eupopp

Policies to Promote Sustainable Consumption Patterns in Europe

How effective are sustainable consumption policies in the EU-27?

SEVENTH FRAMEWORK PROGRAMME

Contact | Imprint | Project Partners

Contact

Dr. Bettina Brohmann / Regine Barth
Coordinators of the Project

Öko-Institut e.V. – Institute for Applied Ecology
Rheinstraße 95, D-64295 Darmstadt
Tel.: +49 (0)6151 – 81 91 – 0
Fax: +49 (0)6151 – 81 91 – 33

www.oeko.de
b.brohmann@oeko.de; r.barth@oeko.de

Partner names & Logos

National Consumer Research Centre, Finland
www.ncrc.fi

University College London
www.econ.ucl.ac.uk

Baltic Environmental Forum
www.bef.lv

ecoinstitut Barcelona
www.ecoinstitut.es

Institute for Social-Ecological Research, Frankfurt
www.isoe.de

ICLEI – Local Governments for Sustainability
www.iclei.org

Project website

www.eupopp.net

Published by

EUPOPP Partners

Layout

www.3fdesign.de – Darmstadt

Picture Credits

Fotolia.de: Cover_right and left_2 © Daniel Schönen, cover_left_1 © Viona Westermann | **GettyImages.de:** Cover_left_3 © PhotoDisc | **iStockphoto.de:** Page 2 © scibak, page 3 © iStock inhouse, page 8_2 © Ivan Stevanovic/3f, page 9_2 © Peter Burnett, page 10_2 © narvikk, page 12 and 13 © pagadesign, page 17 © sturti, Page 18_2 © Miroslav Georgijevic, page 19 © inaquim, page 21 © suchoa lertadipat/3f | **Öko-Institut e.V.:** Page 8_3 and page 11

Executive Summary

Sustainable Consumption: the policy challenge

When designing policies to promote sustainable consumption patterns, policy makers and project managers face a number of limits and uncertainties.

In recent years, many European governments have developed strategies and policy instruments to promote sustainable consumption (SC). At the same time, the European Commission has launched an integrated Action Plan on Sustainable Consumption and Production and Sustainable Industrial Policy, demonstrating the commitment to tackle the issue of sustainable consumption as a priority (EU Commission 2003, COM(2008) 397/3). However, among all the policy efforts that have been undertaken so far, relatively few policy instruments directly target consumers (as opposed to producers) and only little is known about the effectiveness of these.

Sustainable consumption is defined as a more ecologically but also socially premised way of buying and using goods and services. While it is impossible to define sustainable consumption patterns in an absolute way, it is possible to determine consumption patterns which are relatively more sustainable – namely through assessing the improvement of economic, social, and environmental performance indicators – against a business-as-usual (BAU) scenario.

When designing policies to promote such relatively more sustainable consumption patterns, policy makers and project managers face a number of limits and uncertainties. Many of these uncertainties relate to the effects and effectiveness of the respective interventions: How successfully do they influence consumption patterns, and what are their ultimate environmental, social and economic impacts? What factors amplify or hamper the impacts of SC policy instruments? What can we learn from existing SC policy instruments with regard to the design of new and more effective instruments? And, ultimately, how can SC policies account for the fact that consumer action is interlinked with the dynamic activities of other market players and the path-creating effects of technologies and systems of consumption and provision?

This brochure presents the results of a three-year European research project funded under the 7th Framework Program of the European Commission. Throughout the project, an integrated assessment of the impacts of current SC policies and the sustainability potential of possible future instrument bundles was carried out.

We hope this document will be helpful to the interested reader to reach a more comprehensive understanding of how SC policies might contribute to sustainability in the EU-27 in the future.

EU Policies to Promote Sustainable Consumption Patterns

In 2008, the European Commission published its "Sustainable Consumption and Production and Industrial Policy Action Plan"

In the course of the European research project "Policies to Promote Sustainable Consumption Patterns" (EUPOPP) we have investigated current consumption trends, carried out a comparative analysis of policy instruments from all EU regions, and built scenarios to determine future impacts of sustainable consumption instruments.

Sustainable consumption as a policy field

Recent years have seen unprecedented interest in sustainable consumption and production (SCP) as a key lever to address today's environmental, social, and economic challenges. In its 2008 Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan, the European Commission acknowledges that:

> "The way we produce and consume contributes to global warming, pollution, material use, and natural resource depletion. The impacts of consumption in the EU are felt globally [...] The need to move towards more sustainable patterns of consumption and production is more pressing than ever."

For more information on the state-of-the-art of SC policy in the EU-27, please consult our report "Sustainable Consumption Strategies in the European Union", available at www.eupopp.net.

Sustainable consumption is not a new field for political action in itself. However, it has rarely been examined as a distinct policy field with very specific ambitions and characteristics that requires an integrated policy response. The EUPOPP project addressed this knowledge deficit under the umbrella of an integrative conceptual framework.

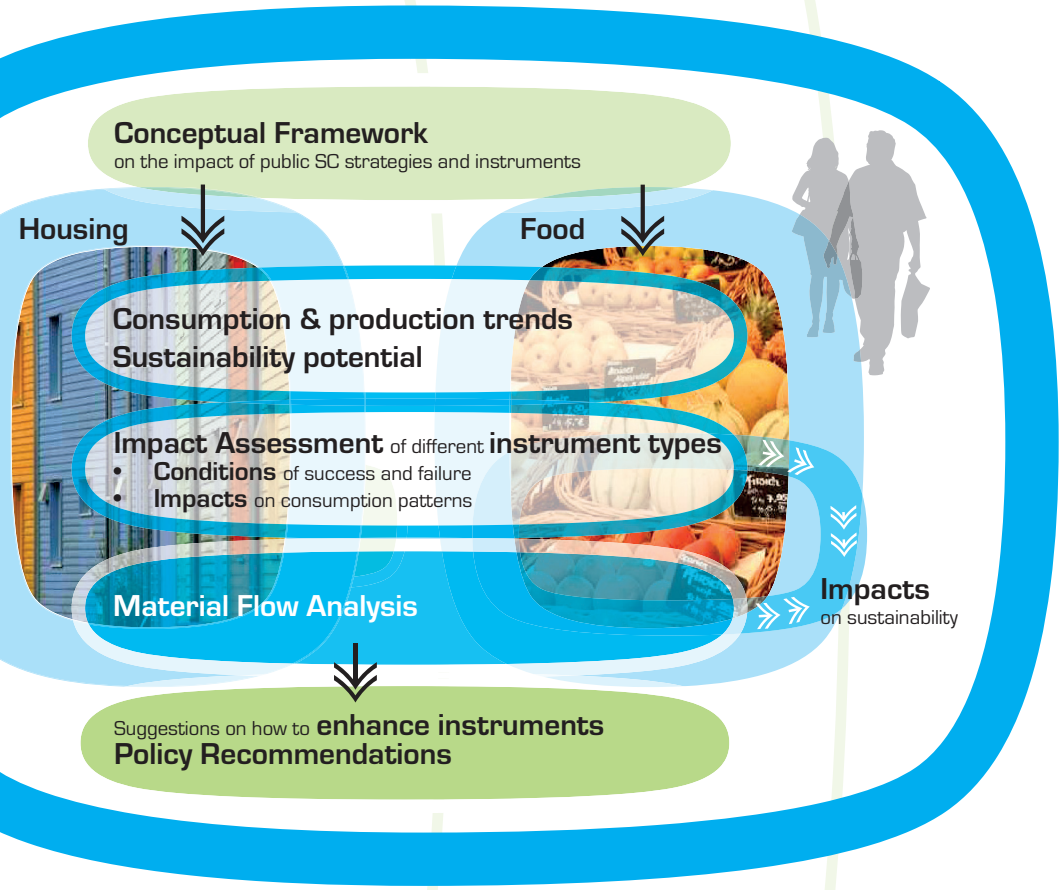


Figure 1

The innovative EUPOPP project design interlinked policy and material flow analysis in an interdisciplinary, mixed-methods approach.

The project

While in the past years, the body of knowledge and research on SC instruments has substantially evolved, a few important gaps remain. Particularly, the quantification of SC policy impacts, measured by a set of sustainability indicators, is still a methodological and data challenge. Against this backdrop, the EUPOPP project addressed a number of policy-relevant questions, such as:

- How can effects of policy instruments on sustainable consumption be assessed and how do they influence sustainable consumption?
- What are conditions of success or failure that promote or hamper the impacts of a SC instrument on consumption patterns?
- What are options to enhance sustainable consumption policies and instruments?
- What are key factors for the successful transfer of best practice examples within the EU?

The EEA's Fourth Assessment of Europe's Environment" (2007) identified housing and food as high-impact areas of consumption

According to the Fourth Assessment of Europe's Environment carried out by the European Environmental Agency in 2007, food and beverages, private transport and housing (including construction and energy consumption) are those areas of consumption that are causing the highest life cycle environmental impacts. Among these priority areas, the EUPOPP project focused especially on the need areas of housing and food.

While all European regions were covered by the project, five countries received particular attention: Germany, the UK, Spain, Finland, and Latvia.

The EUPOPP project design

The project was guided by a Conceptual Framework, outlining the main parameters for an interdisciplinary assessment of the outcomes and impacts of sustainable consumption policies.

The assessment of such instrument effects must account for the fact that consumer action is interlinked with the activities of other market players and the path-creating effects of systems of consumption and provision. This inherent complexity requires an interdisciplinary, mixed-method tool for assessing and explaining the effects of sustainable consumption instruments. The EUPOPP approach interlinks policy analysis and material flow analysis in an integrated research design. It was applied to ten instrument case studies the results of which, in turn, fed into scenario building in order to project the future impact of SC policies.

Based on these research steps, the project tackled the following priority questions:

- **Best Practice in Europe** "Which instruments have proven to be effective?"
- **Success factors and barriers** "Which measures are apt to increase instrument effectiveness?"
- **Successful policy bundles** "Which instrument mixes are advantageous?"
- **Future sustainability potentials** "What difference can successful, enhanced SC policies make for sustainability in Europe and beyond until 2030?"

The EUPOPP research challenge

The EUPOPP project aimed to improve the understanding of the impacts of sustainable consumption (SC) policies on consumer behaviour and ultimately sustainability. This challenging task required an integrated empirical approach that combines qualitative and quantitative elements into an innovative methodological approach.

Setting the scene

Based on an extensive inventory of SC policies, ten instruments were selected for in-depth analysis.

The point of departure was a **conceptual framework** aiming to illustrate the relationships between SC policies, consumption patterns and sustainability.

Based on an extensive inventory of SC related policies, a total of ten instruments were selected for in-depth analysis which addressed areas with a high potential for sustainability impact and were implemented in EU Member States. The instruments were selected to represent different instrument types: regulatory, economic, communicative and procedural and voluntary instruments. They do not represent typical policy instruments in the respective countries, but rather a mix of innovative and mature policies that addressed areas of consumption with a significant potential for sustainability improvements.

In order to identify those areas with the highest possible impact, **trends of consumption**, starting from 1995, were identified and quantified to estimate the **sustainability potentials** that SC instruments can tap into.

Ex-post impact assessment

The EUPOPP policy analysis builds on an established categorisation of policy instrument effects (outputs, outcomes, impacts): SC policy instruments are being developed and implemented in the form of various concrete measures and activities (outputs of the policy process). When successful, policy outputs lead to outcomes. Outcomes of an SC policy instrument are changes in consumption patterns triggered by changes either in individual consumer behaviour or in the framework conditions of consumption. Changes in consumption patterns typically entail changes in related production systems and, ultimately, environmental, social, and economic sustainability. These sustainability effects are called impacts. Finally, SC policies can have side effects which may, in turn, promote or hamper sustainability (e.g. through rebound effects). On this basis we developed an integrated model of policy pathways, depicted in Figure 2.

In the first step of the EUPOPP analysis, the effects of selected European SC instruments were identified and evaluated in ten in-depth case studies with the help of expert interviews, focus groups, statistical analysis, process tracing, and causal reconstruction.

The link between changes in consumption patterns and resulting sustainability impacts was modelled on the basis of material flow analysis (MFA). As a more generic and scenario-oriented form of life-cycle analysis, MFA systematically determines stocks and flows within a system: it connects the resources, pathways and final sinks of energy and materials, taking into account all relevant conversion steps and transports during and at the end of a product's lifetime.

In a second step, observed instrument effects were explained by identifying and assessing the role of relevant factors for success or failure of the instruments, based on a set of hypotheses.

Ex-ante scenario building

Developing innovative instrument bundles with a high potential for future sustainability improvements was at the core of EUPOPP

Taking into account the differences in socio-economic structures and consumption determinants within Europe, as well as the success factors and barriers identified in the EUPOPP policy analysis, we grouped particularly effective SC measures into potentially advantageous instrument bundles. On the basis of ex-ante scenarios, the sustainability potential of these bundles was then quantified in order to provide a benchmark for future policy making.

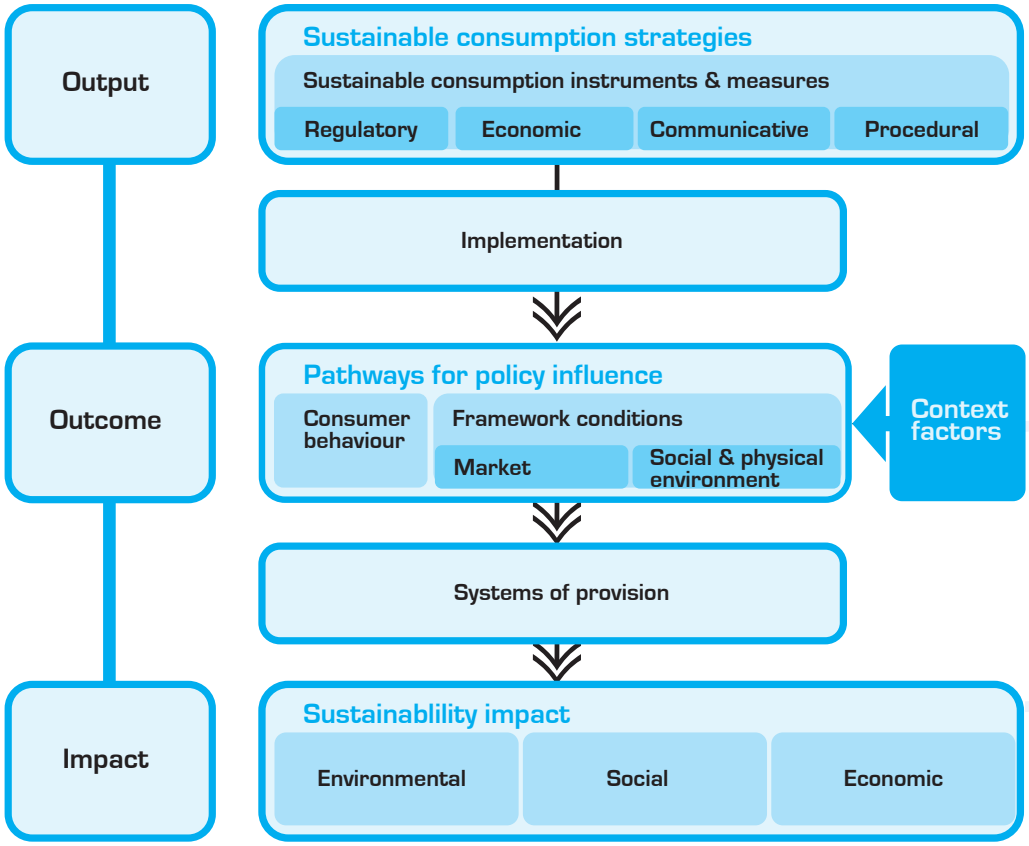
A coherent and cross-cutting baseline (BAU scenario) is indispensible for the comparative ex-ante analysis of the various policies for housing and food. This BAU scenario was constructed from empirical data drawn from existing databases at different levels of aggregation, including FAOSTAT, EUROSTAT, and regional/national statistical sources.

Furthermore, the BAU scenario made use of results from other models of future developments in the EU, especially from the energy (PRIMES model of European Commission DG Energy), and agriculture sectors (CAPRI model of European Commission DG Agriculture).

Based on the reference scenario, MFA was used to build alternative scenarios on the future application of the above mentioned instrument bundles. The sustainability scenarios provide a yardstick for what can be achieved through a set of SC policy instruments that decision-makers may choose to implement in the future.

Figure 2

An integrated model of policy pathways was the basis for the policy analyses in the EUPOPP project.



Consumption areas in focus

For analysis of current and future consumption trends, please consult our report "Consumption Trend Analysis and Sustainability Potentials", available at www.eupopp.net.

Housing and food are need areas with particularly pronounced environmental implications in the EU-27. Both areas are very closely related to our everyday needs for sustenance, nutrition, shelter, and quality of life. We therefore looked closely at current and expected future consumption trends in these areas to generate a comprehensive picture of the sustainability potentials that can be tapped in the future.

Sustainability potentials in the need area of housing:

While building materials, construction, and outfitting of buildings certainly have impacts on the environment, the biggest SC challenges in the need area of housing can be traced back to energy use.

Our initial analysis of consumption trends showed that three different aspects in the need area of housing exhibit particularly great sustainability potentials:

Building characteristics, particularly insulation:

The energy performance of buildings is heavily dependent on building characteristics, particularly insulation. Projecting the current rate of retrofits and new buildings into the future, and under consideration of the best available technologies, we estimated a GHG emission reduction potential of approximately 300 mill. t CO_2 eq.

Household energy consumption for heating and hot water:

This reduction potential can be further increased through changing heating systems from fossil fuels to a 35 % additional share of solar and biomass heat generation. Such a change would release an additional potential to reduce GHG emissions of approximately 270 mill. t CO_2 eq.

Household electricity consumption due to the use of appliances:

Household appliances make up much of the everyday electricity consumption in European households. Looking at current purchasing and use trends for household appliances we estimated the GHG emission reduction potential for the case that all household appliances were replaced with the most efficient ones in the market by 2030. Such a switch would enable an additional GHG emission reduction of approximately 120 mill. t CO_2 eq.

Policy making in the need area of housing

The need area of housing is a comparatively well established field of action for public policy: there are a variety of experiences in targeting unsustainable behaviours effectively and efficiently through policy instruments. However, our analyses show that an optimisation of most of the existing instruments is important to realise the full potential that these instruments offer. This relates, in particular, to improving the enforcement of mandatory standards for existing buildings, enhancing coordination and harmonisation between instruments, as well as enabling stakeholders to better financing schemes, e.g. grants and loans for financing retrofits.

Sustainability potentials in the need area of food

Up to 47 mill. t of CO_2 could be saved by 2030 if current food consumption trends continue.

Exploring sustainability potentials in the need area of food meets the challenge of a great variety of food products with very different value chains, nutritional values, and sustainability impacts. Therefore we clustered the relevant food products into six groups, notably meat, cereals, vegetables, fruit, dairy products, and fish. The six product groups cover all basic foods.

The EU-27 exhibits a wide variety of diets and food consumption patterns. For instance, while Southern European households tend to spend relatively more of their income on food than other regions in the EU-27, they also consume less meat than, e.g. households in Western Europe. The most powerful driver of environmental impacts, with regard to food, is meat consumption. Hence, a transformation of average EU diets towards less meat and high-fat dairy products and more vegetables and low-fat diary products could achieve 25 % GHG reduction by 2030. This is equivalent to 47 mill. t of CO_2 eq.

Beyond nutrition

However, the sustainability of food consumption goes beyond the amount of meat in the average diet. Behavioural patterns, such as the frequency of eating out in restaurants or public canteens, preferences for fresh products or industrial convenience foods, the purchasing of regional and/or organic food, and many other aspects play a role in this complex "sustainability equation".

Moreover, food consumption is culturally embedded and as such has a meaning beyond the mere intake of nutrients. Food may be an expression of particular lifestyles or health concerns. Consumption preferences are also a matter of income and daily cooking and eating routines. Last but not least, the consumption of food is still a highly gendered activity, e.g. as regards the allocation of responsibilities for purchasing and preparing food in households and/or concerning the food preferences of men and women.

Food as a field for policy intervention

The need area of food and nutrition is a relatively new field for policy intervention. As such, much is still open to societal debate. Consequently, there are very few experiences with designing policy instruments despite a variety of mostly local and/or voluntary initiatives across the EU-27. The other side of the coin is that there is still much room for mainstreaming existing and introducing new useful interventions, e.g. in the area of reducing food wastage. When aiming at sustainable food consumption, policy makers must think beyond actual food products and closely consider the role that food plays in everyday life.

Effects and success factors of SC policy instruments

In order to gain insights on the effects and success factors of sustainable consumption (SC) policy instruments, we empirically evaluated ten such instruments in the realms of housing and food from five EU member states.

The selected instruments and their effects

Tables 1 and 2 give an overview of the instruments selected for analysis.

Table 1

Overview of analysed policy instruments in the need area of housing.

	Finland	Germany	Latvia	Spain	UK
Instrument	Energy and Environmental Expert scheme: voluntary peer-to-peer advice in the private housing sector (1995)	Mandatory energy efficiency standards for buildings (2009)	Individual heat metering and charging of multi-dwelling residential housing (1995)	Catalan water conservation campaign "Install Me!" (during drought 2007/08)	Carbon Emissions Reduction Target (CERT): energy efficiency obligation for electricity and gas sector (2008–2012)
Goals	To reduce energy and resource consumption in apartment blocks	To reduce the energy demand of buildings (above all for heating)	To allow allocation of individual costs for heat, based on the measurement of actual consumption	To reduce household water consumption and preserve water resources throughout the drought	To reduce lifetime CO_2 in the UK by 293 Mt by 2012 through energy efficiency measures in private homes
Outcome level	Low to Medium	Medium	Low	Medium to High	High

Table 2

Overview of analysed policy instruments in the need area of food.

	Finland	Germany	Latvia	Spain	UK
Instrument	Public catering requirements for sustainable meals (2009)	Mandatory deposit on one-way beverage packaging (2006)	"Quality product" label: national food quality scheme (2001/2008)	Selective collection of organic waste in Catalonia (1993)	Report and 'framework for dialogue' by WWF-UK and FEC on reducing livestock-related GHG emissions (2009)
Goals	To promote sustainable meals via public catering	To increase the share of beverages in reusable packaging	To promote the manufacturing and sale of quality products from agriculture and food processing	To increase selective organic waste collection and valuation	To increase discussion among stakeholders, and recommendations on reducing meat consumption
Outcome leveel	Low (as yet)	Medium	Low	Low to Medium	Low

Instrument effects encompass changes in consumption patterns ("outcomes"), subsequent changes in the state of the environment, society and/or economy ("impacts"), and side effects. According to our assessments, half of the instruments feature low outcome levels and two exhibit low to medium outcome levels. The four remaining instruments have generated medium to high outcomes. These better performing instruments are all regulatory or economic policies, with the exception of an instrument that combines communication with the provision of a technical support measure. Quantified information on impacts could be generated for some but not all instruments, due to problems with data availability and methodological challenges. Unintended side effects range from job protection to net cost reductions for households and, more importantly for us, positive and negative impacts on the instruments' core objectives.

For the complete cross-case analysis of success factors and barriers, please consult our report "Effects and success factors of sustainable consumption policy instruments: a comparative assessment across Europe", available at www.eupopp.net.

Success factors of and barriers to instrument effects

In addition to evaluating (ex-post) how successful each of the selected instruments was in contributing to sustainable consumption patterns, we aimed at explaining their outcome levels. The success factors and barriers we discussed include:

1 • **A valid intervention logic:**

The validity of the assumptions underlying an instrument on how it is to generate effects (i. e. its intervention logic) had substantial power for explaining instrument effectiveness. For instance, low outcome levels were related to blind spots in the assumptions on target group behaviour underlying several instruments. Instrument performance was in many cases also influenced by the existence (or, respectively, absence) of quantified targets and timeframes, monitoring mechanisms, consistent controls and credible sanctions.

2 • **Accommodation of consumer needs and practices:**

The case studies provide ample evidence that a 'consumer-friendly' design of SC instruments fosters instrument effects. Instruments were regarded as 'consumer-friendly', for instance, when they tied in with consumers' daily routines, strengthened their knowledge and capacities, or considered the concrete circumstances in which consumption and investment decisions were taken.

3 • **Target dimensions:**

We had proposed that instruments that jointly targeted consumer behaviour and the framework conditions of consumption were more likely to be effective. While our findings were not altogether conclusive, it emerged that three of the four instruments with a medium to high performance addressed framework conditions of consumption. This supports the view that changes in individual consumer behaviour require the existence of enabling systems of provision.

4 • **Stakeholder involvement:**

In more than half of the cases, successful stakeholder involvement in instrument development had fostered the creation of instrument effects. In at least two cases, however, stakeholders have demonstrably used their involvement in the policy process to push for weaker standards. Another case showed how disagreement between industry and policy makers on specific design aspects can lead to the obstruction of instrument implementation.

5 • **The market context:**

Our research confirmed a conventional wisdom – that the effectiveness of SC instruments is highly contingent upon a favourable market context, such as prices and product availability, market transparency, or trust in proper market procedures. For example, instruments aiming to increase the energy efficiency of buildings typically were in greater demand when energy prices rose. Property prices, however, were less relevant for the use of these instruments since the value of buildings presently hardly reflects their energy performance.

6 • **Policy interaction:**

The effectiveness of SC instruments was also affected by interaction with other policies. In many instances, our case studies could relate good instrument performance to synergetic policy interaction and – though less frequently – weak performance to antagonistic policy interaction, or to the absence of supporting policies.

7 • **Other factors:**

Success factors beyond those conceptualised in our hypotheses included transparent political communication and the devotion of political support or sufficient resources. Other barriers emerged from budgetary restrictions, timeconsuming planning and coordination processes and demanding social skills in the interaction with end-consumers.

From policy analysis to future scenarios

Our instrument bundles have been developed to create synergies through the concomitant implementation of individual instruments and to minimise negative tradeoffs.

In order to determine how improved SC instruments might affect future demand and supply, and respective impacts, we built future scenarios on sustainable consumption in the need areas of housing and food. For this we considered the projected evolution of current consumption trends in order to identify those aspects that were particularly suited for new or improved interventions due to their large sustainability potential.

Bundling of policy instruments

The effectiveness and ultimate impact of policy instruments can be significantly enhanced if they are combined into coherent 'bundles' or 'mixes'. Therefore, we designed coherent sets of instruments with differing levels of ambition, for which the combined effects in the need areas were considered in our scenarios.

The selection of instruments to be bundled considered the potential of creating synergies through the concomitant implementation of the individual instruments, and of minimising negative tradeoffs. We estimated the capacity that different instrument types have for affecting change in consumption patterns, drawing on the results of our ex-post policy analyses. Furthermore, we combined instrument bundles covering more than one consumption phase (purchase, use, disposal) as well as framework conditions of consumption (enabling systems and infrastructures). The instrument bundles were aggregated at the EU level, warranting in some cases the transposition of existing national/regional instruments to the community level.

Deriving future scenarios

To develop the SC scenarios, the implementation of SC instruments and policies in the need areas of food and housing was assumed beyond a business-as-usual (BAU) reference scenario. This means that the scenarios presupposed the implementation of additional or the enhancement of existing instruments. For each need area, a moderately ambitious (mainly optimisation of existing instruments) and a highly ambitious (inclusion of innovative instruments) scenario were quantified.

The instrument bundles were considered for a time horizon of 20 years, i.e. between 2010 and 2030. To allow for a "delay" caused by policy formulation and legal or administrative preparation, the implementation of bundled instruments is assumed to start in 2015, with full implementation by 2030. The implementation of the bundled instruments must also allow for some time to recruit acceptance in the respective customer groups and need areas, i.e. they are introduced slowly.

The housing scenarios: up to standard?

In accordance with the identified sustainability potentials in the need area of housing, the instrument bundles aim at reducing overall energy consumption through improving the energy performance of buildings, mainstreaming efficient technologies, and building capacity to address energy related issues among house owners and residents.

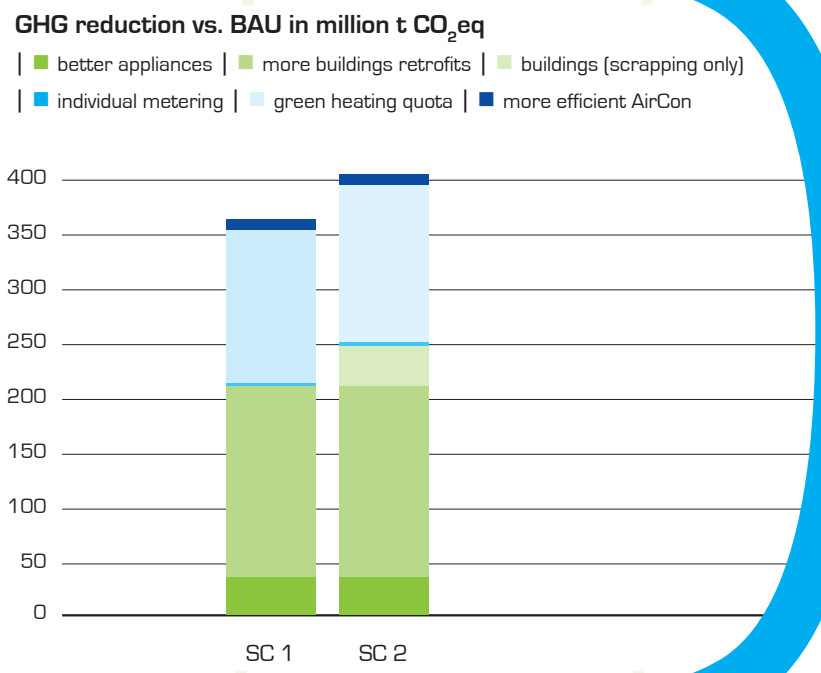
Through implementation of the suggested instrument bundles, between 26 % and 28 % of housing related GHG emissions could be saved until 2030.

- **Energy-efficient homes**: Optimise existing minimum performance standards for existing buildings, in combination with a "scrapping requirement" for very old non-retrofitted buildings, and a respective financial incentive scheme
- **Capacity building**: Increase energy advisory and audit services for residential customers, supplemented by large-scale information campaigns
- **Promoting efficient appliances**: Improve the EU Energy Label for appliances by regularly adjusting efficiency classes to the best available technology in the market and requiring the phase out of "outdated" appliances
- **Heating**: Implement individual metering for heat consumption, and "green" heating quotas for new systems based on renewable energy sources
- **Taxation**: Implementing an energy (or CO_2) tax on end-energy to prevent rebound effects, and use revenue to finance economic support schemes.

Figure 3

Scenarios of possible GHG reductions for suggested instrument bundles against BAU until 2030 in the need area of housing.

In total, the implementation of these measures might realise a reduction of about 371 million tonnes of CO_2 eq by 2030 (SC-1). In a highly ambitious scenario including mandatory scrapping requirements for old buildings and standardised individual metering across the EU, about 400 million tonnes of CO_2 eq can be saved by 2030 (SC-2). Compared with a, BAU scenario, the instruments could reduce emissions by 26 % and 28 % respectively.



The food scenarios: sustainability through reducing wastage

Through implementation of the suggested instrument bundles, between 4 % and 16 % of food related GHG emissions could be saved until 2030.

In the need area of food, the most relevant target area for SC interventions is the consumption of meat and dairy products, as both product groups entail high emissions, biodiversity loss, as well as land and water pollution. The proposed instrument bundles address both household food consumption and public catering, e. g. in school canteens. Since there are only very few mature instruments available for optimising in the need area of food, the scenarios include more consensus-building communicative instruments, presuppose more radical behavioural change, and include more innovative instruments than in the previous section.

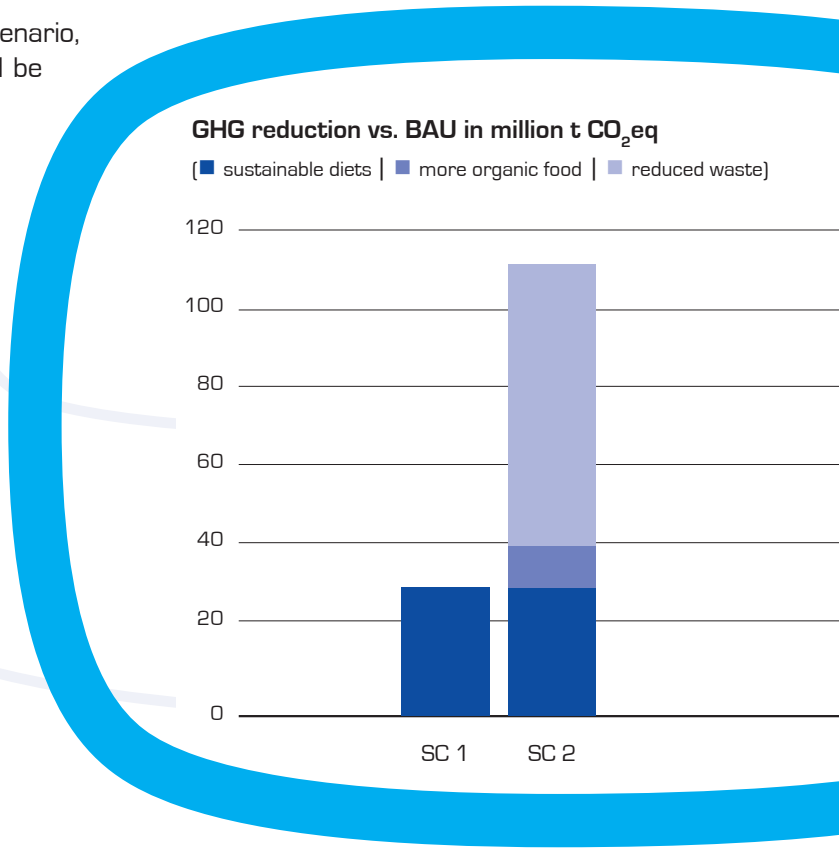
- **Green Public Procurement**: Introduce requirements for sustainable meals in catering for public educational institutions, in combination with one vegetarian day per week
- **Pricing**: Implement a consumer tax on meat products
- **Reducing wastage**: Require retailers to expand the sell-by dates of food in retail, and promote customer information on best-use-before labels
- **Going organic**: Raise the share of organic food through a combination of public procurement, mainstreaming availability in retail, and tax exemptions
- **Promoting sustainable diets**: nutrition classes in school and advice in stores, in combination with other communicative / awareness raising instruments

Figure 4

Scenarios of possible GHG reductions for suggested instrument bundles against BAU until 2030 in the need area of food.

In a moderately ambitious scenario, about 29 mill. t of CO_2 eq could be saved by 2030 (SC-1).

The largest share of potential GHG emission reductions, however, is realised through tackling food wastage. A total of about 111 mill. t of CO_2 eq could be saved in the ambitious scenario by 2030 (SC-2). This constitutes a 4 % (SC-1)/16 % (SC-2) emissions reduction respectively.



In focus: The transferability of SC instruments

For an analysis of the applicability of our generic success factors for policy transfer, please consult our report "Options to improve policy transfer" or turn to our excursion paper „The Central and Eastern Europe challenge", both available at www.eupopp.net.

The transfer of "best practice" among countries of the EU is a much debated issue and may be vital in attaining more effective SC policies across the union. We identified and analysed a set of generic criteria for the transferability of SC instruments, with a view to determining to what extent those conditions responsible for the success of instruments can be assumed to be 'transferable' to other contexts.

Options to improve policy transfer of SC instruments

Policy transfer can be understood as an intentional process involving the sharing of experiences, adaptation of an instrument to a new context, and social learning. It may vary from self-initiated, voluntary to premeditated, "coerced" policy transfer.
The transfer of sustainable consumption policies (as opposed to other policies) meets specific challenges. Firstly, SC policy to an exceptional extent needs to take into consideration structural and institutional context factors that vary from country to country and cannot easily be 'transferred' along with a successful policy. These refer to the macroeconomic setting, the need to accommodate a host of different actor interests, as well as promoting newly introduced measures among society at large.

Group one

Macroeconomic circumstances

Problem analysis and target setting

Fit of interventions to a given institutional setting

Economic structure and market conditions

Levels of consumption of goods and services

Group two

Reactions to different interests

The role of distinct demographic groups

Political practicability and political marketing

Dynamics of rationalities and power among stakeholder groups

Group three

Acceptance measures

Conflict potential of interventions

Legitimacy of interventions

Mainstreaming policy innovations

Figure 5

Factors influencing successful policy transfer

Successful policy transfer is not a quick fix. Even in the context of a structured, externally induced transfer, e.g. from the EU to member states by means of a directive, policy makers are well advised to take a medium to long term view. It means not excluding potential beneficial policy options simply based on the fact that short-term resistance may be a barrier. In this vein, our generic factors differentiate between the short (acceptance measures), medium (accommodating stakeholder interests), and long-term (addressing the macroeconomic setting). All three need to be addressed together in order to avoid simply copying for the benefit of genuine policy learning.

SC Policy Transfer key factors and their applicability for CEE countries

Central and Eastern European Countries (CEEC) have undergone a substantial policy transfer experience through EU accession. Most CEEC are still struggling with this process due to barriers in all three of the above mentioned factor groups.
The former communist regimes and their „economies of permanent shortage" created an enormous hunger for goods and Western lifestyle. In the recent 15 years the main driving force for growth in CEE was the satisfaction of consumption wishes of the society – to get the idea of "sustainable consumption" accepted by the societies in CEE is a future challenge.

In focus: Green Public Procurement

For an analysis of GPP as a lever to promote sustainable consumption, please consult our report "The Sustainability Potential of Public Procurement for Food and Housing", available at www.eupopp.net.

Public authorities may promote sustainable consumption through their own spending power in several ways. On the one hand, they may promote products and services which have positive environmental characteristics, by stimulating and thus increasing the demand for such products and services. On the other hand, public purchasing is important for gaining credibility by setting a good example (role model function) to other consumers, private and public. Therefore, the topic was highlighted and separately investigated.

> "Green public procurement (GPP) is defined as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured."

Public authorities as "role models"

The EUPOPP project focused on the role model function of GPP. This aspect has been much discussed but relatively little evidence is available on the topic. By means of expert roundtables in five different countries, we found that the impact that GPP can have on the consumption behaviour of individuals or the general public, the 'multiplier impact', is limited in practice, and particularly in the field of public housing. However, we found a number of examples where GPP has/is being used as a means for influencing the sustainability impacts for the two EUPOPP need areas. We found that the multiplier effect of sustainable public purchasing can be significantly strengthened when:

- Structures enabling **effective collaboration** between governmental departments and a common, politically backed understanding of GPP were present.
- **Standardised green criteria** for tendering products and services were available to reduce insecurity among procurers as regards legal permissibility and environmental desirability of such criteria.
- **Suppliers** of sustainable products and services were supported in meeting GPP requirements, e.g. through an open and transparent preparatory (pre-procurement) dialogue process.
- Resources were set aside for **capacity building** (e.g. specialist training or retraining) and awareness raising directed at staff of public authorities.
- Public services, such as school catering, that directly **involve private consumers** are progressively greened, and the purpose of these changes is adequately communicated.

In focus: Gender and sustainable consumption

For more information on gender issues and the importance of socio-economic diversity in SC policy making, please consult our report "Gender aspects of sustainable consumption strategies and instruments", available at www.eupopp.net.

The interaction between gender issues and sustainable consumption policies has been considered throughout the EUPOPP project. This includes the perspective on gender equality as a normative aspect of sustainability as well as the consideration of gender relations and roles as factors impacting on the sustainability of consumption and production patterns. Figure 6 lists some SC policy-relevant differences in life situations of women and men.

Policy relevant socio-economic differences in life situations of women and men:

- Despite an increasing participation of women in the labour market and the erosion of traditional gender roles, there is a persisting core of housework which is still assigned to women. Compared to men, they suffer more from time scarcity and have a less generous access to leisure time.
- Women tend to spend relatively more of their disposable income on essentials such as food, clothing and household articles, while men tend to buy expensive capital goods such as homes, cars and electronics.
- Consumption related competencies are differing between men and women. Women are more likely to have a higher food literacy than men. Men tend to be more concerned with technical decisions and investments in the field of energy.

Sharing responsibility

SC policies can be more effective, if they are sensitive to the different consumption-related responsibilities and competencies of woman and men. For example, the responsibility for energy saving and the use of sustainable energy in the household does not appear to be assigned along gender differences. However, women are more prone to changing everyday life practices in order to reduce their carbon footprint, while men more frequently state that they would rather invest in green technology. Consequently, women tend to initiate energy conservation in the household. On the other hand, information on energy use is usually targeted to men, because they are still seen as more technologically oriented.

Using windows of opportunity

At the same time, SC policies should account for the fact that the agency of consumers' emerges at the intersection of gender with other aspects of cultural diversity and social difference. For example, particularly in households with children, a growing concern with healthy nutrition, food quality, and nutrition related risks arises. In this vein, the birth of a child may be a biographical "window of opportunity" for sustainable consumption because it is a key event where the organisation of nutrition related work within a household is frequently renegotiated.

Conclusions and recommendations

More detailed policy recommendations, specifically for the need areas of food and housing, can be found in the EUPOPP Policy Brief, available at www.eupopp.net.

With energy prices on the rise across the EU-27 and escalating resource scarcity driven by consumption, it is becoming increasingly clear that we cannot afford current patterns of consumption in the mid or long term. Decision makers, industry, and consumers alike are presented with the challenge of how to change consumption patterns, not only on the individual but on the societal level, while, at the same, preserving or even enhancing "quality of life".

Policy makers, both at the EU and member state levels, have recognised this. In the need areas of housing and food we can observe an increasing number of policy instruments directed at promoting sustainable consumption. However, our findings show that most of these instruments have a much higher impact potential than is currently realised. The findings of the EUPOPP project suggest significant improvement potentials in three priority areas.

Enhancing existing instruments

A broad range of SC instruments were investigated in the context of the EUPOPP project, resulting in the emergence of a number of common shortcomings in existing SC policy. These should be addressed in the short term in order to realise the full potential of currently existing instruments.

Our policy analysis showed that SC policy instruments, successful in changing consumer behaviour, tended to have the following characteristics: firstly, the large majority of them were regulatory and economic instruments, i.e. entailed mandatory and sanctionable obligations. Communicative and voluntary instruments alone did not yield comparative levels of results, though they made indispensible contributions in policy mixes. As a general lesson, the existence of complementary supportive policies within policy mixes was often decisive in promoting instrument effects. Secondly, the majority of more successful instruments had clear objectives and ambitious, quantified targets the (non-) achievement of which was monitored and credibly sanctioned. As a lesson for policy-making this means that decision makers should not recoil from 'tough' instruments and ambitious targets. The costs that emerge from such policies for target groups are to some extent offset by efficiency gains and innovation effects.

Furthermore, our case studies showed that SC instruments were more widely used and more successful when they fitted with the constraints and requirements of consumption habits in everyday life. These vary according to lifestyles and socio-cultural attitudes, but also according to the social background of household members, and the consumers' organisation of time, work, and leisure. For policy-making this implies that SC policies needs to better target the consumer by accommodating their needs and practices, capacities and personal life situations. One way of attaining more 'consumer-friendly' instrument designs can be the integration of consumers – as individuals, not as organised lobby groups – into policy-making, for instance by using focus groups with consumers in ex-ante impact assessments of future instruments and reviews of existing instruments.

Taken as a whole, the EUPOPP case studies also suggest that a combination of environmental and other – preferably immediate – co-benefits offer improved prospects for the success of an instrument. This is because people tend to be more motivated to take action when there is a visible positive effect "close to home". For instance, energy efficiency measures tend to be rather successful because saving energy is related to cost savings as well as the more remote goal of climate protection. In the same vein, consumers with a preference for locally grown and/or organic produce tend to appreciate the associated health benefits and the prospect of contributing to the local economy, at least as much as the more general environmental benefits of such products. For policy-making this implies that designing SC policies in ways that provide immediate co-benefits can highlight progress and achievements or, respectively, provide 'consolation' in case the environmental improvements are not locally visible or conclusively attributable to the instrument.

Improving collaboration and coordination

Synergetic policy bundles are essential: the existence of complementary supportive policies within policy mixes was often decisive in promoting instrument effectiveness.

Currently sustainable consumption is not perceived as an integrated policy field by decision makers and other societal actors. Instead, there are many sectoral approaches in the fields of housing, mobility, food, and others. Current governance structures, to a certain extent, mirror this sectoral differentiation in the form of ministries (on the national level) or DGs (on the EU Commission level), which lead to significant overlaps and competition for competencies in the area of SC.

Integrated policy efforts, such as the SCP Action Plan, are a start towards overcoming this fragmentation. In the future, the EU should play a much stronger role in setting the scene for successful SC policy making by providing coherent framework policies that member states can act upon. In this vein, the EU is important, both as an instance promoting the need for action in the field of SC and as a strategic actor, laying out the parameters in which SC policy making is to be carried out.

More fundamentally, the sharing of responsibility between actors from policy-making, industry, and civil-society has to be renegotiated. Only in a collaborative effort positive long-term change can be achieved. Particularly, the myth of the sovereign and rational consumer should be thoroughly reconsidered.

At the same time, an adjustment of what we consider an indispensible part of our "quality of life" is necessary. Ever more, better, and cheaper access to goods and services may no longer be adequate determinants of life satisfaction in highly affluent European societies. Particularly in the less mature need area of food, this entails a focus on moderating dialogue and investing in "political marketing" activities with a view to developing a new societal consensus on sustainable food consumption and building legitimacy for future interventions.

Bundling and ensuring policy coherence

Successful SC instruments must address the structures and systems that define the opportunities and limits for individual consumption decisions to enable consumers to act sustainably.

Another EUPOPP finding pointing in the same direction is that the majority of the more successful SC instruments addressed not (only) consumer behaviour as such but modified the structures and systems that define the opportunities and limits for individual consumption. This makes it possible for consumers to change their behaviour without having to shoulder disproportionate costs. Furthermore, inclusion of producers, inter-mediaries or other stakeholders in instrument implementation tended to promote instrument success, e.g. by sharing implementation costs, promoting social learning or making more sustainable product alternatives more easily available.

For policy-makers this implies that sustainable consumption and sustainable production policies need to be more closely aligned. Where sustainable consumption policies try to create change, and sustainable production policies do not help to provide products and services accordingly, effectiveness will be limited.

In the same vein, disjointed instruments aiming at increasing efficiency and promoting behavioural change towards more sustainable consumption patterns will only encounter limited success. Technological innovation, efficiency gains on the production side, and instruments aiming at behavioural change in individual consumers need to be integrated to realise their full potential through synergetic effects. This requires a step away from an individual policy focus towards coherent policy mixes or bundles.

Moreover, coherent instrument bundles are likely to result in a range of additional impacts beyond GHG reductions, as our scenarios have shown. Internationally, the use of non-renewable resources (primary energy and raw materials), as well as land use could be significantly reduced. Last but not least, the undiscounted change in net monetary expenditures (costs) for energy and nutrition services in the need areas could be reduced by nearly 20%. At the same time, the net employment balance related to the implementation of coherent instrument bundles as proposed in the EUPOPP scenarios would be positive, implying the creation of some 100,000 jobs in energy and nutrition services. It is also a noteworthy that such results can be achieved with relatively minor distributional effects.

Good to know

List of tables

Table 1 Overview of analysed policy instruments in the need area of housing

Table 2 Overview of analysed policy instruments in the need area of food

List of figures

Figure 1 The innovative EUPOPP project design interlinked policy and material flow analysis in an interdisciplinary, mixed-methods approach.

Figure 2 An integrated model of policy pathways was the basis for policy analysis in the EUPOPP project.

Figure 3 Scenarios of possible GHG reductions for suggested instrument bundles against BAU until 2030 in the need area of housing.

Figure 4 Scenarios of possible GHG reductions for suggested instrument bundles against BAU until 2030 in the need area of food.

Figure 5 Factors influencing successful policy transfer.

Acronyms

BAU scenario	Business-as-usual (reference) scenario
CEEC	Central and Eastern European Countries
CO_2 eq.	CO_2 equivalents
EEA	European Environmental Agency
EU	European Union
EUPOPP	European Union Policies to Promote Sustainable Consumption Patterns
GHG	Greenhouse gas(es)
GPP	Green Public Procurement
MFA	Material flow analysis
SC	Sustainable consumption
SC-1	Scenario 1 (moderately ambitious)
SC-2	Scenario 2 (highly ambitious)
SCP	Sustainable consumption and production

All deliverables and project papers of the EUPOPP project are available at

www.eupopp.net

Imprint

This document presents the findings of a research project funded under the EU's 7th Framework Program. The project started in August 2008 and ended in July 2011.

Policies to Promote Sustainable Consumption Patterns – the EUPOPP Project

This brochure presents the results of a three-year European research project funded under the 7th Framework Program of the European Commission. Throughout the project, an integrated assessment of the impacts of current SC policies and the sustainability potential of possible future instrument bundles was carried out.

Our findings show that existing efforts aiming at making consumption patterns yield results, but can be significantly improved. The way forward includes more systemic approaches to sustainable consumption and production, improving the policy design and implementation of individual policy instruments, as well as devising coherent policy bundles that can enhance policy effectiveness through synergies while mitigating negative tradeoffs.