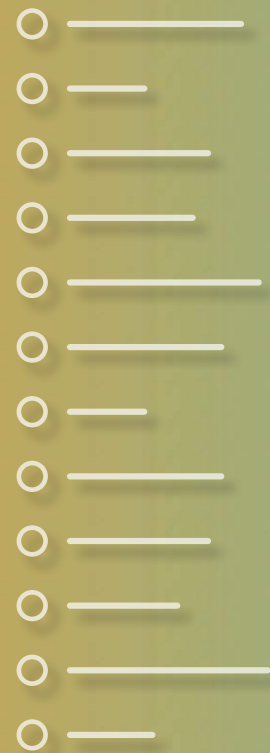


# METHODOLOGY FOR THE SELECTION OF LOW-CARBON LIFESTYLE OPTIONS





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## IN BRIEF

With the aim to identify approximately 50 most relevant low-carbon lifestyle options, we followed a three-step qualitative approach. First, we began with a qualitative literature review to compile a long list of more than 500 low-carbon lifestyle options. These options were ranked in terms of their impact level according to a low, medium, high prioritization. Second, we condensed the long list into a short list, combining overlapping options and selecting only the most relevant options, i.e. those that seemed to promise a measurable impact on reducing footprints of households. Third, this list was validated through national and international expert interviews.

## IF YOU WANT TO DIVE DEEPER

The starting point for the literature review was the 1.5-degree lifestyles report (Lettenmeier et al. 2019), for which options were developed on the basis of peer-reviewed scientific literature and linked to potential impacts. In our project, we chose a similar methodology.

The focus of our research on low-carbon lifestyle options was set on four main consumption domains (nutrition, mobility, housing, leisure) and differentiated according to the sustainability strategy it implied (sufficiency, efficiency, consistency) - we wanted to select lifestyle options of each domain and sustainability strategy. Existing empirical studies and literature focusing on the five case countries of the project (Germany, Hungary, Latvia, Spain, Sweden) were considered in particular, they were then complemented by international studies covering more than one country. Publications from 2015 onwards were favoured to reflect the latest scientific findings



(with some exceptions for especially relevant papers/fundamental research from before 2015). Scientific standards were considered for selecting studies, using the databases of Google Scholar, Web of Science and Scopus as a basis. To harmonise the research process, the partners developed a set of 31 English search strings that were translated into each case country language. This included search terms and keywords like “alternative lifestyles”, “climate neutral living” and “sustainable households”.

On the basis of this literature review that included 97 studies and articles, a list of more than 500 promising options for shifts to 1.5-degree lifestyles by households was compiled.

We then rated the priority level of the identified options (low, medium, high) according to how big the expected impact of the adoption of such an option in daily life would be, i.e. if an option would have a high impact in carbon reduction, a medium impact or a low impact.

The ranking was done in a qualitative manner using expert knowledge of our team (i.e. from the consortium partner who analysed the respective article) and potential statements from the author(s) of the article, if available.

We also reformulated, specified or divided options that included more than one option (e.g. “I will eat organic and seasonal fruits and vegetables” to “I will eat organic fruit and vegetables” and “I will eat seasonal fruit and vegetables”) in order to enable quantification of distinct options. Numerous options of the long list were discarded in the process because they were deemed too hard to quantify, only applicable to a very small percentage of the population (e.g. “I will refrain from using megayachts”) or if the impact seemed to be debatable. The goal was to arrive at a short list of around 50 options that could be used for other steps and tasks in the project (e.g. analysis of reduction potential, structural barriers and rebound effects).

The short list of 50 options was reviewed and ranked again in a consensus workshop between our whole consortium according to impact (low, medium, high) before being validated through semi-structured expert interviews with national and international experts in the field of sustainable practices of households and societies.

The final step included stylistic editing of the options and making them usable for a puzzle game as well as for communication activities within the project.





## LIMITATIONS

The main limitations of this methodology are the use of qualitative (instead of quantitative) criteria for selecting options, existing gaps in the available literature on lifestyle change in different countries, and a rather broad focus in analyzing barriers and enablers, that does not consider different milieus, personas, or gender.



## NUTRITION



### ● **Avoid food waste at home**

*By avoiding food waste, you reduce the amount of energy that is used and the CO<sub>2</sub>e associated with the food supply chain, from production to waste management.*

### ● **Drink tap water in place of bottled water**

*By drinking tap water, you can reduce the CO<sub>2</sub>e associated with bottling, packing, and transport.*

### ● **Drink tap water instead of manufactured drinks**

*By drinking tap water, you can reduce CO<sub>2</sub>e associated with the growing of plants (e.g. coffee beans) and in the production & transport of the final products.*

### ● **Reduce animal-based products in your diet**

*By eating less meat, fish, eggs, cheese and other dairy products, you reduce the greenhouse gas emissions from animal production (e.g. for growing feed, as well as the digestive gases from animals).*

### ● **Switch to a vegan diet**

*By stopping eating meat, fish, eggs, cheese and other dairy products, you avoid the greenhouse gas emissions associated with animal production, such as growing feed, or the digestive gases from animals.*

### ● **Switch to a vegetarian diet and eat no more meat or fish**

*By stopping eating meat and fish, you reduce the greenhouse gas emissions from meat production.*

### ● **Eat only organic vegetables and fruit**

*By only eating organic vegetables and fruits, you avoid the greenhouse gas emissions associated with pesticides and artificial fertilizers.*

### ● **Eat only seasonal vegetables and fruit**

*By eating seasonal fruits and vegetables you avoid greenhouse gas emissions associated with greenhouse usage.*

### ● **Eat onl as much food as you need to stay healthy**

*By stopping overeating, you reduce the greenhouse gas emissions associated with food production.*

### ● **Replace red meat with white meat**

*By replacing beef or pork with chicken or fish, you lessen greenhouse gas emissions (the production of white meat is associated with less greenhouse gas emissions than red meat production).*



## MOBILITY



### ○ Switch to using a smaller car

*By choosing a smaller car that consumes less fuel, you can reduce your fuel emissions. When buying your next car, choose a car that consumes less for your driving.*

### ○ Carpool

*By offering rides to people who need them, or by taking rides with people that offer them, you can reduce the amount of emissions per person. Sharing a ride is more space- and cost-efficient.*

### ○ Switch from using a conventional car to an electric car

*By switching your combustion engine car for an electric car when you buy your next one, you can reduce your emissions. The lifecycle emissions of an electric car are lower, despite the greater manufacturing footprint.*

### ○ Give up your car and walk or cycle instead

*By giving up your car and replacing 10-50\* kilometres per day by walking or cycling, you can significantly reduce your carbon footprint. Walking and cycling are the most climate-friendly mobility modes.*

*\*In the EU 1.5° Lifestyles project we quantified different distances for different countries, resulting in bigger or smaller CO<sub>2</sub> savings.*

### ○ Replace your car with the use of public transport

*By giving up your car and replacing it with the use of public transport such as trains and buses, you can reduce your emissions effectively.*

### ○ When moving house, move closer to your workplace

*By moving closer to your workplace, you will commute less each week. After the initial big step, your emissions will be reduced.*

### ○ Favour working at a home office

*By favouring remote work, you will commute less every remote-working day. Teleworking reduces the need to travel to the workplace and hence your transport-related emissions.*

### ○ Replace your car by using a car-sharing service

*By giving up your car and taking up a car-sharing service you can reduce your share of emissions, as fewer cars will need to be manufactured.*

### ○ Replace your SUV with a less CO<sub>2</sub>-intensive car

*By replacing your current large-sized car with a less carbon-intensive one, your car's fuel consumption will be reduced and hence your emissions.*



## HOUSING



### Repair your ICT products and use them for longer

*By repairing your broken devices and extending their lifespan, the emissions associated with the production of new ones will be avoided.*

### Use second-hand ICT devices and pass old ones on

*By using second-hand ICT and passing on devices you no longer use, the emissions associated with manufacturing new ones can be avoided.*

### Buy environmentally certified ICT products

*By buying environmentally certified ICT products (e.g. those with the EU Ecolabel), you will reduce the emissions associated with the production and use phase.*

### Lower the room temperature of your home

*By lowering the temperature of your home by 2 °C you can effectively reduce heating energy consumption. Make it a habit to wear more clothes indoors during the colder seasons.*

### Save hot water

*By saving hot water (using less, and lowering the outflow temperature by 2 °C) you can cut down on the energy required for heating water, and hence reduce your emissions.*

### Install efficient lighting

*By installing LED light bulbs you can reduce your electricity consumption and hence emissions.*

### Switch to using energy efficient household devices

*By replacing old and energy-intensive appliances with very energy-efficient ones you reduce the emissions associated with electricity.*

### Give up one big household device, such as a dryer

*By giving up one high-consumption device, such as your dryer when it gets old, you can save energy and materials.*

### Share a household device with your neighbours

*By sharing one high-consumption device, such as a washing machine, you can reduce the use of energy and materials.*

### Choose shared housing

*By using less living space per person you can heat more efficiently and reduce electricity use, avoiding emissions from energy.*





## HOUSING



### Give up excess square meters

By renting out a part of your house, moving to a smaller house, or giving up a second residence, you reduce your personal living space. This reduces the share of energy you use and hence your emissions.

### Insulate your house

By insulating walls and roofs and renovating old windows and doors, you can reduce the heating energy you need. Identify where heat is escaping from your detached house and seal the leaks.

### Reduce energy use by monitoring your consumption

By monitoring energy use with domestic devices (i.e. with meters, smart home devices, etc.), you can make your home more energy efficient. This can reduce your energy emissions.

### Replace your heating system with a heat pump

By updating your heating system from an oil or gas boiler to a ground or air-source heat pump, you can effectively reduce your heating emissions from fossil fuel burning.

### Replace your heating system with a biomass boiler

By updating your heating system from an oil or gas boiler to a biomass boiler, and burning wood material, you can effectively reduce your heating emissions from fossil fuel burning.

### Switch to renewable electricity

By choosing any renewable grid electricity option instead of fossil energy, you will reduce your emissions. Hydro, wind, biomass, solar and geothermal energy are all carbon neutral.

### Install a solar thermal system

By using the sun's energy to heat your water, you can effectively reduce your heating-energy-related emissions. A solar collector collects heat efficiently.

### Install your own solar panels

By installing your own solar panels, you will replace grid electricity with carbon-neutral energy you produce at home. This reduces your electricity emissions.



## LEISURE



### Get a small(er) pet, if you get a new one

By switching from owning a large pet to a smaller dog or a cat, you reduce your carbon footprint as your pet will eat less.

### Buy pet food with a smaller carbon footprint

Pet food based on poultry and occasionally pig is better for the climate than cattle-based feed.

### Go on vacation by train instead of plane

By giving up flying and choosing the train instead, you can significantly reduce your carbon footprint.

### Reduce the driving associated with your holidays

Travelling less by car for or during holidays reduces your carbon footprint.

### Fly less for leisure and holidays

Flying fewer hours per year significantly reduces your carbon footprint. Flying has a big impact on your greenhouse gas emissions.

### Buy fewer clothes and shoes

By buying fewer new clothes and shoes you can save CO<sub>2</sub>e. Shoe and textile production consumes lots of energy and water.

### Drive less for your hobbies and leisure

By reducing your car or motorcycle trips by 10-200\* kilometres a week you will reduce emissions. Instead of traveling further for hobbies, shopping, and weekend trips, you can explore local possibilities.

\* In the EU 1.5° Lifestyles project we quantified different distances for different countries, resulting in bigger or smaller CO<sub>2</sub> savings.



## OTHER



### ○ **Make only ecological and ethical personal investments into green financial options**

*By investing in green (climate-friendly, ecological-ethical) finance you will help reduce emissions, as these investments will not contribute to activities that damage the climate and environment.*

### ○ **Reduce your working hours and your spending on goods**

*By working less and reducing your income, you will have less excess money to spend on high-carbon goods such as electronics or textiles, thereby reducing your carbon footprint.*

### ○ **Spend more money on non-consumptive activities instead of buying goods**

*By spending less money on goods (like textiles and electronics) and maximising non-materialist satisfaction (like participating in education and having experiences, such as going on a hike), you reduce your carbon footprint.*

### ○ **Donate money to environmental causes or organisations**

*By donating a part of your income to environmental causes or organisations, you will spend less on high-carbon goods. This will reduce your carbon footprint.*



Disclaimer: This document assembles the option list we are currently analysing and working with. Please note that the list of options may still be subject to changes during the course of the project. The current option list includes options with different levels of impact for CO<sub>2</sub>e reductions in households. The degree of impact will be communicated in the coming months. Stay tuned!

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