



DRAFT BASELINE REPORT

SPREAD SUSTAINABLE LIFESTYLES 2050

EUROPEAN SOCIAL PLATFORM

Prepared as background reading for the project launch conference,

The Future of Sustainable Lifestyles & Entrepreneurship,

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SPREAD project team



INTRODUCTION

The purpose of this report is to provide participants of the *Future of Sustainable Lifestyles & Entrepreneurship* launch conference of the SPREAD Sustainable Lifestyles 2050 project with some background on the current knowledge, experience and insights available on sustainable consumption and lifestyles. This document presents several themes and questions for further discussion at the conference. The outcomes of the conference will feed into a final baseline report on sustainable lifestyles, which will become available later in 2011.

The SPREAD Sustainable Lifestyles 2050 project

The SPREAD Sustainable Lifestyles 2050 project¹ is a European social platform project running from January 2011 to December 2012. Different societal stakeholders from business, research policy and civil society are invited to participate in the development of a vision for sustainable lifestyles in 2050. This process will result in a roadmap for strategic action for policy makers and will deliver innovative ideas for research, business and society on how to achieve sustainable lifestyles in Europe. Another aim of the SPREAD project is to formulate a research agenda outlining research needs in the field of sustainable lifestyles based on outcomes of the social platform process.

Objective and structure of this report

The SPREAD Sustainable Lifestyles 2050 project and European social platform will be officially launched on 24th and 25th May 2011 in Germany. This launch marks the starting point for the social platform process aimed at developing a vision on future sustainable ways of living. This can only be rightly done, if we first learn more about the pervasive challenges to sustainable living in the areas of living, consuming, moving and society; and learn from existing promising practices. This report aims to offer background information for discussion at the conference by presenting a brief glimpse of the diversity of knowledge, experience and insights already available on the topic of sustainable lifestyles.

The structure of the report is as follows:

Part I : Conference discussion topics

- Section 1 outlines the concept of lifestyles and changes towards more sustainable lifestyles.
- Section 2 introduces the four themes of Sustainable Living; Sustainable Consuming; Sustainable Moving; and Sustainable Society, Health and Well-being. Four working groups will be initiated during the project's launch conference. Cross-cutting issues will also be discussed.

Part II : Relevant background knowledge and insights.

- Section 3 addresses trends and conditions that currently challenge more sustainable lifestyles practices.
- Section 4 summarises lessons learned from a selection of historical projects on sustainable consumption and lifestyles
- Section 5 provides a brief overview of policies relevant to the consumption and use of resources
- Section 6 outlines next steps in the project, and towards a final 'Baseline' report (due by October 2011)

We hope that this report will provide you with useful background information. Input and comments received from conference participants, as well as the outcomes of the discussions and working groups will be included in a more elaborated 'Baseline' report, to be prepared after the conference.

The SPREAD team welcome comments and inputs from our readers and you can also send these directly to: Sylvia Breukers (breukers@ecn.nl) and Julia Backhaus (backhaus@ecn.nl)

¹ The full project title is *Social Platform Identifying Research and Policy Needs for Sustainable Lifestyles in Europe 2050*. It is funded under the European Commission's FP7 programme. Project partners are UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (CSCP); Energy Research Centre of the Netherlands (ECN); Demos Helsinki (Demos); Politecnico di Milano (Polimi); EuroHealthNet; The International Institute for Industrial Environmental Economics at Lund University (ULUND); Regional Environmental Center for CEE countries (REC); Ecoinstitut Barcelona (ECOI); The Northern Alliance for Sustainability (ANPED); Ashoka. See also Annex 1: Project Identity.

PART I: PREPARATORY READING FOR THE CONFERENCE WORKSHOPS

1. Lifestyles and sustainability

1.2. Understanding lifestyles and consumption patterns

Lifestyles can be defined as both conscious, intentional and more routinised patterns of behaviour and consumption. Lifestyles are not only about the outright consumption of things, but also reflected in our daily household practices like for instance cooking and washing, work practices, our practices in taking care of others etc. In the field of public health, the impact of lifestyle choices on health and quality of life is emphasised.



The larger part of our everyday consumption is inconspicuous, e.g. paying rent, or everyday purchases like lunch or newspapers. These behaviours involve little active thought, are not intended to distinguish oneself or to take part in a social conversation (Gronow and Warde 2001:3). Daily routine behaviour helps us conduct mundane tasks without much load on our brains. It guides us in choosing products in the supermarket when we are confronted with thousands of products on display (Ries and Trout 2000). Routinised behaviours are of great environmental significance in the areas of household energy use, food consumption, and mobility; the three consumption areas with the greatest environmental impact (Tukker, Huppel et al 2006).

Consumption can involve the intentional choice, use and display of goods that also have a symbolic value – e.g. being associated with belonging to a particular social group and/or class. Lifestyles can serve as 'social conversations' through which people associate and/or differentiate themselves from others. Since many of the signals are mediated by goods, lifestyles are closely linked to consumption of goods and services and the material and resource flows in society. Lifestyles are connected to identity, as people express themselves through the meaningful choice of items or behaviours, as symbolic codes, from a plurality of options (Edgar and Sedgwick 1999).



Much of our consumption is associated with conventions and traditions – e.g. at school or in the office - as the examples in Box 1 show. Clearly, consumption is not only about satisfying basic physical needs, but often about meeting social norms and expectations (Michaelis and Lorek 2004: 65). However, social norms can change through actions of individuals, groups of people and institutions (Kerr 1995).

In order to change habitual behaviours, they need to be 'un-frozen' by examining and challenging accepted ideas. Only after that can new behaviours be tried, repeated and established into new routines – 'refreezing' (Lewin 1951). Changing behaviours and lifestyles is not only a matter of individual

choice and action, however, as individuals are part of society and their options for change are affected by the cultural, physical, socio-economic and political environment. Hence, efforts to encourage more sustainable practices should also promote the creation of an environment that supports these practices.

Box 1 Examples of changing norms and consumption

It has become common practice that groups of parents place a price limit on children's birthday parties, or that schools ban expensive brand clothes above a certain price.

In 2009, the prime minister of Bangladesh ordered male government employees to no longer wear suits, jackets, and ties to work, so that the air conditioning systems could be turned down (Dummet 2009). The aim was to expand this Suit Ban to the business sector and to eventually re-write Bangladesh's official dress code.

The Japanese "Cool Biz" campaign also discouraged suits and ties and encouraged keeping the thermostat at 28 °C. The Japanese Prime Minister instructed his cabinet to wear traditional Japanese short-sleeved shirts instead of business suits (Spiegel 2007). Similar ideas have also been taken up in the UK; and by UN chief Ban Ki-moon who encouraged UN staff in New York to dress down in summer (Kanter 2008).

In 2008, CEOs of leading businesses articulated, "We recognize the need for business to play a leadership role in fostering more sustainable levels and patterns of consumption, through current business processes such as innovation, marketing and communications, and by working in partnership with consumers, governments and stakeholders to define and achieve more sustainable lifestyles." (WBCSD 2008) This signaled a significant shift in the relationship between business activities, consumer behavior, and environmental and social challenges.

Sustainable Lifestyles

The most widely used definition of sustainable lifestyles comes from the Westminster Centre for Sustainable Development who define sustainable lifestyles as "*patterns of action and consumption used by people to affiliate and differentiate themselves from others, which: meet basic needs, provide a better quality of life, minimise the use of natural resources and emissions of waste and pollutants over the lifecycle, and do not jeopardise the needs of future generations*" (CfSD 2004).

In the SPREAD project, we will not focus on creating ideal pictures and defining end-states for sustainable lifestyles. The project will instead focus on the *processes and actions that will move us towards more sustainable lifestyles*. We are looking for options to improve current ways of living and doing, acknowledging that most initiatives that involve a move towards sustainability do not fully fit the comprehensive definition of the CfSD. Therefore we speak of 'promising practices' rather than 'best practices'.

1.3. From systems of provision to behavioural change

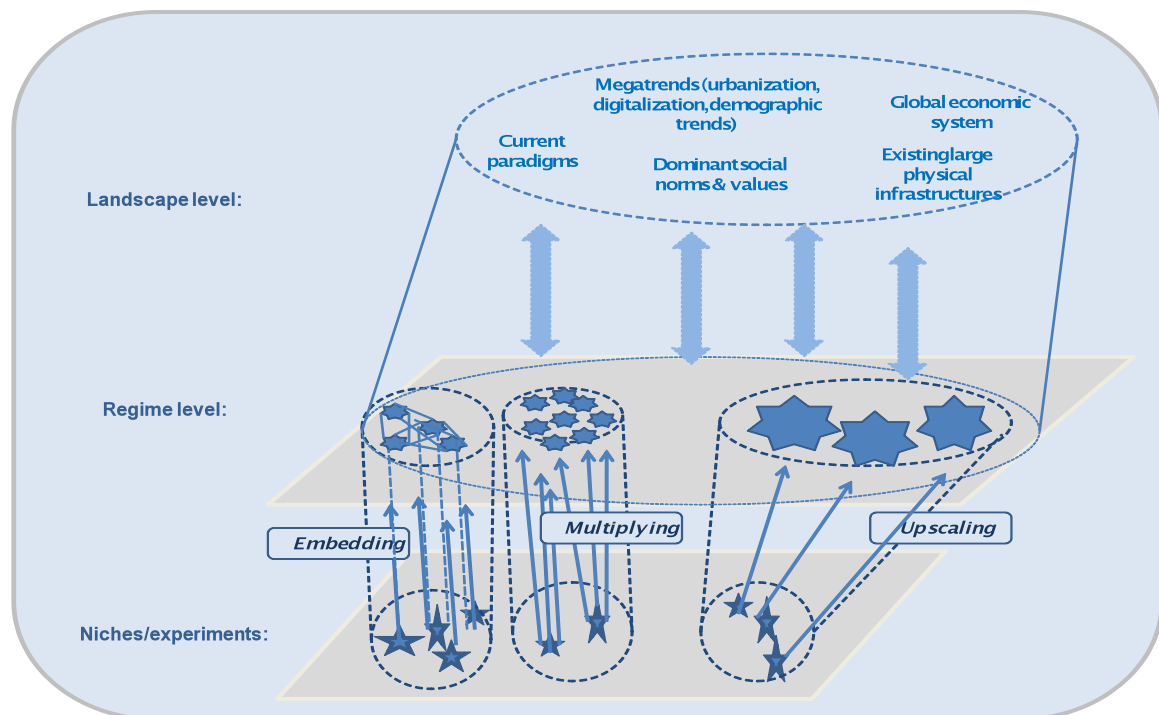
In order to change behaviour not only individual actors and people need to be addressed, but also the context of these targeted behaviours, at micro-, meso- and macro levels. Context refers to the physical, social, cultural, economic, institutional and political environment (including various social actors) in which the individual operates. Individual lifestyles are embedded in social norms and networks, and in living and working conditions, which in turn are related to the wider socio-economic and cultural environment (Dahlgren and Whitehead, WHO 2006).

SPREAD addresses opportunities for sustainable practices to move beyond the experimental level, to become further diffused or 'spread'. Diffusion can refer to (see Figure 1):

- multiplying: similar small-scale projects in other places,
- up-scaling: enlarging the scope and scale of a particular project, programme, approach
- embedding: aligning with social institutional dynamics

Our systemic approach sees changes at different levels which may take place on different time-scales – whereby individual change processes are nested within and interact with broader societal change processes.

Figure 1 A multi-level approach (based on Geels, 2002)



Practices and consumption behaviours are shaped, guided and mediated by collective systems of provision. Vice versa, our everyday practices sustain or reshape these systems in the long run (Otnes 1988; Shove 2003; Wilhite et al 2000). These historically evolved systems include the physical infrastructures, the organisation of provision of energy, water and sewerage, care, housing; the important stakeholders that are part of these systems such as energy companies, utilities; and the institutions (rules, norms and values) that underpin this system (e.g. preferences for centralised energy supply; values dominating urban planning etc.). These systems do not change overnight, as the infrastructures, norms, stakeholders, networks of actors and technologies involved are mutually dependent and support each other. Moreover, choosing for alternatives may become difficult for people when confronted with 'lock-in' situations in which products, technologies and norms become dominant and institutionalised – see Box 2 (Mont & Power 2010; Van Vliet et al 2005).

New practices can (partly) evolve within the existing systems of provision or new systems of co-provision can rise next to the old ones. In decentralised electricity generation, for example, people become active in both production and consumption and as such become co-providers of utility. Next to current large-scale, centralised or highly hierarchical systems of provisions (electricity, water, waste management, etc.) small-scale distributed systems of production and consumption are being developed that can be connected to and sell utility to the central network (Southerton, Chappels et al 2004).

Changes in social norms (the broader context) may be necessary to support more sustainable behaviours and lifestyles, but also the provision of support from peers (direct context) can be crucial to support lasting change. When initiating change, best results are attained in groups: people learn most from other people around them – thus it is important that people can see that others are changing too (Breukers et al 2008; Heiskanen and Schönherr 2009).

People will not change behavior or lifestyles homogeneously. Influencing change requires an understanding of human behaviors and cultural legacies, as well as different ways of informing consumers. The application of better insights into what motivates, influences and triggers behavior change based on population segments will have impacts across the board. This understanding will focus product innovation on developing goods and services that satisfy a number of needs at the same time – with a focus on minimizing waste and impacts on the environment

without compromising on performance quality or experience (WBCSD 2010). Thaler and Sunstein (2008) point out in their book 'Nudge' that by learning about how people think, we can design choice environments that make it easier for people to make more sustainable choices. Thoughtful choice architecture can 'nudge' us in beneficial directions without restricting freedom of choice.

Box 2: An example of lock-in in housing and mobility

Urban planning shapes people's behaviour for many years to come. In turn, people's preferences also affect the settlement structures. Many people prefer living in one-family houses; this contributes to urban sprawl and the development of highly dispersed communities. It results in longer distances travelled by people between home, work, shopping centres and other facilities – using private cars, sometimes several cars per family. Widespread car culture in turn motivates retailers to move their stores to city outskirts which restricts access for people without a car. Consequences include deteriorating city centres and a shift of practices of shopping, and other leisure activities to shopping malls (which nowadays often also house cinemas, bowling halls etc.) (Mont and Power 2009).



In health research 'a stepwise or linear decrease in health and well-being that comes with decreasing social position' has been pointed out (Marmot 2004). In view of equity, improving access to basic goods that are "socially cohesive, that are designed to promote good physical and psychological well-being and that are protective of the natural environment" is vital for a sustainable society (Closing the Gap in a Generation: WHO Commission on Social Determinants of Health 2008). Within the SPREAD project, *social* innovation (which may or may not involve technological innovations) stands central. Social innovation refers to innovative ways of doing that are in line with social needs and that enhance social inclusion and equity.

Learning about lifestyles that enable or facilitate more sustainable practices (ways of doing) involves learning about the behaviours involved, social and institutional rules and arrangements, the physical and technical conditions that sustain these practices, and the broader overarching systems of provision and how these affect the lifestyles and practices. During the SPREAD social platform process we aim to address the different levels and conditions and their interrelationships.

2. Main themes & promising practice examples

2.1. Main themes structuring working groups

Because the domains of living, consuming and moving have such environmental impact (Tukker, Huppel et al. 2006) while also offering opportunities for improvement, we will address each of them individually. Furthermore, a domain often overlooked in discussions related to 'sustainable lifestyles' is that of health and well-being. Living, Consuming, Moving and Health & Well-being are these the four domains that will structure our discussions at the Launch Conference on 24 / 25 May 2011. This will clarify domain-specific concrete issues, questions and challenges. Subsequently, cross-domain issues will be addressed, as lifestyles comprise practices within and across the four domains.



2.2. Sustainable living

The working group on sustainable living, led by ECN and ECOI, aims to establish the core challenges relating to sustainable lifestyles in the field of living. The following questions will be addressed:

- What are promising practice examples in the domain of sustainable living?
- What are the possibilities and challenges for further diffusion of these practices?
- How can environmental impacts be reduced, without compromising but rather meeting people's needs?
- How do age and ageing influence the possibilities and efforts towards more sustainable living?
- What are current and future challenges for research, policy, business and society with respect to sustainable living?

Because the theme sustainable living refers to such a broad range of topics, discussions will initially be structured by (but are not limited to) the following four sub-topics:

1. Individual households

Although households have great potential to contribute to significant (30-40%) energy consumption reduction (and hence carbon reduction), changing the consumption practices of individuals in their home environment proves to be extremely challenging (Dietz et al 2009; Changing Behaviour partners 2009). Practices of living are intricately linked to the set-up and organisation of people's living space, to the appliances, technologies and products used at home, to the people surrounding them and last but not least to cultural and social conventions (Breukers et al 2009;

Heiskanen and Schönherr 2009). Existing practices are often supported by two types of behaviour. First, investment/one-shot behaviour, which can be discussed in the light of investments in efficient appliances, 'ever more' gadgets (e-consuming) and in building/heating system: what motivates/hampers investments (interesting link to collective initiatives). Second, habitual and routine-like behaviours that are difficult to change in a durable manner.²



Urban Farming

2. Collective initiatives

The past years have witnessed several neighbourhood initiatives aimed at more 'sustainable living' in the full breadth of its meaning. An integrated approach characterises these collective initiatives.

The overlap with subtopic 1 is that these projects address the immediate context of people's daily lives, changing these contexts into more sustainable environments that encourage and support changed behaviours. In addition, the collective nature brings the advantage of

² See www.energychange.info for more insight into mechanisms enabling change to more sustainable living as well as practical tools for organisations involved in preparing and implementing energy demand side management projects.

building and/or strengthening local social networks and cohesion, which provides a good basis for future improvements through collective action as well.

3. Building structure, new buildings & existing housing stock

This subtopic can contribute to getting a better overview of concrete material and technological measures aimed at decreasing resource use in 'living'. User involvement in technological innovation and application, discussions regarding trade-offs between CO₂ reduction and material efficiency (recycling); practical experiences and diverging preferences for technical concepts in different parts of Europe can be topics for further discussion. Next to new-to-build dwellings, we will address how the existing housing stock can be made less intensive in resource use. Issues addressed can furthermore involve: micro-generation of electricity and heat; efficient lighting; water saving and recycling; using residual heat and cold; material efficiency related to furniture, floors, other materials used to design and maintain the house (e.g. paint, isolation materials)

4. SMART Living

Some new initiatives aimed at more sustainable ways of living have a strong technological and ICT component, e.g. all sorts of SMART applications. SMART meters can allow households to keep better track of their energy usage (which can help them to save energy), to feed-in home-produced electricity (e.g. solar panels) into the grid and it offers them opportunities to save money by using electricity at moments when the price is lowest. SMART applications can (but don't necessarily) involve social innovation, 'empowering' end-users through information and feedback. But it all depends on how it is being planned, designed and deployed and how end-users are being involved in this process. At a more systemic level, SMART grids can work to facilitate decentralised energy production and contribute to new systems of co-provision to rise next to the incumbent system (of centralised power production and one-way traffic and communication).

Box 3: Examples of Promising Practices in the Domain of Sustainable Living



Freiburg Vauban

<http://reference.findtarget.com/search/Vauban,%20Freiburg/>

Vauban District, Freiburg, Germany

In the South of Freiburg, in the former barrack area of a French military base, Vauban, the planning of a new district started in 1993. A main aim was to develop a city district in a co-operative, participatory way, meeting ecological, social, economical and cultural requirements. In 2006 the district (38 hectares) was completed, offering room for 5,000 inhabitants and 600 jobs. The citizen's association "ForumVauban e.V." (NGO) coordinated the participation process. Major driving forces for the development of Vauban have been the ideas, the creativity and commitment of the people involved and the shared goal to create a sustainable, flourishing neighbourhood. In the fields of energy, traffic/mobility, building and participation/social interaction/public spaces new concepts were successfully put into practice.

Groenstichting Rozendaal, The Netherlands

In 2007 several neighbours from the Rozendaal district in Leusden took the initiative to collectively make their homes more energy efficient. Despite their homes being very similar, they had all received very different renovation proposals from contractors. An active core of the ensuing foundation "Groenstichting Rozendaal" took up the task of searching for subsidies, which they used to draft an overview of all possible energy savings measures tailor-made for their homes. This served as starting point for collective implementation of the suggested measures.

The foundation helped to find and apply for available subsidies and organised collective negotiation with contractors on behalf of 138 of the 476 homes in the neighbourhood. So far these 138 homes have achieved an average energy saving of 16% at reduced cost because of the collective efforts.



Groenstichting Rozendaal,
www.groenstichtingarozendaal.nl



Kids involved in the Active Learning project

Active Learning – Teaching children to use energy in Greece

The idea of this pilot project was to engage school children in a fun and 'hands on' way to teach them about energy consumption and energy saving possibilities. The participating children were not approached as passive recipients of knowledge, but rather as active learners who are curious and ready to spread lessons learned to family and friends. Based on best practice experience and adapted to national conditions, the project consortium developed an educational package employing active learning (AL) and energy monitoring (EM) for use in primary and high schools.

10 schools participated with about 1200 pupils in total. At the schools where 'Active Learning' was implemented it was considered a success with decreasing energy consumption levels, enthusiastic children and teachers who would like to continue using the AL material afterwards.



2.3. Sustainable consuming

The working group on sustainable consuming – led by the CSCP and ULUND - will focus on the areas of consumption that involve everyday goods such as food, water, energy, textiles, cosmetics, electronics, luxury goods and other household products, including fast moving consumer goods (FMCG's). The working group aims to translate current academic research to make 'far away problems' more real for people, in terms of choices we have to make every day and throughout our lives. It will take a human-centred approach to understanding the differing individual needs of households together with the motivators and influencers driving European household consumption as well as the sign-posts to triggers for change. Work and discussions will focus on the following three themes:

The working group aims to identify the mega-trends of consumption in key sectors (i.e. food, textiles, packaging, FMCG's, cosmetics, electronics). It will analyse what specific resource scarcities mean for these sectors and what implications that will have on individual lifestyles.

Main Question: What is unsustainable consuming (e.g. box 4) and what will be the implications of our daily actions if we continue to consume this way?

Current unsustainable consumption impacts at the country level can be illustrated by the Mediterranean region's declining financial situation coupled with its reliance on diminishing reserves of resources from abroad poses challenges to its countries' continued ability to compete for limited ecological resources and makes them vulnerable to price volatility and supply disruptions. This in turn poses significant economic, social and geopolitical risks and is central to their long-term capacity to remain economically competitive and provide for the well-being of their people. With regards to dependency upon external resources, 2011 analysis of the footprints of countries of the Mediterranean regions shows that the breakdown of major trade partners has changed in the last 30 years from those with an ecological surplus (e.g. Canada, Scandinavia, South America) to those running an ecological deficit (e.g. USA, China, non-Mediterranean European states). (Global Footprint Network, 2011)

Box 4: Examples of Unsustainable Consumption

Food causes 20-30% of environmental impacts of household consumption (EIPRO-Study 2006). Livestock agriculture contributes between 8% and 18% of global GHG emissions FAO (2006) 2 billion tires are scrapped annually. In Europe we throw away 90 million tonnes of hazardous waste, 8.7 million tons of e-waste (EUROSTAT, 2009).

Figure 2. Climate benefits of changing the global diet
(Partial reproduction from Stehfest et al. 2009)

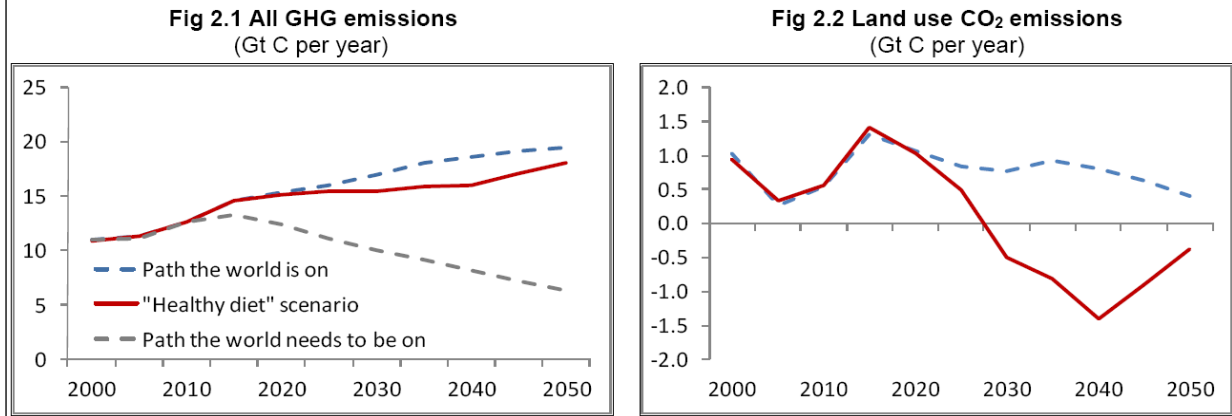


Table 2. Meat consumption and “healthy diet” example ⁷
(average grams per capita per day)

	OECD	Least Developed	World	“Healthy diet” scenario
Beef and sheep	72.9	15.3	31.0	17.1
Pork	88.0	3.8	41.6	15.5
Poultry and eggs	124.1	9.6	57.0	69.3

Source: Stehfest et al. (2009). FAOSTAT Food Balance Sheets.

Plenitude is a vision for getting us on a path that reverses the rampant destruction of the planet caused by Business-as-Usual and restoring true well-being to people and communities. Plenitude starts with people. Its strategy is to say let’s get going on the path of reconstruction now. And it explains why it’s not only what we need to do for survival, but it embodies a savvy economic calculus. Plenty of people have already started down this path. They’re growing vegetables, raising chickens and keeping bees. They’re going off the grid with solar and wind. They’re building their own homes, often with the help of friends and neighbors, using earth-friendly materials like straw, stone and compressed earth. They’re using open-source software to share newly acquired know-how about this alternative production paradigm. It’s a way of life that’s rich in creativity and autonomy. This movement is taking place in cities, small-towns and in rural areas. It’s not back-to-the land, it’s forward to a technologically advanced, knowledge-intensive way of life that is providing not only food, shelter and power, but also security, community and true well-being. (Schor, J. 2010)

Consumers all over Europe are engaging in different schemes which significantly reduce the impacts of their consumption without compromise on price, performance or convenience. The working group aims to analyse these emerging solutions and to identify ‘promising practice’ for emerging sustainable consumption patterns.

Main Question: What are current and future examples of sustainable consuming practices?

Box 5: Examples of Promising Practices in the Domain of Sustainable Consumption

Home Delivery Meal Service

Services that deliver everything that you need to cook, all the healthy, fresh ingredients (including fresh herbs and spices!), the recipes, the weekly meal plan, and the instructions for preparation, right to your doorstep, every week (or in two-week cycles). The ingredients used are fresh, nutritious, local, seasonal, non-processed, without unnecessary additives, and delivered in refrigerated lorries right to your door. This promising practice assures healthy, well-balanced meals for a whole family, it also saves time, reduces impulse- or hunger-buying in the supermarket, reduces food waste, and incorporates climate-friendly considerations into food choices. Example: **KommtEssen (Middagsfrid)**



Lisa Rentrop, Kommt Essen

Consumer activism online - Internet and Communication Platforms for Strategic Consuming

Internet as a communication platform for strategic consumption. Often set-up with news as well as an online community. The news and editorials provide purchasing recommendations on how to use one's purchasing power more strategically in order to help move society and business towards more sustainable consumption. The Community is the most important function of the platform – it is where the members (70,000 strong) talk amongst themselves and give each other advice. At the same time it acts as a way to get to know other consumers with similar interests. The platform equally engages with consumers as it does with business, aiming to better connect supply and demand. Utopia wants to change the world – with money. Example: **Utopia**



The Vertical Farm and Urban Farmers logos



Urban farms & Community Agriculture: Urban farms are popping up around the USA and Europe. Their aim is to use unused spaces in urban setting to grow food locally and often with the agricultural waste produced in the urban environment, thereby closing nutrient loops locally. Examples: verticalfarm.com, urbanfarmers.ch

Community supported agriculture (CSA): CSA consists of a community of individuals who pledge support to a farming operation where the growers and consumers share the risks and benefits of food production. CSAs usually consist of a system of weekly delivery or pick-up of vegetables and fruit, in a vegetable box scheme, and sometimes includes dairy products and meat. examples: localharvest.org, openfarmtech.org

Tracing of materials: Knowing where your product is made, what the source is for its materials and what pollution effects this has can be a powerful tool to influence preferences. Numerous collaborative websites are being set up to facilitate this information sharing, e.g. Sourcemap.org, fairtracing.org

Post-ownership: Rather than throwing something away, there is a case to be made to make it available to others who might have a use for it. Again, ICT has enabled this information to be distributed to many potential consumers and so engage in product exchanges, rather than sell-buy-dispose. Example: Shareable.net

Shared ownership: Breaking past some of the cultural barriers that equate affluence with ownership may still be the greatest challenge, but what if the alternative is cheaper, more sustainable, doesn't clutter your home, and connects you with your neighbours? Communities have sprung up that encourage sharing of assets that one uses seldom. Examples include tool libraries and shared mobility services like zipcar.com, netcyclor.com

Main question: Where and how can sustainable consuming be made easier for people?

The role of policy: Changing the default

Everyday we make decisions on topics ranging from personal investments to schools for our children to the meals we eat to the causes we champion. Unfortunately, we often choose poorly. Our mistakes make us poorer, less healthy, (and have a negative impact on the planet). Thaler and Sunstein (2008) point out that we make decisions often when we are distracted, or choose the option that requires the least effort. These forces imply that if there is a default option – an option that will be obtained if the chooser does nothing – then we can expect a large number of people to end up with that option. Changing the default options to reduce consumption impacts or improve health can be a powerful tool to making sustainability easier. These behavioural tendencies toward doing nothing will be reinforced if the default option comes with some implicit or explicit suggestion that it represents the normal or even the recommended course of action. (Thaler and Sunstein, 2008).

The role of business: innovation, choice-influencing and choice-editing

Businesses see that they can play an important role in fostering sustainable consumption by delivering sustainable value to society and consumers by increasing availability and access to more sustainable products & services (innovation); by helping consumers to choose and use their goods and services sustainably and promoting sustainable lifestyles that help to reduce overall consumption of materials and resources (choice-influencing) and by controlling elements of their supply chain or by eliminating product components that pose a risk to the environment or human health (choice-editing). (WBCSD 2008)

Product and service providers will need to make sustainable living easier. This is a formidable challenge and opportunity for business in terms of innovation and understanding human behaviors, value systems and consumer preferences. Technological innovation will only be a piece of the puzzle. Social innovation, for example in the form of new business models, new customer behavior and action, and new ways of interacting between providers and users, will also be crucial to developing attractive, effective and accessible solutions. (WBCSD 2010)



2.4. Sustainable moving

The working group on moving is led by REC and ECOI and addresses current and future patterns of citizens' everyday mobility. The working group will discuss in what ways personal mobility is organized nowadays by using individual cars and public transport, by walking or cycling. Discussions with participants will aim at evaluating the impact of everyday mobility patterns on the environment, e.g. greenhouse gas emission, road-system, spatial planning, air pollution, etc. and the impact of every day mobility on the society: family, local community, transport services, safety transport, transport and time management, integrated mobility modes etc. Particular attention will be paid to the impact of current patterns of personal mobility on the present and future generations till 2050. Finally, the working group will highlight the impact of everyday mobility on technological innovation and vice versa. Linkages with living, consuming and health and well-being will be addressed as well.

Three topics structure the discussions:

1. Equity and accessibility

When considering the impacts of transport strategies, equity is concerned with ensuring they are reasonably equally distributed, or are focused particularly on those with special needs (geographical distribution). Accessibility can be defined as 'ease of reaching' and is concerned with increasing the ability with which people in different locations, and with differing availability of transport, can reach different types of facilities (e.g. pedestrian networks in cities, alternatives).

2. Safety and security

The aim is to provide a synthesis of research results and policy implications from completed projects. This theme deals with aspects such as the level of danger that is socially acceptable, as well as systems, rules and procedures for improving safety (e.g. facilities for children, old people).

Improving the efficiency and safety of transport systems projects has resulted in integrated mobility schemes. Finding alternatives for moving and mobility requires well developed information systems for the users. Reduced energy consumption and optimal timing are driving factors of efficiency in mobility.

There are several key questions to be addresses with regard to sustainable mobility:

- What resources are needed for fulfilling the mobility need in a sustainable manner?
- What could encourage the public to change their current mobility patterns and levels in a sustainable direction?
- What may sustainable mobility look like in 2050 and what steps need to take taken by various stakeholders, including policy makers, in order to facilitate the shift to more sustainable mobility?
- What are the main drivers and barriers for a societal shift to more sustainable patterns and levels of mobility and for mainstreaming existing sustainability practices in the mobility domain?
- What kinds of sustainable lifestyles may become more mainstream, encouraged by future sustainable mobility alternatives towards 2050?
- What are the opportunities for sustainable lifestyles and sustainable mobility in the whole of Europe and in different European regions, in cities and rural areas?
- What role do cultural and societal patterns play when defining mobility needs and how do they differ with respect to different geographical regions?

The moving group will address issues that are also of relevance for the working group on living, e.g. urban planning, and discuss the macro-trend of increasing distances of business and leisure travel. It is paramount that sustainable lifestyles would rely on alternative means of business communication, e.g. video and teleconferencing and alternative priorities when it comes to travelling for pleasure and leisure.

Box 6: Examples of Promising Practices in the Domain of Sustainable Moving

"Happy Bus" project in Parma

The project was implemented by the local public transport company in collaboration with the municipality of Parma. It consists of a scholastic service which collects pupils of elementary and middle schools in front of their houses and gives them a lift to their schools. It is indeed a service of elevated quality, comprising 45 ecological methane buses, equipped with facilities for the projection of educational films, because during the drive, lessons on environmental issues are held and educational films are shown. Currently, 1250 pupils use the service every day and there are 50 schools involved.

LIVE: Electric Vehicles in Barcelona

Live (Logistics for the Implementation of the Electric Vehicle) is a public-private platform that promotes the use of electric vehicles in the city of Barcelona. The partnership supports the development and promotion of pilot projects (Living Labs), supports networking on local, national and EU level to promote R&D, encourages the development of public and private re-charging networks and set up the first technical civic agency in Europe for the deployment of electric mobility.

The public administration has established a series of assistance packages and incentives for the purchase of electric vehicles (including). There are currently 136 charging points in the city of Barcelona.



First EV charging station in Barcelona, photographer: Rudolf Simon

le mobility: children get to school by themselves or walking with those projects are also called "walking busses". Another example dren to walk to and from school in the safety of a group under ery popular format in the world, which originated in Denmark. It is g signs. The initiatives are carried out in more than 40 countries.

stops indicated by warning signs. The initiatives are carried out in more than 40 countries. “Mishmarot Hazahav” (Road Safety Shifts, Israel) is also very interesting: the children from 6th grade are divided into groups; the groups consist of two children and a leader for each crosswalk. The experience teaches children about road safety, responsibility and mutual help, giving them a sense of independence.

Nopsa travel agency, Finland

Nopsa Travels is a new kind of travel agency that promotes domestic travelling and experiencing local luxury. Nopsa Travels wants to create travelling routes around the basic issues that have become luxury in our everyday lives: good food, good company, time for ourselves. Travelling far does not make us happier, whereas delightful experiences do. A trip to a nearby location produces 90% less carbon dioxide emissions than a trip to a far away land. Low-carbon travelling does not mean low-quality or boring travelling.



*Local luxury
Nopsa travels, Finland*



2.5. Sustainable society (health & wellbeing)

Our understanding of health and disease has changed dramatically in recent decades. Health is no longer understood as the mere absence of disease, but rather defined in terms of a state of complete physical, mental and social well-being (WHO 1949). Attention for the social, economic and environmental circumstances that affect health has increased. Individual lifestyles are embedded in social networks, and they shape and are shaped by social norms. Lifestyles affect and are affected by living and working conditions, which in turn relate to the wider socio-economic and cultural environment. Health promotion increasingly addresses these conditions that affect health. In addition, other sectors and systems of provision in the domains of mobility, transport, food, housing and the built environment influence the development of healthy lifestyles as well. These influences affect different groups of society differently. The concept of sustainable lifestyles refers to patterns of behaviour shaped by personal and social interactions and conditioned by environmental and socio-economic contexts that aim at improving well-being and health of present and future generations. Personal, socio-cultural and broader contextual factors influence people’s ability and preference for more healthy and sustainable lifestyles.

At present there is a clear inequality in the accessibility and uptake of measures that aim at changing behaviours towards more healthy and sustainable lifestyles across countries and with regard to targeting different socio-economic strata. To move towards a more sustainable society, a focus on ecological sustainability is not sufficient: social integrity, economic efficiency and the health and well-being of people and communities should be addressed as well. In a truly sustainable society each member is able to reach his/her full potential, alongside equal access to work, housing, education and recreational activities and health and well-being.

The working group on society & health, led by EuroHealthNet, REC and Ashoka, has the following objectives:

- To outline policies, practices and initiatives that integrate health, well-being and equity as a cross-cutting theme in the areas of sustainable living, consuming and moving;
- To identify the main challenges to more sustainable lifestyles, while integrating health, well-being and equity approaches;
- To capture ideas of how to overcome the challenges and barriers identified;
- To promote sustainable innovation towards health and well-being for all;
- To share inspiring ideas on how to support social equity, to ensure that a more equitable distribution of costs and benefits is taken into consideration;
- To identify the role that the health sector should play in facilitating the shift towards more sustainable lifestyles.

The working group on society & health will address the following questions:

- What are the underlying socio-economic factors that determine lifestyles?
- Which promising healthy lifestyle approaches can add value to promoting sustainable behaviour?
- What are current initiatives and policies that integrate health, well-being and sustainable lifestyles and how can they be scaled up? What is the situation for different EU countries? How we can integrate the differences arising from contextual factors such as geographical area or socio-economic group?

- Could health be an additional reason for people to live in a more sustainable way?
- Is there a social gradient³ in unsustainable behaviour?
- Is healthy behaviour more sustainable and vice versa?
- What do we know about the impact of the built environment, transport, and food policies on health and vice versa?

Box 7: Examples of Promising Practices in the Domain of Health and Well-being

GUT DRAUF. Bewegen, entspannen, essen – aber wie!
(engl.: FEEL GOOD. Exercise, relax, eat – but how!)

A youth initiative by the Federal Centre for Health Education (BZgA)

The German Federal Centre for Health Education (BZgA) has developed the youth initiative GUT DRAUF (FEEL GOOD). It is based on an integrated educational approach and aims for a sustainable improvement of teenage behaviour and attitude towards nutrition, exercise and stress regulation. The project strives for a significant contribution towards health promotion. It integrates activities and options, which are healthy and fun at the same time, into young people's most important areas of life (e.g. schools, sports clubs, youth travel) and facilitates an easy transfer into everyday life. Intermediaries are the main target group of GUT DRAUF. Professionals of all kind (e.g. youth workers, teachers, tour guides) are enabled to realise fun and healthy measures and activities with young people between the age of 12 and 18 years.



GUT DRAUF. www.gutdrauf.net



“Green and Sustainable Pharmacy”
by K. Kümmerer and M. Hempel

Sustainable Pharmacy movement / Prof. Klaus Kümmerer, Leuphana University

Sustainable pharmacy (SP) focuses on the environmental, economical and social aspects along the whole lifecycle of a pharmaceutical entity. SP addresses dealing with resources; energy input and waste issues during synthesis and manufacturing; the degradability of compounds after their use by consumers when they are emitted into the environment. (Kümmer & Hempel, 2010)

The practice promotes sustainable lifestyles because it ‘greens’ household spending and aims to increase more sustainable choices in the use, disposal & emission of pharmaceutical products. Beyond focusing on consumers and consumption, it also focuses on educating patients, doctors and pharmacists on their role in contributing to the proper use of pharmaceuticals. Although this practice is just beginning, and its reach currently does not extend much beyond the academic community, it is slowly gaining momentum.

2.6. Cross-cutting issues

The working groups help us to address and concretise the domain-specific issues, questions and challenges. However, many challenges and opportunities cross-cut these domains. Cross-cutting issues can include, for instance:

- **socio-economic context:** how do drivers & barriers for sustainable lifestyles work out for people living in less favourable socio-economic circumstances i.e. facing unemployment, poverty, low education, living in unsafe neighbourhoods, bad housing, no cycle paths and poor access to quality food or public services etc. - compared to people living in favourable socio-economic circumstances)

³ The relationship between socio-economic level and health has been defined as the social gradient: ‘a stepwise or linear decrease in health and well-being that comes with decreasing social position’ (Marmot, 2004).

- **cultural context** (how do drivers & barriers for sustainable lifestyles work out for people living in different EU countries, from Greece to Latvia, Spain to Norway? How is culture enabling or inhibiting sustainable solutions. How does this work out for people living in urban or rural areas?)
- **Gender, age & life course perspective.** Policy and practices that encourage sustainable lifestyles may be different for children, young people and older people. In addition there may be gender issues that require different approaches for men and women.
- **Health & well-being:** How are health and wellbeing issues represented in the barriers and drivers? (taking into account demographic differences as well)
- **Policy:** How can policy help the spreading (by addressing the drivers and barriers)?
- **Politics:** What are the important political choices that lie ahead of us? What main controversies can we expect?
- **Trade-offs:** What are possible trade-offs (e.g. of costs and benefits) or conflicting priorities between and across domains?

These, as well as other cross-cutting issues will be identified and discussed at this conference.

DRAFT

PART II: RELEVANT BACKGROUND READING

3. Trends and conditions affecting sustainable lifestyles

This section sketches how increasing consumption patterns relate to several (macro) trends. It also tracks emerging innovative models and initiatives that aim at reducing pressure on our planet's resources and carrying capacity, while addressing social needs. We start with some facts that highlight the importance of aiming at more sustainable practices, lifestyles and consumption behaviours.

Climate change resulting from increasing Greenhouse Gas (GHG) emissions, the depletion of the natural resource base, waste problems and environmental pollution of watersheds, land and air indicate that current consumption and production patterns and levels are unsustainable. This is largely due to cheap natural resources that led to the development of very resource intensive and resource-dependent societies, infrastructures and lifestyles. This is especially the case in developed economies (Røpke 2009a), but also increasingly in developing countries that emulate Western ways of living. Our current economic system still assumes that there is no limit to economic growth (Daly 1977). However, it becomes increasingly obvious that continuous productivity growth as a precondition for societal stability cannot hold if at some point this productivity increase is going to deplete our resource base, and crosses the limits of the carrying capacity of our eco-systems. The paradigm of continued economic growth that is secured by productivity increase and consumption increase poses a dilemma for businesses and governments, since their task has traditionally been defined in terms of securing or facilitating incessant *economic growth*.

Increasing consumption levels and overall global population growth (although not in Europe) results in intensifying environmental impacts and pressures (Global Footprint Network 2009b). Our current resource demands are already 50% higher than what our planet can sustainably provide (Global Footprint Network 2009a).

In the past decades many efforts have been undertaken to improve resource efficiency of our economies, to reduce pollution and to decrease the generation of waste. In Europe, direct pressures from *production* have been partially decoupled from increasing production volumes and even stabilised in some cases, e.g. GHGs and resource use (Peters, Minx et al. 2011). In addition to reducing environmental impacts of production processes, technological innovation has resulted in an increasing share of environmentally sound products on the market. Still, the aggregate environmental impacts from the *consumption* of goods are still increasing due to the sheer number and volume of products on the market (level of affluence) and their growing use by the rising number of consumers (population). This means that decoupling of material consumption and emissions from Gross Domestic Product (GDP) has been happening only in relative, rather than absolute, terms. In addition to direct impacts from products, indirect impacts of European consumption are shifting overseas (Røpke 2001; ETC/RWM 2006). As a result, emissions in developing countries have doubled between 1990 and 2008. Thus, the consumption of goods and services in European countries becomes a major driver of global resource use and associated environmental impacts, many of which occur outside Europe.

3.1. Consumption patterns and levels

Food and drink, housing, mobility and tourism are responsible for a large part of the pressures and impacts caused by consumption in the EU (Tukker, Huppes et al. 2006; EEA 2010). Each of these domains alone leads to equivalent or more GHG/capita than EU target for all activities by 2050 (ETC/RWM 2006; ETC/SCP 2009). Overall, *consumption* of different types of goods and services in these domains is on the rise (see Box 8).

Box 8: Trends in four domains

Mobility and Tourism: The number of cars on the European roads is growing, while leisure trips are becoming more frequent, longer in distance and shorter in time (Ecorys 2008). The rise of air travel has been phenomenal, with an increase in the level of international air passengers from 88 million in 1972 (ICAO 2007) to 760 million in 2006. It is projected to grow to 980 million international passengers in 2011; domestic passenger numbers are projected to increase from 1.37 billion in 2006 to 1.77 billion in 2011 (IATA 2007).

Housing: the ownership of household appliances is growing, as is the surface per person (Worldwatch Institute 2004). Consumption of electricity from space and water heating, and waste generation is also increasing (EEA 2005).

Food: The levels of meat and dairy consumption are also mounting, not only in Europe, but also globally: in 1965-2005 global food consumption and production increased 2,5 times (EEA 2005). The supply of goods from exotic locations is on the rise (Schor 2005), the overall distance food travels increases (Hill 2008), and the consumption of processed food and meat is growing (EEA 2005).

Health: Lifestyle choices and patterns and levels of consumption have direct consequences for peoples' health. Over 50% of the adult population in the EU is currently overweight or obese, and about 20% of children are overweight. Obesity reflects unsustainable behaviour in terms of overconsumption of calorie-rich nutrient-poor and processed food, unhealthy diets, and inactive lifestyles, but also unsustainable infrastructures with high reliance on car use and few opportunities for walking and cycling.

The *outlooks* for various consumption domains in the future also signal increases. Car ownership is expected to triple by 2050, trucking activity to double and travel by air may increase fourfold (IEA 2009a). Global food production will need to grow with 40% by 2030 and 70% by 2050, compared to average 2005-07 levels (OECD 2009). The World Health Organisation estimates that in 2015, 1.5 billion people will be overweight worldwide compared to 1 billion people in 2005 (Kickbusch 2010).

These trends and outlooks sketched above cannot be solved by technological innovation alone. On their own, technologies are unlikely to trigger the changes in demand that would lead to more sustainable ways of living. Economic growth is needed for eradicating poverty and disease, but it needs to become sustainable and be measured in a way that reflects real costs and benefits and their distribution across society. Several multi-lateral initiatives, e.g. by UNEP and OECD, currently address the complex task of integrating economic and environmental issues in Green Growth Strategies. Also, businesses are re-aligning their business models to exploit opportunities that a less resource-dependent and pollution-constrained world can offer. Equally, emerging sustainable lifestyles support a flourishing environment while serving the needs of a growing population. Demand-side management, social innovation and various types of collaborative consumption are addressed next to technological and market innovations in order to find new bases for securing long-term stability of modern societies. Such new initiatives are emerging in Europe and beyond (see the text boxes with examples in Section 2).

3.2. Demographic changes and consumption

A main reason behind the rise in consumption at the macro-level is population growth. In 2011 the world's population will be reaching 7 billion people (Eurostat and European Commission 2009). These people need their basic subsistence to be satisfied and they all aspire to reach higher standards of living.⁴ Besides population growth, it is also the changes in the *demographic structure* of the EU population that changes consumption patterns. Lower birth rates, increased life expectancy and the coming of age of the baby-boom generation all contribute to an overall European ageing process (Eurostat and European Commission 2009). This puts a considerable stress on public finances in Europe (European Commission 2009), as more and more people are dependent on those who work: for every two working age individuals in the EU-27 in 2007 there was one dependent person (minors or elderly). The aging trend is set to continue in the future, with rising number of pensioners and falling number of workers to sup-

⁴ There has been 15-fold increase in Western living standards since 1800 (Simms and Smith 2008).

port them. The aging of the European population has consequences for consumption, such as increasing the demand for health or social services, retirement homes, health-care, and technologies targeted at older people.

Another demographic trend that influences consumption is the *size of the average household*, which has decreased. This in part is due to the ageing population, as older people increasingly live alone during their final years. In addition, young people choosing to live independently from their parents, high divorce rates, the reducing importance of family and individualization have contributed to a growing number of households with a consequent increase in consumption (Eurostat and European Commission 2009).

Gender also affects consumption patterns and levels. A UK study found that women are more concerned about climate change than men, and more likely to advocate lifestyle and behavioural changes where men prefer technological solutions to mitigate climate change (WEN 2007). Women are more inclined to buy organic food, have a higher tendency to recycle, and place more value on efficient energy use than men do (OECD 2008). Women are more likely to take social issues, such as child labour, into consideration, and they tend to have higher awareness about fair trade labels (Johnsson-Latham 2007).

3.3. Trends in home economics and consumption

At the household level, consumption is encouraged by the availability of attractive *credit*. Research shows a direct correlation between residential prices and consumption growth; more and more people live on borrowed money using the value of their homes as collateral (Barata and Pacheco 2003; Iacoviello 2004). Over the past decades, savings ratios have fallen in many European countries. Thus, people prefer *spending rather than saving* for future needs. This change in behaviour is influenced by financial institutions, advertising and marketing. Triggering consumption levels even further, retailers and lenders have developed a wide range of payment methods, allowing consumers a high degree of flexibility to make purchases (Eurostat and European Commission 2009). In many countries this situation has led to an enormous accumulation of *consumer debt* (Cohen 2007), as became painfully clear in the recent credit crisis, resulting in personal and national budget over-shoots, bankruptcies and the international financial crisis. This crisis highlights the need to rethink the social costs of using personal credit to stimulate consumption (Michaelis 2000).

Many products once regarded as luxuries are now perceived as necessities in both developed and developing economies. There is a general trend of the *accumulation of stuff*.⁵ In the EU, it is not uncommon for households to have between 20 to 30 technological items (IEA 2009). Often, the purchase of a product requires or entails the purchase of a set of other items. For instance, a new iPod may bring about the perceived need for accessories like a dock, an attachment for the car, or a carrying case (Belch and Belch 2007: p. 108). In addition to the sheer number of the products on the market, their useful lifetime is decreasing (Cooper 2002). Sustainable and durable design, repair and reuse are not economical, because labour costs in developed countries are high, while the costs of resources are relatively low. In the period between 1981 and 1994 the price of new TVs increased by 20%, while the cost of repair work rose by over 150% (Consumers International 1998: p.20). Hence, most people prefer to replace a faulty item by a new one rather than try to have it repaired.

Media, marketing and advertising play an increasingly important role in shaping consumer preferences and lifestyles (Worldwatch Institute 2010). Some trends can be identified that add to the power and effects of marketing and advertising in shaping people's needs and wants (Mont and Power 2009). One of the main tasks of advertising is to 'keep consumers unsatisfied' so that the industry can solve the 'make-believe' problem with new products and services. The advertising industry is also expanding its audience, diversifying to children (Barber 2007) and re-developing gender differences, which creates a playing field for developing and selling products customised for the different target audiences. One of the latest additions to the marketing portfolio is the employment of neuroscience, which enables marketers to understand how consumer decisions are made (Belch and Belch 2007). Together with the development of the mainstream marketing, there is a growing field of green and sustainability marketing (Belz

⁵ Referring to *The Story of Stuff* as told by Annie Leonard, addressing the current processes of resource extraction, production, distribution, consumption and disposal and pointing out the need for alternative ways to this linear unsustainable path (see <http://storyofstuff.org/index.php>)

and Peattie 2009), the goal of which is to green the market by promoting environmentally and socially sound products and services. An important part of the green marketing is provision of sustainability-related information to consumers, typically through eco- and social labels. However, there is growing concern related to green washing, which means that companies use green claims to sell grey products. Another emerging issue is the proliferation of eco- and other sustainability labels on the European market, which often leads to consumer confusion instead of helping them with everyday decision making.

In addition to influencing new choices and triggering new behaviours, old behaviors need to be unlearned. For example, if a new product or service is clearly better than the old one and fulfils the same need, then the unlearning of old behaviors is less of an issue. This is why driving a hybrid will be easier for most Western consumers than beginning to bicycle, or taking public transport. However, where new behaviors are needed – such as attending virtual meetings rather than face-to-face meetings – they work best when phased in, so that new behaviors are learned in a non-critical way and old behaviors gradually reduced. Individuals develop an internal logic about the ways in which the world works, based upon early taught values, life events and information from the external world (Hicks and Hovenden 2010).

3.4. Towards sustainable business models

Against the backdrop of a variety of business models that promote growing mass consumption (McDonaldization; McDisneyfication; Coca-Colonisation; shortening fashion cycles), ideas for more sustainable business models are also emerging (Mont 2004). Experts, supported by an increasing number of businesses (e.g. Xerox, DuPont, Interface), advocate ideas of a closed-loop economy and design for durability and recycling (Wells and Seitz 2005; Stahel 2006). Others propagate the so-called product service economy (Stahel 1994), where negative economic impacts from slower throughput of products are offset by repair services, reuse of products and remanufacturing activities. Such innovative business models, called *product-service systems*, are not built on the premise of selling more material products, but on the idea of creating value and generating profit from satisfying consumer needs through access to and use of products (Mont 2001a). Rather than being purchased, products are hired/leased/rented for as long as the product is needed. Legislation for extended producer responsibility supports these innovative models. Although still emerging, examples exist in many sectors: washing services, chemical management services, airspace, etc. In business-to-consumer markets, examples are found in car sharing, do-it-yourself (DIY) tool sharing schemes and many others, where consumers become users of products without the need to own them.

In addition to innovative business models, examples of social innovation are increasing in popularity, such as systems of *collaborative consumption* (Botsman and Rogers 2010). Collaborative consumption refers to 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. Some of these networks and schemes are established by sustainable entrepreneurs, others are by people themselves. Some examples of these networks are: swapping children and adult clothes, sharing of expensive, but rarely used items, such as party bags, or art work, swapping houses for holidays or renting a couch for those who need it. These schemes are also organised to share and swap skills among private people.

3.5. Consumption and well-being

The environmental and social problems related to unsustainable consumption levels and patterns that have been addressed in earlier sections are often justified with the argument that material-intensive society provides *well-being* to its members and makes people happy. However, there is some evidence that the consumer society is failing on its own terms: recent studies that correlate economic growth expressed in GDP values with the subjective level of happiness expressed by people or with the so-called Index of Sustainable Economic Welfare demonstrate that GDP growth in all European countries continued in recent years, while levels of happiness have, at best, stagnated or even slowly fallen (Easterlin 2003). Often people in economically rich countries are stressed, have long working hours and their social ties suffer as a result, while people from less affluent economies often have much

stronger social networks that contribute to relatively high levels of satisfaction with life (World Values Survey 2007). Clearly, well-being is shaped not only by material capital (natural, physical, and financial resources), but also by social and human capital (social networks, family ties, norms and morals).

Higher incomes in combination with less free time can result in increasing consumption, e.g. buying time-saving energy-using devices, restaurant meals or toys for children to compensate for lack of time spent with them (Segal 2003). Working fewer hours for a reduced income and having more leisure time has been proposed as a way to address unsustainable consumption (Ausubel and Grubler 1995; Sanne 2005; Coote, Simms et al. 2010). However, the question remains if the time gained is spent on non-commoditised activities or on more consumption (Jalas 2002; Sanches 2005).

In economically advanced countries there is a growing awareness among the population about the health and environmental impacts of products, resulting in growing demand for organic and local food. A small, but growing percentage of the affluent population reveals post-materialistic values and is searching for ways to break free from the adverse consequences of the consumer economies: increasing pace of life, stress created by the treadmill of the 'work and spend' cycle, overflow of information and abundance of commodities, and lack of time to actually enjoy life.

4. Policies for sustainable lifestyles

The previous chapters have argued for the need and potential of increased efficiency and smarter, more sustainable consumption and lifestyles. This chapter addresses the question which policy instruments are available to address this challenge and how influential they may be. The following text is based on the paper *Policies to Promote Sustainable Consumption: Framework For a Future-Oriented Evaluation* by Heiskanen et al. (2009)⁶.

Policy instruments targeting consumption practices, i.e. the demand-side, can be broadly clustered in four categories: regulatory, economic, communication-based and voluntary or procedural instruments. Table 1 summarises the aims, mechanisms and important contextual conditions for each of these four instrument clusters.

Table 1 Overview of policy instruments aiming at consumption practices, their way of operating and relevant contextual conditions for successful implementation (based on Heiskanen et al. 2009)

Policy instruments	Regulatory	Economic	Communication-based	Voluntary or procedural
Mechanisms	<ul style="list-style-type: none"> are obligatory usually come in the form of interdictions, permits or standards, e.g. the EU Eco-Design Directive (Schönherr, 2008) 	<ul style="list-style-type: none"> make certain consumption practices more or less financially attractive correct for environmental externalities (Larcom et al., 2008) 	<ul style="list-style-type: none"> provide knowledge and information information campaigns, information centres, consumption feedback, etc. (Bremere, Fammler, 2008) 	<ul style="list-style-type: none"> participatory mechanisms voluntary commitments and initiatives advisory schemes provision of infrastructure (Schmitt, Rogalla, 2008)
Contextual conditions	<ul style="list-style-type: none"> A functioning legal system, capacity to assess and decide on appropriate measures monitoring compliance (GTZ/CSCP, 2007) 	<ul style="list-style-type: none"> availability of sustainable technologies, products and services adequate market infrastructure and functionality 	<ul style="list-style-type: none"> reputation of and trust in the agencies providing the information 	<ul style="list-style-type: none"> political and cultural views on public dialogue and participation public's interest in participation

Policy instruments can aim to change consumption practices in two ways: directly, e.g. through banning certain products, or indirectly, e.g. through altering product prices or information and thereby changing the market environment. However, the impacts on actual consumption patterns and levels are hardly straightforward. Consumption patterns may shift to more sustainable ones and consumption levels may decrease, but unpredictable changes and

⁶ This paper summarises the conceptual framework developed by the FP7-funded EUPOPP project which aims to "analyse and model prospective impacts of best-practice policies on selected sustainability indicators in Europe" (p.1).

partial rebound effects are likely to occur. For example, saving money in one domain (e.g. food or home energy consumption) may result in spending more in another domain, e.g. energy-intensive pastime activities.

Due to this uncertainty regarding actual effects of policies on consumption practices, uncertainty remains with respect to the actual economic, social and environmental impacts of policies aimed at sustainability. Nevertheless, despite these issues, policies aimed at more sustainable systems of production and consumption undeniably have effects, and of course also positive and intended ones. This calls for further research and evaluation of policy initiatives to develop best practices for the design and implementation of policy instruments aimed at sustainability. The possibility and necessity to stimulate sustainable consumption through a variety of instruments targeting individuals, products or markets, call for consistent policy programmes in which sustainable consumption policies are embedded.

5. Relevant lessons from previous projects

Experiences of the SPREAD partners in other projects addressing sustainability serve as valuable input for the SPREAD project (see Table 2 below).

Table 2 Overview of projects that SPREAD partners have been involved in so far:

Project name	Website
CHANGING BEHAVIOUR	http://energychange.info/index.php
EMUDE (Emerging Users Demands for Sustainable Solutions) Specific Support Actions (SSA), EC	www.sustainable-everyday.net/EMUDE
EUPOPP (Policies to Promote Sustainable Consumption Patterns)	www.eupopp.net/
Civil Society Platform on Sustainable Consumption and Production	www.scp-dialogue.net
Action Town – Research and Action for SCP	www.action-town.eu
Business Case for Sustainable Consumption	www.encourage-sustainable-lifestyles.net/
Policy instruments for resource efficiency	www.scp-centre.org/en/projects/ongoing-projects/40-policy-instruments-ressource-efficiency.html
The Retail Trade and Sustainable Consumption and Production	www.wbcsd.org/DocRoot/19Xwhv7X5V8cDIHbHC3G/WBCSD_Sustainable_Consumption_web.pdf
WBCSD: Sustainable Consumption Facts & Trends from a Business Perspective	http://www.wbcsd.org/DocRoot/19Xwhv7X5V8cDIHbHC3G/WBCSD_Sustainable_Consumption_web.pdf
WBCSD Vision 2050: The new agenda for business	www.wbcsd.org/DocRoot/r62qLFi6d7uv4GCCu8sw/Vision_2050_FullReport_040210.pdf

Topics of previous projects range from behavioural change of energy end-users, social innovation as a driver for technological and production innovation, to the role of business and policy in sustainable lifestyles. Important lessons learned from these projects are summarised below.

Context

One of the main conclusions of many projects is the importance of the role of context in any change towards sustainability. Efforts at changing behaviour should always take the specific context of the target group into account. Context includes the immediate and broader environment, the political landscape, existing infrastructures, systems of provision, social conventions and norms, individual needs, values and desires. The same holds for the development of effective instrument packages.

Create links between parties

All projects have shown the importance of bringing together different parties involved in the change process. In behavioural change it is beneficial to bring together intermediaries with stakeholders and consumers, while other projects have set up mutually beneficial collaborations between researchers and civil society organizations; businesses, civil society organizations and policy makers; and designers and end-users.

User point of view

A focus on the end-user is a crucial ingredient for successful interventions aimed at changing consumption behaviour and patterns. Interventions for changing behaviour will be more successful when they are designed in interac-

tion with the people they are aimed at; a human-centred approach. Technical design will spread more easily when it is based on an understanding of individual needs, motivators, influencers and triggers. With regard to policy, transparency is important: in explaining clearly to citizens why they are asked to behave in a certain way; transparency about the public means that are available to achieve the different objectives; and transparency as to the final environmental impact resulting from the joint actions of society and public bodies.

Monitoring, evaluation and feedback

To make a project or intervention successful, a constant review of the process and built-in feedback mechanisms proves to be an important factor. Experiences show the relevance and usefulness of regular evaluation of results – by research participants and intended target audience alike. Similarly, when analysing the impacts of policy strategies and instruments on consumption patterns, it is important to provide data and information regarding the consequences of applying the selected instruments, taking into account the resources used by public bodies and the actions taken by citizens.

Holistic approach

A well adjusted interplay of instruments and actors makes for a more effective and efficient intervention and change - whether it concerns policy instruments, new business practices or consumer behaviour. The development of instrument packages that take into account different types of complementary tools (regulatory, economic, communicative, etc.) that influence the different social sectors (citizens, entrepreneurs, public bodies, etc.) is of high importance.

6. Next steps

As outlined in the introduction, this report mainly serves as input to the discussions of the SPREAD Launch Conference (May 24th and 25th 2011). Participants' feedback, the outcomes of the discussions and presentations will be included in a final and more complete 'Baseline Report' on sustainable lifestyles.

The aim of that final SPREAD 'Baseline Report', to be published in October 2011, is to offer a better understanding of the dynamics of change processes towards sustainable lifestyles. Moving towards more sustainable lifestyles involves change at the level of individual behaviour as well as at the level of the broader societal structures in which these individual behaviours are embedded. Keeping this in mind, the SPREAD consortium will address the following questions more in-depth after the launch conference:

- How can existing and new networks and institutions enable change in all relevant areas that relate to sustainable lifestyle?
- How and to what extent are barriers and drivers depending on context (e.g. specific to countries, regions, social groups, lifestyle sphere)?
- How can changes towards more sustainable lifestyles be designed to limit the unequal distribution of costs and benefits?
- How to achieve a successful diffusion of promising practices?

The final report will then also serve as a basis for the next steps in the SPREAD Sustainable Lifestyles 2050 social platform process: starting with, the visioning process that addresses the potential for new sustainable lifestyles and their enabling factors. After that, future scenarios for sustainable lifestyles in 2050 will be constructed. This will be the basis for a roadmap as well as recommendations for different stakeholders towards sustainable lifestyles, using the future scenarios and involving a large number of stakeholders. In addition, a research agenda is delivered which outlines the future social scientific research needs to fill the knowledge gaps on sustainable lifestyles.

We hope that you would like to stay involved in the social platform process.

The SPREAD teams welcome comments and inputs. If you have any, please send these to:

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Thank you!

REFERENCES

- Ausubel, J. H. and Grubler A. (1995). Working Less and Living Longer: Long-Term Trends in Working Time and Time Budgets. *Technological Forecasting and Social Change* **50**(3): 113-131.
- Barata, J. M. and Pacheco L. M. (2003). *Asset prices and monetary policy: Wealth effects on consumption*. 20th Symposium on Banking and Monetary Economics, Lisbon.
- Barber, B. (2007). *Consumed: How Markets Corrupt Children, Infantilize Adults, and Swallow Citizens Whole*. München, Beck.
- Belch, G. E. and Belch M. A. (2007). *Advertising and Promotion: An Integrated Marketing and Communications Perspective*. New York, McGraw-Hill/Irwin.
- Belz, F.-M. and K. Peattie (2009). *Sustainability Marketing: A Global Perspective*, Wiley.
- Benotat, Anke/ Brüggemann, Nora (2011): Design and Sustainability, in: 2nd Sustainable Summer School Booklet, CSCP, Wuppertal, pp. 20-22.
- Botsman, R. and Rogers R. (2010). *What's Mine Is Yours: The Rise of Collaborative Consumption*, HarperBusiness.
- Bremere, I.; Fammler, H. (2008). Review of consumer information and education. BEF, November 18 2008, EUPOPP WP1; Martiskainen, M. (2007). *Affecting consumer behaviour on energy demand*. Sussex: SPRU – Science and Technology Policy Research.
- Breukers, S., Mourik, R., Heiskanen, E. et al. (2009). *Interaction Schemes for Successful Energy Demand Side Management. Building blocks for a practicable and conceptual framework*. D5 of the CHANGING BEHAVIOUR project. 164 pp.
- CHANGING BEHAVIOUR partners (2009). *Deliverable 3: Conceptual approach of the project, background paper*, Restricted report of the CHANGING BEHAVIOUR project
- Cohen, M. J. (2007). Consumer credit, household financial management, and sustainable consumption. *International Journal of Consumer Studies* **31**(1): 57-65.
- Consumers International (1998). *Green Guidance*. London, Consumers International: 132.
- Cooper, T. (2002). *Durable consumption: reflections on product life cycles and the throwaway society*. Workshop Proceedings. Life-cycle Approaches to Sustainable Consumption, Vienna, IIASA.
- Coote, A., Simms, A. et al. (2010). *21 hours. Why a shorter working week can help us all to flourish in the 21st century*. London, NEF: 40.
- CSCP (2008): Time for Action: Towards SCP in Europe: EEA, CSCP, Rep. of Slovenia - Ministry of the Environment and Spatial Planning, Wuppertal, Germany.
- CSCP (2010): Integrating Sustainability Themes into Media: Tools for the Public Sector, Wuppertal, Germany.
- CSCP (2011): SMART Start-up: The Story – Sustainable Entrepreneurship Inspiring and Designing Lifestyles, Wuppertal, Germany.
- CSCP/ Ö-Quadrat (2009): Better Lightning Saves Money: Pilot Project on Efficient Lightning at the National Autonomous University of Mexico (UNAM), Wuppertal, Germany.
- CfSD (2004). *Every little bit helps... Overcoming the challenges to researching, promoting and implementing sustainable lifestyles*. Westminster, Centre for Sustainable Development, University of Westminster: 48.
- Dahlgren, G., Whitehead, M. (2006). *Levelling up (part 2): a discussion paper on European strategies for tackling social inequities in health*. WHO Collaborating Centre for Policy Research on Social Determinants of Health, University of Liverpool.
- Daly, H. E. (1977). *Steady-State Economics: the economics of biophysical equilibrium and moral growth*. San Francisco, USA, W. H. Freeman and Company.
- Dietz, T., Gardner, G.T., Gilligan, J., Stern, P.C., Vandenberg, M.P. (2009). *Household actions can provide a behavioral wedge to rapidly reduce US carbon emissions*. Proceedings of the National Academy of Sciences of the United States of America.
- Douglas, M. (2003). *The World of Goods: Towards an Anthropology of Consumption*. London, Routledge.
- Dummet, M. (2009). *Bangladesh suit ban to save power*. BBC News.
- Easterlin, R. (2003). *Explaining happiness*. Proceedings of the National Academy of Sciences(100): 11176–11183.
- Ecorys (2008). *Progress on EU Sustainable Development Strategy*. Brussels/Rotterdam.
- Edgar, A. and Sedgwick P. (1999). *Key Concepts in Cultural Theory*. London and New York, Routledge.
- EEA (2005). *Household consumption and the environment*. Copenhagen, European Environmental Agency: 72.
- EEA (2010). *The European environment. State and outlook 2010*. Consumption and the environment — SOER 2010 thematic assessment Copenhagen, EEA: 68.
- EIPRO-Study (2006). *Environment Impact of Products Analysis of the life cycle environmental impacts related to the final consumption of the EU-25*. Main report IPTS/ESTO project.
- ETC/RWM (2006). *Environmental Input-Output Analyses based on NAMEA data - A comparative European study on environmental pressures arising from consumption and production patterns*. Copenhagen, European Topic Centre for Resource and Waste Management, European Environmental Agency: 153.
- ETC/SCP (2009). *Environmental Pressures from European Consumption and Production*. Copenhagen, European Topic Centre on Sustainable Consumption and Production and European Environmental Agency: 67.

- Eurostat and European Commission (2009). *Consumers in Europe*. Luxembourg, Office for Official Publications of the European Communities.
- FAO (2006) *Livestock's Long Shadow—Environmental Issues and Options*. Food and Agriculture Organisation, Rome, Italy.
- Geels, F.W. (2002). *Understanding the Dynamics of Technological Transitions, A Co-evolutionary and Socio-technical Analysis*. Ph.D. Thesis. Twente University Press, Enschede, NL.
- Global Footprint Network. (2009a). *Humanity Now Demanding 1.4 Earths*. Retrieved 2009-11-29, from <http://www.footprintnetwork.org/en/index.php/GFN/blog/>.
- Global Footprint Network. (2011). "The Future of the Mediterranean: Tracking Ecological Footprint Trends."
- Global Footprint Network. (2009b). *Ecological Footprint time data*. Retrieved 2009-04-23, from <http://www.footprintnetwork.org/en/index.php/GFN/>.
- Gronow, J. and Warde, A. (2001). *Ordinary Consumption*. London, Routledge.
- GTZ/CSCP (2007) *Policy Instruments for Resource Efficiency: Towards Sustainable Consumption and Production*. Collaborative paper by German Technical Cooperation (GTZ), the UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (CSCP) and the Wuppertal Institute, with support from the German Federal Ministry for Economic Cooperation and Development (BMZ).
- Hauße, Martha/ Brüggemann, Nora (2010): Nachhaltiger Konsum rückt in den Mittelpunkt, in: bne-portal.de.
- Hicks, C. (2009). "It's not easy buying green" *European Business Review*. Feb. 2009. <http://www.europeanbusinessreview.com/?p=2834>
- Hicks, C. and Hovenden, F. (2010). "Making Sustainability Easy for Consumers: The New Opportunity for Corporate and Societal Innovation", *Responsible Management in Asia: Perspectives on CSR*. Edited by Geoffrey Williams. Palgrave-Macmillan 2010. 133- 145.
- Hill, H. (2008). *Food Miles: Background and Marketing*, ATTRA - National Sustainable Agriculture Information Service: 12.
- Heiskanen, E., Brohmann, B., Schönherr, N. & Aalto, K. (2009). *Policies to Promote Sustainable Consumption: Framework for a Future-Oriented Evaluation*. Future of the Consumer Society, 28-29 May 2009, Tampere, Finland
- Heiskanen, E., Schönherr, N. (2009). *Deliverable 1.2: Conceptual Framework. Work Package 1 EUPOPP, Final Draft*, April 2009.
- Iacoviello, M. (2004). Consumption, house prices, and collateral constraints: a structural econometric analysis. *Journal of Housing Economics* 13(4): 304-320.
- IATA. (2007, 24 October). *Passenger numbers to reach 2.75 billion by 2011*. Retrieved 2009-10-18, from <http://www.iata.org/pressroom/pr/2007-24-10-01.htm>.
- ICAO (2007). Homepage, International Civil Aviation Organization.
- IEA (2009a). *Transport Energy and CO₂: Moving towards Sustainability*, International Energy Agency: 418.
- IEA (2009b). *Gadgets and Gigawatts - Policies for Energy Efficient Electronics*. Paris, International Energy Agency: 426.
- IATA. (2007). *Passenger numbers to reach 2.75 billion by 2011*. Press Release, Damascus, Syria. Retrieved 2009-10-18, from <http://www.iata.org/pressroom/pr/2007-24-10-01.htm>.
- Jackson, T. (2005). *Motivating sustainable consumption*. Surrey, Centre for Environmental Strategy, University of Surrey: 170.
- Jalas, M. (2002). A time use perspective on the materials intensity of consumption. *Ecological Economics* 41: 109-123.
- Johnsson-Latham, G. (2007). *Gender Equality as a Prerequisite for Sustainable Development*. Stockholm, Swedish Environment Advisory Council, Ministry of the Environment: 90.
- Kanter, J. (2008). *Is It Becoming More Than Just Fashion to Turn Down the Air Conditioning?* New York Times.
- Kerr, N. L. (1995). Norms in social dilemmas. *Social dilemmas: Social psychological perspectives*. D. Schroeder. New York, Pergamon Press: 31–47.
- Kickbusch, I. (2010). *The Food System: a prism of present and future challenges for health promotion and sustainable development*. Geneva, Health Promotion Switzerland: 27.
- Kuhndt, Michael/ Pratt, Nadine/ Schaller, Stephan (2009): Sustainable Consumption – What is it and who benefits from it? In: *Global Compact Deutschland 2008*, Münster, S. 41-43.
- Lähteenoja, Satu et al. (2010): *Network of Change: Civil Society Partnerships for Sustainable Consumption and Production*, CSCP, Wuppertal, Germany.
- Lähteenoja, Satu/ Brüggemann, Nora/ Tuncer, Burcu (2010): *Sustainable Consumption and Production Policies: A Guide for Civil Society Organisations*, CSCP, Wuppertal, Germany.
- Larcom, S.; Smith, S.; Swanson, T. (2008) *Economic instruments and Sustainable Consumption: a review*. UCL, November 18 2008, EUPOPP WP1.
- Lewin, K. (1951). *Field theory in social science; selected theoretical papers*. New York, Harper & Row.
- Michaelis, L. (2000). *Drivers of consumption patterns. Towards sustainable consumption: A European perspective*: 12.
- Marmot, M. (2004). *The status syndrome: how your social standing affects your health and life expectancy*. London, Bloomsbury.
- Michaelis, L. and Lorek, S. (2004). *Consumption and the Environment in Europe. Trends and Futures*. Copenhagen, Danish EPA and Danish Ministry of the Environment: 130.
- Mont, O. (2001a). *Introducing and Developing a Product-Service System (PSS) Concept in Sweden*. Lund, IIIIEE, Lund University and NUTEK: 124.

- Mont, O. (2001b). *Reaching sustainable consumption through the concept of a product-service system (PSS)*. Copenhagen, Nordic Council of Ministers, TemaNord 2001: 526: 87.
- Mont, O. (2004). *Product-service systems: Panacea or myth?* IIIIEE. Lund, Lund University: 259.
- Mont, O. and Power K. (2009). *Understanding factors that shape consumption*. Copenhagen, ETC-SCP and EEA: not published: 103.
- Mont, O. and Power K. (2010). *The Role of Formal and Informal Forces in Shaping Consumption and Implications for a Sustainable Society*. Part I. Sustainability **2**(5): 2232-2252.
- OECD (2008). *Promoting sustainable consumption. Good practices in OECD countries*. Paris, OECD: 62.
- OECD (2009). *OECD-FAO Agricultural Outlook 2009-2018*. Paris, OECD: 95.
- Otnes, P. (1988). *Housing Consumption: Collective Systems Service. The Sociology of Consumption*. P. Otnes, Humanities Press Int.: 119-138.
- Peters, G. P., Minx, J. C., Weber, C. L. and Edenhofer, O. (2011). Growth in emission transfers via international trade from 1990 to 2008, in: Clark, W. C. (Ed.), *PNAS Early Edition*.
- Petruschke, Thomas/ Kotakorpi, Elli/ Coles, Neil (2010): International Review on Consumer Oriented Environmental Projects and Initiatives, Wuppertal, Germany.
- Ries, A. and Trout J. (2000). *Positioning: the battle for your mind*, McGraw-Hill.
- Ritzer, G. and Oviada, S. (2000). The Process of McDonaldization is Not Uniform, nor are its Settings, Consumers, or the Consumption of its Goods and Services. *New Forms of Consumption: Consumers, Culture, and Commodification*. M. Gottdiener. Lanham, Rowman & Littlefield: 33-49.
- Røpke, I. (2001). The environmental impact of changing consumption patterns: a survey. *International Journal of Environment and Pollution* **15**(2): 127-145.
- Røpke, I. (2009a). *The role of consumption in global warming - an ecological economic perspective*. *Anthology on Global warming*, Routledge.
- Røpke, I. (2009b). Theories of practice - new inspiration for ecological economic studies on consumption. *Ecological Economics* **68**(10): 2490-2497.
- Sanches, S. (2005). Sustainable consumption à la française? Conventional, innovative, and alternative approaches to sustainability and consumption in France. *Sustainability: Science, Practice, & Policy* **1**(1): 1-15.
- Sanne, C. (2002). Willing consumers or locked-in? *Ecological Economics* **42**(1-2): 273-287.
- Sanne, C. (2005). The consumption of our discontent. *Business Strategy and the Environment* **14**(5): 315-323.
- Schaller, Stephan/ Kuhndt, Michael/ Pratt, Nadine (2009): Partnerships for Sustainable Consumption. CSCP, GDA, GTZ.
- Schaller, Stephan/ Kuhndt, Michael/ Pratt, Nadine (2009): Partnerships for Sustainable Consumption: DGCN Publication: Partnerships for Sustainable Consumption, CSCP, Wuppertal, Germany.
- Schmitt, K., Rogalla, F. (2008). Literature analysis of "other voluntary instruments". Öko -Institut e.V., November 18 2008, EUPOPP WP1.
- Schönherr, N. (2008). Review of regulatory instruments. Öko-Institut e.V., November 18 2008, EUPOPP WP1.
- Schor, J. B. (2005). Prices and quantities: Unsustainable consumption and the global economy. *Ecological Economics* **55**(3): 309-320.
- Schor, J. (2010) "Welcome to Plenitude" Retrieved 2011-05-02 from <http://www.juliettschor.org/2010/05/welcome-to-plenitude/>
- Segal, J.M. (2003). *Graceful Simplicity. Toward A Philosophy & Politics Of Simple Living*. New York, Henry Holt.
- Shove, E. (2003): Converging conventions of comfort, cleanliness and convenience. *Journal of Consumer Policy*, **26**, 395-418.
- Simms, A. and Smith J. (2008). *Do Good Lives Have to Cost the Earth?* London, Constable.
- Southerton, D., Chappels, H et al., Eds. (2004). *Sustainable consumption. The implications of change infrastructures of provision*, Edward Elgar Publishing.
- Spiegel. (2007). Chinese Workers Told to Wear T-Shirts to Save Energy. *Spiegel Online International* Retrieved 2009-08-16, from <http://www.spiegel.de/international/world/0,1518,488739,00.html>.
- Stahel, W. (1994). The Utilisation-Focused Service Economy: Resource Efficiency and Product-Life Extension. *The Greening of Industrial Ecosystems*. B. R. Allenby. Washington, DC: National Academy of Engineering, National Academy Press: 178-190.
- Stahel, W. (2006). *The Performance Economy*. London, Palgrave-Macmillan.
- Stehfest, E., L. Bouwman, D. van Vuuren, M. den Elzen, B. Eickhout, P. Kabat (2009) —Climate benefits of changing diet||, *Climatic Change*, Vol 95, July 2009
- Thaler, R., and Sunstein, C. (2008). *Nudge: Improving Decisions About Health, Wealth and Happiness*. New Haven & London, Yale University Press.
- Tukker, A., G. Huppes, et al. (2006). *Environmental Impact of Products (EIPRO): Analysis of the life cycle environmental impacts related to the final consumption of the EU-25*. Seville, JRC/IPTS/ESTO: 139.
- Van Vliet, B., Chappels, H. et al. (2005). *Infrastructures of Consumption. Environmental Innovation in the Utility Industries*. London, Earthscan.
- Wells, P. and Seitz M. (2005). Business models and closed-loop supply chains: a typology. *Supply Chain Management* **10**(3-4): 249-251.
- WBCSD (2008): Sustainable Consumption Facts & Trends from a Business Perspective, WBCSD

- WBCSD (2010): Vision 2050, The new agenda for business, WBCSD
- WEN (2007). *Women's Manifesto on Climate Change*. London, Women's Environmental Network and the National Federation of Women's Institutes: 17.
- World Health Organization. (1946). *WHO Definition of Health*, Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19–22 June 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.
- WHO, Commission on Social Determinants of Health (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*.
- WHO (2010). *Parma Declaration on Environment and Health*, 11 March 2010, WHO Regional Office for Europe.
- Wilhite, H., Shove, E., Lutzenhiser L., and Kempton W. (2000). The Legacy of Twenty Years of Energy Demand Management: we know more about Individual Behaviour but next to Nothing about Demand. pp. 109-126 in E. Jochem et al. (Eds.) *Society, Behaviour, and Climate Change Mitigation*. Dordrecht: Kluwer Academic Publishers.
- Worldwatch Institute (2004). *State of the World 2004*. Washington, Worldwatch Institute: 273.
- World Values Survey (2007). *Values change the world*, World Values Survey: 16.
- Worldwatch Institute (2010). *State of the World 2010*. Transforming Cultures. From Consumerism to Sustainability. Washington, Worldwatch Institute.
- WWF, CSCP, C4S (2009): One Planet Mobility Report: A Journey towards a Sustainable Future.

ANNEX

Annex 1: Project Identity

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Consortium	Energy research Centre of the Netherlands (ECN) Demos Helsinki (Demos), Finland Politecnico Milano (Polimi), Italy EuroHealthNet; The International Institute for Industrial Environmental Economics at Lund University (ULUND), Sweden Regional Environmental Center for CEE countries (REC), Hungary Ecoinstitut Barcelona (ECOI), Spain The Northern Alliance for Sustainability ANPED), Belgium; Ashoka, France.
EC Desk Officer	Perla Srour-Gandon
Duration	1 January 2011 to 31 December 2012
Funding scheme	European Commission's Seventh Framework Programme (Coordination and Support Action): Socio-economic Sciences and Humanities
Budget	EU contribution 1,423,082 €
Website	www.sustainable-lifestyles.eu
Online community	www.sustainable-lifestyles.eu/community