

62 ways of enabling sustainable consumption

A collection of examples from research in Mistra Sustainable Consumption

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Preface

The report is a compilation of research within the research program Mistra Sustainable Consumption, on how sustainable consumption could be enabled. The compilation is by no means comprehensive, but it does provide a picture of the diversity of ideas and proposals that have been subject to attention in the program's research reports and scientific articles. The authors of this report are responsible for the interpretation of the researchers' results and the conclusions drawn.

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Summary

Consumption in Sweden is currently far from sustainable because the goods we consume cause extensive negative consequences for both people and the environment. Within the Mistra Sustainable Consumption research program, researchers have identified a number of ways in which living and consuming, in the areas of food, vacationing and home furnishing, could help achieve more sustainable consumption. Within the program, research has also been conducted regarding how these so-called practices could be made possible, and by what means. The researchers investigated how sustainable consumption could be achieved through initiatives among citizens-consumers and civil society, innovative business models and through policy innovations. In this report, these proposals and ideas from the research have been gathered, with the aim of creating a toolbox with examples of governance and change towards sustainable consumption. We have called these “enablers” because they can enable sustainable consumption in various ways. 62 enablers are presented. They focus on private consumption and mainly on sustainable eating, furnishing, and vacationing, but also on enabling sustainable and reduced consumption in general. There are also a few enablers that relate to public consumption, especially when it comes to school meals. The examples are not to be seen as recommendations, but can be used as inspiration for politicians at both national and local levels, for decision-makers at companies and in authorities, and for organizations in civil society.

Introduction

Consumption in Sweden is currently far from sustainable. The goods we consume cause extensive negative consequences for both people and the environment. This applies, for example, to land use, loss of biodiversity, use of non-renewable resources such as metals, use of fresh water and emissions of environmental toxins.¹ Climate impact is also a big part of the problem. Swedes' consumption gives rise to about 9 metric tons of carbon dioxide equivalents (CO₂e) per person and year on average.² A large part, about 60%, of climate emissions are generated outside of Sweden because we import and consume goods produced in global value chains.³

In order to be in line with the Paris Agreement,⁴ which is to limit global warming to well below 2 degrees and pursuing efforts to halt at a 1.5-degree temperature increase, the average greenhouse gas emissions per person in the world need to come down to between -0.3 and 3.3 metric tons of CO₂e by 2050.⁵ Emissions are not evenly distributed between countries, groups or regions. In Sweden, for example, they vary with regard to gender,⁶ income, etc. According to a report from Oxfam, the 10% of Swedes with the highest incomes accounted for 24% of the emissions.⁷

Unsustainable consumption also creates negative effects on human health and well-being, both where the goods are consumed and where they are produced. In rich

countries like Sweden, for example, overconsumption of unhealthy foods causes bad health among the population, and in producing countries, production can be associated with the exploitation of workers.⁸

In other words, extensive changes are needed to address the problems and to achieve sustainable consumption. The research program Mistra Sustainable Consumption has focused on possible ways forward and identified a number of potentially sustainable practices in the areas of food, vacationing and furnishing.⁹ These practices can be about finding new ways to consume, or changing your lifestyle and relationship to consumption. Research has shown that technology development and environmentally smart products are not enough. We also need changes in what and how much we consume.⁵ One part of the program has therefore been to identify practices that focus on replacing environmentally and health-damaging products and services with more resource-efficient and healthy alternatives, *but also* practices that involve reducing the consumption volume of environmentally harmful goods and services.

Another part of the program has been focused on examining how these practices could be enabled, and by what means. In a number of scientific articles and reports, researchers have investigated how sustainable consumption could be achieved through:

¹ Brown et al. 2021, Carlsson-Kanyama et al. 2019.

² Statistics Sweden 2021

³ Brown et al. 2021

⁴ UN 2015

⁵ Larsson et al. 2021; Hagbert et al. 2019

⁶ Carlsson-Kanyama et al. 2021

⁷ Oxfam 2020

⁸ Köksal et al. 2017

⁹ Kamb et al. 2019; Thorson et al. 2019; Lehner et al. 2019.

- initiatives among citizen-consumers and civil society, a work package led by Professor Mikael Klintman at Lund University
- innovative business models, a work package led by Professor Oksana Mont at Lund University
- policy innovations for sustainable consumption, a work package led by Associate Professor Jörgen Larsson at Chalmers University of Technology

We have chosen to call the measures/changes/strategies/instruments that have been collected “enablers” because they can enable sustainable consumption in various ways. The enablers can be seen as a response to the question of *how* the identified sustainable consumption practices could become mainstream, i.e., become the usual way to consume/live sustainably.

The purpose of this report is to compile the enablers that have been subject to research within Mistra Sustainable Consumption. The idea is to create a toolbox with examples of measures and changes towards sustainable consumption. The collection of examples can be used as inspiration and a guide for further reading for politicians at both national and local levels, for decision-makers at companies and in authorities, and for organizations in civil society. The enablers have also been used in the program’s work to formulate flexible roadmaps towards sustainable consumption. They will also form the basis for planned research on efficiency, packaging and acceptance of instruments.

Method and materials

The enablers have been compiled in several steps as part of the program's synthesis work. Because many of the program's results concerning enablers were published in 2021 and 2022, enablers that were identified or would be investigated in the program were collected directly from the researchers in 2020. These enablers have since been revised and supplemented in 2021 as the research was published. In 2021, we also interviewed the researchers to ask for descriptions of enablers and what has been published about them within the program.

The research in the program has been mainly focused on private consumption and primarily for sustainable eating, furnishing and vacationing. In addition, we have identified several enablers that are working in multiple consumption categories and with reduced consumption. We have also conducted some research on public consumption, particularly in regard to school meals. The enablers have been classified in accordance with the categories: Administrative, Dialog and cooperation, Economic, Research and development, Consumer power, Knowledge and support, Influencing consumers/citizens, Influencing supply, Societal planning, and Spreading good examples (see Table 1 below). The categories are based on a combination of three other classifications taken from overviews of governance towards sustainable consumption, namely "Styrmedel och andra insatser för att minska svensk konsumtions påverkan på hälsa och miljö i andra länder" (Instruments and other initiatives to reduce the impact of Swedish

consumption on the health and environments of other countries) by Persson et al.,¹⁰ "Styrmedel för hållbar matkonsumtion" (Instruments for sustainable food consumption – A knowledge overview and ways forward) by Röös et al.,¹¹ and "Metoder för att ändra kostvanor – Fokus på insatser för att minska konsumtion av animalier" (Methods for changing dietary habits) by Lindahl and Jonell.¹² For our scope, which is broader than only political governance, some additions and adjustments were needed. We have chosen to not use the word "instruments" in the table, but rather have only indicated administrative and economic enablers. This is because those carrying out the enabling can sometimes be both a public and a private actor. We have also added the category "consumer power" to include initiatives from citizen-consumers, and introduced the category "influencing consumers/citizens" and differentiated between this and influencing supply. The reason for this is that we wanted to be able to discuss the responsibility and distinguish between when consumers themselves choose, regardless of whether or not they are nudged in a certain direction, and when the choice was already made for the consumer, for example if goods have already been removed from the product range.

¹⁰ Persson et al. 2015

¹¹ Röös et al. 2020

¹² Lindahl and Jonell 2020

Table 1: Classification of enablers

Type of enabler	Description	Source
Categorization of enablers		
Administrative	E.g. legally binding norms, thresholds, technical requirements	Persson et al. 2015
Dialog and cooperation	E.g. cooperation between actors, participation in international collaborations	Adapted from Persson et al. 2015
Economic	E.g. taxes, fees, subsidies, grants, emissions rights trading	Persson et al. 2015
Research and development (R&D)	E.g. research, demonstration projects	Persson et al. 2015
Consumer power	E.g. political consumption, boycott	Added because it was missing in the sources
Knowledge and support	E.g. informative instruments, eco-labeling, consumer information	Röös et al. 2020
Influencing consumers/citizens	E.g. through nudging or marketing	Adapted based on several of the sources
Influencing supply	E.g. limiting the supply by removing products from the range, or expanding the range of sustainable products	Lindahl and Jonell 2020
Planning	E.g. urban planning or investing in infrastructure	Adapted from Persson et al. 2015
Sharing good examples	Key actors sharing good examples and new stories	Lindahl and Jonell 2020

Results

The tables below show 62 examples of enablers broken down into sustainable eating (Table 2), sustainable vacationing (Table 3), sustainable furnishing (Table 4), and sustainable consumption in general (Table 5). Enablers for sustainable consumption in general can have an impact on several areas at once, or can influence by reducing the volume of consumption of environmentally harmful goods and services.

62 enablers of sustainable consumption have been described by the researchers. Of these, 21 are within the area of sustainable eating, 14 in sustainable vacationing, 17 in sustainable furnishing, and 10 in consumption in general. Categorized by type of enabler, there are 13 administrative instruments, 15 economic instruments, 3 that deal with dialog and cooperation, 2 with research and development, 10 with knowledge and support, 5 with influencing consumers'/citizens' choices, 9 with influencing supply, and 4 with planning. One enabler is about sharing good examples and none of the enablers focus on consumer power.

Several of the enablers are taken from reviews such as those of Rööös et al. (2020), and Dalhammar et al. (2022), which identify instruments for sustainable food consumption and consumer durables, respectively. Others come from published and not-yet published scientific articles. The enablers are most often described as possible future instruments, measures or changes. In a few cases, the environmental impacts of the enablers are also evaluated, for example for nudging and climate optimization of school meals.

Designations for the enablers are given in the first column of Table 2. The second column contains brief summaries of how the enabler is described in the program's publications and manuscripts. The third column, "examples of implementation," provides references concerning whether the enabler has been implemented in any context, if there is a discussion about possible design, or if there are similar enablers in any other area. The examples are primarily taken from the program's research and in some cases supplemented with links to further information. The examples are intended to serve as inspiration, and should not be considered as recommendations. The examples should instead serve to spark discussion on different potential designs.



Enablers for sustainable eating

Photo: Blair Fraser

Table 2: Enablers for sustainable eating

<i>Enablers</i>	<i>Description</i>	<i>Examples of implementation</i>
Administrative		
Requirements for improved sustainability	Gradually increasing requirements that food sold in the retail sector must be sustainable, for example through targets concerning the climate, biodiversity, health and social aspects. ¹³ Can be implemented as a government instrument, but also as an internal tool in business and as voluntary industry agreements. ¹⁴	Requirements for improved sustainability for food products are new, but similar instruments are used in the automotive industry. Requirements for maximum emissions from vehicles are used in the United States, for example, combined with sanctions if these are not met, as well as within the EU. ¹³
Regulation of marketing	Regulation and/or restriction of the marketing of unhealthy or unsustainable food. ¹³	A few countries have restrictions concerning the marketing of unhealthy products. In Chile, for example, certain products with a high caloric content may not be marketed to children under 14 years of age. ¹³
Dialog and cooperation		
Coordinate the value chain	Increased collaboration between actors in all links of the food chain to strengthen the chances of transitioning to sustainable consumption on a larger scale, ¹⁵ for example, through forums for dialogs between actors.	As an example, 15 major actors in the Swedish food market have joined forces in the " sustainable food chain " initiative.
Non-polarized communication	Change the language used in the communication surrounding sustainable products to reach a broader target audience, ¹⁵ e.g., by focusing on taste and avoiding polarization between animal- and plant-based diets, etc.	For example, not focusing on which raw ingredients are included in the food, but instead that it tastes good, and counteracting polarization through cooperation. ¹⁵
Economic		
Taxes on unsustainable food	Introduce taxes on food that is harmful to the environment and has an adverse effect on health, thus raising prices for the consumer. This aims at reducing consumption and thereby counteracting adverse effects. ¹³	Taxes to reduce adverse health effects on food are relatively common, for example on alcohol and tobacco, and there are also examples of sugar tax. Tax on meat to reduce emissions is a well-researched instrument but has not yet been implemented. ¹³

¹³ Rööös et al. 2020

¹⁴ Danielsson 2020

¹⁵ Svenfelt and Callmer 2021

Subsidies for sustainable food	Subsidize more sustainable food and thereby lower the price for consumers. To have a more positive impact, subsidies for sustainable food could be designed so that they replace less sustainable options and do not increase total consumption. ¹⁶	Subsidies on more sustainable products can be combined with increased taxes or fees on unsustainable products. A similar bonus–malus system exists for vehicles. ¹⁷
Price increases by removing subsidies	Remove subsidies on products harmful to the environment to increase prices. For example, milk subsidies for schools and preschools. ¹⁶	The EU annually distributes about 100 million euro through its "school milk scheme" to promote the distribution of milk to schoolchildren. ¹⁸
Consumption rights for meat	Regulate meat consumption by allocating meat consumption rights to consumers, thus regulating the total volume of meat that is sold. The consumer can choose to exercise their consumption rights or sell them on. ¹⁶	A system of consumption rights for meat could be likened to the EU ETS, with the allocation of emissions rights and the opportunity to resell emissions rights on a market. ¹⁶
Support for Swedish plant-based protein production	Meet the increased demand for plant-based protein by providing support to businesses in production. For example, by larger actors guaranteeing purchases on a minimum level, through contacts with Swedish farmers, or financial support for the production of plant-based protein. ¹⁹	The Dutch government similarly supports the " Green Protein Alliance ," an association whose members include retail chains and producers in the food industry.

Knowledge and support

Negative labeling	Food products are given negative labels signaling if the product has a high environmental impact or is associated with health risks. ¹⁶	Chile, for example, has introduced a system with warning symbols on food products with an unhealthy content of fat, sugar, salt and calories. ¹⁶ In Sweden, Max Burgers, for instance, has introduced negative climate labeling regarding CO ₂ emissions on their burgers.
Positive labeling	Positive labeling signals if the product meets an environmental or health criterion. Positive labeling can be done on a voluntary basis and through agreements. Labeling can have an effect by the	Positive labeling exists in a number of forms: voluntary labeling with certified organizations such as KRAV, the EU's certification of organic products, as well as the Swedish Government's voluntary keyhole

¹⁶ Rööß et al. 2020

¹⁷ Swedish Government 2021a

¹⁸ European Commission, online information

¹⁹ Svenfelt and Callmer 2021

	producers changing their production so that they can be eco-labeled and by the label changing consumers' choices. ²⁰	labeling on food that meets health criteria. ²⁰
Training of school chefs and other key actors	Training in sustainable food preparation for schools and preschools and other actors can be an important piece of the puzzle in overcoming limited skills when it comes to preparing good, healthy and plant-based/climate-adapted food and contributing to a transition to sustainable food consumption. ²¹	In Sweden, there are several initiatives aimed at increasing knowledge of vegetarian cooking and sustainable foods, such as the project Vego i världsklass (World-Class Veggie), which produces vegetarian menus for athletes.
Consumer guides and dietary advice	Collect information about sustainable/unsustainable consumption on, e.g., a website for interested consumers. The use of consumer guides and dietary advice is expected to be limited, but they can provide easily accessible information. ²⁰	Many examples exist. For example, WWF's Food Guide to sustainable meat, fish and vegetarian meals, and the Swedish National Food Agency's dietary advice, which provides guidance for healthy food, and to some extent reports on environmental aspects.
Mandatory environmental declaration	Requirement that producers inform consumers of the environmental impact and emissions that the product/service gives rise to. ²⁰	One example is the EU's mandatory energy labeling of household appliances. A Swedish example is a proposed bill to require a climate declaration for air travel sales. ²²
Develop educational tools	Develop educational tools that help teachers increase students' knowledge of food's environmental impact and understanding of sustainable eating. ²⁰	A number of initiatives have been developed in Sweden to support educators in educating students in sustainable eating, including the National Food Agency's " Hej skolmat " (Hello school meals).

Influencing consumers'/citizens' choices

Nudging	Retail spaces can shape the choice situation (e.g., how different products are displayed) so as to encourage certain behaviors and prompt consumers to make more sustainable choices. ²³	For example, using standard choices, defaults, which spare the customer from having to make an active choice. The K-märkt restaurant's lunch buffet, for example, serves "backwards," with green dishes first and meat, fish and poultry last, which nudges the guests to eat more vegetables and other plant-based foods.
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²⁰ Rööf et al. 2020

²¹ Parekh and Klintman 2020

²² Swedish Government 2021a

²³ Research on nudging in digital menus has been conducted in the program under the direction of Andreas Nilsson, University of Gothenburg. The article is not yet published, but will be uploaded to sustainableconsumption.se when it is available.

Influencing supply

Climate-optimization of public meals	Work with climate optimization of public meals so that they are nutritious, climate-smart and do not cost more, which can also create opportunities for sustainable eating habits. ²⁴	Climate-smart and nutritious school lunches have been tested in several schools. A sustainable menu created by the Optimat tool had a 40 percent lower climate impact, was similar to the usual school meals and, during the test period, the students did not eat less or throw away more food. ²⁵
Cooperation with schools	Create cooperation with schools and other public institutions and work to design menus with an increased proportion of vegetarian food or environmentally friendly food. ²⁶	WWF, for example, runs One Planet Plate , a meal certification program for meal providers.
Sales in parallel channels	Selection of more sustainable foods in more channels to follow societal trends. Can be combined with measures to reduce the consumption of unsustainable food. ²⁷	For example, producers of vegetarian products could cooperate with restaurants to focus on selling their products as ingredients in restaurant meals if people eat out more often. One example is O'Learys's collaboration with Oumph to create new dishes.
Strategic planning for improved selection	Strategic planning involving, for example, retailers, buyers and sellers to increase the selection and make it easier to find more sustainable products. ²⁸	For example, through the design of shops and shop shelves, or by developing strategies for country-wide distribution and access. ²⁸
Choice editing	Choice editing or choice architecture is similar to nudging, but can be designed so that some of the worst options are removed from the range so that they are not available at all as a choice for consumers. ²⁹	One example that has been implemented in the form of regulation is the ban on manufacturing energy-intensive light bulbs so that they are no longer sold. But the most environmentally harmful foods could also be removed from the range through other methods, for example through industry agreements.

²⁴ Research on climate optimization of school meals is being conducted in the program, under the direction of municipal doctoral student Erik André. The findings have not yet been published, but [a film about the project](#) has been published.

²⁵ Eustachio Colombo et al. 2020

²⁶ Parekh and Klintman 2020

²⁷ Parekh and Svenfelt 2022

²⁸ Svenfelt and Callmer 2021

²⁹ Dalhammar, Mont and Lehner 2022



**Enablers for
sustainable vacationing**

Table 3: Enablers for sustainable vacationing

<i>Enablers</i>	<i>Description</i>	<i>Examples of implementation</i>
Administrative		
Flight rights	Consumption is regulated by allocating emissions rights to consumers, in this case for flights, in order to reduce emissions from flying. ³⁰	A system with individual emissions rights is sometimes compared to the EU's Emissions Trading System (ETS). Individual emissions rights could in a similar way be used or sold on.
Incorporation of biofuels into aviation fuels	Incorporation of biofuels into aviation fuels. For example, with quota deadlines for the proportion of biofuel that must be mixed in. ³¹	A reduction quota scheme for jet kerosene has been in effect in Sweden since 1 June 2021, requiring suppliers of jet kerosene to reduce their emissions by mixing in biofuels. ³²
Rules for business travel	Reduce the number of long-distance business trips taken by employees, by introducing targets and guidelines to reduce business travel, technology for remote meetings, and individual bonuses for reduced air travel. ³³	The Municipality of Piteå has introduced an extra internal charge for air travel, in which the allocated funds go to emission-reducing projects within the municipality. ³³
Economic		
Bonus-malus systems for air and rail	Introduce a system with an integrated flight/rail tax, where increased taxes (malus) on flights are used to direct subsidies (bonus) to train trips. ³⁴	A similar bonus–malus system exists for vehicles. ³⁵
Flight tax	The flight tax can be raised considerably to reduce air travel. It is possible, for example, to introduce an aviation fuel tax on international flights between two, and more, countries through bilateral agreements or to raise current air passenger taxes based on the length of the flight. ³⁶ Flight taxes can be	Taxes on airline tickets were introduced in the United Kingdom in 1994 and Sweden introduced a tax on airline tickets in 2018. ³¹ Taxes on aviation fuels are uncommon, but one example is Norway, which taxes aviation fuels on domestic flights. ³⁰

³⁰ Larsson et al. 2020

³¹ Larsson et al. 2019

³² Ministry of Infrastructure 2020

³³ Elofsson et al. 2017

³⁴ Curtale et al. (manuscript). Research within the program that has not yet been published, but which will be uploaded to sustainableconsumption.se when it is available.

³⁵ Swedish Transport Authority's online information

³⁶ Larsson et al. 2019

	combined with subsidies for renewable aviation fuels. ³⁷	
Frequent flyer tax	Introduce an increasing air travel tax in which people traveling by air are taxed at an increasing rate for each trip made during a year. One possible design is that all citizens pay the current low rates on the first flight of the year, but for additional flights, the price increases. ³⁸	A frequent flyer tax has been proposed by many different actors, including the New Economics Foundation . There are as yet no practical examples of implementation.
Remove climate-damaging subsidies for aviation	Municipalities and regions can, for example, remove local financial support to airports. ³⁹	In 2019, the operating subsidies from the Swedish Government to non-governmental run airports was estimated at SEK 150 million, along with municipal grants of approximately SEK 240 million. ⁴⁰

Knowledge and support

International booking system for train travel	Simplify booking options for long-distance travel by train. Can also be combined with rights for the traveler in the event of missed connections or delays. ⁴⁴	Since the summer of 2021, SJ has offered the opportunity to book trips to other European countries along a number of routes, but does not, for example, have obligations in the event of missed connections. ⁴⁵
Mandatory environmental declaration for long-distance travel	Requirement that producers inform consumers of the environmental impact and emissions that the travel gives rise to. ⁴⁶	For examples, see mandatory environmental declarations for food.

Influencing consumers'/citizens' choices

Try-it-out promotions for night trains	The offers, with vouchers, for example, could be targeted at new customer groups to increase travel by train. Travelers who have previously tried out night trains are more positive to night trains as a travel option. ⁴¹	Promotions could, for example, be designed so that empty berths could be offered on a last-minute basis at drastically reduced prices and advertised on websites that normally offer package vacations for flights. ⁴¹
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³⁷ Matti et al. 2022

³⁸ Larsson et al. 2020

³⁹ Elofsson 2019

⁴⁰ Transport Analysis 2019

⁴⁴ Curtale et al. (manuscript). Research within the program that has not yet been published, but which will be uploaded to sustainableconsumption.se when it is available.

⁴⁵ SJ 2021a

⁴⁶ Ekvall et al. 2022

Influencing supply

Offer more comfortable train travel	Focus on offering more comfortable long-distance travel by train. For example, more comfortable seating and sleeping options on trains. Options with meals, more comfortable waiting rooms, or simpler connecting trips. ⁴⁷	The Austrian rail operator ÖBB, for example, has ordered new night train cars. ⁴⁸
Establish new night train lines	Set up new and modern night trains, as well as night trains on more lines. ⁴⁷ This could be done, for example, through subsidies to increase the profitability of running night trains, or by procuring or purchasing new night trains. ⁴⁹	The Austrian company ÖBB, for example, is expanding its operations with new lines between several major European cities. ⁵⁰
Attractive direct lines by train	Invest in new direct railway lines to attractive destinations, such as major European cities or vacation destinations. ⁴⁷	SJ, for example, has been procured to offer night trains between Stockholm and Hamburg for large parts of the year, starting in the second half of 2022. ⁵¹

Planning

Investments in railway infrastructure	Invest in the expansion of high-speed trains to give consumers an attractive alternative to air travel on longer routes. ⁵²	In Sweden, plans are being developed for the gradual introduction of high-speed lines between Stockholm, Malmö and Gothenburg, which could reduce the travel time between, for example, Stockholm and Malmö by up to 2.45 hours. For travel within Europe, the Fehmarn Belt tunnel, which is due to be completed in 2029, will reduce the travel time to continental Europe through Denmark by 2.5 hours. ⁴⁴
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⁴⁷ Curtale et al. (manuscript). Research within the program that has not yet been published, but which will be uploaded to sustainableconsumption.se when it is available.

⁴⁸ Link to ÖBB's own presentation of the new cars: <https://www.nightjet.com/en/komfortkategorien/nightjet-neue-generation>

⁴⁹ Larsson et al. 2020

⁵⁰ Björkman 2020

⁵¹ SJ 2021

⁵² Larsson et al. 2020



Enablers for sustainable furnishing

Photo: Bynder Love

Table 4: Enablers for sustainable furnishing

<i>Enablers</i>	<i>Description</i>	<i>Examples of implementation</i>
Administrative		
Ban on discarding of unused products	Prohibition against throwing away or destroying unsold and functional products. ⁵³	France, for example, has already introduced a ban on throwing away unsold food and unsold or returned clothing. Companies are instead encouraged to let the products be reused or, if this is not possible, recycled. ⁵⁰
Ban on planned obsolescence⁵⁴	Measures, such as bans, to prevent companies from putting planned obsolescence into the system. ⁵⁰	France has introduced legislation against planned obsolescence, making intentionally planned obsolescence a criminal offense. ⁵⁰
Longer warranties and changes in burden of proof	Extension of general statutory warranty period ⁵⁵ and extension of period in which the burden of proof lies with the manufacturer, which can give an incentive to sell better-quality products. ⁵⁰	Other proposals have been made to extend the statutory warranty period and to extend the period in which the burden of proof lies with the seller of the product. ⁵⁰
Minimum repairability requirements	Minimum requirements on repairability could, for example, mean that products are designed and manufactured so that they can be picked apart and repaired, and that spare parts and tools are available. ⁵⁰	Repairability requirements already exist in the EU's Ecodesign Directive. ⁵⁰
Dialog and cooperation		
Create partnerships with other companies to develop or procure services	Companies can enter partnerships with other actors to develop or procure services they need to develop sustainable business models for sustainable home furnishing. ^{56, 57}	An example of a partnership is one in which a company that rents out furniture works with a logistics company to handle the delivery and retrieval of rented furniture. ⁵⁷

⁵³ Dalhammar et al. 2022

⁵⁴ Planned or built-in obsolescence refers to a conscious process aimed at limiting the service life of products to stimulate further consumption.

⁵⁵ The statutory warranty for products in Sweden is currently three years, but after six months from the date of purchase, the consumer has to prove that the fault existed in the product at the time of purchase.

⁵⁶ Mont et al. 2021

⁵⁷ Schoonover et al. 2021

Economic

Bonus-malus system for home furnishing	Products with a low environmental impact and long service life are encouraged through a lower fee, while a higher fee is imposed on products with a higher environmental impact and shorter service life (such as through differentiation of VAT). ⁵⁹	A similar bonus-malus system exists for vehicles. ⁵⁸
Product deposit-refund schemes	A product deposit-refund scheme for products that are not repaired or reused after use. The deposit-refund scheme can increase the chances of the product being collected and recycled, reused or repaired. ⁵⁹	The deposit-refund scheme can be designed in different ways and for different product groups. ⁵⁹
Repair vouchers and repair funds	Consumers are given access to repair vouchers and can redeem them to lower the price of product repairs or upgrades. ⁵⁹	Vienna, for example, introduced a repair voucher system in 2020 that covers products such as furniture, home electronics and home appliances. ⁵⁹
Tax deductions/ subsidies for sustainable services	Tax deductions or subsidies for more sustainable forms of consumption such as the renting of private property or repair services to increase profitability and, in the long run, speed up development. Can be done, for example, through lowered taxes or VAT. ^{59,60}	The Swedish Government has presented a proposal to reduce VAT beginning 1 July 2022 on certain repair services from 12 to 6 percent. ⁶¹
Subsidize second-hand sales	Subsidize the sale of second-hand goods to increase profitability and, in the long run, speed up development. ⁵⁹ Can be done, for example, by eliminating VAT, or through forms of municipal support such as financing premises for the sale of second-hand goods. ⁶²	The ReTuna recycling mall in Eskilstuna is an example of how municipalities can take an active role in promoting second-hand sales and reuse.

⁵⁸ Swedish Transport Authority's online information

⁵⁹ Dalhammar et al. 2022

⁶⁰ Singh et al. 2019

⁶¹ Swedish Government 2021b

⁶² Mont et al. 2021

Research and development

New business models for sustainable home furnishing	Develop new business models based on circular flows, leasing and rentals. These can reduce environmental impact and bring added value for the consumer. ⁶³	Examples of successful business models for sustainable furnishing include companies that reuse materials or use recycled materials, companies that rent out furniture instead of selling, or companies that furnish with/sell second-hand furniture. ⁶³
Designing business models to reduce barriers for companies and consumers	Understanding common barriers that sustainable business models face, from the perspectives of both companies ⁶⁴ and consumers, ⁶⁵ can help companies design business models that reduce or overcome these barriers.	Rental companies can, for example, design their own products, giving them better influence over the product's design. Another business model could be to provide the platform for the rental of products that are owned and supplied by others in order to avoid the storage problem. Maintaining an insurance policy on items for rent can give customers the peace of mind to rent without being worried about breaking or damaging anything. ⁶⁴

Knowledge and support

Labeling service life and repairability	Information is provided concerning estimated service life and repairability for products. This could be done, for example, through mandatory labeling. ⁶⁶	Proposals have been presented to introduce mandatory labeling within the EU, and the European Commission is investigating the possibility of including such information in a so-called "product passport," a digital passport with information that comes with the product. ⁶³
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Influencing consumers'/citizens' choices

Linking new business models to familiar concepts	Combining business models and offerings that are new to consumers with something they recognize. ⁶¹	For example, a company that rents out bedding and towels to households can communicate this as "a hotel experience in the home." ⁶¹
Marketing in line with consumer drivers	Companies can highlight other aspects than sustainability	Sustainability doesn't need to be emphasized if it is not a primary

⁶³ Mont et al. 2020

⁶⁴ Schoonover et al. 2021

⁶⁵ Borg et al. 2020

⁶⁶ Dalhammar et al. 2022

	when marketing new sustainable business models. ^{61,62}	driver. Instead, other aspects such as comfort, innovation, economy or solidarity might be more attractive. For example, a home furnishings rental company can emphasize the advantage of not needing to transport furniture when you move. ⁶¹
Planning		
Planning that enables sharing	New ways of planning that improve opportunities for a sharing economy, i.e., loaning and exchanging furniture, home furnishings, tools for repairs, etc. This could be about common spaces for sharing and repairing or gadget libraries to borrow items instead of owning them. ⁶⁷	One example is Sege Park , a new district in the City of Malmö that will be a test bed for sharing solutions and contain, for example, a sharing library and a repair hub.
Open workshops for repair and reuse	Support do-it-yourself workshops by, for example, initiating pilot activities or supporting non-profit organizations that want to conduct these types of activities. ⁶⁸	Fixoteket is an example in which the City of Gothenburg has conducted a pilot project with premises around the city at which residents themselves can repair and reuse things free of charge. ⁶⁸

⁶⁷ Dalhammar et al. 2022

⁶⁸ Bradley and Persson 2022



**Enablers for sustainable
consumption in general**

Table 5: Enablers for sustainable consumption in general

<i>Enablers</i>	<i>Description</i>	<i>Examples of implementation</i>
Administrative		
Reductions in working hours	Create the opportunity for employees to reduce their working hours, with a corresponding decrease in pay. This could mean that others besides students and parents of young children could work part-time. Reducing working hours can increase well-being. ⁷¹ It is not yet clear if it could also reduce consumption and environmental impact. ⁷²	In 2015, the City of Gothenburg introduced the "right to work full-time with the opportunity to work part-time," giving employees in the City of Gothenburg good opportunities to reduce their working hours if they want to. ⁷³
Local and regional carbon dioxide budgets	Introduce local or regional carbon dioxide budgets as tools to focus on restrictions and sufficiency. ⁷⁴	Local carbon dioxide budgets have been calculated for a number of municipalities and regions in collaboration with researchers at Uppsala University. ⁷⁴ Region Västra Gotland, for example, has adopted a regional carbon dioxide budget. ⁷⁵
Targets for consumption-based emissions	Set targets for consumption-based emissions that also include emissions outside Sweden's borders. ⁶⁹	The Swedish Cross-Party Committee on Environmental Objectives has been tasked with proposing an overall strategy for reducing climate impact from consumption, and has suggested targets for consumption-based emissions. ⁷⁶ Several Swedish municipalities and regions have already adopted forms of consumption targets for reduced emissions. ⁶⁹
Steering toward alternative welfare measures	Alternative welfare measures can contribute to revised perceptions of what is considered "a good life". This could involve using indicators that comprise increased quality of life, health, education and	The previous government, for example, introduced fifteen measures of well-being that highlight financial, environmental and social aspects of quality of life as a complement to GDP in the Spring Fiscal Policy Bill 2016/17. ⁷⁸ Region Västra Götaland has also investigated alternative welfare measures. ⁷⁴

⁷¹ Persson et al. 2021

⁷² Handler and Nilsson Alarçon 2021

⁷³ Larsson et al. 2021

⁷⁴ Callmer and Bradley 2021

⁷⁵ Region Västra Gotland 2021

⁷⁶ Ministry of the Environment 2020; Cross-Party Committee on Environmental Objectives 2022

⁷⁸ Swedish Government 2017

equality instead of, for example, GDP.⁷⁷

Economic instruments

Climate customs duties	Customs duties can be imposed on goods imported from countries that don't reach a decided minimum level in terms of climate policy. ⁷⁹	The European Commission has adopted a proposal on climate customs duties (Carbon Border Adjustment Mechanism) to set prices on a number of selected products, but this legislation has not yet been implemented.
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Knowledge and support

Climate calculations for consumers	Develop tools that calculate individual climate impact from consumption and that also inspire people to live more sustainably. ^{80,81}	Svalna is an example of a climate calculator that calculates individual emissions using transaction data by linking Svalna's app-based calculator to a bank account. ⁸²
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Influencing consumers'/citizens' choices

Sufficiency campaigns	Run campaigns encouraging reuse and reduced consumption. ⁸³	The Swedish Society for Nature Conservation, for example, launched the campaign " Fixa grejen " (Fix the Thing) in 2018 to disseminate knowledge on how people can fix things themselves instead of buying new. Several municipalities participated in the "Minimeringsmästarna" (Minimization Masters) campaign, in which citizens compete in waste minimization and sustainable consumption. ⁸⁴
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Influencing supply

Sufficiency as business model	Companies can use sufficiency principles in their business models and work to 1) avoid consumption, 2) reduce consumption, and 3) work for reuse. ⁸⁵	There are several companies that have adopted this model and put avoided consumption before increased sales of new products. One example is Patagonia. ⁸⁶
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⁷⁷ Dalhammar et al. 2022

⁷⁹ Larsson and Nässén 2019

⁸⁰ Barendregt et al. 2020

⁸¹ Biørn-Hansen et al. 2020

⁸² Andersson 2020

⁸³ Persson and Klintman 2021

⁸⁴ Callmer and Bradley 2021

⁸⁵ Bocken et al. 2020

⁸⁶ Bocken and Short 2016

Planning

Develop non-commercial meeting places

Develop existing and/or new non-commercial meeting places to create better infrastructure for social economy, sharing, co-creation, reuse and innovation.⁸⁷

The DIY workshop initiative in Gothenburg ("[Fixoteken](#)"), for example, has had the side effect that the premises have become social meeting places where other activities such as tool libraries, food waste rescue, etc. can take place.⁹⁷

Sharing good examples

Share successful business models

Highlight examples of companies and organizations that work successfully with sustainable business models.⁸⁸

Compile data or create forums where, e.g., sustainable business models can be shared. For example, the [Ellen MacArthur Foundation](#) compiles examples of companies that work with sustainable business models and work to bring companies together.

⁸⁷ Bradley and Persson 2022

⁸⁸ Mont et al. 2021

Concluding reflections

The aim of this report was to compile the research within Mistra Sustainable Consumption investigating how sustainable consumption could be enabled. The results are a collection of examples, a sort of toolbox of ideas, that can be used as inspiration for actors working to enable sustainable consumption. In this compilation, we have only described the enablers, in order to show the breadth and volume of options available for the actors with the will and the opportunity to utilize them. The publications cited in the tables contain more in-depth descriptions of the various enablers. In some of the publications, certain enablers have been highlighted as suggestions, while others can be characterized as ideas. This means that the examples in the tables above should be viewed as examples, and not as things that the researchers recommend be introduced without further analysis. The underlying publications often include an analysis of both the pros and the cons of the enabler.

This compilation also does not discuss the impact that enablers might have and to what extent they could potentially contribute to sustainable consumption. These are questions that are difficult to answer as they will depend on many factors, such as to whom and which groups the enablers are aimed, who acts to implement them, and what happens in politics, business and the outside world. However, there are reports within the program that show environmental potentials if consumption could be completely restructured so that it is sustainable, regardless of which enablers have achieved this. Carlsson-Kanyama et

al.⁹⁹ demonstrate, for example, that transitioning to low-carbon products and services for food, vacations and furnishings, which are already available on the market and do not entail any costly investments, can lead to a total reduction in greenhouse gas emissions from consumption of 36–38%. In another report, the researchers¹⁰⁰ have developed scenarios in which they show how far Sweden can come towards achieving climate goals and reducing emissions from consumption through various changes. The report shows that technological changes are needed both in Sweden and in the rest of the world, and that significant reductions in air travel, car use, and consumption of beef and dairy products are required to reach the emissions levels needed to meet the goals of the Paris Agreement. To meet these goals, very powerful instruments and measures are needed. The program also includes research on which aspects may need to be considered if enablers are to be introduced. This could concern which types of support some of the proposals may receive from the public, and important factors have proven to be whether the instrument is perceived as fair and effective.¹⁰¹ Another example is that research on circular business models based on renting, repairing and sharing shows that the environmental argument is not the best argument, but rather that these models are most successfully marketed with messages about convenience and how it can simplify life for the customer.¹⁰²

62 enablers are described in the tables in this report. Many of them are administrative and economic enablers. In the background reports, public actors at the national or

⁹⁹ Carlsson-Kanyama et al. 2021

¹⁰⁰ Morfeldt et al. 2021

¹⁰¹ Matti et al. 2021

¹⁰² Borg et al. 2020, Schoonover et al. 2021

intergovernmental level, such as the state or the EU, are often described as those intended to be enablers, and they are often then referred to as policy instruments. The work with workshops on scenarios, visions and roadmaps towards sustainable consumption has shown, however, that it can be different actors doing the enabling in different external developments. In a development with unrest in the world, for example, local and regional institutions and actors may be more important, and in a political context in which regulation is difficult to drive through, business and civil society may be more important.¹⁰³ Things that are now formulated as policy instruments can also be conducted on a voluntary basis and with the help of industry agreements, such as that stores can affect the supply by removing the most unsustainable products from their ranges.

Several enablers identified in the program also focus on affecting the supply rather than influencing consumers' choices. This can be a consequence of the program's foundation in theories surrounding social practices, which means that explanations of how people eat, decorate their homes, and vacation are seen as complex. It is far from as simple as that sustainable consumption is about individual and well-informed choices, but rather context, structure and circumstances in the form of skills, supply, etc. also need to be considered. This means that structures must be created that provide better conditions for sustainable consumption practices that interact with people's social needs, e.g., for community and the construction of identities.¹⁰⁴

For eating, which is the area containing the most enablers, there are also some enablers

that focus on knowledge and support, such as information. Environmental information as the sole enabler of sustainable consumption has been debated and research has previously shown that it is an insufficient tool.¹⁰⁵ Information can work well in combination with other types of enablers, but a one-sided focus on information risks missing the mark.

There are only a few enablers focused on research and development. These deal, for example, with developing business models, but new research has not been in focus. This may have to do with the fact that the proposals were developed in a research program that already focuses on the transition to sustainable consumption. What is completely missing among the enablers are things focused on consumer power. In the program's continued research, we will also examine enablers that can broaden and deepen consumer power. These may, for example, be initiatives that affect the social climate and public debate in such a way that paves the way for sustainability-oriented consumer power characterized by initiative that also goes beyond the formalized enablers described in this report.

Some enablers are described for one area but can often be used in several. For example, the regulation of marketing as a proposal to enable sustainable eating can just as well be used for other areas of consumption. One example is a company that commits to not advertise for "Black Friday".¹⁰⁶ In several cases, versions of the enabler are implemented in other areas than those that were in focus in the program, but could be adapted to promote sustainable eating, vacationing or furnishing. One example is the bonus-malus system for cars.

¹⁰³ Engström and Svenfelt 2022

¹⁰⁴ E.g. Klintman 2019

¹⁰⁵ See, for example, Bartiaux 2008, Mont et al. 2013

¹⁰⁶ Persson and Klintman 2021

It can also be so that certain enablers can be combined into a package that creates synergies or that is introduced in a certain order. More research can be conducted on this in Mistra Sustainable Consumption during the years 2022–2025.

Other important aspects to bring into the assessment when enablers for sustainable consumption are implemented is that indirect environmental consequences may arise. This is because households change in their use of time and money, and this can have both increased and decreased environmental impacts both in Sweden and abroad.¹⁰⁷ The effects that reduce environmental impact can be strengthened,

and those that increase it can be counteracted, if the enablers are not seen as isolated measures but instead are allowed to complement one other.

One conclusion from this review is there are a great number of ideas out there to make the sustainable the usual way of living and consuming. In this process and in the research, the potential and the consequences of different enablers need to be investigated, and in this context, the responsibility – i.e. who will implement enablers – and the fair and equitable – i.e. who is affected and whose voices are heard – become very important issues.

¹⁰⁷ Eggestrand and Svenfelt 2020

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About the research program

This report is part of the results from Phase 1 of *Mistra Sustainable Consumption* – from niche to mainstream. The research program has (2018-2021) been comprised of:

Researchers from: KTH, Chalmers, Lund University, University of Gothenburg, Karolinska Institutet, Luleå University of Technology, the Swedish University of Agricultural Sciences, and Statistics Sweden. KTH is the program host.

Societal partners: ICA, Oatly, Food for Progress, Max Burgers, Stena Line, Ving, Centralens Resebutik, IKEA, Hemtex, ReTuna, the Swedish Consumer Agency, the Swedish Environmental Protection Agency, the Swedish National Museums of World Culture, Region Västra Götaland, Turistrådet Västsverige, the Municipality of Lund, the City of Malmö, the City of Gothenburg, the Swedish Society for Nature Conservation, the Swedish Tourist Association, Visita and Camino.