and growing – change in values can be observed in the shift by some people from product ownership to accessing products through *collaborative consumption* (swapping, lending, and trading via online communities) or the "sharing economy". Collaborative consumption businesses and schemes have been growing rapidly and it is estimated that by 2013 the global market for these schemes is expected to

reach $35 billion (Botsman and Rogers 2010). Collaborative consumption is a way of consuming where people share their possessions with other people while they are not using them, through various types of (mostly informal) social networks. It can be seen as a revival of our traditional ways of living in social groups where sharing and lending, as well as bartering and swapping was a natural part of everyday life. The primary idea of collaborative consumption is based on the notion that instead of individual product ownership, services and skills are exchanged or sold (Gansky 2010). Schemes of collaborative consumption can be organised by private people or companies, by local authorities, NGOs, communities or social enterprises and entrepreneurs.

Redistribution markets provide platforms for utilising the idling capacity of used or owned goods by moving products from somewhere they are not needed to somewhere they are needed. In some schemes the goods are exchanged for free (e.g. Freecycle and Kashless), while in others they are swapped (as on thredUP and SwapTree) or sold for cash (as on eBay and craigslist). People are also curious creatures and are easily bored; having the same art on the walls or sport equipment at home easily becomes boring after several months and therefore people self-organise swapping events and bartering networks, e.g. this Trendhunter post: Designer Peter Viksten's Gives Away Free Art in Sweden. These practices reduce the number of products lying idle in our homes and enable other users to satisfy their needs with products that they do not own. This reduces the need for new products while increasing the demand for high-quality products that are robust and durable enough to cope with far greater use by many – rather than one – consumer. These practices have great potential to proliferate into the mainstream and there are signs that this is happening today. The value of the peer-to-peer lending markets led by Zopa and Lending Club has been estimated to have grown by 66% to reach $5 billion between late 2009 and the end of 2013 (Gartner Research 2011). The sheer volume of goods traded in on-line markets makes them interesting from the environmental impacts perspective: for example, in 2011 Swedes sold used and new products for SEK 254 billion on such sites as Tradera, Fyndtorget and Blocket (Algehed and Karlsson 2012).

Many examples of redistribution markets are emerging and are promoted by municipalities in many Nordic countries. For example, Emmaboda municipality, Sweden, has been working with promoting reuse and recycling of products and material for more than 20 years. There is now a recycling center, a second hand shop – Opportunity House Ltd., an employment centre, rental service for trailers, conference facilities and a business company Vissefjärda pellets (Svensson, Hjerpe *et al*. 2013). The Opportunity

House second hand shop sells everything from clothing to bicycles and power tools. An estimated 90% of what is given to the store by inhabitants is sold, but there is a growing concern that since the durability of new produced furniture and electronics is getting lower this figure may drop in the future. The Opportunity House has agreements with employment services and insurance and accepts people for job training. Vissefjärda pallet manufactures various kinds of pallets and and is working for a number of persons covered by LSS (Law for Support and Service for the Disabled People).

Collaborative lifestyles unite people with similar needs or interests to share and exchange less-tangible assets such as time, space, skills, and money, most often on a local or neighborhood level, as people share working spaces (for example, on Citizen Space or Hub Culture), gardens (on SharedEarth or Landshare), or parking spots (on ParkatmyHouse). However, examples also exist at a global level too, such as peer-to-peer lending (Zopa and Lending Club) and the rapidly growing peer-to-peer travel (Airbnb and Roomorama).

In addition to products and their idling capacity, people also possess many skills and would like to share them or *trade the skills* with others, at the same time better utilising their life experiences and capabilities, extending their social network and learning from others, e.g. ourgoods.org.

Consumers are also looking increasingly for the added value of services and experiences rather than simply purchasing goods. The emergence of the *experience economy* is confirmed by the growing interest in gifts such as spa sessions or massage treatments, cinema tickets or cooking courses as opposed to products (Mont and Power 2013).

7.3.3 Nordic insights

The *opinions* of Nordic policy makers interviewed in this study were *divided* between those who saw some changes in society with regards to private ownership and those interviewees who did not notice any shift from ownership towards more sharing.

> "I think that people really don't want to own any more stuff, but sharing is still quite problematic and requires flexibility, trust and time."

> "The iphone5 craze is an example of the desire for ownership – there is not much new about the product, but the media is going crazy, people are lining up outside stores. People are reporting their current phone has been stolen because they want to get a new phone! Of course I see the small trends in people sharing more, but in my house we all have our own phone and a home phone too."

> "Of course, there will always be segments that want more sharing, but this is a small niche in our society. This is because people in Nordic countries have lots of money – some people say if they were poorer, they would be friendlier to their neighbours, share, be environmentally sound – but we don't want an economic crisis. It is not that private ownership is necessarily more desirable, but it is just the norm, no one questions this."

> "Partially true, on a large scale ownership is still appreciated. Swapping or renting is taking place mostly for economic reasons, sometimes with good consciousness."

Some interviewees mentioned the younger generation as people who are less concerned with material acquisition than their parents, while others did not see the same trend emerging.

> "My own kids prefer to have a laptop and Internet access and not so many material possessions. Their world and social networks are in the virtual realm. My 27-year-old son does not want to upgrade his phone and was happy to find the possibility to order a second hand mobile from Hong Kong. I would say that about 10% of people 'got enough' of material stuff, but it is not a trend or a shift yet. I do believe in theories of critical mass, when 20–30% of population follows an idea and then the shift happens in the entire population. I hoped that the last economic crisis would help expand this group, but it did not happen."

> "Sharing is not really a trend yet; on the other hand people are becoming aware about side effects of owning a lot of products: they take place, time to operate and maintain and clean them, and repair."

> "I agree but not entirely. Older generations are used to share or lend products. Nowadays younger generations are also more ready to think about these issues. New kinds of services have emerged around lending and sharing."

> "It's difficult when you have to change habits – I talk to older engineers etc here, they say 'that will never work', they have their own cars and are into their routines and will never share. But younger people who have not bought a car yet– they are much more open to the idea, and to new habits of transportation."

> "It became trendy to buy second-hand clothes – vintage and cool, but mostly in Nordic and other European countries. We need to show other ways of leading meaningful lives than by exporting the American dream which suddenly became the American nightmare across the world."

Our interviewees expressed concerns over the role that they can play in promoting sharing and service based economy, but also spoke of *some steps that could be taken already now*.

"This is a difficult issue to bring into policy circles. Sharing is difficult like in a 'collective house' and might be perceived as living in caves."

"Its part of living in a developed country – people want to have everything. On the other hand we have seen 'Use more, waste less' campaign[23] that encouraged swapping, hiring and sharing, so we do use this concept. It's ok politically because it's an existing trend."

"This is very challenging. People are caught in an easy comfortable life where they have their own car etc. So partly true e.g. owning a washing machine makes life easier. We need to change price structures and show the benefits of sharing – environmental, economic, others. Collaborative consumption demands a different way of life."

7.3.4 Policy implications

Research funds to better understand the consequences of collaborative consumption

Although theoretically collaborative consumption and its shaping of the economy should result in reduced material and resource flows, there has only been limited research conducted on the actual evaluation of the environmental profiles of these schemes. As a result it is difficult to assess the real changes in resource flows as a result of sharing schemes, especially in business-to-consumer and in consumer-to-consumer markets? Do these schemes have the potential to become mainstream models of consumption and what kinds of changes in consumption patterns and levels will they lead to?

One of the main reasons why sharing and product-service systems are interesting from a sustainability perspective is because they hold a promise to lead to reduced environmental impacts. A study of on-line trading system eBay demonstrates that the net balance of GHG emissions was generally positive for products that do not require resources during the use phase; for example, a sofa traded on eBay resulted in negative environmental impacts of about 50 kg CO2 equivalent, while the avoided production of a new sofa saves about 80 kg CO2 equivalent (Clausen, Blättel-Mink *et al*. 2010). The study from eBay also provided recommendations for policy interventions and other actions to promote online trade of used products:

[23] http://www.brugmerespildmindre.dk

Offer climate-neutral shipping on trading platforms; research indicates a high willingness to use such an option.

Highlight the high quality and resale value of used goods, in order to increase consumer trust in used goods. This can include refurbishing goods before resale e.g. http://www.asgoodasnu.com/ is a site that purchases, refurbishes and then resells used phones, providing them with a warranty.

Promote the environmental benefits of purchasing used goods, as many people are not aware of them. Utilise changes in different phases of people lives, e.g. birth of first child, setting up first home, retirement, as a window of opportunity for buying or selling used goods.

Encourage regional platforms for trading goods: these tend to make trade in low-value goods worthwhile, and limit the emissions from transport and shipping.

Increase support to functional sales and product-service systems

A number of examples are available demonstrating how governments at European, national and local levels are supporting product-service systems. In Germany local governments collaborate with car sharing organisations – StadtAuto in Bremen and StattAuto in Berlin – in order to offer full mobility services by combining public transport and car sharing into

a single mobility solution (Glotz-Richter 2001). In addition to including car sharing as a part of the Dutch Policy Plan on the Environment and the Economy, the Dutch government established a foundation for the promotion of car sharing. Car sharing has been named as a useful complement to public transport in the Swedish report "Sustainable burdens – consumption for a brighter future" (SOU 2004: 119), which was delivered to the Government in preparation for developing a sustainable consumption strategy (Edman 2005).

Examples of various authorities supporting sharing and collaborative initiatives already exist in Nordic countries. For example, in Finland, the private company Netcycler[24] facilitates swaps of second-hand goods between people, using a "trade ring" technology to enable trades between up to five people at a time. The service is free to use – participants pay only for postage when a trade has been agreed by the parties involved. The company makes a profit through additional services offered to users, e.g. postal service. Although it was originally developed in Germany, this innovation has been developed with the support of TEKES (The Finnish Funding Agency for Technology and Innovation) and the Centre for Economic Development, Transport and the Environment in Finland, and is now available in several countries.

Another example is from the Danish EPA that recently facilitated a "great national exchange day" (store byttedag), where citizens could meet up at local events all over the country, to exchange the goods they no longer needed. The concept was simple: leave what you do not need and take whatever you like in exchange. The events were popular and at a single site in Nørrebro, Copenhagen close to 3.5 tonnes of good were exchanged during the day by almost 1,000 persons. At the end of the day around 250 kg was remaining, of which more than 200 kg was picked up by a local charity authority (Føge 2012).

Use and build on the Nordic culture of collective services and common infrastructure

Nordic countries provide a *fertile ground for various types of collective services and common* infrastructure to be enjoyed by their citizens, building on the early ideas of the Nordic welfare state. Examples are numerous and span across sectors, including district heat, public transport networks, including bicycle infrastructure in Copenhagen, many city and

[24] http://www.netcycler.com/

village libraries, e.g. libraries in Helsinki also lending music, films, paintings and statues, various kinds of toys, games, equipment, fancy dresses, and one library serving as a collection point for private lending services. Nordic countries are also progressive in offering common laundry rooms and public baths, as well as public sports facilities. Besides the government, many voluntary organisations and associations created by people themselves offer activities, courses and sport services to adults and children. There is also a quite developed network of common meeting facilities for NGOs and associations in every village and city, e.g. Folket's Hus in Sweden. This infrastructure should not deteriorate due to public budget cuts as it strengthens the social capital created in society and increases societal resilience to various kinds of shocks. The infrastructure, as well as institutional and cognitive learning from the large scale collective networks could be used to support the emerging schemes of collaborative consumption, product service systems and redistribution markets. New infrastructure for low or no carbon can be built on these ideas, combining high tech environmentally sound solutions with ideas of closed-loop peer-to-peer markets thereby enabling more sustainable lifestyles, as demonstrated in the recent Finnish project of a more sustainable district called Low2No (Delisio 2012).

Policy support to sharing economy

The importance of policy support to the aforementioned schemes was highlighted by webinar participants as a potential barrier or enabler of a sharing economy, e.g. Ecological Tax Reform is a mechanism for shifting the burden of taxation from labour to material resources, with the aim of reducing resource consumption and encouraging reuse, recycling etc.

Main message for myth 9: The sharing economy and collaborative consump-tion of all kinds of products is making a revival. Policy makers can help by reducing barriers to a sharing and collaborative economy and by supporting research needed on its effects.

7.4 Myth 10: Consumption policies are too controversial to be accepted by the public

Sustainability policies focusing on consumption do not have as long a history as many other fields of environmental policy. Consumption is often perceived of as being part of the private sphere of life, in which

policy makers should not intervene. Consumers are assumed to be sovereign, i.e. they can make choices freely in the market, and those choices reflect their preferences. Hence, policy makers are often concerned that consumption policies are too controversial to propose, even where there is a strong public interest in influencing consumption patterns.

7.4.1 Consequences of the myth

Several fields of climate, resource and environmental policy have made only modest progress, partly due to the failure to address consumption related issues. The steps undertaken to advance sustainable consumption policy in Europe fell flat, as can be demonstrated by the example of the EU 2008 Sustainable Consumption and Production Action Plan, which was very limited in scope and failed to propose any effective instruments in order to move beyond the traditional consumer policy of consumer protection, safety and choice (IEEP 2011).

7.4.2 Dispelling the myth

Actively working to change public perception, opinions, values and norms is nothing new for policy makers (successful attempts have been conducted in fields such as smoking, drunk driving, the wearing of seatbelts, or recycling), although it is often still perceived as controversial within the emerging field of sustainable consumption policy. It is often supposed that changing consumption levels and patterns is too controversial to discuss in terms of policy interventions, but historical evidence shows that in fact, *public opinion and values linked to consumption are responsive to government policy.*

One relevant and well-researched case that provides insight into how public perception of consumption policies can be profoundly altered through coordinated government intervention is the consumption policy in the UK in the beginning of the 1940's. The Second World War forced the British government to quickly and profoundly reduce resource consumption. Ensuring the public's support for measures to change consumption patterns and levels (luxury taxes; rationing of food, petrol, clothes, etc.) was crucial. The government therefore employed the best creative artists to help persuade people – with remarkable success. Due to perceived necessity, fairness of the system (i.e. rationing ensured everyone had fair access to basic resources) and transparency the public acceptance for these measures remained strong. This supportive change in public per-

ception was further strengthened by the success of the measures in promoting lower levels of consumption: not only did motor vehicle use drop by 95%, use of household electric appliances by 82% and overall consumption by 16%, infant mortality also dropped by a quarter and local communities strengthened (Simms and Smith 2008). The UK's experience is supported by similar findings from Norway. Even there – in response to the Second World War – the government regarded a major reduction in consumption to be an unavoidable necessity, and through actively changing public perception managed to safeguard public support for rationing consumption throughout the war years (Theien 2009).

Policies influence public perceptions of what is normal and desirable, both by providing resources and incentives to act in a particular way, and by sending information and signals that encourage particular interpretations of society, politics etc. As demonstrated by research on policy feedback, the ways in which public policy and public perception influence each other are complex, although it is clear that policies which are publically debated, as well as policies that have an immediate impact on people's lives will have a greater impact on public perception (Campbell 2008). A clear example of how public perceptions and values can change is the dramatic shift in values that was measured in the population of East Germany between 1990–2006, as public perceptions of government policies and responsibilities aligned with the attitudes and institutions imposed by West Germany after reunification (Svallfors 2010).

Sustainable consumption policies do not have to be controversial, but could instead help people make choices in situations where solid scientific evidence is hard to reach for lay people, when evidence is complex or when there are other barriers to people decision making. A new type of policy that can be used in sustainable consumption field is *choice editing* that builds on the insights of behavioural economics on shaping behavioural choices. Thaler and Sunstein's book "Nudge" has had influence on policy makers in the UK, USA (Thaler and Sunstein 2008) and the EU. The underlying premise is that humans tend to make poor choices about money, health and so on, because we are often biased and influenced in various ways. By knowing how people think, it is argued, it is possible to design choice environments that make it easier for people to choose what is best for themselves, their families, and the society as a whole. Thoughtful "choice architecture" can be established to nudge us in beneficial directions with an acceptable impact on absolute freedom of choice. As confirmed by a Nordic policy maker:

> "We are now working more with behavioural economics. It's very fashionable at the moment and popular – every one is doing it a little bit. We don't like to regulate, to decide what businesses and consumers should do. With behavioural economics you can nudge towards what you want. It s a beautiful coming together – we can make it easier for consumers to do the right things without being paternalistic."

Recent research in behavioural economics and sustainable choice has shown that "consumer behaviour is much more dependent on the stimuli and barriers in the immediate choice contexts and is influenced to a far greater extent by human biases and heuristics than has been assumed in consumer science" (Reisch and Bietz 2011). Therefore choice editing and providing sustainable defaults have been shown to be more effective in nudging consumers in a sustainable direction than information provision (see myth 5 for more on the limitations of informational policy instruments). Examples from Europe and Nordic countries are available, e.g. the ban of conventional light bulbs and other energy using products, as a result of the Eco-Design Directive. Choice editing leaves consumers to choose between ranges of more sustainable products – the retailer or government takes responsibility for providing appropriate products, rather than pushing the responsibility of choosing the right ones onto the consumer.

These examples demonstrate that public perceptions about consumption policies have been significantly changed during times when this was a strong political priority.

7.4.3 Nordic insights

The interviewed Nordic policy makers had *divergent views* on whether the myth exists or not.

> "If we make consumption policies too controversial, it will not be accepted by the public. Small individual actions and bigger solutions on a societal level walk in some extent hand in hand. Public acceptance should be achieved at least to some extent."

> "The EU phasing out of old light bulbs last year is a good example of measures that are needed. The ban was the law so the public were forced to accept it."

> "Nordic countries need to reduce meat consumption – all studies show that this is the most important part of CO2 reduction from food– beef. But, nothing is happening in this matter because people want to have meat and the farmers and industry want to continue making money on it. It is not easy to see that this kind of policy would happen…"

> "I don't think it's really a myth – politicians don't really believe that policies are controversial, but they simply will not win the next election if they really go for e.g. policies on reducing car use."

Some of the Nordic policy makers identified a *conflict of interest* among policy makers and politicians to promote sustainable development in general and sustainable consumption in particular.

> "I agree that the myth exists. In fact, people who seek power are often materialistically oriented. We – the sustainability aware people – are threatening their way of life… People who are less willing to let go are the people with much power. This is a paradox which is clearly stalling the prospects for sustainability to enter mainstream policy-making. Thus, we need a shift of values in society at a large scale level, but where it should come from? ... we are not sure."

> "Many people are uncomfortable with the current way of living; there is uneasiness in many of us. But the solutions are left up to personal choice – live simpler and work less or try to change the system from within. We all need to be the change we want to see."

> "Can you change the system from within or do you need to position outside the system to be able to do the change? There are fantastic examples when members of the parliament who decided to quit put forward more innovative proposals than they ever had done during their time in power – the so-called sunset policies – they are not afraid anymore ."

The *importance of designing policies* in such as way as to increase their acceptance was stressed many times by the interviewees. The design elements specified as important were: the way policies are framed, feedback mechanisms that need to be integrated from the outset.

> "When policies are implemented it is important to provide feedback to people, e.g. on waste sorting people want to know what happened to the sorted waste."

The Nordic policy makers outlined the importance of a *trial and error approach in policy-making*, which could help advance both the development and the implementation of sustainable consumption policies.

> "This is very a strong myth. Policies for long-distance travelling are taboo. We have not used new technology for testing policies. Companies are using new approaches and technical innovations for marketing research, neuro-marketing and policy people are afraid to test it for evaluating policy effectiveness. High time to test new policies in new consumer segments, in different geographical regions and in combination with other policy tools – policy packages are a hot topic."

> "Eco-labelling is the only policy that works, as it is not controversial. Reduction policies are needed, but there will always be opposition – like it was even for bikes at the beginning. We need innovation in policy-making!"

A reoccurring theme in the interviews was the *leadership role of policy makers*, who are expected to take charge and introduce measures that they think are right for sustainable development.

> "I don't think the myth is true. There are studies showing that most people are waiting for the political system to step up and take responsibility for the environment. However, the political players say they are waiting for the demand to mature. This leads to a deadlock situation. It is just an excuse for inertia."

> "It's strange that politicians are not braver, they are so afraid of making even small changes. We know that people get used to things really fast in a couple of years, we have lots of experience of this – but still they are so afraid."

Many Nordic respondents believed that the *public will accept interventions* especially if the benefits are clearly communicated to them.

> "There is always a group of people who do not like any kind of new regulation. But once it is adopted they will adapt and get used to it, and just get on with their lives. But of course the evidence-base and monitoring are important for acceptance."

"To a certain degree the myth is true. For example the road pricing debate created a roar of opposition. A lot of people thought it was a good idea but the media focused on negative voices. Politicians chickened out and set up a commission so they don't have to deal with it now, they can park it until later. Politicians need to take tough decisions sometimes, not just look at opinion polls but look at what is the right thing to do."

"Culture change should be led by the state – I'm thinking of the change in attitudes after the smoking ban – it was unpopular at the time: it's a brave politician who does it. But it is possible to change culture a lot and quite rapidly."

7.4.4 Policy implications

Increase policy efficiency and effectiveness through good communication, right timing and thoughtful implementation

There is still a debate on the extent to which policy makers should lead public opinion and how much public support is needed before implementing policy. Some argue that for the public to accept policies that will interfere with habitualised consumption patterns, positive public perception of these measures is crucial (Corner 2010).

While broad public support is clearly helpful, it should not be seen as a complete prerequisite. Appropriate communication, right timing and thoughtful implementation can increase policy efficiency and effectiveness. Further, practical experience and scientific evidence suggest that the public and the policy makers re-enforce one another as demonstrated below in the example of the Stockholm congestion charge. In the beginning of the 2000's, the City of Stockholm decided to implement a toll-system for cars entering the inner-city in order to reduce congestion on inner-city streets. The fee was highest during rush hours, decreased during the day, and was not applied during night time and on weekends. Public opinion was against the implementation of such a system prior to implementation. The fact that the system is now widely accepted by the public and even regarded a success both in terms of implementation and outcome is largely due to the way the policies were implemented. In Stockholm, a public referendum decided for the system after a 7-month trial-period, which was critical for gaining pubic approval (Stockholmsförsöket 2006; Hårsman and Quigley 2010). In Stockholm, already during the initial trial phase of the system (7 months in 2006) car volumes declined significantly (-22% during charging hours), travel times improved (queuing time on arterials towards the city reduced by 30% in morning peak hours) and local emissions (both CO2 and particles) saw a drop of 14% (Stockholmsförsöket 2006).

The Stockholm congestion charge has been examined in several studies (Eliasson and Jonsson 2011; Börjesson, Eliasson *et al*. 2012), which all note that acceptance increased after the 7-month trial period, whereas negative attitudes decreased as the congestion charge was established as a permanent measure (Brundell-Freij, Jonsson *et al*. 2009). The changes in attitudes are usually attributed to the effectiveness of the charge in terms of visibly reduced congestion. Eliasson (2008) mentions the influential role of the media and especially an editor of Expressen, who publicly changed his mind and started supporting the trial. Eliasson *et al*. (2011) also highlight the role of the politicians' decision to re-label the congestion charge as an "environmental charge" and emphasise the positive effects on air quality. Schuitema *et al*. (2010) suggest that the combination of a (successful) trial and the referendum (i.e., involving people in the decision) was the decisive factor explaining success. So there are clearly several processes at play in increasing acceptance of sustainable consumption policies. These include the possibility to experiment and gain experiences of the measure, the involvement of citizens in the decision, the achievement of visible positive effects and the adaptation of attitudes once the measure is normalised.

Policy leadership can make the difference

A different example of how governmental policies can influence public perception comes from Finland. In the 1960's, Finland had the world's highest rate of early deaths from coronary heart disease. The poor eastern province of North Karelia was particularly hit. In 1972, the North Karelia project – a prevention programme – was launched. It built on core messages about lifestyle choices, and incorporated numerous local actors: GPs and nurses, schools, libraries, local media, supermarkets and the food industry, all co-ordinated by the local university. The initiative was received by the population with caution as "dairy farming was a major source of livelihood in rural North Karelia and butter was a much-liked local produce". People used to believe that there was nothing they could do to prevent heart disease. The possibility of reducing the disease was a powerful message. And the campaign ultimately managed to gain widespread public support, and by 2006 the region had seen a reduction of 85% in mortality due to coronary heart disease in working-age men. What the case is able to illustrate is the importance of both governmental leadership, as well as broad public support to sustain long-term success in terms of behavioural change (Viitanen 2010).

Build and communicate social norms to increase acceptance of effective policy measures

According to new research into the power of social norms and policy characteristics in influencing policy acceptability, people are more likely to accept stronger, more coercive environmental policies if others accept them too. For policy makers, this demonstrates the importance of building and communicating social norms in order to expand the range of available effective policy tools (de Groot and Schuitema 2012).

Main message for myth 10: Policy is never neutral: it shapes social norms and values in society. Policy makers need to create the "politics of possibility" towards sustainability by using the plethora of existing and new strategies and tools synergistically.

8. Brokering knowledge between science and policymaking

One potentially useful tool to help decision makers to promote policies for sustainable consumption is knowledge transfer – the transfer and sharing of knowledge from where it is abundant to where it is needed. In order to identify the main barriers to knowledge use in a Nordic context and to find the best means to make knowledge more accessible, Nordic policy makers were interviewed. The findings are presented below.

8.1 How research results are used in policymaking

Our interviewees all said they had little time to use research. Time was the major constraint, and interviewees referred to "skimming a lot of literature", searching for things that are easy to read, and not having time to read reports. This overall situation, which was shared by all Nordic policy makers we interviewed, is well exemplified by the following comment:

> "There is quite a lot of research, but there is not a lot of time to find it. Usually things happen so fast, so typically you have to write three bullet points for a politician for tomorrow."

> "Research should be summarized into 2–4 pages, with main findings and conclusions plus links."

The interviewees' comments reflected a need for synthesised information that is simplified and rendered useful for policymaking. The knowledge interest of researchers and policy makers is often quite different. Researchers aim to challenge the existing view and create new knowledge, whereas policy makers want knowledge that is easy to use and offers clear solutions:

> "In policymaking it's easier to use simplified and practical information. The gap between the scientific and political world is quite deep. Scientific publications are sometimes too heavy to read in hurry and some kind of policy briefs or manuals could be helpful."

Some of the ministry officials that we interviewed had delegated part of the knowledge brokerage and synthesis process to other state agencies or non-state organisations. Moreover, new ideas can also come from politicians, who thus also bring in new knowledge domains:

> "We use a communication agency for campaigns; we don't have time to look at research ourselves. We get support from experts and have subject knowledge already from many years working on it. Right now we have a very engaged minister: she introduced the idea of circular economy so now we are dealing with this term and it will be part of the waste prevention strategy next year; thus we also get input from politicians."

Policymaking is also not merely a process of applying research, but a complex political process. It is a political process rather than a social engineering exercise, see e.g. (Vedung 1997). Hence, our Nordic interviewees were very aware that research does not need to be convincing only for the civil servants, but also for politicians and their electorates. This was often mentioned as one of the key areas where research falls short of expectations. Several of our interviewees stressed that the lack of societal and political consensus was often a barrier to applying new knowledge:

> "We work more based on experience of managing projects rather than on reading science. We seldom have time to read reports. But when meeting with politicians … the task is more to get them to agree on something in common, to find consensus."

> "The sceptics need to be proven wrong in simple terms. And the policy advice needs to be clear in terms of what needs to be done."

Most of our interviewees noted that law and economics were the two research disciplines that are used in an established way in policymaking. Environmental policy also often makes use of natural and engineering sciences. These disciplines were seen as important for creating motivation for sustainable consumption policies.

The greatest problems in knowledge integration were found in the social sciences, which are often not cumulative or context-independent in the same way as the natural sciences are. Consumer behaviour also consists of several different types of behaviours occurring in several different types of contexts, so there is no "grand theory" to draw on:

> "Social sciences are important, but conclusions are usually soft and in the end we are all driven by our own beliefs. So in a way we make decisions based on available knowledge and our beliefs."

> "There's a lot of talk about nudging and behavioural economics… We haven't used it directly yet but just looked into the ideas – it seems to be a bit of a fashion at the moment, especially with advertising agencies."

Many of our interviewees stressed the need for more multidisciplinary research, and in particular, research that shows how consumer behaviour can be changed. More research was also called for on the role of consumption in society and public policy on the very highest level, e.g. on the issue of consumption and its links to happiness and well-being.

8.2 Availability of research for policymaking on sustainable consumption

The Nordic policy makers were aware of the fact that there is a large body of research that is relevant for policymaking on sustainable consumption. Hence, the quantity of information was not seen as the main problem. Rather, the problem was seen to be the usability of the information, which is captured well by this quote:

> "We know that we need to change but we don't know how."

In terms of usability, our interviewees specified the problem by discussing several gaps and missing links in the available knowledge. The main knowledge gaps identified by Nordic policy makers can be summarised as follows:

Inconclusiveness: Many interviewees said they felt the research is not conclusive and that consumer behaviour is not fully understood. They felt that the research findings are often contradictory.

Incomprehensibility and invisibility: Many interviewees said that information is not collected and presented in an easily understandable form. Incomprehensibility also leads to invisibility and lack of attention by policy makers.

Lack of timeliness: Many interviewees felt that it is difficult to access the necessary information at the time when it is needed, and quickly enough.

Lack of applied research and policy assessment: Several interviewees stressed that there is limited evidence available on policy effectiveness. This is partly due to a lack of policy monitoring and evaluation, but also

due to the lack of established methods for evaluating the effectiveness of policy instruments and measures.

Lack of country-specific research: This was more of a problem for some countries than for others. Nonetheless, it is clear that context influences the effectiveness of policy measures (Pawson and Tilley 1997), and hence, it is not clear whether studies from other countries apply in a different context.

Lack of dedicated research: Since sustainable consumption policy is quite a new policy area, it is difficult to identify what research is relevant and how the existing research should be combined to best serve the needs of policymaking. The larger the societal problems that are being addressed, the greater the need is for engaging with research from several perspectives and research disciplines. It was also noted that research funding does not often support the multidisciplinary needs of sustainable consumption research.

In addition, some of our Nordic interviewees mentioned particular issues on which knowledge is lacking. Most often, these related to policy impact assessment – especially the impacts of policies on households in different circumstances. This category of research needs is exemplified by the following quote:

> "What are the costs and economic effects to households and companies, is a frequently asked question. The effects and especially economic effects are a challenging area in terms of research information. These questions arise often in sustainable policymaking and it's problematic, because of the lack of information needed to respond to these questions."

Other concrete knowledge gaps mentioned were more diverse, such as the need for sustainable consumption indicators, policy tools, as well as topical knowledge of what is happening on the UN and UNEP level and within the UNEP 10 Year Framework of Programmes on Sustainable Consumption and Production. One of our interviewees was missing information on "how to reach the population in general and its specific segments, e.g. children and teenagers", considering that one might need different tools to reach different segments and target groups.

8.3 The evidence-base of sustainable consumption policy

Most of our interviewees felt that there is insufficient knowledge for evidence-based policymaking. They stressed that there are very few studies on policy interventions and many of these are inconclusive. They emphasised the need for more impact studies, so that policy could be based on scientific evidence. As one example, the Danish fat tax was mentioned. In this case, it was suggested that policy makers had underestimated the relative price inelasticity of consumption and the role of cross-border trade.

The areas in which evidence is most lacking, according to the Nordic policy makers, are economic impacts and effective ways to bring about changes in consumer behaviour. Often, a lack of time and money was the reason why policies are not tested, monitored or evaluated, and the results of the few available studies are not used. However, some said that the evidence-base is stronger in some areas than others. This was often due to the fact that a certain ministry had a certain responsibility. For example, it was suggested that there is quite some evidence on public recognition and trust of the Nordic Swan label, but not much on other instruments.

Moreover, some of our interviewees felt that the lacking evidence-base is not the greatest problem, as such. Rather, they stressed the role of politics in policymaking, as well as the counter-forces to sustainable consumption policy, such as lobbying groups:

> "We understand the connection between consumption and production and the environmental problems, but the step to practical policy is not made. And then there is also the problem of actually devising a new policy and implementing it. Formidable forces are the vested interests from stakeholders."

> "The lack of evidence is not the key problem. The problem is that policies are the result of a political compromise. It is never based on evidence or research in any case, but always contaminated by political considerations."

8.4 Barriers to knowledge utilisation

Our Nordic interviewees suggested two main categories of barriers: ideological/political and practical. They stressed the importance, as described above, of the role of politics in policymaking. Different ministries, political parties and other stakeholders have different priorities,

such as impacts on job creation or tax revenues. However, several interviewees suggested that the main barriers are a combination of these political factors, and the way in which policy is made in practice, as suggested by the following quote:

> "Policy makers fear being perceived as too drastic or silly, plus it is a large bureaucratic machine. We need to consume less, re-evaluate our values and change systems. There is so much disagreement between politically engaged people. Sometimes one is positively surprised by how people want to learn new things, promising cases and good ideas, and the next day you doubt whether there is enough will-power."

Hence, improving the knowledge base and especially knowledge utilisation practices can perhaps help to surmount the ideological and political problems, according to our Nordic policy makers. This would require more knowledge that can feed into the political deliberation process, as well as sufficient time for policy makers to discuss and deliberate:

> "Policymaking is all about discussion and deliberation. It's very important that people involved know scientific research which they can implement in these discussions. Research should provide information like topical key summaries."

> "Research which is very scientific and theoretical may not be very helpful to policy makers. I believe that there would be a lot of work for good writers, who could write about these issues in the right way, so that information would reach the right people at the right time. We need more information about the socially constructed and cultural structures that act as barriers to a wider change."

> "When working across sectors we need to have common ground when it comes to data so we can work together. We need to be talking about the same things with all experts e.g. cost benefit analysis. So it's important we can talk together and understand each other."

Empirical research with Nordic policy makers suggests that the main barriers to evidence-based policy-making on sustainable consumption are both political and practical, especially that:

- Research on consumer behaviour is often too complex; there is a need for simple, synthesised information due to lack of time for policy makers to make use of it.
- Reluctance to use social sciences research, and instead relying on own beliefs.
- Reluctance of politicians to engage with sustainable consumption policies is identified as a key barrier.

Nordic policy makers suggested that better knowledge brokerage could overcome both the political and practical barriers to implementation of strong sustainable consumption policy and can become an important component of future interactions between all the relevant fields of research and policymaking in order to further sustainable consumption.

8.5 Ideas for surmounting the barriers

Our Nordic interviewees had several suggestions for how the aforementioned barriers could be surmounted. We have classified the main suggestions below into four broad categories: co-operation among ministries and government agencies, political leadership and knowledge brokerage institutions, as well as several practical suggestions for research communication.

8.5.1 Increased co-operation among ministries

Several arguments were put forth for increased co-operation among ministries. This was seen as very important because different policy instruments are often the mandate of different sectors of government, and it is difficult in such a situation to design an effective policy mix. Certain aspects of consumption (such as housing) may also be better covered by existing administrative structures than others. The lack of policy coordination and the existence of contradictory pressures make decision making difficult. These viewpoints can be exemplified by the following quotes:

> "All departments should cooperate on environmental issues, but they are talking different languages, have different interests and different goals."

> "In consumption policies there is still visible an environment perspective, employment perspective, competitiveness perspective and consumer perspective, which all look at policy issues in a different angle. A wider perspective to look at these issues could be beneficial."

8.5.2 Political leadership

In terms of political leadership, it was suggested that researchers should communicate more directly to politicians and the general public: Civil servants cannot easily go ahead of the political process, but receive their mandate to develop policies from politicians. On the other hand, researchers might highlight the limitations of consumer sovereignty and

the fact that citizens actually value political leadership. However, some interviewees noted that the results communicated by researchers to the public are often contradictory and hence do not serve to promote political leadership in sustainable consumption.

The webinars undertaken as part of this project were very positively viewed by participants and so could serve as a useful model for future dialogue between researchers, policy makers and other relevant stakeholders. Positive feedback received after each webinar included appreciation for the "innovative way to exchange" and the opportunity to make contact with both new and old colleagues, as well as general interest in the knowledge presented and the debates raised. Many participants followed up with further questions and clarifications after the webinar, and still more wanted to receive the final results – and perhaps will be more likely to read, utilise and share them in the knowledge that their contributions to the debate will be included in the final reports.

8.5.3 New institutions for knowledge brokerage

This observation of contradictory research results suggests the need for new institutions for knowledge brokerage. One such suggestion was for a *hub for knowledge brokerage*, for example hosted by the Nordic Council of Ministers, which could serve to identify relevant studies from trusted sources, assess the quality of scientific information and communicate up-to-date knowledge to national governments. Another suggestion was for a kind of "consensus panel" among researchers for synthesizing and presenting the main findings – something in line with what the International Panel on Climate Change has done. A third idea in this category was for a *think tank* to bring together the scientific community and consumer organisations. Recent EC research also highlighted the need for coordinated dissemination of good practice actions at local and national level, for example through a knowledge exchange platform (similar to the Business and Biodiversity platform[25] (EC 2012: 31). Webinar participants suggested that such forums could be based on the values of the so called Nordic model with the issues of solidarity and social democracy as the point of departure and with a global perspective, looking at the consequences not only to the Nordic consumer but also on the populations beyond Nordic borders.

[25] www.business-biodiversity.eu/default.asp?Menue=132&News=46

8.5.4 Regular discussions between researchers and policy makers

Some interviewees also suggested that short seminars focused on specific questions and presenting the three most important conclusions could serve as knowledge brokerage events. Regular discussion among researchers and policy makers about relevant questions was also seen as being important. Moreover, some policy makers also suggested building more direct contacts among researchers, policy makers and practitioners. More participatory processes for researchers could facilitate learning from good practices that people are already engaged in, such as direct purchases from local food producers, and which would offer more immediate engagement of policy makers and practitioners. In general, closer contact between researchers and policy makers was called for. This could occur via interim reporting of, and discussions on, preliminary results, which was suggested by several interviewees.

8.5.5 Practical suggestions for how research results should be presented

Moreover, several interviewees had practical suggestions for how research results should be presented. They called for simplifications, illustrations and diagrams, good summaries and clear conclusions and "simple explanations of complex issues in accessible format". In particular, research results should be presented forcefully and briefly, as the business lobbies do at the European Commission. Several interviewees said that the main findings should be condensed into summaries of 2–4 pages. Time was mentioned by almost everyone as a factor limiting the utilization of research results:

> "Sometimes there is no time to even read an Executive Summary, so several bullet points in the beginning could help."

8.5.6 Action research

Action research was suggested by webinar participants as an important method for developing solutions, since there is an urgent need to understand "not how to make the science work, but how to make it work in practice, on a wide scale: it is a political and behavioural problem of how to change mind-sets, attitudes, values and behaviours. In such areas, classical research methods are of limited use" (Carlsson 2004). Action research presents opportunities for dialogue and co-creation of

knowledge between researchers and participants – in this case policy makers – working towards realising the paradigm shift needed for true sustainable development. This approach suggests that future research on sustainable consumption should focus on learning from implementing and evaluating initiatives directed at social transformation, improving well-being and experimenting with more sustainable lifestyles and cultural values – a suggestion which also resonates well with the extreme urgency of the need to move towards sustainable levels and patterns of consumption.

9. Key messages for policy makers

9.1 Sustainability is a fundamental necessity and not a choice

It is unrealistic to expect a sustainable society to materialise from current political strategies on sustainable consumption. The changes needed are significant, and the research explored in this study shows that policy makers have a *plethora of opportunities to create positive change* using a *variety of approaches and tools synergistically*.

Sustainability needs to be addressed as a *fundamental necessity* and not as a retail choice. Governments need to lead the shift to sustainability by creating the societal structures that *make sustainable living the default option* and by communicating a *wider vision of well-being*, which includes pro-societal values such as resilient communities, equitable, fair and

sustainable resource use, health, education and personal development, peace and stability, environmental and social justice and other macro-issues that indirectly influence individuals and families.

9.2 The "politics of possibility" towards sustainability

Demonstrate leadership
Research shows that several stakeholders, including businesses and consumers, call upon governments and *policy makers to show leadership*. Governments are the most significant agents for driving widespread changes in our culture of consumption; citizens, businesses and civil society have other vital roles to play.

Lead the transition to sustainable infrastructures and cultures
Our society is *consumptogenic*: the structures of society promote consumption patterns that Nordic people think of as normal, but which are unsustainable. Citizens who attempt to make significant lifestyle changes for sustainability face insurmountable socio-technical and cultural barriers to sustainable practices. This highlights the need for governments to lead the shift to *infrastructures and cultures of sustainability*.

Create and promote sustainable choice architecture
Innovation in technology and infrastructure, regulation, pricing, marketing and new social norms can be used in combination to create *sustainable choice architecture.* Sustainable consumption strategies need to accompany efficiency strategies and could include such sufficiency strategies as e.g. buying services or renting and sharing products instead of owning them, utilising the idling capacity of goods, and promoting a culture of creativity in upcycling and product repair. Many innovative new businesses demonstrate that redistribution of existing resources and urban mining is seen as an important future source of materials. A *sharing economy* can be promoted through formal and informal initiatives of citizens, businesses and governments.

Use the most effective policy instruments and policy packages
Regulations are often the most effective policy tools for changing consumption patterns. Although regulations may be more challenging to implement, evidence on the success of practical techniques for successfully implementing stronger policy interventions is available. Often, policy tools are more effective when used in combination with other tools, such as pricing or infrastructure development, and information tools,

which all together creates a more effective framework for transition to sustainable lifestyles for consumers.

Facilitate change away from high-impact consumption areas
A special policy focus is needed on facilitating change *away from high-impact consumption areas* (e.g. flying, consumption of meat and dairy products and car driving) to lower-impact consumption areas (e.g. vegetarian diets, public mobility, local leisure and cultural activities, and personal development).

Better understand the benefits of low-impact lifestyles
There is a need to *better understand the benefits of low-impact lifestyles* for the well-being of individuals and society, as well as for the environment, and to advocate them based on criteria of good health, high quality of life and sufficient material consumption, rather than on merely material abundance. There is also a need to better communicate the consequences of inaction, without being dramatic but rather pragmatic, demonstrating that slow action is already leading to environmental problems (luckily not yet very visibly in Nordic countries) and reducing standards of living in many European countries.

Facilitate development of innovative value-creation business models
The role of *innovative value-creation business models*, e.g. servicizing, in enabling sustainable living needs to be better understood. Both governmental and business support is needed for the growing community of individuals, municipalities and cities that enable more sustainable ways of living through social innovation, e.g. low-carbon communities and collaborative consumption.

Discuss and promote a much greater diversity of paths to well-being
Politicians fear alienating citizens with policies that tackle consumption patterns and levels; perhaps framing policies and actions as promoting sustainable lifestyles and well-being could de-dramatise the focus on levels of material consumption and move the societal debate in a more proactive and productive course on how people's quality of life can be improved. Understanding and supporting the drive of humans to become happier, there is a need to *discuss a much greater diversity of paths to well-being* than is currently offered, e.g. reaping the benefits of technological progress not only in monetary terms, but also in terms of meaningful leisure activities and personal development.

Support the development of metrics of societal prosperity
To support and encourage sustainable ways of living new *metrics of societal prosperity* needs to be developed, e.g. alternative indicators to GDP developed by the WAVES World Bank programme and Beyond Growth movement.

Nordic policy makers can gain inspiration from J.F. Kennedy's decision to put a man on the moon, which was, when Kennedy first announced it, ridiculed as "impossible". To achieve the impossible, he created a culture of possibility, which supported previously incomprehensible and unforeseeable technological breakthroughs. In a similar vain, visionary shifts are needed in the mindsets of policy makers to *create a "politics of possibility".*

9.3 Communicating sustainable consumption policies

Increase acceptance of sustainable consumption policy
Policy shapes social norms and values in society. The way a policy is communicated and implemented can greatly increase public acceptance, even for more challenging behaviours (e.g. switching from private car use to public transport) and proscriptive policies. There are several strategies that may help to *increase the acceptance of sustainable consumption policies*, e.g. the possibility to experiment and gain experiences of the measure, the involvement of citizens in the decision, the achievement of visible positive effects and the adaptation of attitudes once the measure is normalised, as well as by framing techniques, reinforcing pro-societal and pro-environmental social norms, and by providing safe, comfortable and cheap sustainable alternatives to unsustainable behaviours.

Small changes in consumption behaviour must be supported and facilitated by sustainable consumption policy, infrastructure, pricing mechanisms and sustainable marketing messages
Small changes and mass movements make a difference, but it is essential to communicate that big changes are also needed. Positive encouragement is also vital, but providing a realistic picture of the scale of change needed in society is also essential. Thus, communication from policy makers and civil society should emphasise both the relative importance of the small changes that individuals can make in their life and the necessary large-scale changes and the ways, in which citizens can participate in these. The spill-over effect may be more successful when people take a small action and then identify themselves as a per-

son who cares about the environment. This can be encouraged by framing actions as "positive for the environment and society" rather than only as "saving money", and by encouraging change through empowering community initiatives. While it is important to encourage people to take easy environmental actions to reduce their impacts, it is vital to realise that spill-over into significant lifestyle changes can hardly be expected. The *significant lifestyle changes need to be incentivised, supported and facilitated by policies* for sustainable infrastructure, pricing mechanism and sustainable marketing messages.

Sustainable behaviour needs to be promoted by congruent messages

Sustainable behaviour needs to be promoted by *congruent messages* coming not only via information provision, but also through other strategies, e.g. infrastructure, marketing, pricing and societal institutions. There is a need to find ways to inform people about environmental problems so that it stimulates action rather than discourages them. Information may have an effect on behaviour, but usually only when strong instruments are used at the same time. In addition, due to the attitude-behaviour gap, better results are sometimes reached when people are given the possibility to try the behaviour in addition to providing them with information. Change in attitudes follows once the behaviour is established.

Strike a balance between "What's in it for me?" with "What's in it for us?"

Policy makers should *avoid sending mixed messages* to citizens and not emphasise immediate personal gains when societal values are at stake. People are likely to behave in a more civic-minded way when pro-social values are emphasised, which could increase not only the acceptance of sustainable consumption policies, but also their effectiveness.

The *framing of the concept of self-interest* is also important: it should be expanded to include interest in spending time with family and friends, undertaking health-enhancing activities, engaging with community etc. Even social status can be linked to being conscious consumer or living in voluntary simplicity, and not necessarily by leading stressful high-pay – high-impact career-oriented lives. To ensure a fair and equal sustainable society, we need to balance "What's in it for me?" with "What's in it for us?"

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Svensk sammanfattning

Varför denna studie?
Trots 20 års politikutveckling för hållbar konsumtion (UNCED 1992), fortsätter den materiella konsumtionen och miljöpåverkan att öka i Norden och Europa. Då de nordiska länderna strävar efter att bli ledande i hållbarhet, så är en effektiv politik för att möjliggöra och underlätta hållbar konsumtion och livsstil en viktig del av samhällets insatser för att minska resursanvändningen och miljöpåverkan. Även om en stor del av miljöpåverkan är beroende av konsumtionsmönster visar forskning att kunskap från beteende- och samhällsvetenskaper inte rutinmässigt tas till vara i politikens utformning. Det innebär att vissa seglivade missuppfattningar – myter – om konsumentbeteende har permanentats i den allmänna diskursen om hållbar konsumtion, särskilt bland dem som utformar politiken. Genom att hålla fast vid dessa myter uppmuntras beslutsfattarna att fokusera på teknikutveckling som syftar till effektiv produktion och effektiva produkter, samtidigt som social innovation, alternativa modeller för värdeskapande och tillräcklig konsumtion lämnas utan välbehövligt stöd.

Målet med studien
Målet med denna studie är att skingra myter som motarbetar hållbarhet genom att lägga fram kunskap om konsumentbeteende för att underlätta utvecklingen av effektiv konsumtionspolitik i Norden.

Metoder som använts i studien
För att ge en mer balanserad bild av konsumenternas beteende, genomfördes en metaanalys av befintlig internationell forskning om konsumentbeteende inom ämnena psykologi, sociologi, beteendeekonomi, statsvetenskap och antropologi. Det finns en omfattande tvärvetenskaplig akademisk och praktisk kunskap som i studien utbyts och överförs mellan vetenskap, beslutsfattare och praktiker. En kunskapsförmedlande metod används för att genom ett lättillgängligt och lättanvänt format möjliggöra tillämpningen av den befintliga kunskapen i den kon-

kreta politiken. Den empiriska delen omfattar data om myter om konsumentbeteende och deras konsekvenser för möjligheten att utveckla en politik som främjar hållbar konsumtion. Informationen har samlats in genom semistrukturerade[26] intervjuer med 22 nordiska beslutsfattare och experter. Två fokusgrupper genomfördes med tio forskare inom hållbarhetsområdet och åtta medlemmar i den svenska Föreningen för Hållbarhetspsykologi. Spridningen och slutförandet av resultaten inkluderade återkoppling från målgruppen – främst nordiska beslutsfattare – genom ett webbseminarium. Ett andra webbseminarium anordnades också för att testa resultaten på en grupp konsumtionsforskare och praktiker, företrädare för icke-statliga organisationer samt studenter från Europa och USA. Totalt deltog 68 personer i webbseminarierna. Det andra webbseminariet bidrog med ytterligare återkoppling till några av de mer nyanserade och kontroversiella frågeställningarna, och gav styrka och giltighet till de slutliga resultaten av studien.

Sammanfattning av viktiga budskap för beslutsfattare

Det är orealistiskt att förvänta sig att ett hållbart samhälle ska komma till stånd utifrån nuvarande politiska strategier för hållbar konsumtion. De förändringar som ska till är betydande och forskningen som använts för denna studie visar att beslutsfattarna har *en uppsjö av möjligheter att skapa positiva förändringar med hjälp av olika metoder och verktyg*.

Vårt samhälle är konsumistiskt. Samhällets strukturer främjar konsumtionsmönster som nordbor ser som normala, men som är ohållbara. Samtidigt ställs medborgare som försöker göra betydande livsstilsförändringar till förmån för hållbarhet inför oöverstigliga sociotekniska och kulturella hinder. Detta understryker att *regeringarna behöver leda övergången till hållbara infrastrukturer och kulturer.*

Regeringarna måste leda övergången till hållbarhet genom att *skapa samhälleliga strukturer som gör hållbar livsstil till standardalternativet.* Innovation i teknik och infrastruktur, lagstiftning, prissättning, marknadsföring och nya sociala normer kan användas i kombination för att *skapa en arkitektur för hållbara val.*

Bindande lagstiftning är ofta de mest effektiva politiska styrmedlen för att förändra konsumtionsmönster. Dessa politiska styrmedel blir ofta ännu effektivare när de används i kombination med andra verktyg i så kallad *styrmedelspaket*, som innefattar prissättning eller infrastruktur-

[26] I en semistrukturerad intervju ställs samma frågor till alla deltagarna och frågorna har öppna svarsmöjligheter.

utveckling, samt informationsverktyg, vilket skapar ett effektivare ramverk för förändring för konsumenterna.

Det är avgörande att *bygga positiva sociala normer* för att främja hållbar praxis i vardagen och för att öka allmänhetens acceptans för starkare konsumtionspolitik. Även styrmedel och normgivande politik som kräver betydande förändringar i livsföringen (t.ex. övergång från privatbilism till kollektivtrafik) kan få högre allmän acceptans om man använder lämpliga inramningstekniker, stärker samhälls- och miljövänliga sociala normer, och tillhandahåller säkra, bekväma och billiga hållbara alternativ till ohållbara beteenden.

Särskilt policyfokus behöver läggas på att *underlätta förändringen bort från förbrukningsområden med stor påverkan* (t.ex. flygresor, konsumtion av kött och mejeriprodukter samt bilkörning) till förbrukningsområden med lägre påverkan (t.ex. vegetarisk kost, kollektivtrafik, lokal underhållning och kultur samt personlig utveckling).

För att förstå och stödja människors strävan att bli lyckligare, finns det ett behov att diskutera en mycket större mångfald av vägar till välbefinnande än vad som nu erbjuds, t.ex. skörda frukterna av tekniska framsteg inte bara i monetära termer, men även i form av meningsfulla fritidsaktiviteter och personlig utveckling.

Det kan vara lämpligt att kommunicera *en bredare syn på välbefinnande*, vilken inkluderar samhällsvänliga värden som resilienta[27] samhällen, jämlik, rättvis och hållbar resursanvändning, hälsa, utbildning och personlig utveckling, fred och stabilitet, miljömässig och social rättvisa och andra övergripande frågor som indirekt påverkar individer och familjer.

För att stödja och uppmuntra hållbara sätt att leva måste *nya mått på samhällets välstånd* utvecklas.

[27] Resiliens är ett systems långsiktiga förmåga att klara av förändring och vidareutvecklas.

11. Appendices

11.1 Appendix 1 Interviewed organisations

N	Country	Organisations
1	IS	Former member of Nordic Council of Ministers
2	IS	University of Iceland
3	SE	Swedish Ministry of the Environment
4	SE	Malmö municipality and Fair Trade
5	SE	Ministry of the Environment and Ministry for Foreign Affairs
6	NO/UN	UN, Environment and Governance
7	NO/EU	DG Health and Consumers, European Commission
8	NO	Norwegian Ministry of Children, Equality and Social Inclusion
9	NO	Norwegian Ministry of Children, Equality and Social Inclusion
10	NO	National Institute for Consumer Research
11	FI	Nordic Council of Ministers
12	FI	Finnish Ministry of the Environment
13	FI	Consumer Agency
14	FI	Finnish Ministry of Employment and the Economy
15	FI	Finnish Ministry of the Environment
16	DK	Danish EPA
17	DK	Nordic Council of Ministers
18	DK	Energy and Climate Ministry
19	DK	Danish Competition and Consumer Authority
20	DK	Østerbro Miljøpunkt
21	DK	Miljøstyrelsen
22	DK	Danish Consumer Council

11.2 Appendix 2 Abbreviations

- CSO – civil society organisations
- DEFRA – the British Department of the Environment, Food and Rural Affairs
- EPA – Environmental Protection Agency
- GDP – gross domestic product
- GHG – green house gases
- NGO – non-governmental organisation
- SCP – sustainable consumption and production
- USD – United States Dollars

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Nordic Council of Ministers

Ved Stranden 18
DK-1061 Copenhagen K
www.norden.org

Improving Nordic policymaking by dispelling myths on sustainable consumption

As Nordic countries have an ambition to be sustainability leaders, enabling sustainable consumption and lifestyles with efficient policies is an important part of reaching this goal. Research demonstrates that evidence from behavioural and social science is not routinely incorporated into policy design. Consequently, some persistent misconceptions – myths –about consumer behaviour have perpetuated in the mainstream discourse, especially in policy circles. The goal of this study is to dispel myths that thwart sustainability by bringing forward existing evidence on consumer behaviour to aid the development of efficient policies in Nordic countries. A meta-analysis of the existing international research on consumer behaviour from psychology, sociology, behavioural economics, policy and anthropology was conducted. The results demonstrate that it is unrealistic to expect a sustainable society to materialise from current political strate gies. The changes needed are significant, and this study shows that policy makers need to create the “politics of possibility” towards sustainability by using the plethora of existing and innovative strategies and tools synergistically.

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