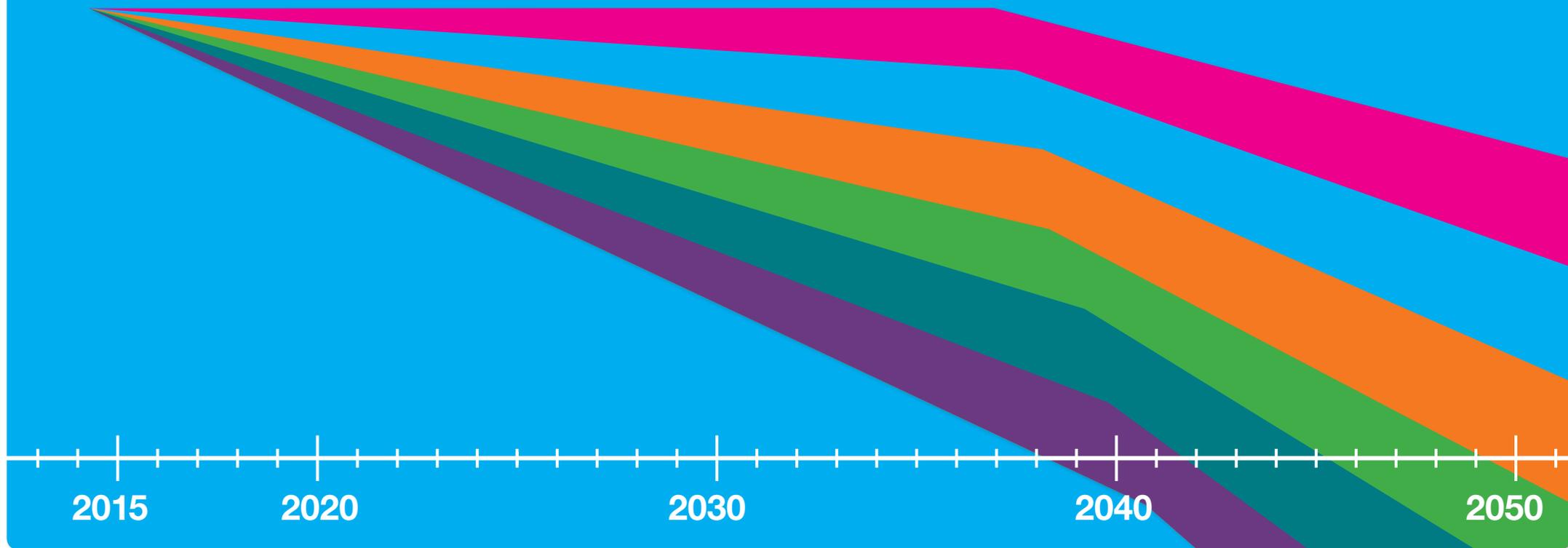


iFuture

- The Diversity of Sustainable Lifestyles



Funding Scheme



Project Coordinator



Project Consortium



About SPREAD Sustainable Lifestyles 2050

Principal Report Authors: Outi Kuittinen (Demos Helsinki), Roope Mokka (Demos Helsinki), Aleksi Neuvonen (Demos Helsinki), Mari Orjasniemi (Demos Helsinki), Maria Ritola (Demos Helsinki), Markus Wikholm (Demos Helsinki)
With inputs from the project consortium and project advisors

Report Visualisation: Francois Jegou (Strategic Design Scenarios / Politecnico di Milano), Adèle Seyrig (Strategic Design Scenarios), Marta Corubolo (Politecnico di Milano), Anna Meroni (Politecnico di Milano), Christophe Gouache (Strategic Design Scenarios)

Report Layout: Kirimo Kivelä (Demos Helsinki)

Project Coordinator:

Collaborating Centre on Sustainable Consumption and Production (CSCP)
Hagenauer Straße 30. 42107 Wuppertal. Germany Tel + 49 . 202 . 45 95 8 - 10
Fax + 49 . 202 . 45 95 8 - 30 www.scp-centre.org
Cheryl Hicks, Project Director: cheryl.hicks@scp-centre.org Nora Brüggemann,
Project Manager: nora.brueggemann@scp-centre.org
Rosa Groezinger, Project Manager: rosa.groezinger@scp-centre.org,

Project Consortium:

Ashoka, France
Demos Helsinki (Demos), Finland
Ecoinstitut Barcelona (ECOI), Spain
Energy research Centre of the Netherlands (ECN), the Netherlands
EuroHealthNet, Belgium
The International Institute for Industrial Environmental Economics at Lund University (ULUND), Sweden
The Northern Alliance for Sustainability (ANPED), Belgium
Politecnico Milano (Polimi), Italy
Regional Environmental Center for CEE countries (REC), Hungary

EC Scientific Officer:

Perla Srouf-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

CONTENTS

PART I: What it is all about	3
1 What is SPREAD Sustainable Lifestyles 2050 & iFuture	3
2 How iFuture was done	6
3 A sustainable lifestyle weighs 8000 kg – the boundary values of future lifestyles	10
4 Barriers to lifestyle change	14
PART II: The European lifestyle patterns according to iFuture study	16
5 The three lenses of sustainable lifestyles	16
PART III: The Profiles	23
6 Meet the Europeans – the diversity of personal lifestyles today & tomorrow	23
Dávid, 33, Hungary: 10 400 kg, compact home and the life nearby	25
Sebastian, 24, Germany: 12 500 kg, compact home and the life nearby	28
Maarit, 35, Finland: 19 800 kg, big home & staying home	31
Oriol, 35, Spain: 38 500 kg, compact home & moving about	34
Eero, 53, Finland: 41 400 kg, big home & moving around	37
Rosa, 55, Spain: 53 200 kg, big home & staying home	39
Till, 36, Germany: 55 200 kg, big home & moving around	42
PART IV Conclusions	44
7 The Material Prism – The era of new dimensions in lifestyles	44
8 Top ten suggestions for further research by iFuture participants	47
Materials produced in SPREAD	
People's forum 'iFuture'	48
References	49
Annex 1 SPREAD iFuture participants	50
Annex 2 SPREAD project partners participating in iFuture	51
Annex 3 Lifestyle questionnaire for collecting data for material footprint calculations	52
Annex 4 Deep interview questionnaire	54
Annex 5 iFuture workshop outlines	56

PART I: What it is all about

1 What is SPREAD Sustainable Lifestyles 2050 & iFuture

SPREAD Sustainable Lifestyles 2050 is a European social platform project running from January 2011 to December 2012. Different societal stakeholders – from business, research, policy and civil society – have been invited to participate in the development of a vision for sustainable lifestyles in 2050. The process started with taking stock of existing knowledge on sustainable lifestyles, and barriers and drivers for change towards them (see SPREAD 2011). It continued with systematically collecting promising practices on sustainable living, moving, consuming and society and based on this, further visualising the emerging new practices and gatekeepers to promote current initiatives and the new ideas developed (see SPREAD 2012a & 2012b). Back casting scenarios were developed to evaluate the future development of current best practices and trends (see SPREAD 2012c). Finally, the SPREAD process will result in a roadmap for strategic action that identifies opportunity spaces for policy, business, research and civil society to take action to enable more sustainable lifestyles across Europe.

The SPREAD People's forum, named 'iFuture', brings a 'real-world' perspective to the development of questions related to visions, roadmap and further research. The work explores the realities that citizens face every day and the motivations that drive them when striving for more sustainable lifestyle alternatives and for good life. It aims to understand the people's diversity and frame lifestyle change.

Table 1. The key themes of SPREAD.

Key theme	SPREAD project output
Unsustainable lifestyle trends and impacts	Vision and futures scenarios for sustainable living in 2050
Promising practices for sustainable ways of living	Project emerging promising practices into the future and visualise resilient future practices
Understanding people's diversity and framing lifestyle changes	People's Forum
Technical, social, policy and business innovation that enables sustainable ways of living	Vision, pathways and action strategies for different stakeholder groups
Policy solutions and economic systems that foster prosperity and healthy, sustainable lifestyles	Agenda for future research needs for sustainable lifestyle solutions and (large-scale) implementation

be guided by principles only. Our lives are unique results of continuous negotiation between values, habits, perceptions, experiences, material realities, infrastructures, information, culture, social norms and social learning etc. When building sustainable lifestyles, we have to take this richness and complexity into consideration. While the material boundaries of our societies close in, the diversity of personal combinations of those boundaries, values, experiences, norms and life situations will not.

In this report we will look at the diversity of people's lifestyles, both now and in the era of sustainable lifestyles. It is a common misconception that material scarcity – be it climate change or the peak production of natural resources from oil to phosphor – would lead into a similar linear development in our lives that the increased wealth and expansion of the middle classes did, except with a downward trajectory. This paper presents an alternative view; a view that takes a look at the actual material footprints of people from several European countries and the lives behind the footprints. It asks what exactly will change and what is the quality of that change.

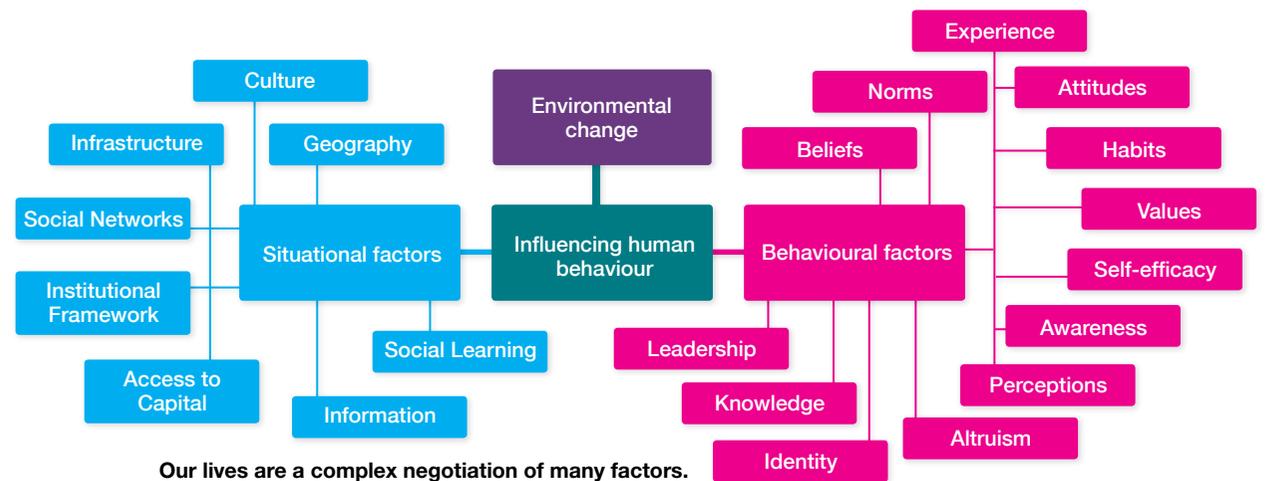
Meet the Europeans in all their diversity – now and in the future.

Lifestyles refer to the way we live our lives, the way we fulfil our needs and aspirations. They serve as “social conversations” in which people signal their social position and psychological aspirations to others. Since many of the signals are mediated by goods, lifestyles are closely linked to material and resource flows in the society.

Sustainable lifestyles refer to 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. Sustainable lifestyles reflect specific cultural, natural, economic and social heritage of each society. (SPREAD 2011, based on Mont 2007.)

Picture 2. Situational and behavioural factors influencing human behaviour



Source: Defra, Sustainable Lifestyles Framework, 2011.

2 How iFuture was conducted



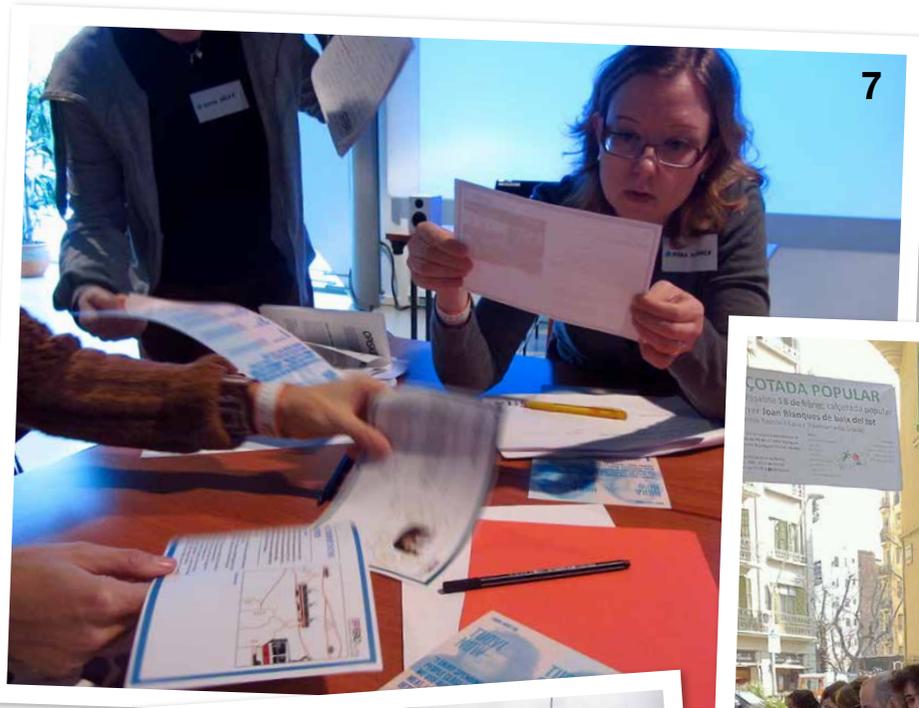
1&2 iFuturists in Barcelona (1) and in Budapest (2) listen carefully what the SPREAD and iFuture are about.

3 One of the workshop leaders in Germany, Nora Brüggeman, leads iFuturists to think 40 years forward by first taking a quick peek into 40 years back, to the year 1972.

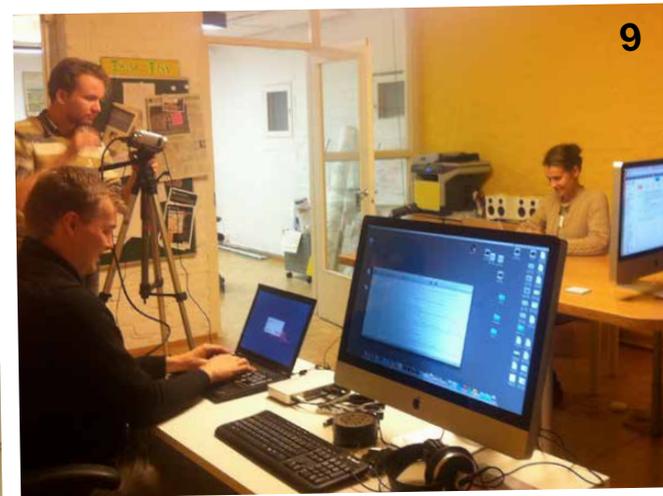
4 Examining the future profiles in Barcelona. Do they fit me? The comments get written down in workshop diaries.

5 Hungarians thinking who is missing in the sustainable character types in the cards.

6 Lunch time in Germany. The food is vegetable-based, like in 2050.



7



9



10



8

7 Finnish iFuturists discuss in pairs what they like about the future services and what needs to change so that the services would answer their needs and preferences.

8 Local Loop scenario gets scrutinized in a group discussion in the Finnish workshop.

9 Online workshop set up in Finland. The participants sit at their home computers all around Europe.

10 In Barcelona the workshop ended with a lunch in a traditional street party "calcotada popular". Excellent example of Empathic communities in real life.

1. Participant recruitment and engagement

During autumn 2011 and spring 2012 the SPREAD partners CSCP, Ecoinstitut Barcelona, Demos Helsinki and REC selected members for the iFuture workshops in Finland, Spain, Germany and Hungary, 15 citizens for each. The selection of participants aimed for a diversity of backgrounds, with respect to age and place of residence. To further support geographical diversity and opportunity to participate, a fifth group was organised online. Participants for the online workshop were selected in autumn 2012.

The participants were volunteers found through contacts on mailing lists and online groups of SPREAD consortium partners, regionally operating NGOs and via an announcement on the SPREAD project website and online community. The aim was to get a diverse picture of a variety of lifestyles in different parts of Europe. All participants were to represent themselves, with no expert knowledge on sustainable lifestyles required. A sufficient command of English was required. Organisers recognised that this prerequisite might exclude certain segments of society, but the aim was not to gather statistically significant samples. Instead, a case-study approach was applied.

2. The quantification of participants' lifestyle impact and in-depth interviews

Once the participants had been selected, the research team conducted an assessment of the participants' lifestyles by calculating their material footprint and conducting deep interviews. Personal data for current footprint calculations was provided by participants through an online questionnaire (see Annex 3). Questions covered the following lifestyle elements: Housing (I), Energy and heating (II), Transportation (III), Food (IV), Household goods (V), Activities (VI). An interview was conducted by phone to get an understanding of the worldview and values of the participants, and to learn more about the participants' relationship to their individual lifestyle choices. The interview studied Life situation (I), Everyday choices as a consumer (II), Own experiences (III), Values (IV) and Future (V) (see Annex 4). Current and future lifestyle profiles including a current material footprint and a future projection of it were developed by the research team based on material footprint calculations and interviews.

3. iFuture workshops

After the preliminary assessment, one-day workshops, designed by Demos Helsinki and led by the Demos Helsinki in Finland and online, Ecoinstitut in Spain, CSCP in Germany and REC in Hungary (see Annex 5 for the process and questions covered in the workshops). The activities in the workshops consisted of four parts:

- I. Material footprints and profiles.** This section presented the results of the preliminary assessment, first only the personal material footprint and then the full profile. Individual reflection and facilitated group discussions followed.
- II. Sustainable lifestyle characters and new things of the future.** In this section, participants were asked to think about different people's patterns of behaviour as well as their own with the help of character cards created for the workshop. Next, two by two, the participants discussed new services and practices of the future the help of visual aids, the emerging ideas cards, developed earlier in SPREAD by Politecnico di Milano (See SPREAD 2012b). This section was to study how the people react and think about emerging practices: what they like about them and what would need to change in order for them to adopt these new services and practices.

III. Scenarios. The preliminary versions of the four future scenarios developed in SPREAD were scrutinised. All the scenarios were introduced, after which each participant reflected individually and discussed in groups, guided by the workshop leaders, one of the alternatives and how it would relate to their lives. The current and future profile assessed in previous section of the workshop were to give the scrutiny a personal scale, and vice versa; the scenarios were to provide a wider perspective on changing the impact of their lifestyles.

The primary aim of this section was to identify the systemic shifts and adjustments necessary to enable and facilitate change on the individual level. Thus all the experience and knowledge about sustainable lifestyles, existing feedback systems, gatekeepers, drivers and barriers accumulated earlier in the project was assessed by 'real-world' stakeholders and everyday decision-making was incorporated into the framework. This fed to the development of the scenarios and introduced new perspectives on the weight of specific decisions and important inhibitors to lifestyle change.

IV. Summing up and the Research questions. In the summary section participants were asked to write down research questions that should be prioritised when studying sustainable lifestyles. They were also asked to give feedback on the workshops.

4. Reporting

This document reports and analyses the results of material footprint calculations, in-depth interviews as well as personal inputs and group discussions in the five workshops. It has been written by Demos Helsinki, with help from other Consortium partners. The results will be presented in the final conference of SPREAD. Group of ten people selected from the iFuture participants were invited to the final conference.

3 A sustainable lifestyle weighs 8000 kg – the boundary values of future lifestyles

Material resources form a fundamental basis for understanding the future. In a purely physical sense there is not going to be any more natural resources such as copper, phosphor, aluminium, uranium or oil in the future. It's not possible to substitute ecosystem services that the climate, glaciers or the oceans provide without using considerably more ecosystem services somewhere else (Meadows et al. 2004). In recent years we have witnessed, for example, a rise in the production of biofuels, which in turn, due to diminishing returns, has increased the costs of food production.

Until the early 2000s this did not really matter. Starting in the late 19th century technologies have become more efficient in using natural resources, which has kept digging resources from more and more difficult places profitable. Thanks to increased productivity, the price curve of natural resources has been sloping steadily downward in the past century.

In recent years the material nature of our lives has become more visible, given the fact that the increase in the cost of resource extraction has outstripped the improvements in the efficiency of

production. There is a great paradigm shift taking place and it means that scarce resources translate to higher prices for things that require plenty of material resources. (Grantham 2011)

Underlying the increased prices of natural resources is the fact that our current lifestyles and consumption patterns are unsustainable. Consumption levels have increased six-fold since the 1960s. The global population has doubled, while consumption expenditures per capita have almost tripled. This is why there's a demand for change in lifestyles that allow people to meet their personal needs and aspirations, while allowing current and future generations to do the same (SPREAD 2011).

The mirror of sustainable lifestyles in the iFuture is the material footprint. The idea behind the footprint is to provide a comprehensive and understandable tool to reduce different kinds of present and future environmental challenges. It is a tool to measure and optimise the resource consumption of our lifestyles, including the services and the products and production processes behind them (i.e. in the areas of consuming, moving, housing and health). Thus it is a good tool for decreasing the vulnerability of our lifestyles by showing the need for innovation around the products and services that currently put a pressure to the environment.

In concrete terms, the material footprint measures the use of renewable and non-renewable material resources (excluding water and air) plus the erosion caused by agriculture and forestry on the individual level. It covers the whole lifecycle from the extraction of raw materials to the processing industry, distribution, consumption, recycling and disposal. Thus, it can provide a rough indication of the long-term ecological sustainability of lifestyles when compared to the level of natural resource consumption that is estimated as sustainable.

In the SPREAD project we have defined the material footprint of a sustainable lifestyle at 8000 kg per annum (p.a.) for one person. This quantified target forms the fundamental assumption of sustainability on the individual level. The material footprint of 8000 kg p.a. consists of household goods, food and beverages, everyday mobility and tourism, electricity, heating and built housing.

The 8000 kg p.a. of material footprint per person is based on the work of Michael Lettenmeier, Stefan Bringezu, Friedrich Schmidt-Bleek et al. from the Wuppertal Institute for Climate, Environment and Energy on a safe and sustainable level of natural resource use (for further reading Bringezu 2009, Kotakorpi et al. 2008, Lettenmeier et al. 2012).

In addition to the 8000 kg p.a. of material footprint, in iFuture we base our assumptions of future sustainable lifestyles on the following environmental and social indicators:

1. Environmental boundaries

We draw on the planetary boundaries framework developed by a group of earth system and environmental scientists led by Johan Rockström from the Stockholm Resilience Centre. Due to the complexity of quantifying these planetary boundaries, we have only taken into consideration six of the original nine in the background considerations.

2. Social boundaries

We use population growth and human development indices based on statistics and research by UNDP and UN Population Division. These social system boundaries (the goals for 2050) are the minimum requirements for socially sustainable development. The worldwide recognition of these social system boundaries is the underlying assumption in our work.

Table 2. Environmental and social boundaries that create the base for the 8000 kg sustainable footprint.

Environmental boundaries

Earth-system process	Current value	Boundary value
Climate change Atmospheric carbon dioxide concentration (ppm by volume)	387	350
Biodiversity loss Extinction rate (number of species per million per year)	>100	10
Biochemical Anthropogenic nitrogen removed from the atmosphere (millions of tonnes per year)	121	35
Land use Land surface converted to cropland (percent)	11,7	15
Fresh water Global human consumption of water (km ³ /yr)	2600	4000
Ozone layer Stratospheric ozone concentration (Dobson units)	283	276

Reference: Rockström J. et al. (2011)

Social boundaries

Human development	Current Value	Goal 2050
Human Developed Index (measure of life expectancy, literacy, education and standards of living)	0,63	0,77
Years of education in less developed countries (average years)	6	8
Life expectancy (global average)	70	>75
GINI coefficient (Measure of the inequality: a value 0 expressing total equality and a value 1 maximal inequality.)	0,7	0,55
Global population (billion)	7	8,9

Reference: UNDP (2011)

How much is 8000 kg p.a.?

Estimations on the current average material footprint (also called a material rucksack) of Europeans varies between 27 and 40 000 kg p.a. It means that our material footprint will need to decrease by, on average, 75–80% to reach a sustainable level. In order to get there, it is necessary to know what the 8000 kg p.a. consist of and how much it is.

The sustainable material footprint includes three main categories, nutrition (3000 kg p.a.), transport (2000 kg p.a.) and housing infrastructure (1300 kg p.a.). Other categories include electric power consumption, leisure time activities and other purposes (1700 kg p.a. altogether). A sustainable material footprint can be distributed for example in the following way:

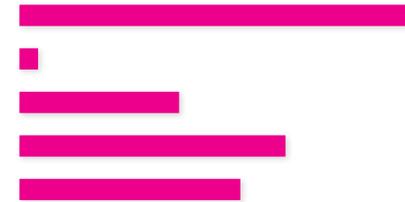
- 3000kg nutrition
 - 1300kg for the house
 - 300kg electric power consumption
 - 500kg household goods
 - 2000kg transport and tourism
 - 400kg leisure time activities
 - 500kg other purposes

It is important to note that this is only an example of a sustainable material footprint. This generalisation does not mean that the composition of the material footprint is similar for everyone. The share of consumption category in a material footprint of 8000 kg p.a. can differ according to the values, needs and aspirations of each person's unique lifestyle.

Picture 3. The material footprint of ordinary things.

How much is 40000kg in 2012?

- 10000 km in a car (15000kg)
- 2000 km public transport (700kg)
- 550kg of food with 19% share of meat (6000 kg)
- 37 m² warm living space (10000kg)
- Resources for other consumption items and leisure time (8300kg)



How much is 1000kg in 2012?

- 500km alone in a car or
- 3000km with public transport or
- 6 m² warm living space or
- 100kg meatballs

For example, some people may accumulate more of their footprint through transportation while others move less, but live in a larger apartment. Not everyone needs to live the same way, but – on average – everyone must live within boundaries of our planetary system in order to realise our sustainable future. This idea of diversity in lifestyles, both now and in the alternative sustainable futures, has been the guiding principle in our work of exploring current lifestyles and ways of turning them sustainable.

But how much is a ton of material footprint?

The upper part of the picture 3 tells how many kilometres by a private car or public transport or how many square metres of warm living space or kilograms of meatballs will one get with a ton of

material footprint. In the lower part of the picture 3 an average European material footprint of 40 tons is translated into consumption of different things. Not surprisingly, the figures tell of a very ordinary life.

The figures that shed light on the material footprint are based on the level of currently available technology. Development of technology will lead to efficiency gains, which in turn will provide people with more using the same material input. The picture below illustrates the difference of material intensity of the same things between now and 2050. For example, travelling 3000 km with public transport or living in 6 m² of warm living space today can assumed to be equivalent to 5000 km and 15 m² in 2050, respectively.

■ How much is 1000kg in 2050?

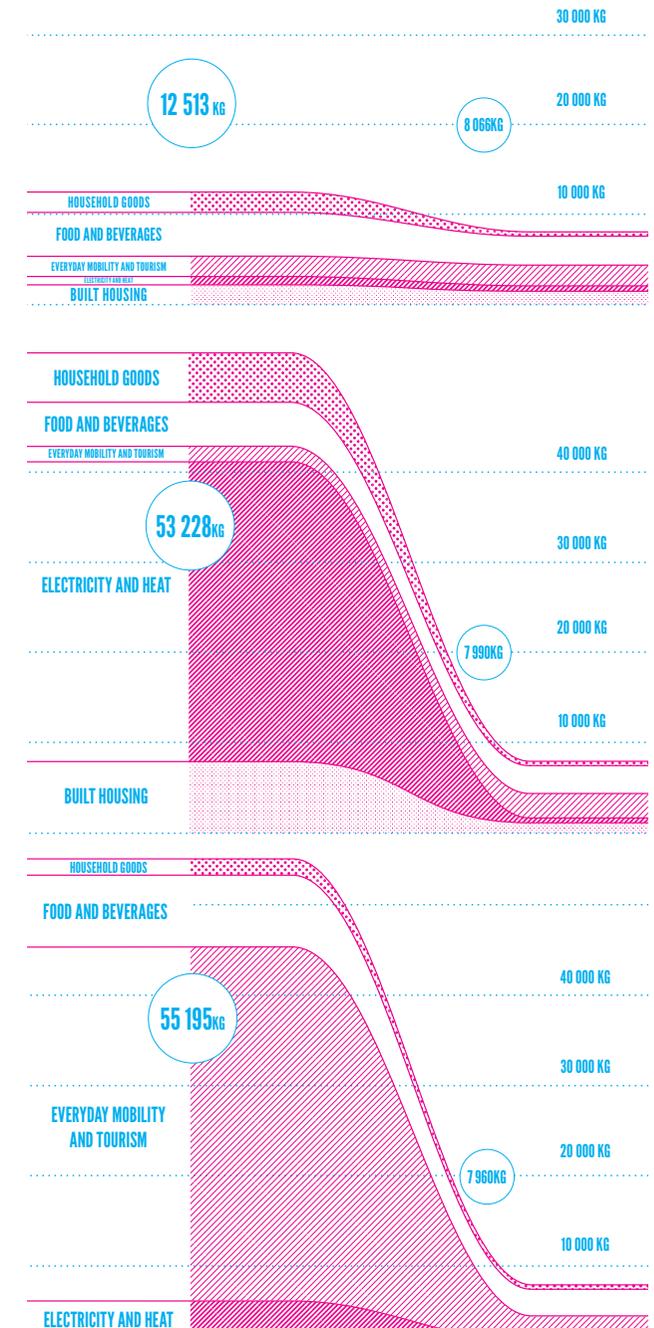
- 700km alone in a car
- 3000km with public transport
- 15 m² warm living space
- 250kg soya-vegetable patties

The bottom line, nonetheless, is that technology alone will not make our lives sustainable. The change is so drastic that our lifestyles, in which technology is only one factor, will have at least as significant a role to play.

The material footprints of iFuture participants

In iFuture, a personal material footprint for each participant was calculated with a footprint calculator, developed by Demos Helsinki and D-mat, specifically for the SPREAD project. Average footprints (kg per person per year) of the of the iFuture participants were 26,000 in Finland, 25,000 in Germany, 26,000 in Spain, 22,000 in Hungary and 22,000 for the online workshop participants from different countries of Europe. Based on the finding that eight tonnes of material use is the sustainability threshold for European households (Lettenmeier 2011, based on Bringezu 2009), these figures show that for the time being, Europeans do not yet live sustainably.

A large diversity of lifestyles between different people was identified. The lowest material footprint of all the participants was 8500 kg/a, which is slightly higher than the sustainability threshold given. The highest material footprint was 69 000 kg/a, which would require a factor 9 decrease in order to be sustainable.



4 Barriers to lifestyle change

This discrepancy between current and sustainable lifestyles is an issue that has not gone unnoticed by Europeans. The question ‘what makes our lifestyles unsustainable’ is clearly an issue that people have pondered and developed ideas on barriers that limit the change.

In the iFuture the participants had an opportunity to discuss the issue of sustainable lifestyles in more concrete terms and through examples from their own lives. What the interviews and workshops showed, was that the participants had a good understanding on the major sustainability challenges they face in the everyday lives. Their responses help us understand the diversity of barriers people perceive between their current and (desired) sustainable lifestyles.

Table 3 from the SPREAD report ‘Today’s Facts and Tomorrow’s Trends’ (2011) Sustainable lifestyles baseline report lists key challenges and promising practices for more sustainable ways of living. Placed around the table are comments that appeared during iFuture interviews and workshops, commenting corresponding challenges and practices.

“ I always thought I do sustainable food shopping – I buy green products, shop locally, but now, the food makes up for a big share of my footprint. This high impact I would like to change of cause.”

German participant, 63 years old

“ Also in the area of food I wonder what is in the end more valuable. I am convinced that I can drink as much water as I want, I just shouldn’t get it from France or anywhere far away. I think if I would eat 5 kilos of strawberries from my grandmother’s garden in summer, there is no problem as all, but if I insist on eating them in winter, than it becomes a problem.”

German participant, 18 years old

“ I already made a plan to reduce my footprint in housing: I will need to find a girlfriend and have a child, as then the living space will stay the same, but will be divided by three and the food I think can also be reduced by this. This would really solve my problem: I bought property a while ago which is too big just for myself and I can not just move out of it again. I could easily fit it one or two other people. It wouldn’t really be an option to share this flat with someone. It’s an old building and the rooms are large. It’s only 3 rooms, but they add up to 80 square meters.”

German participant, 35 years old

“ I do not know how to downgrade my electricity consumption (although acting with care)”

Spanish participant, 55 years old

“ A lot can be changed if one for example puts on another pullover when it is cold. But this is nothing I desire for myself, as this have been the conditions in my parent’s home when I grew up.”

German participant, 36 years old

“ If I am wealthy enough, I can afford to have a car and on top of this to buy the tickets for the train. If I had less money available, I would need to choose.”

German participant, 63 years old

“ It is really important for us to save time or to have our comfort by accomplishing the planned tasks. For example the big purchasing at weekends is only possible by car, but now we are saving our money.”

Hungarian participant, 36 years old

“ Since I live in a small rural town, the demand for transportation is high.”

Hungarian participant, 65 years old

“ I’m not surprised I have to reduce mobility, since it is not sustainable. Unfortunately as of today public transport connections between work and home, in my case, are not good.”

Spanish participant, 38 years old

“ The reason of this is easy: this generation had to live in privation in the past and now they do not want to.”

Hungarian participant, 33 years old

Table 3. Barriers of lifestyle change according to previous research and iFuture participants.

Lifestyle area	Key challenges and impacts	Promising sustainability trends and practices
Consuming	<p>High or rising environmental impacts due to:</p> <ul style="list-style-type: none"> Food and drink consumption, in particular meat and dairy Increasing long distance transportation of goods, particularly import of non-seasonal and exotic foods Increasing use of chemicals in food production and increasing consumption of processed food 	<ul style="list-style-type: none"> Increased awareness of sustainability issues among many European citizens Emergence of collaborative consumption (sharing, lending trading, swapping) Growing availability and demand for eco-efficient or organic/ecological products and foods Growth of urban farming Movements toward consumption reduction (e.g. meat consumption)
Living	<p>High or rising environmental impacts due to:</p> <ul style="list-style-type: none"> Increasing number of households (e.g. more single-person households) Increasing individual living spaces Increasing consumption of energy and water despite recent energy efficiency gains in household appliances Growing number of electricity consuming appliances and devices in households Rebound effects 	<ul style="list-style-type: none"> Growing availability and demand for environmentally friendly appliances Increasingly successful energy efficiency efforts in private households Increasing awareness and behaviour change for energy and water conservation Emergence of energy-efficient, passive and energy-positive housing Emergence of innovative urban planning approaches Cities or neighbourhoods that support sustainable living
Moving	<p>High or rising environmental impacts due to:</p> <ul style="list-style-type: none"> Increasing numbers of passenger cars Oil dependency (a consequence of passenger car use) Increasing mobility needs related to urban sprawl and urban structures that favour car use (e.g. shopping facilities in the urban periphery) Rising air travel and cheaper air fares 	<ul style="list-style-type: none"> More efficient transportation technologies, such as electric vehicles Growth in car sharing services that show a shift away from private ownership to collaborative consumption Increasingly successful efforts to stimulate modal shifts toward walking, cycling or public transportation Strategic urban planning to decrease mobility needs and make sustainable modes of transport safer and accessible
Health and society	<p>High or rising health impacts, such as:</p> <ul style="list-style-type: none"> Increasing levels of obesity and heart disease associated with poor diets and inadequate lifestyle choices Increase of respiratory and heart diseases associated with poor housing conditions Increased availability and low prices of highly processed, unhealthy food products <p>High or rising social inequity:</p> <ul style="list-style-type: none"> Per capita environmental impacts are considerably higher in high income groups than in lower income groups Low income groups are more affected by adverse sustainability effects (e.g. climate change, local air pollution, rising energy prices) High income groups are more likely to have healthier diets 	<ul style="list-style-type: none"> Growing awareness and better information on healthy diets and lifestyles (e.g. labelling) Increased availability and demand for local, ecological and seasonal food Initiatives that promote walking, cycling and limit cigarette smoking in buildings Increasingly successful efforts to integrate health and equity considerations into policy making and urban planning

“We should think more about what we buy. But purchasing more consciously is more relevant for the younger generation. Because of historical reasons the generation grown up during the communist era doesn't want to give up things.”

Hungarian participant, 33 years old

“Urban Gardening is a great idea in theory, but mostly because it makes people happy. The problem is that people plant things that are not necessarily useful on their own, such as tomatoes. But no one will grow Wheat or Grains which is vital for our diet”

German participant, 58 years old

“I have already made the energetic refurbishment of my house partly. So we will use less electricity but I will use solar energy.”

Hungarian participant, 33 years old

“My footprint in regards to food I could and can make smaller. It's a matter of everyday life skills. Shouldn't people be more skilled in the future than now?”

Finnish participant, 35 years old

PART II: European lifestyle patterns according to iFuture study

5 The three lenses of sustainable lifestyles

We are entering an age of new materialism. It is common to see our current lifestyle as ‘materialist’ in its nature. We spend a lot of time and money on clothes, furnishing and decorating our homes; on talking and reading about designs of everyday objects, from cars to phones and kitchen appliances. However, it is fascinating how immaterial our consumption has been until today. Due to the abundance of material resources, prices and availability of commodities have fallen steadily for most of the 20th century and consumer prices since the 1980s (SPREAD 2011, 37 based on Braun 1995; GMO 2011). As a result there has been little or no need to pay attention to the cost of materials embedded in our consumption.

The “stuff” that surrounds us has appeared and disappeared from our lives as if it had no origin or there would be no life for it after the garbage bin (SPREAD 2011, 35 based on Cooper 2002). The highly material nature of these pivotal lifestyle components such as housing and transportation have not fully been understood.

Now this is changing. New materialism means that the material aspects of our life become more significant.

The drivers of new materialism are simple. In recent years the material nature of our lives has become more visible given the fact that the increase in cost of resource extraction has outstripped the improvements in the efficiency of production. This implies that many of our natural resources, oil being one of the most important (Kumhof & Muir 2012), are reaching peak production in the 21st century. This amplifies certain lifestyle factors that have previously been present but not overly significant.

It is important to understand that even if material resources will grow in importance, not everything that we recognize as material today is equally important – only the material intensive parts of our consumption are changing to in the event of sustainable lifestyles.

In this study we have used the material footprint methodology to illustrate where most natural resources are consumed in our daily lives. Material footprint calculation takes into account materials required to produce, use and discard a product or service.

In iFuture we looked at the whole of people’s lifestyles and valuations combined with the data on their material footprints – from dwellings to house-

hold goods and transportation. By this, we were looking for what are the most material intensive part of peoples lives and why so.

The results are eyeopening. We have found three lifestyle factors of paramount importance in the age of new materialism: (1) life stage transitions, (2) material inclinations and (3) values and attitudes towards lifestyle change. These factors describe the likely changes in peoples’ lifestyles due to material scarcity, i.e. new materialism. We call them the three lenses of sustainable lifestyles: they are the forces that diversify our future lifestyles. Let’s look at how these lenses work. In this chapter you hear the participants’ views alongside our analysis.

1. Life stage transitions

Transitions between different life stages are paramount in understanding future sustainable lifestyles. The size of iFuture participants' material footprint followed a clear path according to one's life stage. One of the primary definers of one's material footprint is whether the person, for example, lives alone or in shared housing, alone as a couple, as a family with kids or as single or couple whose children had left the home. Most importantly, choices made in transitions between these life stages define one's material footprint for years to come, sometime even for a lifetime.

From a European family's perspective, having children and children moving out are the most important life stage transitions in terms of one's material footprint. The research points out that having children as well as children moving out is an increasingly important watershed for different kinds of lifestyles, i.e. they represent points in life that fix footprints related to both housing and transportation to certain level for a long time and are difficult to impact thereafter (Kaskinen et al. 2009). This is because people generally seem to lack agency and choice in transitions. In many cases large transportation footprints seem to result from living in a "family home" with sufficient level of living space, which people can only afford outside cities. Similarly couples or single people that continue to house the family dwellings after their children have moved out refer to the need of having extra-space for the children and the grandchildren to visit.

“There is four of us and our house is 94 square meters. That's a bit above than the recommended ratio. I'm not skilled to make a change. My spouse is interested in these things in a different manner. If I wouldn't have kids, my footprint would be totally different. With children one doesn't even dream of traveling to a holiday with an airplane. I've been thinking about the possibility of our parents living in the same lot as us.”

Finnish participant, 35 years old

“I am 26 years old, I have no work, I'm studying a master-degree and sharing an apartment. We are 3-4 people.”

Spanish participant, 26 years old

“The share of transportation is massive! I need to move closer to my workplace – although retirement will fix that! We will try to find a solution: where we put guests, children, grandchildren-to-be. We could move closer to work to a place half the size of our current place. We can't afford the same size. Only if there were flats in the city center with guestrooms.”

Finnish participant, 50 years old

“Living with a family as an adult equals to a flatshare, doesn't it? So why again does the footprint rise when people start a family as we've heard before.” “But if the children move out?”

Online participants, 30 and 22 years old

“My daughter is soon a teenager and it will be hard to get her involved in a low consumption manner. How should I argue that I wouldn't like to buy some product when her friends have it. I ponder if I cut her out from the group of her age by restricting what she gets.”

Finnish participant, 37 years old

“I already made a plan to reduce my footprint in housing: I will need to find a girlfriend and have a child, as then the living space will stay the same, but will be divided by three and the food I think can also be reduced by this.”

German participant, 35 years old

“When I'm 66 years old, I won't be as adventurous as nowadays. Then I'll love things such as a good house and that I've achieved good things in my work.”

Finnish participant, 28 years old

“Alright, but we cannot be students forever. Since we are supposed to be adults and parents and so on, our footprint will be high by default.”

Online participant, 26 years old

“I earn 5 times more than as a student and am still broke - you upgrade your lifestyle according to your income.”

Online participant, 37 years old

“In private life the most important thing is the family. So, a good holidays, good life and good apartment are only “frameworks” for the family life, to enjoy children and husband.”

Spanish participant, 33 years old

“I guess fresh families with small kids are trapped with the societal pressure to move around by car... and once the family sits into a car its difficult to get them out from there. But I also believe that people like us are the pioneers in ignoring the oldfashioned and high-carbon societal pressures.”

Online participant, 31 years old

“Having 4 children means a lot of travelling with the car, a lot of energy consumption and less flexibility in terms of consumer choices. Probably the most unsustainable thing I do is driving the car, especially short distances.”

German participant, 56 years old

“Changing the way we live sounds difficult to me. We enjoy it very much living in this big house, this is where our two sons used to grow up. Now one of them has his lawyers offices in the house as well, but not really using it as much anymore, as he's now working in a different field. But when we have family reunions, we can easily host 4-6 people in the house. This is quite nice and I would miss having this opportunity. Having this space to host family members is also important for the social structure of the family. Maybe it could be an option for us to have someone living on the second floor of our house, but I would need to think about this.”

German participant, 63 years old

These housing choices at the made at the transition points of life also largely define transportation patterns. In other words, one of the key reasons for the large transportation footprints in Europe seems to be the lack of living alternatives for families with children as well as unpreparedness for a “third age”, i.e. life after children and work.

On the whole people are not very well prepared and lack support for these transitions as they take place. This is why one of the key points in reducing people’s material footprints is to understand and help them take better agency of their footprint in their transitory period as well to create viable choices for the transitions to replace the current practices that lead into large transportation and housing footprints.

When given a chance to reflect on their material footprints, most people understand that their footprint relates heavily to their life stage transition. However, this analysis could only be done retrospectively. In other words, the challenge is creating understanding and choice prior to the transitions, or yet the best, at the moment of delivery.

2. Material inclinations

New materialism brings two aspects of our everyday life to a new light: our homes and our transportation habits. These are the biggest consumers of material in our current lifestyles, and also interestingly the categories that have grown mostly during the last 40 years (in some areas of Europe such as Finland the both living space and transportation kilometres have more than doubled since 1970 (Finnish Statistical Agency 2011)).

We studied 75 persons around Europe and how the material inputs available on the planet could be potentially shared among the consumers of 2050. Based on the data from the lifestyle questionnaire, the interviews and the collaborative workshops, one can conclude that there are currently clearly four different types of households in the study:

- Big home & moving around: The first type is one with high consumption both in Electricity and Heat and Everyday Mobility and Tourism, such as, people with large family home who need to commute or travel for work.
- Big home & staying home: The second type is one with high consumption in Electricity and Heat but low consumption in Everyday Mobility and Tourism. For example, ageing couples who don’t need to commute and enjoy leisure activities available at their own neighbourhood or a person with a big flat close to services.

- Compact home & moving around: The third type is one with low consumption in Electricity and Heat (e.g. with electricity from renewable sources) and high consumption in Everyday Mobility and Tourism. For example, single people who have a mobile work and enjoy travelling in their free-time but choose to have a compact home.
- Compact home & life nearby: The last and fourth type is one with both low consumption in Electricity and Heat and Everyday Mobility and Tourism. E.g. People who enjoy urban life and choose to live in a vibrant neighbourhoods in a small but relatively expensive home, young people in shared flats with no car or people living in a moderate or self-sufficient dwelling in the countryside without the necessity to move around.

From this we can gather that with access to far less material resources in their use, people will have to choose between being **home-centric** or **mobile** in their lifestyles. Currently these go somewhat hand in hand – the bigger the home, the more we travel. This seems at least partly be an issue of cost of living. Large homes that are affordable tend to be located far away from services thus linking housing and transportation together.

“I am not very consequent in my actions and decisions. I live in the country on a farm in which we produce all our own electricity, but living so far from town and my job means I have to travel at least 70 km every day. There are always two sides of the coin and I try not to feel guilty about my life.”

German participant, 36 years old

“Anything what I do or what I do not do has impacts beyond me and affects the people around me. It was a conscious decision not to move in a big city and to stay with my wife in my hometown. This way we use the car only at weekends. But even in this case for travelling to the nature.”

Hungarian participant, 36 years old

“I live in an apartment in Barcelona and it implies that I have to contract electricity, water... and other household supplies. I would like to live in a small town or village that allows me to be more self-sufficient (to use self-produced energy, etc...)”

Spanish participant, 55 years old

“The footprint seems very logical to me. Mobility is so high as we are living on the countryside and are dependant on using our car. Heating and energy consumption on the other side is so low, as we heat with wood, which is very neutral. Regarding food we try to buy locally, but I have to admit we are mainly driven my comfort (would be no problem to get fresh milk from a farm, but it is so much easier to buy a package in the supermarket). A lot can be changed if one for example puts on another pullover when it is cold. But this is nothing I desire for myself, as this have been the conditions in my parent's home when I grew up.”

German participant, 36 years old

“I use public transports and try to reduce the water and energy consumption in the shared flat. I buy organic food products (vegetables) and share the car for long travels (my parents live in Luxemburg).”

Spanish participant, 26 years old

“I knew my footprint was going to be horrific due to my bi-hemispheric life/work.”

Online participant, 37 years old

“I travel a lot: last year I've done five international flights because of my job (international cooperation).”

Spanish participant, 30 years old

“I am a disappointed, as I had expected different results and scored relatively bad. My understanding of myself would have been that I am already acting quite sustainably. The mobility aspect alone is very surprising – I try to use trains a lot and rarely the car. The apartment is big but I tend to heat it very efficiently I thought. Food waste are very limited, for example I am still eating older bread that others would have through away long before. Regarding changes I am quite conscious, so some things are easier for me. What is difficult, is to overcome my lack of will power. Fun is part of life, and sometimes it is difficult to balance out fun and consciousness.”

German participant, 37 years old

“The profile resumes quite well. I hope to have sold my car even before 2020 and to use car-sharing or taxis. Holidays in local destinations are not so attractive, but to travel around Europe will be excellent. We have so many cultures and different environments here that I do not need to travel to other continents. Food service would today be unlikely as I am living very remotly, but in general I very much favour it as being very convenient.”

German participant, 36 years old

“I use car to commute between my home and workplace. I have no other choice only the car, because not have good public transport system. It would be too complicated and expensive. So, my only possibilities to decrease my footprint if I use eco friendly car or electric car, but actually in Hungary this technologie is not available.”

Hungarian participant, 39 years old

“This is the only way to make ecological living a reality beyond population centers. This is how rural life is sustainable. Okay, these things may work in Italy where the distances are small even on the countryside. Think of Finland, there's a lot of moving about. That's demanding for the infrastructure.”

Finnish participant, 37 years old

“I recognize myself almost entirely in the profile. I would only disagree in the low frequency of travelling: it is one of my passions and if possible, I would not priverme it (obviously always looking for an efficient method of transportation). I also do not see that materialistic consumption is completely obsolete by then.”

Spanish participant, 26 years

3. Values and attitudes towards lifestyle change

In our research we looked at the reactions of people when discussing sustainable lifestyles. The reactions towards alternative ways of living a good life with considerably less material consumption spurred a diversity of views. We saw clusters of value-based reactions to sustainable lifestyles and lifestyle change in general emerging. A cluster of values and attitudes is a useful tool to understand what guides decision making in one's life.

In the face of change, it is typical that values and attitudes come to surface. A value is a conception, distinctive of an individual, of the desirable which influences the selection from available means and ends of action (Kluckhohn 1951). An attitude is a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Based on our interviews with the participants we mapped out clusters of values and attitudes towards lifestyles that serve as a starting point in understanding how people see the lifestyle dimensions opened by new materialism, that is, when material aspects of our life become more significant. The value clusters on the page 21 are a result of a factor analysis of the participants answers in the preliminary interviews. They present a very basic and a fundamentally partial view of what the value clusters related to sustainable lifestyles in Europe are. Due to the small sample, we cannot say that these are the only clusters or even the most important ones, nor they are exclusive. Gaining a deep understanding of values of a person requires

extensive surveys. Still, we want to share them as an example illustrating the diversity of values and attitudes towards sustainability. They show how different the motivations that can drive, or hinder, sustainable lifestyle choices are.

On the whole, people expressed their personal values strongly when discussing the future scenarios and lifestyles. Change itself was seen by most as possible and inspiring, even desirable by many. However, the conditions of change varied considerably. The basic attitudes towards collectivism, privacy, consumerism, wealth and government varied strongly and these attitudes shaped the way people thought of future scenarios and ideas embedded.

In general the change in lifestyles was not seen as problematic, as long as it is comprehensive and seen fair. The key is in giving people agency and self-actualization in the formation of future lifestyles. This also means that some people need more help in changing their lifestyles than others. Their values might be against change in general or they see new practices of sustainable lifestyles as contrary to their values – for example some of our workshops participants saw changes as threats to their autonomy and privacy.

“My first impression was during the presentation [on material footprint] that the sustainable living means to go back to the living habits of the past: less transportation, smaller living space etc. But if I think it through, it is a development of our quality of life. We could live in a healthier environment and eat healthier products with no preservatives and additives.”

Hungarian participant, 51 years old

“[Reaction to a scenario] If this one is the future, the life would be fantastic, I need to socialize and to share and to do the good to other persons. But I believe that these futures are slightly possible, I have little faith in the humanity. Take a look only on what happens with the banks ...”

Spanish participant, 38 years old

“If the goal would be to live more sustainable, there should be no barriers, at least we shouldn't call them barriers, because these choices have to be taken, if we want a better future for ourselves and our children.”

Hungarian participant, 39 years old

“I don't believe in the idea of living in public neighbourhoods, use public goods etc. The idea of the goats [one suggestion for future living in the future profile] was the most funny for me. I live in the city centre, I was born in the city. I have no idea and knowledge how to farm...So, well I think these ideas are so idealistic. But I agree with the importance of the sustainable lifestyle, such as to consume less, to travel by train...But I don't believe I will travel by plane which use solar energy...It is a little bit sci-fi for me.”

Hungarian participant, 39 years old

“Urban agriculture is something I can well imagine. The personal responsibility of people is important, also in using local resources and being transparent about the production way. I could even start with it just now, as I have a big garden. But not everybody is in the same situation, so new areas such as garages, balconies or windows should be supported. In case of overproduction and ensured transparency I would also exchange the products. Intergenerational support also attracts me and I could imagine to also rent on a smaller scale empty rooms in our house to young people.”

German participant, 63 years old

“I want to economize resources. Changing my living space would be easy, if I will be able to share my flat. I would like to move closer together with others. Nothing is impossible. However, it is not so easy to influence the production of products as an individual.”

German participant, 58 years old

“Every person has something special that can make change for better first the individual, second the community and third the global system. So there are no barriers; it depends on the personal will.”

Spanish participant, 33 years old

“Owning something is an important thing in the people's mind. These changes have to be made gradually, not dramatically.”

Hungarian participant, 51 years old

“Step by step and because of the needs, the people can change. The relation among the people has changed: we can share. Instead of accumulating we share. People think on the common benefit, not in the individual one. But it will happen by need because probably it will be a disaster like in Japan that prove us that the things cannot going on in this way.”

Spanish participant, 45 years old

“[Reaction to a scenario] 'The inevitable' happens: the people have seen that there is no option. But it is not a probable future because we are getting worse: we have a political class that is hopeless and the economy commands all. We have to think of local solutions, not global ones.”

Spanish participant, 35 years old

“Communal living will catch on, there are signs of it. I've preached so much about reasonable priced services. This is about change in values – moving from consuming to a community of meaning.”

Finnish participant, 62 years old

“[Reaction to a scenario] I feel the scenario is over optimistic. We need guiding and encouraging structures like tax incentives. In addition we need opinion leading and lots of positive examples.”

Finnish participant, 37 years old

“Shared flat means more socialising, meaning less individualism – families consisting of different generations should practice it more!”

Online participant, 31 years old

“I am dissatisfied with the current overall impact of humanity, and more peaceful and consistent with my own impact. I think it will be difficult to change the current paradigm of economic model.”

Spanish participant, 45 years old

” **Commodities make me anxious, I get stressed about having to carry all that matter that I have to carry. I'm going in a Japanese direction, a futon is enough.**”

Finnish participant, 60 years old

” **The more the pursuit of happiness is taken into account, the easier it will be to adopt further measures.**”

German participant, 58 years old

” **[Reaction to a scenario] Me and my friends would manage well. We are young, educated and native users of new technology. I'm worried about drop outs, how they will deal with the new situation? Cities would be more well-being, the limits of growth are understood and sustainable technology develops.**”

Finnish participant, 27 years old

” **Electricity & heat / housing stock feels very difficult (at the mercy of bigger forces), and transport & mobility is slightly difficult; but the rest "should" be manageable over this kind of timescale, I reckon.**”

Online participant, 25 years old

” **I also think it is taking the thought not far enough to only talk about abdication. This is the most difficult thing for people to adopt. We should have a different more positive approach. Recycling or technological innovations are very important, but even more important for our society is the discussion about what is wealth.**”

German participant, 35 years old

” **There's a bit of a difference between the changes that can be made at a personal level, and big scary stuff that requires action by government or business (in terms of regulation, etc.)**”

Online participant, 25 years old

” **Actually everything is easy to reduce it depends what you see as minimal level.**”

Online participant, 29 years old

” **In order for this to take place we have to change our expectation and value of ownership. Today we are defined by it. This has to change! That will be very hard. However, many of these sharing initiatives do already exist and are successful such as car-sharing and toll-sharing in the US.**”

German participant, 18 years old

” **One is down to infrastructure/technological constraints, the other due to habits/choices?**”

Online participant, 39 years old

Examples of value and attitude clusters concerning sustainable lifestyles

The clusters are a result of a factor analysis of the participants' answers in the preliminary interviews. The factors listed below show which values and attitudes have a positive or negative correlation relationship.

- + indicates valuing something
- indicates negative inclination towards something

+ purpose-led life
+ sustainability
+ climate change

Acting on climate change and promoting sustainable lifestyles are an essential part of one's life, not because of status or trend, but because one finds it important and it provides a sense of purpose. The person understands that our lifestyles and consumption will look very different in the future and is willing to make an effort in choosing wisely. People in this value cluster generally consider a materialistic lifestyle out-dated.

+ ideology
+ responsibilities
- tradition of country

People in this value cluster do not think that small everyday choices make that much of a difference, but instead feel that a more systemic change is necessary. The current status quo thus needs to be changed even if it means breaking cultural traditions. People in this cluster value responsibility and want to contribute to political change.

+ family
+ ecological thinking

People in this cluster value family highly. This often coincides with the feeling that one has not quite yet conceived of the true scale of the lifestyle change. However one tries to make ecological everyday choices in the grocery store, for example. They also often wish to pass their conceived ecological values on to their children.

+ social benefit
+ slow life

People in this cluster value time. They believe that if we had more time, we would use it for the common good. They often

aim for a lifestyle where work and consumption do not take so much time and consequently they could use more time on doing things that really count.

+ feeling good
+ healthy life
- convenience

People in this cluster value "feeling good" and "authenticity". They do not trust one-size-fits-all mass solutions. They are willing to spend time, effort and money on health and well-being. They feel rewarded and harmonious when they make a right choice for themselves and the environment.

+ lack of time
+ fun

People in this cluster value efficient use of time and fun. Since they feel that their schedule is tight, they feel the need to use their time effectively. They do not want to focus on everyday routines such as shopping or comparing products, but are ready to pay for services that save effort. Time is ultimately meant for something more entertaining.

+ ease of use
+ price
- experiences

People in this cluster value convenience and price. When making consumer choices, they tend to go for options that they already know to be good deals. They wonder why others are so interested in seeking experiences in new products and services. They appreciate reliable and easy to use products and services with no frills.

+ price
+ lack of time
- status

People in this cluster value reasonably priced products and services – as long as they don't have to spend too much time on looking for them. They are generally not interested in showing off with their consumer choices. Instead, they see things as a means to an end, not as a way to communicate identity.

PART III: The Profiles

6 Meet the Europeans – the diversity of personal lifestyles today & tomorrow

In this chapter you'll meet seven Europeans. Using the stories of their present lives we want to bring alive the diversity of lives and factors behind people's material impact, as well as the patterns that repeat in the construction of the material footprint, of which we gave an abstraction in the previous chapter. The stories are based on the real participants of iFuture. For privacy reasons, however, the names and some of the facts have been changed.

We have constructed stories of their future, too. The future stories are based on the SPREAD scenario work (see p. 24). According what we have learnt of the participants in the research process, we have carefully chosen bits of lifestyles from the scenarios to build each of the example persons a personal future scenario that resonates with their views on a good life and overcomes the barriers they see for reaching a sustainable lifestyle. The fascinating thing is how the scenarios built from expert inputs and generalised findings are able to answer the aspirations and needs of individual persons. The future projections show how sustainable lifestyles really need to be plural and not a singular eco-lifestyle.

As discussed in the previous chapters, of the eight tons of material footprint the biggest share will be spent on food and then on mobility or on our home. Which one and how is not given. Although the weight of the material rucksack we carry needs to be the same in the future, its content will continue to be different and that unique content is a result of all the things that affect our individual life, as these seven Europeans will show us.

How to read the five sections of the profiles

1. Name, age, country, the current material footprint & its material inclination
2. Life in 2012 section explores how the person lives, moves around, consumes, spends her or his or her free time, what she or he aspires to and what is important to her or him. The description of the current life of each person is based on the material footprint calculations, interviews and workshop discussions of a specific participant.

3. Barriers to change & the way to the future: This section explains what the person thinks are the factors keeping him or her from making sustainable decisions and on the other hand, what is keeping others in society from making them. It also tells us what the person thinks will lead to more sustainable lifestyles.
4. Life 2013–2050: The rich picture of the person's needs, values, motivations, doubts and expected life changes acquired through all the personal material has guided the outline of the the person's future and choosing the relevant lifestyles bits, that is future services and practices for him or her. The lifestyle bits were developed earlier in SPREAD for the visualisations and scenario report (see SPREAD 2012b & 2012c). In the beginning of the future profile, 'Change' tells how much the material footprint of the person decreases 2013–2050, 'Biggest change' tells us in which category it decreases the most and 'Spends in' tells in which category the person uses a big share of his or her sustainable material footprint in the future, according to personal needs and wants.
5. The material footprint diagram 2012–2050 includes the personal material footprint of a person and its future projection. Some lifestyle bits from the future description of the person are put on a timeline to show by what means the material footprint of the person diminishes towards 2050.

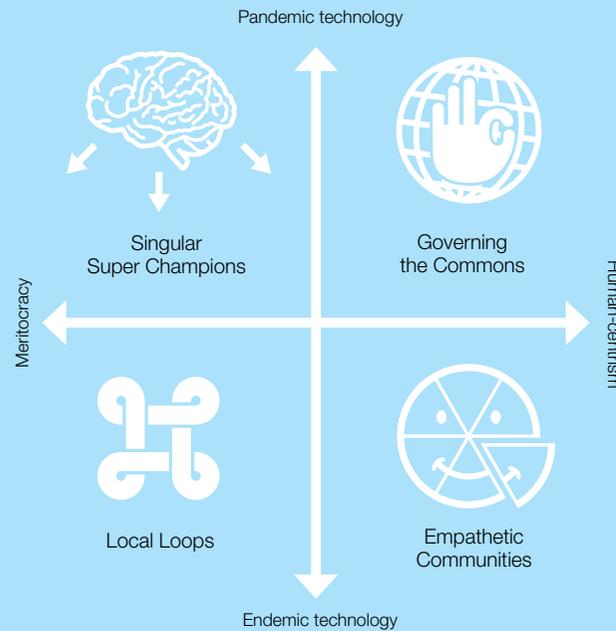
Four scenarios for future lifestyles

In the SPREAD project we used a scenario methodology to explore the diverse ways for potential lifestyle patterns to evolve, and how this evolution can overcome current harmful environmental and social lifestyle impacts. The sustainable lifestyle scenarios are stories of possible futures where societies support more sustainable ways of living. The scenarios present different options for sustainable living choices that will suit the diverse needs, desires and cultural considerations of citizens from across Europe.

The four scenarios present differing pathways to reach future societies where sustainable ways of living are supported. The scenarios on sustainable lifestyles and the iFuture complement each other in an interesting way. Whereas the scenarios provide an overall understanding of the drivers of change and different pathways towards future sustainable lifestyles, the iFuture examines whether people from different parts of Europe see these pathways as attractive alternatives that fit their personal lifestyles. The iFuture works as a testbed for the scenarios by showing reactions of ordinary people to the future sustainable lifestyles.

It is crucial to understand that the scenarios are not mutually exclusive. They are not an attempt to guess whether the future might look like one of the four pathways. Instead, the future will most probably materialise as a complex reality that combines elements from each of the scenarios.

In order to establish four scenarios that would differ from each other, we defined at the outset four future landscapes through which the scenarios would be constructed. This was done by combining the two critical variables, which we call uncertainties. The two uncertainties and assumptions about them underlining our work were:



- Technology is either pandemic or endemic.
- Society's governing principle is either human-centric or meritocratic.

Based on these assumptions, four scenarios including **Singular Super Champions, Governing the Commons, Local Loops** and **Empathetic Communities**, were created based on extensive expert input:

In the scenario Singular Super Champions Europe has made the leap to a new type of sustainable, competitive and equitable economy: a result of numerous treaties, declarations and official goals starting in 2035. Cleantech and upcycling businesses flourish as sustainability has

become the business opportunity of the century. The Europe of Singular Super Champions is a society that celebrates an ethos of learning, achieving and self-mastery.

Governing the Commons scenario also deploys pandemic technology. Whereas the Singular Super Champions is based on hierarchical production processes in large corporations, the digital reality of Governing the Commons helps people to absorb DIY attitude, lead more meaningful lives and engage in new forms of collaboration. Ubiquitous computing enables the smart use of resources and, at the same time, redirects people's behaviour and focuses attention to interaction in the digital realm.

Unlike Governing the Commons and Singular Super Champions, Local Loops is a scenario of endemic technology in which energy and resource systems are increasingly seen through "Local Loops". It is a technical concept that can be applied in the context of local and regional production cycles. People build their lifestyle and ways of belonging around their work, while technology is better adapted through local design solutions that create room for new kinds of professionalism.

In the scenario Empathetic Communities, Western societies faced a crisis they had long dreaded. It is a story in which the global economy as we knew it in 2012 fails, followed by paralysis of political decision-making structures. By 2050 this all leads to lifestyles in which the community and neighbourhoods have an important role in everyday life. New forms of collaboration and governance grow on the level of cities and towns making them the most powerful level of public decision-making.

Read the full scenarios in "Scenarios for Sustainable Lifestyles 2050: From Global Champions to Local Loops", available at www.sustainable-lifestyles.eu/publications

Dávid, 33, Hungary: 10 400 kg, compact home and the life nearby

Dávid's life 2012:
Future is almost here

“No stress at all would be good. The appropriate proportion of work and free time is important – let people not live just for their job but for their family and friends.”

Dávid's values family and friends highly and tries to maintain a good balance between work and his free time. He lives with his spouse and child in a semi-detached house of 75 m² and shares a garden with the neighbours. In addition to his reasonably sized housing, the fact that he uses public transportation for his daily commuting keeps his footprint small, at 10 500 kg. He also recycles his waste and prefers to buy local food. Dávid and his spouse have partly refurbished their house in order to improve energy-efficiency. Although it is still not properly insulated, their energy consumption has been reduced since the refurbishment. In the future, they want to use solar energy.

Acting on climate change and promoting sustainable lifestyles are an essential part of Dávid's life, not because of status or trend, but because he finds it important and necessary.

When making consumer choices, Dávid tends to go for local products and options that he already

knows. He appreciates reliable and easy to use products and services with no frills. Dávid is very interested in different kind of sharing services.

Barriers to change & the way to the future

The lack of time for finding information on sustainable choices and their higher prices sometimes prevent Dávid from making sustainable choices. He feels he has not quite yet understood the scale of the changes needed in our ways of life but he tries to make ecological everyday choices. Thereby he wishes to pass ecological values on to his children.

While acting on climate change and sustainability is important to Dávid, he knows not everybody feels the same way. He thinks we have to make sustainability a fashionable thing, and as a result of which it will gradually develop into a norm. He believes that if sustainability was the societal norm, then even the people not interested in the issues of the world would act accordingly and be sustainable. He thinks politicians, civil society and one's own choices all have a role to play in achieving a sustainable level.

Dávid thinks that people should buy and use local products. Although Dávid himself is interested in sharing services, in general he thinks it is difficult for them to spread because Hungarians are very

individualistic. There are numerous proverbs that underline this. Also the history has its impact:

“We should think more about what we buy. But purchasing more consciously is more relevant for the younger generation. Because of historical reasons, the older generation doesn't want to give up things like. The reason for this is evident: this generation had to live in deprivation in the past.”

Dávid's life 2013–2050: Home sweet home

Change: 10 438 kg > 7925 kg, -24 %
Biggest change: Home
Spends in: Food & beverages

“In the 2020s, we extended our house so that my wife's parents could live with us. We agreed that it would be comfortable for us all: safe for them growing old and helpful for us as they take care of the youngest while we are at work.”

Dávid's way of life has changed relatively little since the 2010s as he has always been interested in ecological way of life. As family is very important to Dávid, he reconstructed his house in 2020s so that his extended family could move in.

Dávid has always thought that ecological choices need to be fashionable in order for them to spread.

Therefore in 2022 he became a fan of online games like Biodiv Battle or SimSust that spread eco-consciousness better than any campaign ever did. He has not only bought these games and all sorts of sustainability apps for his family members, but also gives them as presents to his friends and relatives in order to introduce them to rational ecological choices.

The share of Dávid's material footprint related to home has shrunk considerably since 2012. This was enabled by the increased number of people living in Dávid's household and measures Dávid has taken since 2012 to improve the energy efficiency of his home. Actually, in 2050 Dávid is almost certain that from heating to food preparation everything is done in the most sustainable way in his family. This was enabled by sensors that control the energy efficiency of everything. When it comes to home waste, Dávid's family recycles it efficiently. In fact, efficient waste management has turned many households, including Dávid's, into supplies of raw material for local companies.

For decades, Dávid has not really bought any new appliances. He participates in appliance sharing schemes. Dávid rents what he needs both for daily use and special occasions. Sometimes when he buys furniture, he chooses inter-generational models that are local design and last for generations. Dávid appreciates the fact that these models are easy and cheap to re-assemble and adapt to the user's needs. And he loves the idea that his children or grandchildren can inherit them in good shape.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Local Loops' and the 'Singular Super Champions' scenarios.



"Former online games like Biodiv Battle or SimSust turned out to be popular sustainability games that spread eco-consciousness better than any campaign ever did."



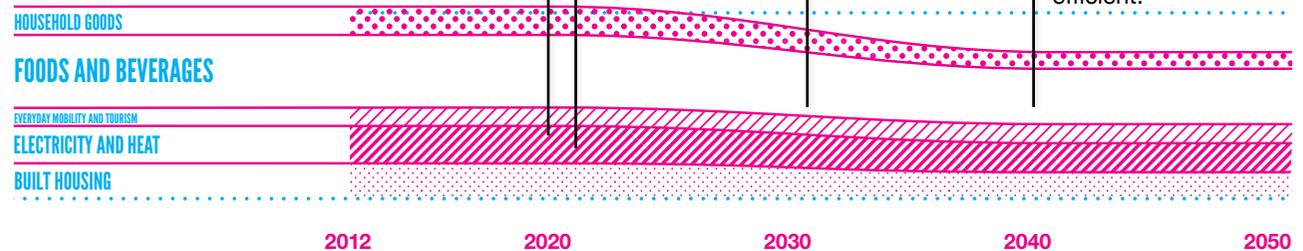
Home waste-management opportunities allow households to turn into suppliers of raw materials for local companies.



As family is very important to Dávid, he reconstructed his house in 2020's so that his extended family could move in.



"I am sure that from clothing care to food preparation everything is done in our family in the most sustainable way. Our home uses its sensors to control everything so it is energy efficient."



Sebastian, 24, Germany: 12500 kg, compact home and the life nearby

Sebastian's life in 2012: Working hard for the people

“I would love to have more time for cultural events. I would love to see culture occupying a central place in society rather than, as it stands, consumption.”

Sebastian is an energetic student who shares a flat with four flatmates and rides his bike everywhere. For Sebastian, the good life is about spending time with friends and having a day full of activities. His work takes up a lot of his time and thoughts and it is his primary source of energy and confidence. Sebastian does not differentiate between paid work, unpaid work or social engagement as far as importance. It is all work to him.

In most areas of consumption he is very aware and makes decisions based on the product information, consumer websites and information acquired through his studies. He buys only certified organic products, tries to avoid driving at all costs, and takes his bike or the train for trips. Ideally he would like to stop flying, too, especially within Europe. His dream is a highly developed and free public transport system that would abolish personal car use.

After completing his studies, Sebastian plans to organise a large share of his consumption in a collective manner: shared apartment, gardening and cultural events. He wishes to switch from material consumption to more cultural and social activities.

“I am surprised to see how low my footprint really is which motivates me to do more. I definitely agree [with my future profile] in terms of living and sharing in a larger community which I see as a necessary step in developing my individual interests and needs.”

Barriers to change & the way to the future

Sebastian feels the biggest difficulties are in the area of housing where choices are few. Banking presents another difficulty. Although he has one account with an ethical bank, he also has one with a regular large scale German bank for reasons of convenience. Sebastian would like to see more of the economy work as networks rather than hierarchies.

In general, he thinks that habit and laziness as well as structural pressure and status prevent people from making sustainable decisions. For example,

fast cars, eating meat and technology are associated with being a manly man and there is a lot of media pressure to adhere to these gender roles.

Sebastian argues strongly that there has to be a shift from a growth economy towards a cultural economy. He thinks that this is a frequently overlooked element of sustainability. Sebastian places a lot of hope in the area of education, especially related to sustainability. This could be in terms of the curriculum and giving children the chance to experience what is being done about these issues at close hand. He sees education as a very broad concept that also extends beyond schools. His wish for the future is to be active in this field and connect initiatives and people with each other to help people gain awareness and responsibility for the community. He thinks that a new definition of lifestyle and work needs to be adopted. He thinks that in addition to politicians, civil society, big companies, entrepreneurs and innovators are drivers of change.

Sebastian's life in 2013–2050: Sustainability and education grow hand in hand

Change: 12 513 kg > 8066 kg, -36 %
Biggest change: Household goods
Spends in: Everyday mobility & tourism

Although Sebastian's lifestyle could be described as sustainable in 2012, his material footprint has decreased by a third in 2050. Thanks to the variety of choices in his reach in the markets, the decrease has taken place without Sebastian even realizing it.

Sebastian values the functionality of the products and services he uses. By 2050 especially banking and housing solutions have become diverse enough to meet Sebastian's needs as an adult member of the society no longer living on a student level. The next thing Sebastian plans to do is subscribe to the 'energy budget card' initiated by one of the global sustainability gurus in order to further reduce his ecological footprint.

Society has put a lot of effort into the sustainability education, research and culture to ensure that excellence persists since 2020s. Sebastian appreciates this greatly. Thanks to the launch of informatics apps and educational software, people are

empowered to make better choices and their desire for material goods decline.

Sebastian really likes the fact that in 2050 education can be seen everywhere in daily life. There are different ways to learn for different people. Some children and adults like to log into objects and access the so-called "situated education programmes" and learn flexibly throughout the day. Sebastian himself plays a key role in a local community that has recently adopted new practices for peer-to-peer networking and learning. He works in a hublike office and generates value within his community through this role as a P-to-P coordinator.

Sebastian is very proud of his work. The frequent encounters that he has facilitated in public spaces have created opportunities for ideas and initiatives in new collaborative projects, services and businesses. Daily practices and lifestyles are formed strongly around collective activities and sharing.

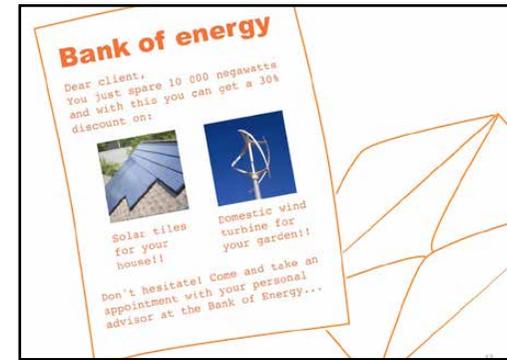
His living space needs have changed little since he was a student. The difference is that sharing space is more convenient and the norm nowadays. Higher

prices and a strong community have encouraged people to share their spaces and equipment. Sebastian himself offers his tools for other people to use. In recent years Sebastian has shared many of his belongings with his community including his air mattress, vacuum cleaner and video projector.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Governing the Commons' scenario.

SEBASTIAN

Education is everywhere in daily life. Kids can log in to any object and access the so-called 'situated education programmes' and learn flexibly all through the day.



12 513 kg

Energy banks start to provide access to diverse energy solutions.



8 066 kg

I do most of my work at hub-like office spaces that exist everywhere. I find these collaborative spaces stimulating. They spur new innovations as people from different fields meet.

"In order to live ecologically and economically, I have chosen the 'energy budget card' of masterShashang Shrinivadu. I will follow his training so that my ecological footprint becomes as light as his, and I will save money while doing so."

HOUSEHOLD GOODS

FOODS AND BEVERAGES

EVERYDAY MOBILITY AND TOURISM

ELECTRICITY AND HEAT

BUILT HOUSING

2012

2020

2030

2040

2050

Maarit, 35, Finland: 19 800 kg, big home & staying home

Maarit's life 2012: Compact choreography of the everyday

“Eating vegetarian food should not be about being an eco-saint but as normal as washing your teeth. I don't like to boast about it myself either. I want my children to think it's normal and good to eat vegetables.”

At the moment Maarit is at home with two small children, aged 2 and 4 years, while her husband goes to work. To make daily life easier, she has chosen to live close to services. She can reach her children's and her own hobbies by foot: she jogs and attends a writing class. In the weekends the family spends time outside, visits nearby friends and cooks at home. Only the weekly grocery shopping and a few annual trips to her parents are done by car.

This is apparent in Maarit's material footprint: only 1/8 of it comes from everyday mobility and tourism, which in general form a large share of a person's footprint. Maarit's total footprint is 19 842 kg, which

is half of that of the Finns in average. Their row house flat of 95 m² is heated with district heating. Maarit and her husband are active in the affairs of the whole building.

Maarit and her husband have made big changes to their diet: five years ago they were not very used to eating vegetables, which are now the basis of the family's food and they eat meat a few times a week. Their children take vegetables for granted.

Sometimes Maarit wonders why others are so interested in seeking experiences in new products and services. She goes for options she knows are reliable and appreciates products and services that are easy to use, with no frills. She is no shopper for change who wants to spend her time looking for information:

“When I buy a sofa, I don't ask for certified wood, but I buy a sofa I never have to change. The sustainability has to be in it, so that I don't have to think about it in the shop. I want to make the decision before I even go there.”

Barriers to change & the way to the future

The fact that Maarit's actions have no major impact on a bigger scale tends to sap her motivation. For example, she is frustrated by how her family's change in eating habits from a meat-based diet to vegetables has no impact on the meat consumption of Finns in general. Nevertheless, Maarit chooses to hope for the best and carry on with making personal sustainable choices. But one's choices are also negotiations with the other family members:

“I could plan our life so that we could use the car much less but my husband commutes to work by car and will not consider using other means. So our opinions differ within the family.”

Maarit's life 2013-2050: Co-oping as the key to well-being

Change: 19 482 kg > 7966 kg, -60 %

Biggest change: Home

Invests in: Home

Maarit has always valued her home. New tools and services for interior design that started to be accessible to most people from 2015 onwards made her pay attention to the functionality and flexibility of her home and enabled her to tailor solutions for the changing needs of her family throughout the decades. They did not have to invest in a bigger house when their children became teenagers and wanted more privacy. The next big change came when Maarit's children moved out. With the new skills and services available, she and her husband have been able to move to a small and convenient home and still accommodate the visiting grandchildren.

In 2016 a major public stimulus package to support of developing urban habitats was announced. It was aimed at improving public spaces, basic transportation and energy infrastructure, especially in neighbourhoods built in the second half of the 20th century. The rationale behind it was to enable the creation of local service economies through the creation of more attractive public spaces and employing people to do construction work.

In 2017 Maarit's neighbouring houses built a shared playhouse, which Maarit's grandchildren now enjoy. It encouraged many young families to stay in their moderate row house flats and the area, instead

of looking for bigger and more expensive houses farther away. It helped to develop an active community. Maarit loves the indoor and outdoor shared spaces and thinks it's great that there's so much she can do in her neighbourhood. Given that people spend a lot of time in the shared spaces, people do more things together than they used to in 2012.

Maarit never learned that much about cost-efficient energy retrofitting, but the local cooperative she is a member of is very good at quick fixes and helps her family out. In order to extend the lifespan of their home appliances, repair and upscale services are something Maarit uses almost every month. Maarit has had the same video projector for 10 years now, since she knows where she can get the best possible maintenance for it.

In 2030 Maarit's younger child turned 18 and started her studies. Maarit herself became a micro-producer of food and a member of a food co-op that trades food on a local basis. Maarit's farming unit produces most of the vegetable and fruit she needs. She gets most of her daily groceries through urban farming pools that exist around the city. Maarit only buys what she cannot easily get through these channels from supermarkets.

The rise of energy and food prices led Maarit's neighbourhood to pay more attention to alternative and cost-effective solutions for housing patterns. In

2040 the community, with Maarit in one of the lead roles, initiated a collaboration aimed at improving local energy independence. It created "Sharing the village", a manual on planning local energy, food production and smart sharing of the neighbourhood's indoor and outdoor spaces.

In 2050 solar panels and a wind power plant provide all the energy that is needed for Maarit's neighbourhood.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Empathetic communities' scenario.

“Our family loves the fact that there’s so much of shared space in our neighbourhood. Kids can play together in the Toy House and we can also cook together with our community.”



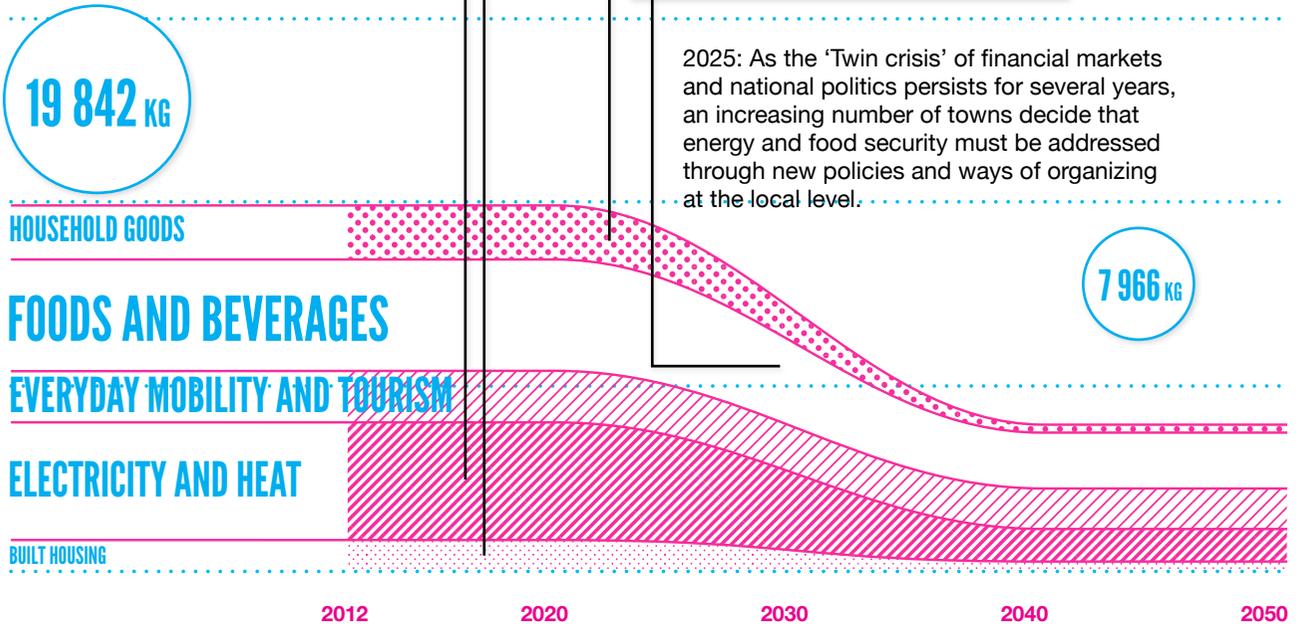
Intergenerational furniture is a new design trend that promotes local design that lasts for generations. It’s easy and cheap to re-assemble and adaptable to a user’s needs.



Micro-producers of food are organised in co-ops that allow them to trade food on a very local basis. These networks become hugely popular in everyday life.

A large stimulus package is announced in support of developing urban habitats”

MAARIT



Oriol, 35, Spain: 38 500 kg, compact home & moving about

Oriol 2012: Village way of life

”A good life is when you can do what you like and be paid for it and to be healthy and to have time for the family”

Oriol and his wife have just welcomed a new addition to their family: their first-born baby. They live in a small Spanish village and a lot of their sustainable philosophy revolves around a small village mentality. For Oriol, buying local food and fair trade products is of high importance and the surrounding countryside offers him sustainable means for recreation, namely hiking and cycling.

While Oriol does purchase local food, his material footprint in food is still higher than the Spanish average. His household eats meat biweekly and shop both at local shops and supermarkets. His electricity and heating consumption are higher than average. Still, clearly the biggest part of his material footprint consists of transport. This is primarily due to Oriol's work. He is an educator in a city 45 km away. This requires two hours of commuting by car every day. Oriol's family uses the car for holiday travel. All in all, Oriol's material footprint is 38 487 kilograms, of which transportation is responsible for over 20 000 kilos, i.e. over half of his total footprint.

Especially now with a baby in the house, Oriol recognizes that the biggest drivers for his consumer choices are family, prices and health. He does feel he's rational in his use of time and money. Most decisions he makes with his wife, with the baby being the focal point of their time. Oriol is mindful of sustainable lifestyles, he finds himself thinking a lot about how his choices affect the environment and society. His choice of living in a small town is a major part of this way of thinking.

Barriers to change & the way to the future

”Simply BRUTAL [reaction to the material footprint of his mobility & tourism]! I suspected that the most important part of my material footprint was due to mobility, but the exact figure is surprisingly big. Is it feasible to reduce this number by six times by 2050?”

Personally, the biggest barrier in Oriol's life is the lack of public transportation from his home to his work. This forces him to use his own car for the daily commute.

More generally, Oriol is sceptical of big changes in lifestyles. Achieving a large-scale change on a global scale seems utopian to Oriol. He feels that it is too drastic a change for most people. Oriol thinks that it is easy for people to blame industries and

politicians for not using their powers and it makes people apathetic. He believes that the change for a sustainable future is best achieved via small, local applications:

”We have a political class that is hopeless and the economy commands all. We have to think about local solutions, not global ones.”

Oriol's life 2013–2050: Data revolution

Change: 38 487 kg > 7943 kg, - 79%
Biggest change: Everyday mobility & tourism
Spends in: Food & Beverages and Everyday mobility

In 2010s I started to work from home two days a week and had more time with my family. Now I am retired and spend a lot of time with my grandchildren, cooking and teaching them about the season's best produce.”

In 2012 Oriol felt a bit guilty for his material footprint that was nearly five times above the sustainable level. He was not sure how he could reduce his environmental impact, given that he needed to travel to work by car every day.

Even though Oriol felt in the early 2000s that change couldn't take place without government action, he became worried over his family's and friends' well-being after the government announced its initiatives to revolutionize the technologically and ecologically out-dated production processes and to cut subsidies from fuel and many other commodities. It meant that many people lost their jobs, single car use became very expensive and all associated housing costs rose.

Luckily these solid actions started to bear fruit in early 2020s, a few years after the EU governments launched competitiveness programmes and

programmes for R&D activities to explore ecological production methods. All around Europe technological breakthroughs allowed information to circulate without barriers.

For the first time transparent data literally revolutionized the way people could understand how their lifestyles consisted of individual consumer choices in food, housing and mobility. Oriol's family became very knowledgeable about what is healthy to eat, how much exercise is needed and what are the symptoms of different diseases. All this behavioural impact information was sent to smart phones in real time, which made rational choices for people nearly effortless.

In the early 2020s on-demand public transport from the countryside to the city became accessible. First small buses made it effortless to travel within villages. Couple of years later a high efficiency inter-modality system was put in place, letting people in the area combine means of transport, including bike, train and shared car – all within the same network. Oriol's material footprint was remarkably reduced as a result of the increased mobility services,.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Super champions' and 'Governing the Commons' scenario.

“There’s a high efficiency inter-modality system that lets me travel by bike, train and shared car – all within the same network.”



The majority of EU member states introduce new cross-cutting road pricing for all the roads due to the need to compensate for losses in fuel tax revenues that are attributed to increased vehicle energy efficiency and a shift to electric cars.



Food and beverages: Through transparent information, Oriol’s family became very knowledgeable about what is healthy to eat, how much exercise is needed and what are the symptoms of different diseases.



Intelligent and smart packaging of food for transparency, awareness and less waste.

ORIOL

HOUSEHOLD GOODS

FOODS AND BEVERAGES

EVERYDAY MOBILITY AND TOURISM

ELECTRICITY AND HEAT

BUILT HOUSING

38 487 KG

7 943 KG

2012

2020

2030

2040

2050

Eero, 53, Finland: 41 400 kg, big home & moving around

Eero's life in 2012: Driving around in an active life

Eero, a passionate consumer of culture, goes to see live concerts and plays an impressive 100 times a year. During the week he works in an office that he commutes to from his large apartment in the city center, by bike in the summer time and car in the winter. Eero uses his car frequently over the weekends when his two children, rapidly approaching adulthood in Eero's estimation, are visiting.

Given his large apartment and the daily use of his private car, Eero's material footprint is high, especially on transportation and housing. His total footprint is 41 400 kg. Of this, the share of mobility is nearly 20 000 kg.

Before participating the iFuture workshop, Eero thought that his footprint is low by Finnish standards. He takes part in local car sharing schemes and welcomes couch surfers in his home. Eero thinks that his mobility habits will be the easiest to change. For this, he has devised a 2–3-year plan that consists of less traveling and giving up his private car. In terms of eating, Eero thinks that it will turn out the most difficult domain of change.

Barriers to change & way to the future

Eero thinks that we all have the moral responsibility to take action in order to change our lifestyles into a more sustainable direction, since there is solid scientific evidence that our current lifestyles harm the planet. He is frustrated by the fact that many of the solutions to sustainable lifestyles are in the hands of politicians, major food producers and retail chains. Eero is, for example, willing to give up his car as soon as there is a metro line in place that connects his home and office in a sensible way.

Eero's life in 2013–2050: Peer economy rules

Change: 41 408 kg > 7948 kg, - 81%
Biggest change: Everyday mobility & tourism
Spends in: Everyday mobility & tourism

As early as 2012, Eero was interested in the burgeoning peer-powered economy. He participated in a car sharing scheme, rents his flat through Air b'n'b every once in a while and welcomes couch surfers to his home. He didn't realize the collective potential of the new combination of skilled self-starters and digital communication until the late-2010s. Back then, a large number of networks that had gathered people with shared interests combined their skills and resources and directed their efforts to experimenting with new solutions.

Eero, motivated by the enthusiastic people around him, joined the networks he found the most interesting. In 2025 he became a part of a No-Impact Group that had been formed 5 years yearlier. The peer economy also enabled Eero to reduce his environmental impact in terms of mobility. Eero has been a heavy-user of culture all his life. In 2030 he still used to go to over 100 live concerts and plays each year. He travels to these events, among other things, using the high-efficiency inter-modality system in place in Helsinki. It lets Eero to travel by bike, train and shared car - all within the same network.

Multi-professional self-employment has steadily increased its attractiveness in the 2020s, thanks to the vibrant peer-to-peer (P2P) service economy. Now in the 2050s, P2P is a bigger employer than

corporations and the public sector. Eero himself worked actively in the microtask sector until the 2030s, consulting businesses around the world. Microtasking proved to be a very efficient method of work. Even when travelling, Eero managed to complete a multitude of different microtasks.

In the late 2030s, after Eero finally retired, he subscribed to Domestic Feedback Service, which allows seniors to use user-friendly smart home solutions to control and educate the household on sustainable living. The service is linked with his Active House that constantly optimizes the way residents live, from suggesting green cooking recipes and automatically preventing food waste to implementing Energy Watcher dieting programmes.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Governing the Commons' scenario.

EERO

The Domestic Feedback Service allows seniors in households to use user friendly smart home solutions to control and educate their families on sustainable living



There's a high efficiency inter-modality system that lets me travel by bike, train and shared car – all within the same network.



HOUSEHOLD GOODS

FOODS AND BEVERAGES

EVERYDAY MOBILITY AND TOURISM

41 408 KG

ELECTRICITY AND HEAT

BUILT HOUSING

“Our Active House is constantly optimising the way we live, from suggesting green cooking recipes and automatically preventing food waste to implementing Energy Watcher dieting programs for the family.”

I'm a part of a No-Impact Group that was formed 5 years ago. It really showed people that it is possible to live within planetary limits.

7 948 KG

2012 2020 2030 2040 2050

Rosa, 55, Spain: 53 200 kg, big home & staying home

Rosa's life in 2012: Too much for one

Rosa lives by herself in a 120 m² house in a big city. Being unemployed, she spends a lot of her time and energy in the Internet, looking for a job that would provide her with a chance to contribute to society. Rosa stays active by frequently attending lectures, seminars and doing voluntary work, but rarely travels far from home to do so. A few times a month she visits some friends 30 km away, taking the train. No wonder she has an especially small everyday mobility footprint of around 1000 kg.

Still, Rosa's footprint is in the highest end of the participants' and the biggest share of it is made at home. Living alone shows in the footprint: both her household goods and built housing footprint are higher than that of the average of the Spanish participants, but it's her electricity and heat consumption that really shoot her footprint up into the stratosphere, accounting for 60% of her 53 228 kg footprint.

Even though Rosa's is mindful of spending money, her consumption is guided by health, locality and sustainability. She feels that food is the focal point of her sustainable lifestyle. Rosa is a vegetarian and

rarely eats out, preferring to cook herself. She pays close attention to buying organic, local and healthy produce, most often from small speciality shops. She is even renovating her small 15 m² garden in order to grow more vegetables and spices herself. Her preferences are reflected in her material footprint by a fairly low number on food footprint.

Barriers to change & the way to the future

Rosa strongly believes that living in a small village would be beneficial for her in terms of sustainability. It could offer her the opportunity to provide her own energy and water, instead of acquiring it via a contract in a big city. She feels that she tries to control her electricity consumption, and does not know how to limit it further while living in a big city.

She feels that the most powerful actors in creating a sustainable future are the food producers:

“Now there are a lot of people that are not vegetarian but don't eat much meat. It wasn't like that 20 years ago. But for the future a lot of people have to be vegetarian. It implies a better selection of food: less meat, more vegetables and organic food.”

Rosa's life in 2013–2050: Change by the plateful

Change: 53 228 kg > 7990 kg, - 85 %
Biggest change: Electricity & Heat
Spends in: Foods & Beverages

Acting on climate change and promoting sustainable lifestyles have been an essential part of Rosa's life since the early 2000s. In order to be able to promote sustainability in a way that fits her skills and desires in the best possible way, in 2015 Rosa decided to move to a town near the big city.

Rosa took an active role in her new community. As a great cook, she started to organize dinners for her peers. These events became popular in Rosa's neighbourhood, which encouraged her to found a local gastronomy guild that was open three nights a week to begin with. Opening up the guild was important to her as it allowed her to continuously improve and invent new recipes from seasonal food.

Rosa loves to use local products and lots of vegetables when she cooks. In the late 2020s Rosa established a farming unit that started to produce most of the vegetables and fruits she needed for her work. Her guild members joined her and together they turned spare spaces into urban farming plots. The demand of the guild's services kept on increasing. Now in 2050, Rosa has already been retired for several years and no longer leads the guild. However, she is very glad to that the guild now also

works as a lunch cafeteria serving food for most of the employees living in town.

When Rosa first moved into town, she bought a big flat. Soon she started to rent out some of the rooms to her guild's visitors and eventually to her guild colleagues. In couple of years Rosa realised that it is a great opportunity to live near her colleagues, which makes taking care of daily routines much easier. Eventually all her guild members ended up living along the same street, right next to the guild kitchens.

Electricity production is something Rosa did not have time to pay attention to, as she was rather busy with her new business. When one of her colleagues talked about a local solar panel expert, skilled to fit the panels to the conditions in Spain, she started to use his services regularly. In 2040s the same expert established his own guild and developed guidelines for zero net energy in construction. The guidelines became the basis of legislation to be passed by the local government in year 2050.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Local Loops' scenario.



A new European-wide network of “villages in towns” is established. Members of the network establish urban farming cooperatives in their neighbourhoods and start negotiating with municipalities, real estate owners and inhabitants for access to under-used land for farming purposes.

ROSA

Rosa put up a local gastronomy guild that became her life work and turned into lunch canteen.



“This is our guild canteen where people of the town enjoy their lunches and dinners.”

HOUSEHOLD GOODS

FOODS AND BEVERAGES

EVERYDAY MOBILITY AND TOURISM

ELECTRICITY AND HEAT

BUILT HOUSING

53 228 KG

7 990 KG

When Rosa first moved to the town, she bought a big flat. Soon she started to rent out some of the rooms for her guild’s visitors and eventually to her guild colleagues. Also taking care of the daily routines became much easier.

When one of her colleagues mentioned to her about a local solar panel expert, skilled to fit the panels to the conditions in Spain, she started to use his services regularly.

2/3 of the inhabitants live in neighborhoods that are defined according to a profession and a guild. These neighborhoods also form the basic political units that have the right to elect their own representatives to the regional council.

2012

2020

2030

2040

2050

Till, 36, Germany: 55 200 kg, big home & moving around

Till's life in 2012: Individually & comfortably traditional

Till lives with his wife and two children in the German countryside, in a farmyard with three other families. They share a washing machine, studio, sandbox and the water supply. They have also their own little eco-sewage plant and produce their energy using a water wheel. Till loves the place. He goes to work outside the estate, which forces him to drive 70 kilometres a day.

”My footprint seems very logical to me. Mobility is so high, as we live in the countryside and are dependent on our car. Heating and energy consumption is low, as we heat with wood, which is very neutral. Regarding food, we try to buy locally, but I have to admit we are mainly driven by comfort. A lot can be changed, if one, for example, puts on another pullover when it's cold. But this is not something I desire, as this was the situation in my parent's home when I grew up.”

Till places great value on the personal freedom to do what one thinks is right. He yearns for security, as well as health for himself and his family. In consumer goods and services he looks for ease-of-use and convenience, a good feel and fun. He tries to be ecologically aware when shopping for food and clothes, but if he feels like drinking a Coke and eating a hamburger, then he will and he will enjoy it.

Barriers to change & the way to the future

Till does not believe reduction and downscaling are an option. He believes people want to have ownership of things. The idea of sharing in a community sounds nice to, but are not realistic in Till's opinion. He thinks people want to have and own things and are too lazy to plan and coordinate with others. Especially children are used to the concept of ownership, from an early age, even if their parents don't explicitly advocate it. Changing this mentality would require a lot of effort. The whole way we live is based on more, bigger, better, and that won't change in the near future, Till argues. Therefore, the solution must be a technological one.

Till's life in 2013–2050: New travel solutions to fit my lifestyle

Change: 55 195 kg > 7960 kg, -86 %

Biggest change: Everyday mobility & tourism

Spends in: Everyday mobility & tourism

Till continues to enjoy his life in the countryside. The largest share of his material footprint is related to mobility, because he needs to visit a nearby city that requires a 70 km drive from his place. In 2012 Till had no option but to drive alone in his car.

But starting in the 2030s Till has opted for on-demand public transport that became available for trips between countryside and city. Small buses make it effortless to travel within villages. There are also lots of modular micro-trams that provide efficient mobility. Till is a member of car- and ride-sharing schemes. Almost every time Till rents a car, he shares the ride with others.

Travelling has been important to Till's since he was a young man. In the 2050s, he is still exploring the world. He enjoys travel in Europe, which is quick and easy, thanks to the 30 brand new high-speed train lines that connect different areas of Europe better than ever before.

In 2047 Till planned a trip to China. He travelled by ship and used the travel time to learn the language and culture, so that he could communicate with his hosts.

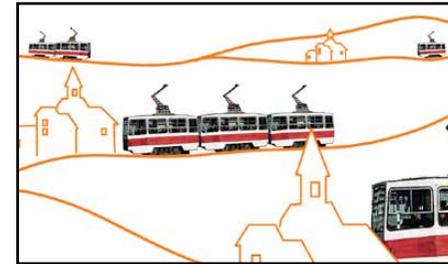
Other than travel, Till's material footprint is well within sustainable limits. His home farm produces all the energy needed and even some extra to the grid.

During the weekends Till likes to visit the local town. The town attracts plenty of attention with its vibrant markets and rich food culture. When it comes to food, Till admits his choices are driven by comfort. Getting fresh milk from a farm would not have been a problem in 2012, but it was much easier to buy a package from the supermarket. Now in 2050 the situation is different, since sustainable choices are much easier: milk produced at the farm, along with fresh produce is delivered to customers' homes via an efficient delivery service.

To learn more about the lifestyle bits introduced in this profile and the scenarios behind them, read the 'Local loops' scenario.



Visionary politicians, entrepreneurs and civic leaders gather and unite local (human, material and financial) resources to reform existing infrastructure and service provision to match the new political reality.



I frequently use public transport that is accessible on demand from the countryside to the city. Small buses make it effortless to travel within villages. There are also lots of modular micro-trams that provide efficient mobility.

HOUSEHOLD GOODS

FOODS AND BEVERAGES

Other than travel, Till's material footprint is well in the sustainable limits. His home farm produces all the energy needed and even some extra to the grid.

55 195 KG

EVERYDAY MOBILITY AND TOURISM



"...We have carefully prepared a sustainable trip to China. We are going by boat and are starting to learn the language so that we can communicate with the people who will host us there."

7 960 KG

ELECTRICITY AND HEAT

BUILT HOUSING

2012 2020 2030 2040 2050

PART IV Conclusions

7 The Material Prism – The era of new dimensions in lifestyles

The next ten years will be open up entirely new dimensions in consumers' lifestyles globally. This is due to material scarcity, which we refer to as "the new materialism". Whereas SPREAD report 'Today's facts and Tomorrow's trends' is about "why" there will be shift in people's lifestyles, this report on iFuture people's forums and the research process around them is about "how" new dimensions are likely to emerge. We also reflect on how the transition of lifestyles can be supported.

Even if many people feel that that our current consumer culture is materialistic, this has been symbolic materialism. In other words, we use clothes, cars, homes and other material constructions to build and express our identities. People have always done that. The reborn material constraints are new.

In the latter half of the 20th century, rapidly developing technologies enabled increasingly cheaper consumer goods throughout the world. This has led to a situation where availability of middle class 'materialistic' lifestyles to yet another generation and region has coincided with faster and faster production cycles (Kharas 2010). The law of supply

and demand has not applied and increased prices. Consequently, the material nature of those goods has blurred. They seem to appear and disappear from our lives as if they were immaterial.

The age of new materialism changes this. The material nature of our lives will strengthen and certain parts of our lives will consequently take a novel turn. What has been a rather linear global growth of middle class consumer cultures is about to disperse into completely new lifestyle dimensions – not just new lifestyles within parameters of the same consumer culture that exists everywhere middle classes exist (Kharas 2010). To understand this phenomenon of dispersion, think of it as "a material prism".

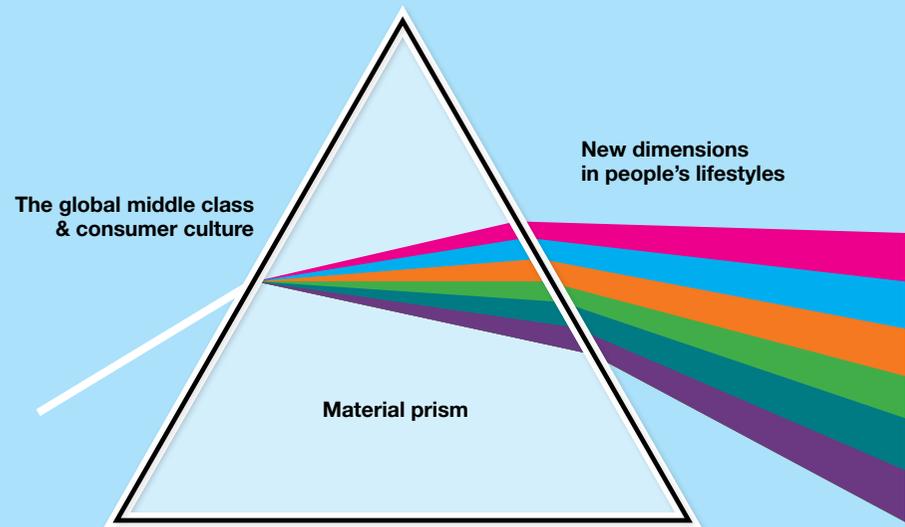
The optical prism refracts white light into the multitude of colours that are already within the light. Similarly, the material prism increases the meaning and importance of the material choices and directions that are already present in our life, but are currently not meaningful or visible. The material prism creates a wealth of new lifestyles.

The most important lesson from our research is that there will not be less of everything. Some sectors of consumption and everyday activities will change and drive new lifestyles. Some will remain much the same. This is what the material prism is about: our lifestyles hitting the material boundaries of our planet and then dispersing into their own directions.

As a conclusion we want to raise four points on how to support that that when the light of our lifestyles take different directions, they will be sustainable ones.

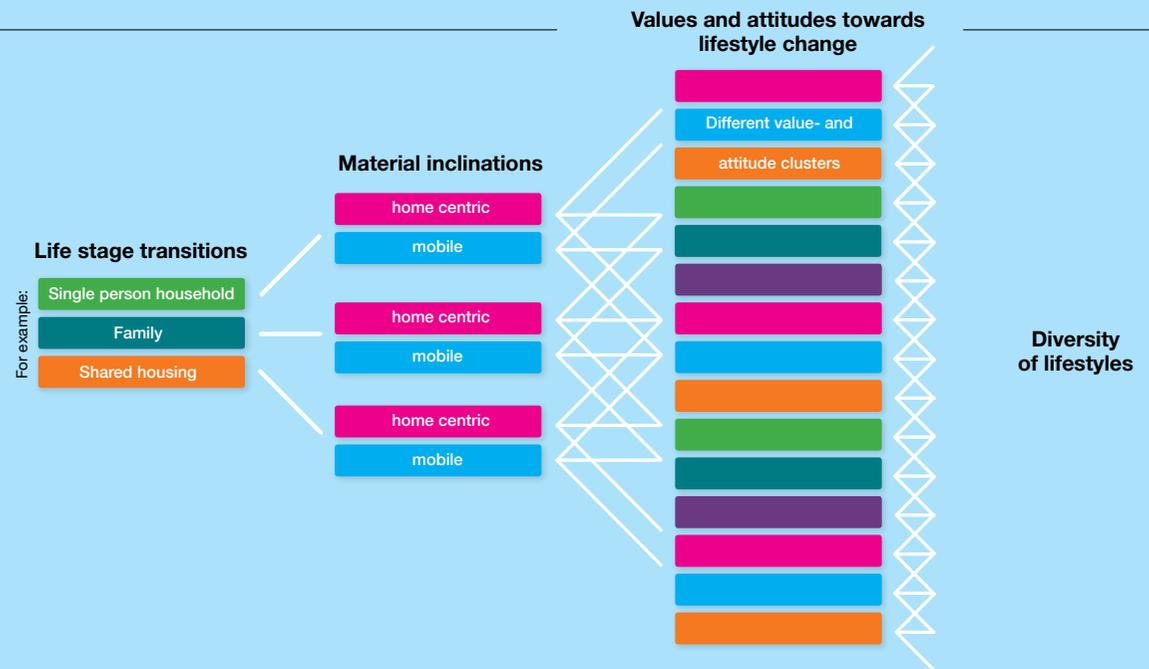
Picture 4. The Material Prism
 – From a uniform global middle class
 to diversity of lifestyles

Material prism is a model demonstrating the impact of material scarcity to middle class lifestyles. Until today there has been a linkage between rising individual wealth and growing footprint. Our research shows that, somewhat paradoxically, material scarcity brings about diversity in lifestyles.



How the prism works

The diversifying forces open up new dimensions in lifestyles due to the need to cut down the use of natural resources. Firstly, lifestage transitions will diversify lifestyles between people who live alone, with a family, or in a shared house. Secondly, an important diversifying force is the apparent need to choose between a home centric and a mobile lifestyles. Thirdly, peoples' values and attitudes play a big role when they evaluate the ways they could change their lifestyles.



1. People need support and choice in their life stage transitions

Life stage transitions seem to be one of the primary reasons for increased material footprints. Transitions tend to lock people's material resource consumption to a certain level for a long time, even for a lifetime.

Therefore, we conclude that people require help in transitions over life stages in order to reach sustainable levels of material consumption. Additions to the family often lead directly to larger footprint in both housing and transportation. Similarly, when children move out or a partner passes away, the footprint of the survivor increases significantly due to the stable infrastructure of the home. This requires policies that produce innovative new solutions for young families or parents whose children have moved out and who no longer need a big house far away from services.

The key is to offer more sustainable choices in the event of a household changing size. We need social innovations on a similar scale as student housing and elderly care were in the 20th century, to suit the needs of people whose households are in transition.

2. More solutions that diminish the need for space and travel

According to our research we will see a division of (1) home-centric and stable living and (2) mobile lifestyles where homes and storages

are small. In other words, future lifestyles will be divided more sharply than today into mobile and home-centric lifestyles.

In order to find out which ones of these are sustainable in the year 2050 we created simulations of possible and sustainable material footprints in 2050. We compared current levels of the respondents' material consumption (divided into nutrition, building the dwelling, electricity, home equipment, everyday mobility and tourism and leisure activities) to sustainable levels in 2050. From a point of view of sharp reduction into sustainable material consumption levels, we made calculations of possible average material footprints. Three points became apparent: food will become the consumer of our material resources and it is very difficult to cut it as much as the other two big categories, housing and transportation. This is due to the obvious fact that even if the production of our nutrition/kg was significantly less resource intensive (due to, e.g. plant based diets), the amount (kg) cannot decrease in the same way in volume as our dwellings (m³) or length of our daily travels (km) can.

The stability of food as a major resource consumer means that the other two biggest resource consuming categories – housing and transportation – will become increasingly formative in terms of our future lifestyles. We can assume that people will choose to have either home-centric or mobile lifestyles. Focusing on both becomes a rarity.

Thus, there is a huge demand for both services that lower our need for living space and enable us to both work and spend our leisure time closer to our homes. These could be anything from shared spaces to games and other leisure time activities.

3. Mind the diversity of values that drive sustainable lifestyles

The lesson we learnt from studying peoples' values and attitudes is that by imposing motives that are not within peoples' value framework can backfire. In other words, asking people to use more sustainable products for the environment's sake only works with a relatively small part of the European population, for example – even when they understand the imperative of sustainability.

Similarly price, convenience, health, family, community, experience, status and so forth are values that motivate some of people, but turn some away. Therefore, when creating policies, products and services, one should be extremely careful not to assume to know what drives people.

All in all values are a very tricky vehicles of change. Values change very slowly (PR Abramson, RF Inglehart 1995) and appealing to the "wrong" values can put people off the topic (Schwartz, S. H. 2005). Our workshops and recent research into human behaviour provide an insight into an alternative route to lifestyle change: positive peer pressure and excitement

of deliberation. According to current cognitive research, only as little as five percent of our behaviour is driven by values or rationality, the rest is driven by empathy and willingness to do as the others do (Bargh, J. A. 2011). In other words, the gentle power of emulation is a driver for change. Therefore, if good practices are highlighted, they are likely to spread by means of emulation and empathy. This deliberative, experimental and participatory approach seems largely to by-pass the question of values as people try and fit the norm and follow what their peers do. This is an opportunity for spreading sustainable lifestyles.

The atmosphere in all five workshops was very positive. We argue that people were engaged positively because they understood that it is not about something just ending. With the help of visualised ideas of new services, they were able to see that they will have services that replace the ones they are currently using. With the scenarios they could understand that there is a systemic change in making. Showing this wider context and systemic change could mean, for example, sustainable living-labs where people are able to see, hear, try and live the future.

4. Create need for sustainable policies

At our five workshops, people were inspired and motivated by the scenarios and by discussions regarding the ways with which to bring their material footprint to a sustainable level. This brings us to our most important message to policy makers. You need to create a need for policies. We succeed in engaging people from various different age groups and countries by showing people what new kinds products, services, social innovations and events sustainability brings about. Policies can be confusing without inspiring examples of what the policy will do. We need to demonstrate what kinds of things the policy will scale-up, multiply and embed. This can be done by scaling up experiments and showing people the wider context of the changes.

8 Top ten suggestions for further research by iFuture participants

At the end of each workshop, after discussing their personal material footprints, promising practices' role in transition to sustainable lifestyles and Spread scenarios on alternative futures of sustainable lifestyles, the iFuture participants were asked to produce their own suggestions on relevant future research questions concerning sustainable lifestyles. Some participants did not provide any suggestions while others produced several. All together participants of four workshops suggested over 50 research questions.

Topics of the questions suggested ranged from very individual level issues ("Sustainable recreation - what, how?") to issues concerning macro economic structures ("How much can EU rely on economic growth in the long run?") and from very specific ("The ecological impact of home offices") to very general ones ("Cures for the democratic deficit").

Many of the topics suggested are already relatively widely studied or they have suggested elsewhere, for instance in SPREAD report on future research agenda. Therefore we gathered a top ten list of relevant research questions from iFuture participants. The main criteria for questions picked to the list were novelty, clear links to issues discussed within iFuture process and sufficient level of detail.

1. How do elderly people live and what effects does this have on sustainable lifestyles?
2. What kind of system would enable monitoring of sustainable life?
3. How can sustainability become mainstream and be communicated to all societal classes and not too expensive for poor people?
4. What are the ecological and social impacts of co-operative societies?
5. What are the possible consequences of shrinking growth-rates on evolution of sustainable lifestyles?
6. What are the different alternative business models regarding collaborative consumption?
7. What is the potential of new manufacturing techniques in enabling sustainable lifestyles?
8. What are the emerging models of co-operative way of living and what is their potential for diminishing material footprint on the household level?
9. What is the role of neighbourhood movements in influencing formal urban development policies as well as personal behaviours?
10. What is the potential of urban food production in reducing food-related material footprint?

Materials produced in SPREAD People's forum 'iFuture'

The materials were used as a basis and source of quotes of this report at hand.

Material footprint calculations of the participants. Data provided by participants through online questionnaire created by Demos Helsinki with insights from CSCP, Ecoinstitut and REC. Footprint calculations by Demos Helsinki.

Reports on phone interviews to the participants. Interview questionnaire by Demos Helsinki, with insights from CSCP, Ecoinstitut and REC. Interviews conducted and reported by Demos Helsinki, CSCP, Ecoinstitut and REC.

Individual profile cards for Finnish (in English), German (in German), Hungarian (in Hungarian) and Spanish (in Spanish) participants including material footprint calculation. Format and compilation by Demos Helsinki, translations by CSCP, Ecoinstitut, REC.

Material footprint calculations and diagrams of the participants of the online workshop

Workshop diaries by each workshop participant. Diary format by Demos Helsinki, filled in by each participant, translated by Demos Helsinki, CSCP, Ecoinstitut, REC

Workshop group discussion reports in English made after workshop recordings transcribed by Demos Helsinki, CSCP, Ecoinstitut and REC.

Workshop group discussion of the online workshop, originally in English.

References

- Abramson P. R. & Inglehart R. (1995). *Value Change in Global Perspective*. The University of Michigan Press.
- Bargh, J. A. (2011). 'Unconscious Thought Theory and its discontents: A critique of the critiques.' *Social Cognition*, 29, pp. 629-647.
- Bringezu, S. (2009): 'Visions of a sustainable resource use'. In: Bringezu, S. & Bleischwitz, R (eds.): *Sustainable resource management: Global trends, visions and policies*. Greenleaf publishing, Sheffield, pp. 155-215.
- DEFRA (2011). *Framework for Sustainable Lifestyles*. Centre of Expertise on Influencing behaviours. Available at: <http://www.defra.gov.uk/environment/economy/products-consumers/influencing-behaviour/>.
- European Environmental Agency (EEA) (2010). *ENER22 Energy efficiency and energy consumption in the household sector*. Available at: http://eea.eionet.europa.eu/Public/irc/eionet-circle/energy/library?l=/workshops/eionet_workshop_10-11/eehouseholdspdf/_EN_1.0_&a=d, Accessed on 2011-08-16.
- Finnish Statistical Agency (2011). *Suomen virallinen tilasto (SVT): Asunnot ja asuinolot*. ISSN=1798-6745. Yleiskatsaus 2011, Liitetaulukko 3. Pinta-ala huoneistoa kohti (m²) asunnon talotyypin mukaan 1970–2011. Helsinki: Tilastokeskus. Available at http://www.stat.fi/til/asas2011/01asas_2011_01_2012-10-24_tau_003_fi.html
- Grantham, J. (2011). *Days of abundant resources and falling prices are over*. GMO, Quarterly Report April 2011. Available at: http://www.theravinaproject.org/JGLetterALL_1Q11.pdf
- International Energy Agency (IEA) (2010). *Energy technologies Perspectives 2010: Scenarios and strategies to 2050*. International Energy Agency, Paris.
- International Federation of Home Economics (IFEC) (2008). *Home Economics in the 21st Century Position Statement*. Bonn. Available at: <http://www.ifhe.org/175.html>.
- Kharas, H (2010). *The Emerging Middle Class In Developing Countries*. Working Paper No. 285. OECD Development Centre.
- OECD (2012). *Year book 2012*.
- Kaskinen, T., Kuittinen, O., Neuvonen A., & Mokka R. (2009). *Gatekeepers changing consumers' behaviour in energy consumption*. In: *Proceedings of the Future of the Consumer Society*, 28–29 May 2009.
- Kluckhohn, C (1951). "Values and value-orientations in the theory of action: An exploration in definition and classification." In: T. Parsons & E. Shiels (Eds.). *Toward a general theory of action*. Harvard University Press, Cambridge, MA.
- Kotakorpi, E.; Lähteenoja, S. & Lettenmeier, M. (2008). 'Household MIPS. Natural resource consumption of Finnish households and its reduction'. *The Finnish Environment* 43en/2008. Ministry of the Environment, Helsinki.
- Kumhof, M. and Muir, D. (2012). *Oil and the World Economy: Some Possible Futures*. IMF Working Paper October 2012. <http://www.imf.org/external/pubs/ft/wp/2012/wp12256.pdf>
- Lettenmeier, M.; Lähteenoja, S.; Hirvilammi, T.; Laakso, S. & Aalto, K. (2011). "Material Footprint of low-income households in Finland – Consequences for the sustainability debate." *Sustainability* 2012, 4, 1426–1447.
- Lähteenoja, Satu, Michael Lettenmeier & Elli Kotakorpi (2008): 'The ecological rucksack of households – huge differences, huge potential for reduction'. In: *Proceedings of Sustainable Consumption and Production: Framework for action*, 10-11 March 2008, Brussels, Belgium. Conference of the Sustainable Consumption Research Exchange (SCORE!) Network.
- Meadows, D., Meadows, D. & Randers, (2004). *The Limits to Growth: The 30-year update*. Chelsea Green Pub.
- Schmidt-Bleek, F. (2009): *The Earth: Natural Resources and Human Intervention*. Haus Publishing, London.
- Schwartz, S. H. (2005). *The Basic Human Values - An Overview*. The Hebrew University of Jerusalem.
- SPREAD 2011. *Sustainable lifestyles: Today's facts & tomorrow's trends*. D1.1 Sustainable lifestyles baseline report. Principal report author: Energy Research Center of the Netherlands. Available at <http://www.sustainable-lifestyles.eu/publications/publications.html>
- SPREAD (2012a). *Emerging Visions for Future Sustainable Lifestyles*. Preliminary policy considerations from the SPREAD Sustainable Lifestyles 2050 European Social Platform project. Developing pathways to more sustainable living. D 3.2 First Policy Brief with barriers, drivers and the role of gatekeepers, February 2012.
- SPREAD (2012b). *The Emerging Visions for Future Sustainable Lifestyles*, Part 2. D 3.1. Visual material presenting emerging best practices and emerging visions on sustainable lifestyles. Coordinated by Politecnico di Milano. Available at http://www.sustainable-lifestyles.eu/fileadmin/images/content/SPREAD_idea_cards_low.pdf

SPREAD (2012c). Scenarios for Sustainable Lifestyles 2050: From Global Champions to Local Loops. D4.1 Future Scenarios for New European Social Models with Visualisations. Principal report author: Demos Helsinki. Available at <http://www.sustainable-lifestyles.eu/publications/publications.html>

Tukker, A., Huppes G. 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: p. 139.

UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption & Production (CSCP) (2012). Infographic of Understanding Sustainable Lifestyles in the EU: Today's Facts & Tomorrow's Trends. Available at: http://www.sustainable-lifestyles.eu/fileadmin/images/content/SPREAD_infographic_sustainablelifestyles.pdf

Weidema, B. P., Wesnæs, M., Hermansen, J., Kristensen, T. & Halberg, N. (2008). "Environmental Improvement Potentials of Meat and Dairy Products". In P. Eder & L. Delgado (Eds.), JRC/IPTS, available at <http://www.saiplatform.org/uploads/Library/EnvironmentalImprovementsPotentialsOfMeatAndDairyProducts.pdf>

WHO (2011). Obesity and overweight, Fact sheet N°311. Updated March 2011.

Annex 1 SPREAD iFuture participants

Vantaa, Finland 13 January 2012

Nora Karttunen	Tuovi Kurttio
Seija Kiiskilä	Johanna Kerovuori
Anna-Sofia Lahdensuo	Esa Laaksonen
Nina Luostarinen	Susanna Halla
Liisa-Maija Lähteenaho	Janne Kylli
Pekka Palin	Virve Kenttä
Kirsti Pesola	Inke Rosilo
Antti Häikiö	Riitta Välke

Barcelona, Spain 18 February 2012

Manolo Carmona	Núria Riba
Pepa Casas	Arnau Rodríguez
Albert Cerdà	Iria Soto
Ariadna Goberna	Pere Teixidor
El Pau Gran	Juan Antonio Vidal
Laia Jordana	Míriam Vilaplana
Rocío Molina	

Wuppertal, Germany 25 February 2012

Angelika Eckhardt	Jochen Stiebel
Berndt Hoesch Vial	Joscha Enger
Dieter Hoffmann	Rhea-Navina Struck
Friedhelm Buechele	Ulrike Schäfer
Ilona Hentschel	Wendelin Sandkühler

Budapest, Hungary 2 March 2012

Balázs Borkovits	Mária Kocsis
András Farkas	Viktória Kocsis
Edit Monori Futoné	Dóra Kovács
Gergö Horváth	Jenő Molnár
Judit Martoncsikné	Viktória Szente
Hegedüs	Dániel Schram
Tamás Józsa	Géza Varga
Gyula Lakatos	Péter Varga

Online workshop, 18 October 2012

Sanne Ree Barthels, the Netherlands
Stefan Biabiany, Switzerland
Janis Brizga, Latvia
Nuno Gomes, Portugal
Sophie Kammerer, France
Jelena Lazovic, Serbia
Teele Pehk, Estonia
Justin Pickard, the UK
Arturs Polis, Latvia
Sea Rotmann, New Zealand
Elizaveta Shabanova, Russia/Finland
Charlie Tims, the UK
Halldora Thorsdottir, Iceland/the Netherlands
Regina Viljasaar, Estonia

Annex 2 SPREAD project partners participating in iFuture

Nora Brüggemann CSCP
Rosa Groezinger CSCP
Sarah Thorne CSCP
Rebekka Gröhn Demos Helsinki
Elina Heikinheimo Demos Helsinki
Sini Hirvonen Demos Helsinki
Tommi Kauppinen Demos Helsinki
Outi Kuittinen Demos Helsinki
Michael Lettenmeier D-mat/Demos Helsinki
Satu Lähteenoja Demos Helsinki
Roope Mokka Demos Helsinki
Aleksi Neuvonen Demos Helsinki
Mari Orjasniemi Demos Helsinki
Maria Ritola Demos Helsinki
Essi Vesterinen Demos Helsinki
Markus Wikholm Demos Helsinki
Ana Alcantud Ecoinstitut Barcelona
Gemma Salvador Ecoinstitut Barcelona
Bettina Schaefer Ecoinstitut Barcelona
Gerard Barberà Ecoinstitut Barcelona
Éva Csobod REC
Réka Prokai REC
Júlia Schuchmann REC
Cecília Füzi REC
Péter Szuppinger REC
Richárd Paksi REC

Annex 3 Lifestyle questionnaire for collecting data for material footprint calculations

Your name:

1. Please choose the type of housing

- Flat
- Row house
- House

2. Do you have a garden?

- No
- Yes, how many square meters:

3. What is the living space of your home (m²)?

4. Please indicate the number of persons in your household

5. Do you buy green electricity (electricity from renewable sources)?

- Yes
- No

6. Fill in if you have the information

How much electricity is used in your household annually? (See the electricity bill) (kWh)

How much water is used in your household annually? (See the water bill) (m³)

7. Heating and cooling

Do you have a heating system?

- Yes
- No

If yes: What is the heating system in your household?

- District heating

- Electricity
- Fuelwood
- Ground source heating
- Hard coal
- Oil
- Wood pellets
- Natural gas (from pipe network)
- Butane gas (from bottle)[SL2]

If you know, tell us the heating consumption per year (in kWh/litres/kg/m³, like presented in the bill)

Do you have a cooling system?

- Yes
- No

If yes: What is the cooling system in your household?

- Electricity
- Gas

8. How many kilometers you travel by following means of transport in average annually/weekly?

- Walking, km, weekly
- Bus, km, weekly
- Local rail / metro transport, km, weekly
 - Bicycle, km, weekly
- Long distance train, km, annually
 - Private car, km, annually
 - Hours of flying, annually

8 a) Do you currently work or study?

- Yes
- No

If yes: How many kilometres there are between your home and your work/study place?

How many days a week do you go there?

Which mode of transport do you use for this route?

- Walking
- Bicycle
- Private car
- Bus
- Local rail / metro
- Long distance train

8 b) Where else do you travel frequently? Consider a typical week and a weekend.

- Destination (e.g. visiting grandparents):
- Frequency (per week):
- Mode of transport:
- Distance (km):

- Destination:
- Frequency (per week):
- Mode of transport:
- Distance (km):

Continue in the box below.

9. In the past year, where have you travelled for holidays (weekend trips and longer holidays) and by which mode of transport (e.g. one car trip to the coast, distance 100 km, two trips to Helsinki by train, distance 200 km)?

- Regional destinations, the mode of transport:
- National destinations, the mode of transport:
- European destinations, the mode of transport:
- Destinations outside Europe, the mode of transport:

10. Where do you normally buy food?

- Market place or market hall
- Small or specialized retail shop
- Supermarket
- Shopping mall
- Internet
- Other:

11. When buying food, do you take environmental or social certifications and /or the origin (local or not) in consideration?

- Yes
- No

If yes: Please explain which certifications or origin of food do you prefer:

12. How many times per week do you eat meat?

- Every day
- Couple of times per week
- I am a vegetarian
- I am a vegan

13. How many times per week do you eat outside home? (in a restaurant, canteen, mensa etc.)

14. How many cups of coffee/tea you drink in a day?

- Coffee:
- Tea:

15. How many of these items there are in your household?

- Mobile phone:
- Desktop computer:
- Laptop:
- Game console:
- TV:
- Stereo:
- Tumble dryer:
- Dishwasher:

16. How many pieces of new clothing you buy during one year (excl. underwear and socks)? (Tip: consider how many you buy in a typical month, multiply by 12)

- 0-5
- 5-10
- 10-20
- 20-40
- More than 40

17. What kind of leisure activities you have? How many hours of different activities per week or per month?

18. What do you do on a typical weekend?

19. Are you active in NGOs, associations or in your neighborhood or other more informal social activity? Please, describe.

20. Do you participate in any collaborative consumption initiative (like car sharing, public bicycle schemes, consumption cooperative)? If yes, please specify.

Annex 4 In-depth interview questionnaire

INTERVIEWS

Instructions for interviewers

Questions

General information

80 interviewees from four different countries

30 minutes / interview

Goal

to discuss themes that are not covered by the material footprint questionnaire

Outcomes

Lifestyle profiles

- example profiles, that can be used to show how situations of life, motives and values vary and that different products, services, options and motivators have to be offered and used to make all lifestyles become sustainable

Profiles combine three aspects: the quantitative data from the material footprint test, the qualitative data from the interviews and projected future lifestyle for the person answering.

General instruction for conducting a good-quality ethnographic interview

Remain balance between:

1. having a real conversation: giving feedback, granting, asking more about themes that the interviewee brings up (otherwise profound answers that are fruitful for analysis cannot be expected)
2. being quiet (one of the best ways to encourage the interviewee to absorb in the theme is not to interrupt)

Structure of the interview

semi-structured theme interview

Checklist

- three themes that have to be covered during the interview. These are needed when creating the lifestyle profiles and positioning each of the interviewees to one of them

Themes:

- overview of the situation of life
- acting, understanding and awareness (how the interviewees perception is related to the material footprint)
- motives and values

In addition to the checklist

- listen: what the interviewee is keen on discussing? which themes does he address? does he bring up something that was not expected?
- possible to proceed discussion-like considering the quality of the data, this is just as important as the checklist-themes and also gives the opportunity to try and position the interviewee to a lifestyle profile already during the interview

Process

- read the outcomes of the carbon footprint questionnaire (if possible) and "why do I want to be part of this research" –answer from the application (if the interviewees applied for the research)
- When beginning the interview
- thank
- explain briefly what the research is about and how the answers are going to be used
- ask to answer from his point of view, ask if he doesn't understand a question and be honest
- discussion (remember the checklist)

- mini-backcasting –test
 - ask whether during the discussion the interviewee came up with something he feels is related to this theme, but was not yet brought up in the discussion
 - tell that interviewee has been a great help and thanks to him we have now got a lot of important information that can be used in the research
 - ask him to contact you if he has something to ask or add
 - tell how the research proceeds and repeat what the outcome of the interviews is going to be (the lifestyle profiles)
 - analyze the interview immediately
- Between the interviews
- read the questions / answers you've already done (helps listening and final analysis)

Analyzing the interviews

Please write a short reflection on

- how did the interviews go
- what was the relationship between you and the interviewees

Reflecting is a part of good-quality qualitative research.

You will be provided with a toolkit for the analysis

Starting point

All of the interviewees wanted to be part of this research

- to help
- to get inspiration

THEMES AND QUESTIONS

I Situation of life

What takes most of your time, money and energy at the moment?

What takes too much time?

If you had more time, what would you use it for?

IV Values

What do you enjoy? What do you consider being a good life?

Describe:

- a good day
- a good personal environment
- a good workplace
- a good holiday
- a good appartement

II Choices and being a consumer

Connotation: what do you think about when you hear "future lifestyle"?

Do you have some kind of principles in determining how you how you divide your time, money and energy?

Additionally:

- How do you choose where and how do you want to live?
- How do you make decisions in a grocery store?

Describe situation when you succeeded in practice to live by those principles!

Do you think of making ecological choices? Do you think of making choices that are good for your community or civil society?

Do you pay an effort or use your time in order to make good choices?

Do you feel that you have given something up when making good choices?

Where do you get or search information about good choices?

If have thought of these, why do you find them important?

III Experience

Can you remember when you first thought about the themes we have now discussed about?

In which situations does this theme come up in your life?

With whom do you discuss it, is it a topic to discuss with your friends, family, spouse, relatives, customer servants? When you want to live healthy and ecologically friendly, what do you already do that you think is good? What are the biggest gaps in your lifestyle being good for our society and environment?

Are there things you would be ready to do for this but haven't yet? If so, what has prevented you?

What kind of an impact do your choices have? Do you feel that they make a difference?

Whose business is future lifestyles, who makes the most important decisions? Can you influence them?

V Aims and hopes for & mini-backcasting

Warm-up

(To start the mini-backcasting. With this, the interviewee can tell their utopias and "learned answers" and has to come up with something new for the following questions.)

Where do you see yourself in 20 years?

What kind of a life do you dream about?

Mini-backcasting

First read the statement and then ask the following questions:

What has happened? Is this desirable? Is it of great importance? Is it probable? What is your life like, what happens around you, what do you do?

Statements:

It is year **2050** and you (before asking count the interviewees age) and over half of all over 65 year old people live in communal houses. You cook your meals together, help each other out in everyday tasks and use together the common rooms of the house for your hobbies.

It is year **2035** and you own 1000 items. (At the moment an average European owns 10 000.) Lawnmower is co-owned by your neighborhood and when you happen to need a car, you rent it. Your kids toys are second-hand and you have a pair of downhill ski boots that you loan via a swapping service and get items that you need at the moment in return.

It is year **2020** and on Sundays you cook your family a meat dish. In lunch restaurants there are lots of vegetarian choices and meat has become a special delicacy. Meals offered in schools are made of products produced in the nearby areas.

Annex 5 iFuture workshop process

COUNTRY WORKSHOPS PROCESS & QUESTIONS

SECTION: GETTING ORIENTATED, 35 minutes

Opening words: Why we are here?

We the iFuture participants – presentation by a workshop leader & introductions by the participants

Orientation presentation: “What the future world is about?”

SECTION: MATERIAL FOOTPRINTS, 40 minutes

Material: Personal current material footprints

Task: First impressions on personal footprint by oneself to one's Workshop diary

Presentation: How much is it

Task: What I think about my my footprint and the future of it.

Questions to be addressed by oneself to one's Workshop diary:

1. What questions and other thoughts does your footprint and the necessary change in it evoke? How do you feel? What feels easy in the change, what is difficult, what is exciting, what feels uncomfortable?

Task: Group discussion on the material footprints:

1. Does any of you want to start by telling your first impressions?
2. Are you surprised?
3. What questions and other thoughts does your footprint and the necessary change in it evoke?
4. How do you feel? What feels easy in the change, what is difficult, what is exciting, what feels uncomfortable? Are you worried about the upcoming change? Why? To workshop leader: When people speak, ask more questions “Why?” “How?” Be interested and curious!

SECTION: THE FULL PROFILES, 25 minutes

Presentation: What does your whole profile tell you?

Task: First impressions: What do I think about my future?

Questions to be addressed by participants first by oneself in their Workshop diaries:

1. Do you recognise yourself in the profile?
2. Could you imagine yourself living a life described in your profile?
3. What surprises you the most?
4. What you find exciting?
5. Is there something that doesn't fit?

Task: Group discussion on the previous questions.

SECTION: THE SUSTAINABLE LIFE- STYLE CHARACTERS, 30 minutes

Material: Introducing sustainable lifestyle character cards, workshop leader introduces

Task: Questions to be addressed by oneself to one's Workshop diary:

1. Evaluate – choose one character that describes you most and one that describes you the least.
2. Who is missing? Create a character that you know is missing: Yourself? Your neighbour? Your countryman? A family member? A friend at work?

Task: Questions to be discussed in groups:

1. Tell others about the characters that you chose and about the self-created character

Describe others a particular moment in real life when you behaved like one of the characters

Lunch here or in the end of the workshop

SECTION: NEW THINGS OF THE FU- TURE, 30 minutes

Material: idea cards, workshop leader introduces

Task: Discussion with another participant

1. What do you like about the service presented in the card?
2. What would need to change in them in order for you to adopt them?

Task: Sharing the ideas the participants came up with to the rest of the group

SECTION: FUTURE SCENARIOS, 60 minutes

Presentation: Four future scenarios

Task: Questions to be addressed by participants first by themselves and to be written down to the workshop diary:

- 1) What do you think about this scenario? Is there something that occupies your mind?
- 2) What is amusing, and what annoys you in the scenario?
- 3) How would your life be different in 2050 compared to now?

Task: Discussing the previous questions in groups

Task: aily life of the scenario to be discussed in groups

Describe your daily routines in one of the following settings:

- working day
- sunday meal
- children's party in kindergarten
- situation in a local bus/ metro
- course in high school
- luxury vacation
- demonstration

SECTION: SUMMING IT UP

Workshop leader sums up what we have achieved today

Task: Last questions to be written down to the workshop diary

1) What changes will take place in a year? How does your life look like in February 2013?

What are the most important research topics that the commission should explore further in the future?

Task: Free feedback on the workshop

ONLINE WORKSHOP PROCESS & QUESTIONS

SECTION: WHY WE ARE HERE & WHO IS HERE

People enter Screenio platform: Please, write your name, where are you, how old are you and what you do

Presentation: Where are we from & why we are here

SECTION: MATERIAL FOOTPRINT

Material: Current material footprints received earlier by e-mail

Task: First impression, choose from the following

My immediate thoughts about my footprint

- I was positively surprised
- It looked as I expected
- It made me proud
- It made me disappointed
- I was devastated

Task: Open discussion:

Why was that?

What other thoughts did you have?

Presentation: What is a material footprint & How much is it

Task: First impressions, choose from the following

My consumption is surprisingly low in...

- Household goods
- Food and beverages

- Everyday mobility and tourism
- Electricity and heat
- Built housing

My consumption is surprisingly high in...

- Household goods
- Food and beverages
- Everyday mobility and tourism
- Electricity and heat
- Built housing

Task: Open discussion on the footprints

Presentation: Sustainable level of 8 tonnes

Task: First impressions, choose from the following

It feels easy to reduce my footprint in...

- Household goods
- Food and beverages
- Everyday mobility and tourism
- Electricity and heat
- Built housing

It feels difficult to reduce my footprint in...

- Household goods
- Food and beverages
- Everyday mobility and tourism
- Electricity and heat
- Built housing

Task: Open discussion:

What feels easy and why? What feels difficult and why?

What is interesting, what feels uncomfortable?

Do you think it's useful to know one's material footprint?

Any questions or comments about the footprint or the necessary change?

SECTION: SCENARIOS

Workshop leader introduces the idea of scenarios

Presentation: SCENARIO SINGULAR SUPER CHAMPION

Task: First impressions, choose from the following

- 1) What do you think about the scenario "Singular Super Champion"?

a) Wow, this is exactly how I perceive my life to be in the future

b) Interesting, there are a lot of things I would like to try out

c) Amusing

d) I'm not very excited, there are some things that annoy me in the scenario

e) God no, I don't see myself living like that at all in the future

Task: Open discussion:

Why is that?

Task: Choose from the following

2) How would your life be different in the scenario "Singular Super Champion" compared to now?

a) There's no difference! The descriptions are like snapshots from my life today.

b) Some things would be different, and mostly I think remain more or less the same.

c) This world is somewhat distant to me. A lot would need to change by 2050 compared to now.

Everything would change

Task: Open discussion:

4) In which ways things would change?

5) What are the things that remain more or less the same?

Presentation: SCENARIO EMPATHETIC COMMUNITIES

Task: First impressions, choose from the following

1) What do you think about the scenario "Empathetic Communities"?

a) Wow, this is exactly how I perceive my life to be in the future

b) Interesting, there are a lot of things I would like to try out

c) Amusing

d) I'm not very excited, there are some things that annoy me in the scenario

e) God no, I don't see myself living like that at all in the future

Task: Open discussion:

2) Why is that?

Task: Choose from the following:

3) How would your life be different in the scenario "Empathetic Communities" compared to now?

a) There's no difference! The descriptions are like snapshots from my life today.

b) Some things would be different, and mostly I think remain more or less the same.

c) This world is somewhat distant to me. A lot would need to change by 2050 compared to now.

d) Everything would change

Task: Open discussion:

4) In which ways things would change?

5) What are the things that remain more or less the same?

Presentation: IDEA CARD: FOOD FACILITY SERVICE

Task: First impressions, choose from the following:

1) What do you think about the service "Food Facility"?

a) I'm actually doing this already

b) Looks great, I like to try this out

c) I'm not very excited about it, but could still give it a try

d) This is not my cup of tea

Task: Open discussion:

2) Why is that?

3) What would need to change in it in order for you to adopt it?

Presentation: SCENARIO GOVERNING THE COMMONS

Task: First impressions, choose from the following:

1) What do you think about the scenario "Governing the Commons"?

a) Wow, this is exactly how I perceive my life to be in the future

b) Interesting, there are a lot of things I would like to try out

c) Amusing

d) I'm not very excited, there are some things that annoy me

e) God no, I don't see myself living like that at all in the future

Task: Open discussion:

Why is that?

Task: choose from the following:

3) How would your life be different in the scenario "Governing the Commons" compared to now?

a) There's no difference! The descriptions are like snapshots from my life today.

b) Some things would be different, and mostly I think remain more or less the same.

c) This world is somewhat distant to me. A lot would need to change by 2050 compared to now.

d) Everything would change

Task: Open discussion:

4) In which ways things would change?

5) What are the things that remain more or less the same?

Presentation: IDEA CARD: REMOTE CO-WORKING SPACES SERVICE

Task: choose from the following:

1) What do you think about the service "Remote Co-working Spaces"?

a) I'm actually doing this already

b) Looks great, I like to try this out

c) I'm not very excited about it, but could still give it a try

d) This is not my cup of tea

Task: Open discussion:

2) Why is that?

3) What would need to change in it in order for you to adopt it?

Presentation: IDEA CARD: HIGH EFFICIENCY INTER-MODALITY SERVICE

Task: Choose from the following:

1) What do you think about the service "High Efficiency Inter-modality"?

a) I'm actually doing this already

b) Looks great, I like to try this out

c) I'm not very excited about it, but could still give it a try

d) This is not my cup of tea

Task: Open discussion:

2) Why is that?

3) What would need to change in it in order for you to adopt it?

SECTION: CLOSING UP

Write down, what are the most important research topics that the European Commission should explore further in the future? You can use the thumb up action to support others' ideas..



Funding Scheme



Funded under Socio-economic Sciences & Humanities

Project Coordinator



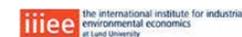
Project Consortium



POLITECNICO DI MILANO



DIPARTIMENTO INDACO



Principal Report Authors Contact:

Demos Helsinki
Laivurinkatu 41
00150 Helsinki, Finland

Tel +358 50 5344 241 | info@demoss.fi
www.demoss.fi

Project Coordinator Contact:

Centre on Sustainable Consumption and Production (CSCP)
Hagenauer Straße 30. 42107 Wuppertal. Germany
Tel + 49 . 202 . 45 95 8 - 10
Fax + 49 . 202 . 45 95 8 - 30

www.scp-centre.org