



INHERIT

CITIZEN INSIGHTS FOR A HEALTHIER, MORE EQUITABLE AND SUSTAINABLE EUROPE IN 2040

A Qualitative Analysis in Five Countries

Francesca Grossi, Rosa Strube & Arlind Xhelili
Collaborating Centre on Sustainable Consumption and Production (CSCP)

www.inherit.eu



We would like to thank the INHERIT partners Pablo Martinez, Sonia Gómez Quiroga & Cristina Suárez from University of Alcalá (UAH), Iva Zvěřinová & Zuzana Rajchlová from Univerzita Karlova v Praze (Charles University in Prague) (CUNI), Dragan Gjorgjev from The Institute of Public Health of the Republic of Macedonia (IJZRM), and Tim Taylor from European Centre for Environment and Human Health at University of Exeter for conducting the focus groups in their countries and providing us with the transcripts, as well as for their valuable feedback, ideas and contributions to the development of this report.

The content of this report does not reflect the official opinion of the European Union. Responsibility for the information and views expressed in the review lie entirely with the authors. No particular commercial entity, service or product that may be involved in, or be a result of, INHERIT is endorsed by public or non-profit project partners. Reproduction is authorised providing the source is stated, in the form: *Francesca Grossi, Rosa Strube & Arlind Xhelili, Collaborating Centre on Sustainable Consumption and Production (CSCP), INHERIT: Citizen Insights for a Healthier, more Equitable and Sustainable Europe in 2040. A Qualitative Analysis in five Countries. August, 2018.*

Wuppertal, 2018.



The INHERIT project (www.inherit.eu), coordinated by EuroHealthNet, has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 667364.

TABLE OF CONTENT

EXECUTIVE SUMMARY	4
OVERVIEW	4
KEY FINDINGS	4
1 GENERAL INTRODUCTION	6
1.1 BACKGROUND	6
1.2 AIM AND HOW TO READ THIS REPORT	7
2 METHODOLOGY	8
2.1 APPLIED RESEARCH METHOD	8
2.1.1 <i>Research design & focus group definition</i>	9
2.1.2 <i>Data collection</i>	10
2.1.3 <i>Analysis</i>	11
3 ANALYSIS OF PREFERENCES AND REACTIONS	13
3.1 WHAT CITIZENS OF THE FIVE COUNTRIES THINK ABOUT THE FOUR SCENARIOS?	13
3.1.1 <i>'My Life in Between Realities'</i>	15
3.1.2 <i>'Less is more to me'</i>	21
3.1.3 <i>'One for all, all for one'</i>	25
3.1.4 <i>'Our circular community'</i>	28
3.2 WHAT CITIZENS OF THE FIVE COUNTRIES THINK ABOUT THE INHERIT AREAS?	32
3.2.1 <i>Green Space</i>	32
3.2.2 <i>Energy Efficient Housing</i>	48
3.2.3 <i>Active Mobility</i>	65
3.2.4 <i>Consumption of food & beverages</i>	81
CONCLUSIONS	100
REFERENCES	105
1 ANNEX	106
1.1 MODERATOR SCRIPT	106
1.2 INHERIT PARTICIPANT SHEET	111
1.3 CODING BOOK	121

Executive Summary

Overview

The sustainable development agenda, besides tackling the trajectory of our global socio-economic and political affairs, brought about the concept of ‘sustainable lifestyles’ centred on individuals or citizens. This led to the realisation that it is necessary to understand and incorporate citizen lifestyles and individual behavioural patterns into policies, action plans and overall sustainable development strategies.

Building on this rationale, in the context of the EU funded project INHERIT, four future positive scenarios ‘*My life between realities*’, ‘*Less is more to me*’, ‘*One for all, all for one*’ and ‘*Our circular community*’ have been developed. They depict four different narratives for reaching healthier, more equitable and sustainable European societies in 2040.¹ In order to understand preferences and underlying wishes and fears towards these scenarios, citizens of five European countries - Czech Republic, Germany, Macedonia, Spain and United Kingdom - have been consulted through a focus group exercise. This research setting was chosen in order to gain qualitative insights into citizens’ perceptions of the INHERIT future scenarios and to explore similarities and heterogeneity in perceptions, motivation and practices across different and geographically disperse European countries. Specifically, three focus groups – between six to eight participant each – have been conducted in each country. The composition of the focus groups was carefully considered to guarantee – to the extent possible – a heterogenous sample in terms of gender, age, education level and household arrangement. An exclusion criterion was also applied related to specific working areas: food production, urban planning, car manufacturing, doctors.

Accordingly, this report provides insights into citizens’ perceptions, including similarities and differences, of the four future scenarios. It uncovers citizens’ behavioural determinants (capabilities, motivation and opportunities) corresponding to their stated preferences and attitudes in four main lifestyle areas, namely green spaces, energy efficient housing, active mobility and consumption of food and beverages.

Key findings

The ‘*My life between realities*’ scenario proved to be the most controversial scenario of the four. Its technological attributes, including virtual reality, big data and the monitoring of citizens’ behaviours - to offer customised products and services - led to highly dichotomous attitudes towards the scenario’s developments. Fear of the unknown and of losing experiential authenticity, privacy issues as well as the potential negative impacts on social interaction were some factors causing negative responses. In contrast, increased convenience and efficiency, especially within the mobility and housing area factors, led to positive attitudes towards the scenario. Furthermore, while concerns and dissatisfaction with the dominant role of technology were expressed in all countries, interest and

¹ The scenarios have been created in a separate activity and are summarised in a corresponding report: Georgina Guillen-Hanson, Rosa Strube, Arlind Xhelili, Collaborating Centre on Sustainable Consumption and Production (CSCP), INHERIT: Reaching the ‘Triple-Win’, Four Future Scenarios of a Healthier, more Equitable and Sustainable Europe in 2040. August, 2018. Available at: <https://inherit.eu/reaching-the-triple-win/>

opportunities related to increased convenience and monitoring of one's health were only brought up by the focus groups in the Czech Republic and Macedonia.

The increasing share of green spaces, which simultaneously allows for more active mobility, the promotion of healthy food consumption as well as higher energy efficiency for living were the key attributes driving citizens' preference for the **'Less is more to me'** scenario across the five countries. When looking at the overall storyline of this scenario, participants in the Czech Republic, Germany and the United Kingdom mainly appreciated the large share of green space and the calmer life portrayed there. Moreover, the scenario's attribute of preserving individuality and autonomy (in contrast to the collectivist scenarios) were found satisfactory mainly by German and Macedonian focus group participants. Nevertheless, some participants expressed the need for careful moderation of this dynamic as they considered the developments of this scenario to be possibly contributing towards the creation of a more egalitarian European society.

The **'One for all, all for one'** scenario was, in general terms, the most appealing scenario according to citizen discussions in all five countries: mainly due to its strong focus on locality, communality and mutual support in everyday activities. Focus group participants expressed particular appreciation for this kind of social dynamics, and considered them an added value that has been diminishing throughout the past years, but that would be desirable for the future. Accordingly, social and family cohesion were also among the most important behavioural factors driving participants' preferences towards this scenario. Furthermore, the extensive use of green space and energy efficient housing portrayed were also well received. Similarly, food aspects, in view of the possibility of growing one's own food that participants translated into the opportunity of accessing more affordable and healthier food options were positively received. Notwithstanding, these rather positive perceptions, participants also accounted for the need of moderation when planning respective policies so that individual choice is preserved and citizens' needs are considered.

Well received by the focus group participants was also the **'Our circular community'** scenario, mainly due to its inclusion of citizens insights into the planning of societal processes and the promotion of resource efficient and circular models of production and consumption. Moreover, participants appreciated the possibility to engage in outdoor activities, to access local and decentralised renewable energy production, as well as to obtain food directly from the farmers. Still, in all five countries, participants expressed concerns and doubts about the technological characteristics of this scenario, specifically in relation to the implied benefits and perceived invasion of one's life and privacy. Nevertheless, discussions were less controversial than in the first scenario. Macedonian, Spanish and British participants expressed their preference on health activities and incentives, and overall participants in all five countries showed appreciation for the efficient and longer usage of resources, materials and products.

Overall, it can be concluded that European citizens univocally favoured the idea of combining different scenario elements into one ideal strategic intervention which will bring the necessary changes and results to move towards healthier, more equitable and sustainable society in Europe.

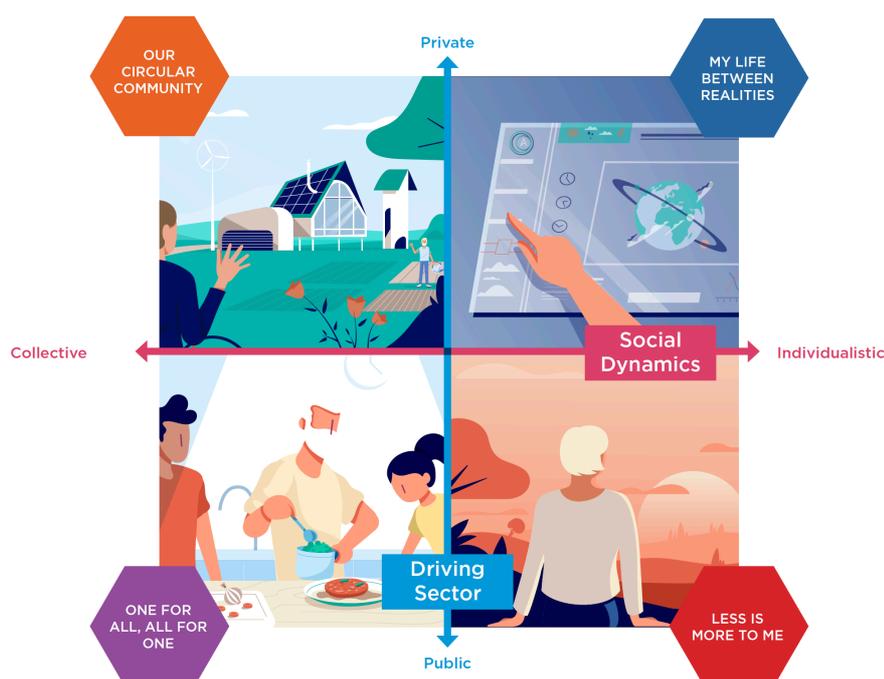
1 General introduction

1.1 Background

Throughout the years, European societies have experienced an exponential improvement of living standards and quality of life, as well as well-being brought about by a perpetual strive for socio-economic development and progress. Nevertheless, the very same developments and accompanying lifestyle patterns have resulted in deteriorating and harmful consequences for planetary ecosystems, societies and economies. Reversing this unsustainable modus operandi and connecting production and consumption patterns to the natural environment and human health is the aim of the EU funded **INHERIT project**. By looking at three main lifestyle areas, namely **living** (green spaces and energy efficient housing), (active) **mobility**, and **consuming** (consumption of food & beverages), and at citizens' **behavioural patterns**, the project contributes to advancing strategic interventions and innovations moving forward the achievement of 'triple-win' policies interventions and strategies: reducing environmental pressures and impacts, improving health and increasing health equity.

Achieving a concerted, systemic and holistic change of this kind requires a comprehensive understanding of the necessary and most impactful actions to be undertaken. To develop this understanding, the INHERIT project partners conducted a scenario building process for strategic planning and decision making in order to create future positive scenarios where four alternate realities of healthier, more equitable and sustainable European societies in 2040 are depicted. Determined by **different social dynamics** (collective versus individualistic) and driving sector (public versus private) the 'My life between realities', 'Less is more to me', 'One for all, all for one' and 'Our circular community' scenarios, are graphically displayed in the Figure 1 below.

Figure 1: The four INHERIT future scenarios



Digitalisation, connectivity and personalisation characterise **‘My life between realities’** scenario. Sufficiency, increased self-awareness and mindfulness as well as a reduced focus on materialism are the main principles of the **‘Less is more to me’** scenario. **‘One for all, all for one’** is based on increased locality, participatory decision-making and communality feelings, while **‘Our Circular Community’** thrives on (multi-stakeholder) co-creation, citizen science and the uptake of the circular economy.

The complete scenario narratives can be found in the corresponding publication², however, sequential content depending on the context will be provided in different analytical sections of this report.

1.2 Aim and how to read this report

Since the fulfilment of the described future scenarios will largely depend on changing the behaviours of European citizens and their living patterns, various citizen consultations took place during which the INHERIT project team was able to collect reactions and perceptions towards the lifestyle occurrences and happenings portrayed in the four future scenarios, in five different European countries: the Czech Republic, Germany, Macedonia, Spain and the United Kingdom.

In this report, the gathered insights about the different possibilities of achieving a healthier, more equitable and sustainable Europe by 2040 are qualitatively analysed and assessed, enabling the exploration and **comparison of similarities and heterogeneity** in perceptions, behavioural drivers, mind-sets and practices across different nations and cultures.

The synopsis of this information and comparison, together with some background scenario information have been compiled in **Section 3.1 and 3.2** of this report. Before the analytical sections, a more detailed overview of the **applied methodology and related research design** is provided in **Section 2** of this report. Finally, the **concluding section** provides an analytical summary in which all this information is put into perspective and carefully assessed on the basis of the INHERIT core analytical areas and triple-wins concept.

² Georgina Guillen-Hanson, Rosa Strube, Arlind Xhelili, Collaborating Centre on Sustainable Consumption and Production (CSCP), INHERIT: Reaching the ‘Triple-Win’, Four Future Scenarios of a Healthier, more Equitable and Sustainable Europe in 2040. August, 2018.

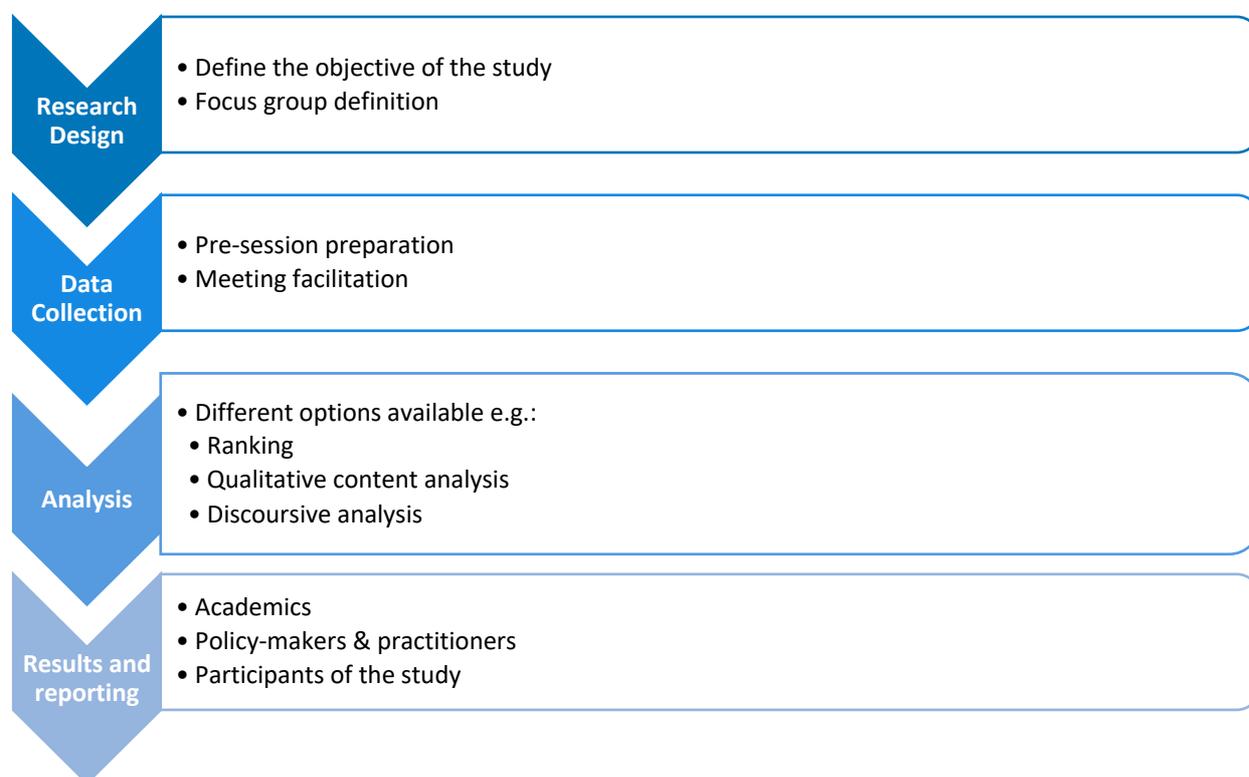
2 Methodology

2.1 Applied research method

To best explore citizens' perceptions, behaviours and lifestyles in relation to the four scenarios and INHERIT key areas, a qualitative research method in the form of **focus groups** was employed. Firstly, because as a qualitative data collection approach, the technique represents a bridging strategy for scientific research and gathering of local knowledge (Cornwall & Jewkes, 1995). Secondly, it offers a platform for differing paradigms or worldviews to be detected (Guba & Lincoln, 1994; Orr, 1992; Edwards & Holland 2013). Indeed, compared to alternatives (as for instance in-depth -in-home- interviews) its interactive setting facilitates a brainstorming in which group dynamics are used to develop new streams of thought and to discuss specific issues thoroughly (Peek & Fothergill 2009). Finally, it is among the most “cost-effective” tool to be used in participatory research (Morgan, 1996; Morgan & Krueger, 1998; Stokes & Bergin 2006; Masadeh 2012).

Focus group discussion consists of four major steps as shown in Figure 2. These include: (1) research design, (2) data collection, (3) analysis and (4) reporting of results (Morgan et al., 1998). Each of these steps as applied to the INHERIT focus group exercise is described in more detail in the following sections of this report.

Figure 2: Key steps of the focus group discussion technique



2.1.1 Research design & focus group definition

The focus group process begins with identifying the **main aim and defining the key research objectives** of the study. For the INHERIT focus group exercise, the following applied:

- Gaining qualitative insights into citizens' perceptions of the INHERIT future scenarios and the relative areas: green space, energy efficient housing, active mobility and consumption of food and beverages;
- Exploring similarities and heterogeneity in perceptions, motivation and practices across different and geographically disperse European countries

A moderator script including a series of suggestions and guidelines on how to prepare and conduct the discussion was developed together with a list of questions to be used in each discussion session (see Annex 1.1).

The **country focus groups** were organized by the respective responsible INHERIT partner – the Czech Republic (CUNI)³, Germany (CSCP)⁴, Macedonia (IJZRM)⁵, Spain (UAH)⁶, and United Kingdom (University of Exeter)⁷ - with the support of agencies which followed pre-defined framework conditions for the participants recruitment process:

- 3 focus groups with six to eight participants each have been conducted in each country;
- Time frame per group about 2 1/2 hours;
- Quota specification: about evenly male / female, age (from 18-70 evenly distributed), income above average, average, below average,⁸

Exclusion criteria were related to the following working areas: food production, urban planning, car manufacturing, doctors. These criteria enabled us to select participants - to the extent possible – as a heterogeneous sample.

³ Univerzita Karlova (Charles University) (CUNI): <https://www.czp.cuni.cz/czp/index.php/en/>

⁴ The Collaborating Centre on Sustainable Consumption and Production (CSCP): <https://www.scp-centre.org/>

⁵ The Institute of Public Health of the Republic of Macedonia (IJZRM): <http://iph.mk/>

⁶ University of Alcalá (UAH): <http://www3.uah.es/scs/>

⁷ European Centre for Environment and Human Health at University of Exeter (<http://www.ecehh.org/>)

⁸ The selection of participants on the basis of income was calculated as the medium net personal income (income minus taxes and compulsory deductions) of the place where the focus group discussions took place (e.g. city). Going from that medium income (MI), please stick to the following classification:

For one-person households

- Lower than medium group: $MI - MI * 25\%$ and below
- Medium income group: $MI \pm MI * 25\%$
- Higher than medium group: $MI + MI * 25\%$ and above

For households with several people (2 adults, plus maybe kids)

- Lower than medium group: $2 * MI - 2 * MI * 25\%$ and below
- Medium income group: $2 * MI \pm 2 * MI * 25\%$
- Higher than medium group: $2 * MI + 2 * MI * 25\%$ and above

A total of 15 focus group discussions were organised across the five countries, three in each country, with six to nine participants per session. The overall socio-demographic and financial characteristics of the total sample of 118 across the five countries are summarised in table 1 below.

Table 1: Main characteristics of focus group participants⁹

	Czech Republic	Germany	Macedonia	Spain	United Kingdom
Female	12	12	12	13	10
Male	12	12	11	11	13
High income	10	8	8	4	6
Middle income	3	8	7	14	8
Low income	9	8	8	6	9
N.A	2(N.A.)				
Senior (65 -100)	/	3	1	2	2
Adult (30 -65)	21	16	18	13	17
Youth (18 – 30)	3	5	4	9	4
High education ¹⁰	8	7	10	2	1
Middle education ¹¹	11	17	13	21	19
Low education ¹²	4	0	0	1	2
N.A.					1(N.A.)
Total per country	24	24	23	24	23
Total overall	118				

2.1.2 Data collection

Once participants in all five countries were identified and recruited by professional research companies hired by each project partner in the respective country, different focus group sessions were organised in order to have single groups ideally not larger than eight to six participants¹³.

⁹ **Please note:** the two rows reporting a value of N.A. refer to participants who did not provide all answers with respect to the socio-demographic factors displayed in the table. Therefore, as a matter of clarity and consistency these 3 participants: 2 from the Czech Republic, and 1 from the United Kingdom have been indicated with the wording N.A.

¹⁰ High education = PhD or Master degree

¹¹ Middle education = Bachelor degree or higher education

¹² Low education = High school diploma or lower education

¹³ In one case, in the United Kingdom, 9 participants were involved in one focus group due to over recruitment to meet the sample. It was decided that this group would continue with 9 people rather than asking one person to leave as this would have affected the dynamic of the group and reduced the quality of the data obtained.

To create a stimulating atmosphere for discussion, **visual tools** were used in the form of videos and print-outs. To start the exchange: 1) one short introductory video; 2) four videos¹⁴ each showing one of the four positive futures scenarios. Additional, visuals and print-outs describing each scenario supported the semi-structured group discussions addressing each topic through an open-ended set of questions (see Annex 1.1). This enabled the inclusion of all participants in the group discussions. Furthermore, these sets of questions and the moderator guidelines also provided the opportunity to explore more in-depth additional themes or responses, while iterating on the participants' answers.

The INHERIT project team recognized that a major challenge when conducting cross country focus groups, and then collecting and analysing data are language differences. Therefore, each focus group discussion was conducted in the local language with each of the moderators responsible and/or supervising the translation or transcription of participants answers, in order to diminish – to the extent possible - the risk of misleading interpretations. To harmonize and align the efforts of the respective project partners in each country, the guide for the focus groups was originally developed and discussed in English and then translated into local languages.

Furthermore, before the actual start of the focus group discussions, each participant signed a consent form, a sign-in sheet, as well as a short questionnaire (Annex 1.2). The latter has helped the moderator in gathering a better understanding of participants' background, and it has further supported the analytical process by providing the INHERIT team key additional information, e.g. in relation to age, education level and household composition.

2.1.3 Analysis

Upon completion of the various focus group sessions, the collected data – from all five countries - were analysed applying a **qualitative content analysis** method. Specifically, due to the objective underpinning the conduction of the focus group exercise, a *constant comparison analysis* rationale was applied. Developed by Glaser and Strauss (Glaser, 1978, 1992; Glaser & Strauss, 1967, Strauss, 1987), it can be used to analyse many types of data, including focus group data (Leech and Onwuegbuzie (2007, 2008)). In this analytical exercise, the stages characterising the constant comparison analysis (as described by Strauss & Corbin, 1998) have been followed:

1. During the first stage, the data were bundled into smaller units and the INHERIT research team attached a code to each of the coded document segments;
2. During the second analytical stage these codes were grouped into main categories;
3. Consistent with the different stages of constant comparison analysis, the information embedded in the main identified categories was then coded into sub-themes. The themes that conveyed the same meaning were merged and larger themes were split

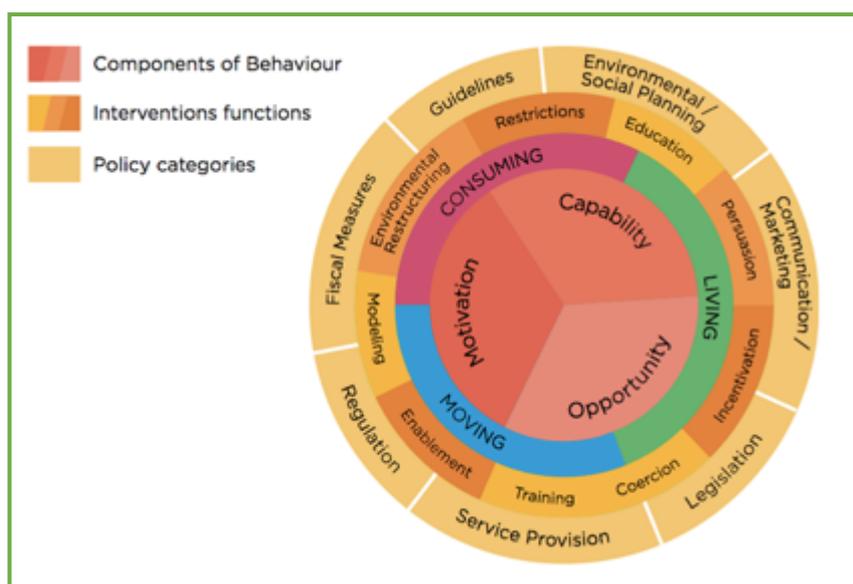
¹⁴ Available here <https://inherit.eu/future-scenarios/>.

into smaller subtopics or regrouped. The final applied codebook can be found in Annex 1.3.

The coding exercise on the gathered information was performed through a qualitative analytical computer program, the MAXQDA.¹⁵ All transcripts were uploaded into the program and then coded according to the defined set of codes.

This set of codes builds on the **INHERIT Common Analytical Framework (CAF)** derived from the work of Michie et al. (2011). The INHERIT CAF is a useful way to visualise the complex and dynamic relationships between the physical environment, human health and well-being, inequalities and environmental sustainability. Within the CAF, the “Behavioural Change Wheel” (BCW) (Figure 3) specifically supports the understanding of how policies and related interventions can affect causal pathways between environmental stressors, behaviours and health equity (Michie et al., 2011). The BCW model incorporates both the reflective system (central route) and automatic system (peripheral route, including habitual behaviours). The reflective system is the one actively influencing our lifestyle choices and behaviours. It consists of three parts that can influence each other, and together influence behaviour - capability, motivation, and opportunity¹⁶:

Figure 3: The Behavioural Change Wheel



- **Capability** entails being psychologically or physically able to perform a certain behaviour. *Physical capability* can be achieved through physical skills development such as training, whereas *psychological capability* can be realised by increasing knowledge or training behavioural skills;

¹⁵ MAXQDA was first released in 1989. It is available online at: <https://www.maxqda.com/>. The software supports the collection, organization, analysis, and visualization of data from qualitative, quantitative and mixed methods research.

¹⁶ Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci.* 2011, 6:42.

- **Motivation** can stem from the reflective or automatic system, defined as all brain processes that energise direct behaviour, including habitual processes and analytical decision making. Increasing knowledge or changing attitudes towards certain behaviour can realise a change in *reflective motivation*. *Automatic motivation* is best achieved using associative learning that elicits certain feelings and impulses related to certain behaviour, or using imitative learning and habit formulation
- **Opportunity** can be social or physical (our cultural milieu may dictate what we define as normal travel or appropriate energy use behaviour, and the presence of a public park offers the opportunity to be in green space or not). An economic situation can also be a barrier or facilitator for opportunities. Physical and social opportunities can be both positive and negative (lack of opportunities such as lack of money, access to green space) and opportunities can be improved through environmental change.

According to the BCW, interventions can change one, two or all three components of the behavioural system.¹⁷ Thus, using the BCW model as a basis for the coding process enable a direct correlation between the statements/answers provided by focus group participants and three drivers of behaviour capability, motivation, and opportunity.

3 Analysis of preferences and reactions

3.1 What citizens of the five countries think about the four scenarios?

An initial understanding of each scenario was given to participants by showing an [introductory video](#)¹⁸ about the project and the rationale behind the development of the four future scenarios. This introductory video was followed by four detailed videos – one for each scenario - in which fictional characters describe what is like to live in the year 2040.¹⁹ Below, each of these videos is briefly described to provide the reader with an understanding of what provoked discussions between the focus group participants.



<https://inherit.eu/future-scenarios/>

¹⁹ The language of each video was English including local language subtitles.

Adam, a professional working with human and machine control interfaces describes life in **'My life between realities'**. While reflecting on the strong technology and big data presence in this reality, Adam shows that green spaces can be enjoyed either virtually or physically, and describes the comforts of using autonomous cars for increased mobility. By monitoring human presence and behaviour, technological solutions keep household energy use low and create household environments that mimic natural environments. Maintaining healthy diets and personalising nutrition has been made easier in 2040 through innovative technological systems such as shopping fridges or cookery systems.



'Less is more to me' and related lifestyles are described by **Isabella**, a wellness manager working primarily with elderly people. Isabella shows that life in 2040 is much calmer, more relaxed and less stressful due to high air quality created by the prominent presence of green spaces and reduced motorised transport. Cycling or buses that run on green energy have substituted the latter. Sharing living spaces contributes to their efficient use while energy efficiency is reached either by careful monitoring of energy consumption or - when possible - avoiding consumption completely. Healthy food grown locally and sustainably is part of her diet. She either buys it directly from the farmers' market or orders it from the farmer using online platforms.



Milan, a retired construction worker in the scenario **'One for all, all for one'**, shows how preceding generations engaged in urban redesigning that replaced the infrastructures for individual transport with green parks, making movement easier than in the past. Milan lives in an energy efficient housing co-op, close to his son and family. He built the house, together with his son and with financial support from the local community, using only locally sourced building materials. Transferring knowledge and skills, the value of communal support as well as old food recipes is something the government promotes in this scenario.



Life in **‘Our circular community’** is described by **Tereza**, a trainee farmer with a strong interest in ‘Do-It-yourself’ models, following society’s pursuit of reuse, repair and efficient resource consumption. Cycling is a social norm, rewarded by health insurance companies, together with other increased physical activities to promote healthy living. These activities are mainly done outdoors, in parks. Moreover, bikes are connected to local grids contributing to energy production and storage, which is then used for daily activities. Multiculturalism, sharing experiences, food, recipes, bikes and other things, is something Tereza grew up with. Food is mainly obtained through farming, while 3D printing has also become common practice. Technology supports Tereza in maintaining her nutritional requirement as well as in preserving her health by monitoring early warning signs for bloodline diseases such as Alzheimer’s.



Once focus groups participants had watched the videos and individually stated their preference for each of the four scenarios on a scale from 0 – 10 (on their participant sheet), the moderator engaged them into a lively discussion about which scenario they liked and disliked and the reasons behind these preferences. During each group discussion, more discussion time was spent on the scenarios towards which participants expressed stronger positive or negative feelings, nonetheless moderators made sure participants discussed all four scenarios.

The outcomes of these discussions - for each scenario - are presented below, each starts with an overview and comparison of the participants’ reactions in the five countries, followed by a more detailed description of the discussions’ outcomes in each country.

3.1.1 ‘My Life in Between Realities’

The scenario **‘My life between realities’** provoked a rather lively discussion in all focus groups and in all countries, mainly because the dominant role of technology and digitalisation in this scenario triggered in the participants extreme emotions, both on the positive and negative side. In all countries, some participants expressed their dissatisfaction

with the dominant role of technology, the existence of virtual realities and the use of data. These factors in particular were associated to fears of losing touch with the actual world, social connections, or of being ‘dehumanised’, as put down by several Spanish participants. At the same time, however, some participants in the Czech Republic and Macedonia also highlighted that the technological advancements portrayed in the scenario video could significantly bring forth time and resources saving (the Czech Republic, Macedonia), and support a closer control over one’s health (the Czech Republic).

3.1.1.1 The Czech Republic

The Czech focus groups discussed the ‘My life between realities’ scenario in detail. The discussions covered different technological elements that are shown in the scenario. Many comments highlight positive aspects of this dominant role of technology and digitalisation. Technology was seen as something positive improving people work and time management resulting in more time available for the family.

“As a technician, I liked the way things were interconnected, like the fridge that can shop on its own, stuff like that.” (the Czech Republic, 37, Low Income)

“The use of technology at home is nice, that it can help you, take different worries off you, the need to think. So, you have more time for yourself, for your family.” (the Czech Republic, 37, Low Income)

“I liked the fridge doing the shopping for me, right. How it processes the food and measures the nutrients my body needs. I liked that I would have what I really need. So that’s quite good. I didn’t like the car though.” (the Czech Republic, 44, Low Income)

The notion, that technology can save time and reduced working time, became particularly obvious on the topic of food, for different reasons. These reasons ranged from not liking to cook, saving time, to its being a valuable advantage for when one gets older.

“I can say that I liked the first video the most, specifically because in my life, the most complicated thing I do is taking care of food. I eat several times a day because of the sport I do and what they described in there is, I think, realistic. That the fridge, according to some kind of system or to its character, will keep watch of what I’m missing or what I regularly eat and that it might also recommend what values to focus on. At the same time, it might also prepare meals automatically, which would be a big help for a lot of people. So that’s why I liked that video the most.” (the Czech Republic, 36, High Income)

“I’m all for it, I hate cooking. Coming to the kitchen is necessary evil for me. So, it would be helpful to me.” (the Czech Republic, 35, High Income)

“I would like to mix of these. If I came home from work at 6 or 7, I’d use the fridge and its services, it’d cook me something and if I had the time and if I was in the mood for it, I would cook myself.” (the Czech Republic, 44, Low Income)

“[...]we’ll be older, and I think that it would be nice to have that option, I might be sick at home with the flu someday and my future child won’t have time to take care of me, so the fridge will cook for me. That’s a plus.” (the Czech Republic, 35, High Income)

As already seen in some of the quotes above related to nutrition and food, the idea of health control was also perceived in a positive way.

“Having control over your health is nice, isn’t it? That you know exactly how much food you should eat so it would benefit you, or during the day, that you know what to have in the morning, as an afternoon snack, that you don’t need to worry about it. Or if you do you can just get a schedule so you’ll know what to eat during the day so you won’t get tired or anything.” (the Czech Republic, 23, Low Income)

However, some participants also expressed concerns. They would not be satisfied living the lifestyle portrayed in this scenario, as they felt living would not be natural anymore and there would be a lack of communication and personal contacts.

“I find scenario one [‘My life between realities’] least appealing. There is no live nature. It’s just all virtual[...].” (the Czech Republic, 23, Low Income)

“The lack of communication, contact with other people, I don’t know, it all seemed ‘cold’. Having a fridge that would tell me what to do, cook for me[...]. I don’t know. I want to do what I want. [...] I think that people would be very isolated. And then they would talk to the fridge if they were sick or something. It would cook for them, tell them what to buy.” (the Czech Republic, 35, Low Income)

“Personally, I wouldn’t want to see the future where I would put on glasses and I would see a virtual space instead of walking in a forest and I would eat amarouny. I really wouldn’t want to live like that.” (the Czech Republic, 51, Income Unknown)

3.1.1.2 Germany

The German focus group participants expressed mostly concerns and dissatisfaction with “My life in between realities” scenario in particular with respect to the on-going societal development displayed in it. The main areas of concern were the general level of technology, the use of virtual reality and the fear of over control through data collection and analysis.

The following quotes show how some participants generally rejected the idea of yielding too much influence to technology.

“In the first one [‘My life between realities’] I didn’t think it was so good that everything was too extremely technical for me, felt like these gym people, who don’t have a life of their own anymore, so they just have to move according to such a pattern, i.e. I have to do and eat something specific, so that I can reach X, but actually can’t decide for myself any more - I don’t think that’s so good.” (Germany, 30, High Income)

“And everywhere technology here, technology there. I don’t need a self-propelled car that parks for me. What if the car goes backwards when I want it to go forward? So technical disturbances and so what, I find it is simply too much technology in circulation and the communication suffers from it. The kids can’t even talk to each other because they don’t know how. All they know is typing, typing, typing, texting, WhatsApp and what else. So totally retarded.” (Germany, 36, Middle Income)

Participants voiced worries about the collection and usage of data and companies knowing exactly what they were doing.

“What scares us now anyway is this transparent person. And that everything is controlled. The film almost confirms that they know what we eat, where we go, that’s creepy. [...] I think that’s very bad. And that’s the way it is, with all this apps, everything is controlled.” (Germany, 57, Low Income)

Another issue, which was discussed comprehensively, was the topic of virtual reality (VR). Participants expressed doubts about how the virtual world would become more influential and how that would impact interactions between humans.

"I found this in the first video ['My life between realities'] about networking the virtual world - the first thing I thought: nothing at all for me, I don't like it. On the other hand, I like it because the more people hang out in the virtual world, the less are out in the real world." (Germany, 39, Middle Income)

"I found this excerpt very interesting, especially at the beginning 'My life between realities' because this virtual reality we already have in our time that is just not so mature. [...] we already suspect that it will be much more mature in probably a few years and there I fear rather that it does not go so into this community, but that people actually flee into fictional realities, which then seem very real to them-I say now. If that is then really well matured and then I see the danger that you might perhaps take a step backwards and that you are then not really together with other people. That you either meet them together in the fictitious world or in the fictitious world really then submerge and then they experience a certain loss of reality." (Germany, 41, High Income)

"Where I have some concerns about is this virtual reality in the first video. So, there I also think, as has just been said, that some people put themselves too deeply into it. Positively I see it for older humans, who have no more the possibility to go out or suffer with Alzheimer. Thus, I think there are surely meaningful things, which one can make with it." (Germany, 35, High Income)

German participants also made it very clear that they wanted to be responsible for their own lives and not having technology play such a prominent role in their lives.

"[...] but I liked all that very much only the one with the technical, especially in the first video that didn't appeal to me at all. Not at all. For me this is completely far from any independence and self-responsibility for my own life." (Germany, 26, Middle Income)

"It may be that my fridge can go shopping, but many people prefer to do it themselves. I'm a trained cook with a master's certificate and no computer will be able to cook any dishes sensibly-that's not possible, that's complete nonsense." (Germany, 65, Middle Income)

3.1.1.3 Macedonia

In general, the majority of Macedonian participants indicated the lowest preference for the 'My life between realities' scenario compared to the other three scenarios. Interestingly, to note is, however, the fact that some participants also showed a rather high level of satisfaction in relation to this particular scenario.

Those participants who disliked the scenario highlighted the fear of the central role played by technologies in everyday life and concerns about how that could influence social interactions.

"Too much technology is being used in the everyday life of people. In the first video ['My life between realities'] there was nutrition, there is a program which tells what to eat, what to be used. In this part the technology interferes too much in the life of people." (Macedonia, 36, High Income)

"Even though I like technology, I dislike the way it controls my life. Regarding self-driving cars, I would not want to be determined and guided by some programs in life, although they are pre-programmed, I know

how they will handle a particular situation. I dislike the control the technology will have over me. I want the technology to serve me, and not the other way around.” (Macedonia, 36, Low Income)

“I also disliked the first video. Too much dependence on technology. Especially the moment of virtual reality which disconnects us from the natural environment, and I don’t see how this is leading us towards sustainability.” (Macedonia, 42, High Income)

“I don’t like the virtual reality. I enjoy the nature, and I don’t want to have anything with virtual reality. What we experience in the nature, we cannot experience it sitting on the couch.” (Macedonia, 36, Low Income)

Interestingly, when looking at the motivations of those participants highly satisfied with this particular scenario, it appears that these are also mainly connected to technology.

“I like the first video the most because it emphasizes technology. I think that technology can provide a lot for people’s quality of life.” (Macedonia, 36, Low Income)

The wish for maintaining healthy levels of social interaction and a fear of loneliness have been expressed in some of the statements above, and are reinforced by the following ones.

“We are still witnessing the expansion of technology, so the contents of the videos do not seem so distant and unbelievable to me. I would point out the things that touched everyone, and the desire to maintain the communication and the social life. I hope this will not change and that maybe we’ll be able to emphasize it even more. Perhaps that hope comes from the present alienation and I would be happy if we can maintain our social life. Although the technology development today is an advantage, at the same time it negatively affects the social life.” (Macedonia, 57, Low Income)

“I’ll agree and follow up as the previous. So, the first slide [‘My life between realities’] – too much technology, it’s too artificial. It’s simply lost, I can freely say, the meaning of life. I’m afraid of loneliness. No motivation for life, no socialisation, no friendship, no friends, no family. You literally lose everything, and you get only technology and standard. Perhaps everything is available to you with the technology. But I do not see that this is how we should function.” (Macedonia, 32, High Income)

3.1.1.4 Spain

The participants of the Spanish focus groups expressed generally very negative opinions towards the scenario ‘My life between realities’. A term brought up by several participants to describe this dissatisfaction is that the scenario “dehumanises” people. They expressed very clearly their dislike about the way machines and virtual appliances control life in this scenario.

“I don’t know if it is possible or not [the scenario ‘My life between realities’], but I hope it doesn’t happen. It doesn’t provide you with what it should, it dehumanizes” (Spain, 32, Middle Income)

“It generates rejection in me because of the virtual interfaces, that are like a control of everything until the personal data of the father, the driverless driving... I find it very far away from reality, many things are lost with that reality.” (Spain, 19, Middle Income)

“Or better said, that so much innovation can dehumanise even more than it already is. Because if you get everything without effort, this is, there are no humans, there are machines.” (Spain, 52, Middle Income)

“I didn’t like at all the first scenario [‘My life between realities’], because it surpasses reality and leaves us at a side. It’s not satisfactory for the person.” (Spain, 27, Low Income)

“[...] the worst is the first scenario as it dehumanises and I don’t find it reachable almost in any society.” (Spain, 37, Low Income)

“It’s a sad scenario, and we are surely headed towards it. Nowadays we don’t remember telephone numbers of our close family members. Therefore in 25 years we won’t know [cooking] recipes.” (Spain, 58, Low Income)

One participant, in particular, added a more differentiated view indicating that one can still choose how to use technology and that humans need to ensure that certain social activities do not get lost.

“I think that for example, he [the character of the scenario] said he didn’t have time to cook... shop for groceries, be cooking, that there is some point you have to evolve, but you should not lose those moments that, for me, are vital.” (Spain, 50, Middle Income)

3.1.1.5 United Kingdom

The participants in the focus groups in the United Kingdom extensively discussed the scenario ‘My life between realities’ and expressed an array of different perceptions about it. Besides some more in-depth discussion on the possible future use of driverless cars, its risks and opportunities, participants raised concerns about the ubiquitous role of technology portrayed in the scenario. This judgement proved even stronger with older participants.

“For me personally I don’t like the ‘My life between realities’, all this virtual reality but that is me personally, the age I am, I am not really into technology, you know, somebody like [other participant] that is younger, that probably may appeal to him and his era because they like all the technology, don’t they?” (UK, 50, Low Income)

“If I was 15 I would probably say the first one’s good. [...] but maybe my age, not anymore. Because we know what we do and we enjoy our lives ... what we do. Not sit down in some room looking at some machine. That’s just technology. My age, definitely not.” (UK, 61, Middle Income)

“Mine’s [fear of the future] the first one [‘My life between realities’]. Virtual world. Where you have technology ordering stuff into your fridge [...]” (UK, 36, Middle Income)

“It is almost like trying to make everybody become a recluse. Because everything is going to be done for you and that is happening now, isn’t it with young children, you know, like the three-year olds being allowed to have a tablet, you know, and spend all day, there is no play [...].” (UK, 57, Low Income)

The topic of virtual reality exposure to nature, which was introduced in the video when the character “visited” the park while being at home, was viewed particularly in negative terms. Participants expressed their fears of a world less social and associated VR with detached from real life.

“I think video 1 [‘My life between realities’] relates to my fears for the future because I fear that it will turn into a less social world, like take out the human communication with people. With them having

virtual reality, everyone can be wherever they want in virtual reality. I don't think will leave the house and interact with people in their life." (UK, 19, Low Income)

"The idea of sitting in your room at home, little bedsit or something with some VR goggles on pretending you're in some park in London or Australia or whatever, I just think that is dire. I really think that is horrendous." (UK, 35, Middle Income)

"I think it is a bit sad when you live a virtual world instead of going out in the world and seeing it for real." (UK, 64, High Income)

"I would not want to live in the whole virtual scenario, why would you not want to live in reality? It is just escaping real life." (UK, 28, High Income)

The prominent role of companies in this scenario – in which private companies even shape public spaces like parks - was seen mostly negatively by participants in the UK. Their statements show fear of the power that this would confer to companies over time and how they would be able to control people's lives.

"Also, the big mobile companies, the money companies seem to put a lot into that. As in it was going from the park, the advertising [...] and so I wonder how much say in forty years' time would that be happening that they will be running the country [...]?" (UK, 61, Middle Income)

"[...] there's just one or two companies controlling the world. This is the way they want, you to live and this is what's going to be." (UK, 36, Middle Income)

In contrast, some felt it was a positive development to have companies sponsoring parks/green areas, as this was seen as a possible improvement in the management of these areas making them for attractive for citizens.

"I'd say that first one [...], actually companies sponsoring a park to keep it nice and maintained and stuff is probably a good idea. At least it's clean and at least it's tidy. I quite like the idea of it." (UK, 36, Middle Income)

3.1.2 'Less is more to me'

In general terms, the scenario '**Less is more to me**' resulted in less discussions and feedback from participants than the other scenarios. Focus groups discussions that took place in the Czech Republic, Germany, Macedonia, Spain and the United Kingdom generally resulted in high levels of satisfaction with this scenario, though for different reasons. Participants in Germany and Macedonia highlighted that the individualistic society shown in the scenario was something positive for themselves or suitable to current societal developments. Participants in the Czech Republic, Spain and United Kingdom mainly appreciated the large share of green space and the calmer life portrayed in this scenario. However, voices from the Czech Republic groups also stated that the scenario was missing the human component.

3.1.2.1 The Czech Republic

Participants in the Czech focus groups generally expressed high levels of satisfaction which in many cases related to the availability of green spaces in the scenario, which also allows for more active mobility choices.

“I liked scenario number two, which is ‘Less is more to me’, it really calmed me down. There was a lot of nature and green areas so it was the most pleasant one for me from those four. Kind of relaxing, [...]. I identify with number 2 the most.” (the Czech Republic, 59, High Income)

“They said that a lot of those places that are basically just covered with asphalt now would be transformed into greenery, which I think there’s less and less of since everything is being covered with buildings.” (the Czech Republic, 36, High Income)

“Well, because I could move from A to B on roller-skates, which I like, or walk, and it would be nice if some parking lots turned into parks.” (the Czech Republic, 30, High Income)

However, some participants pointed out that they disliked or were surprised by the way that personal relations were presented in the “Less is more to me” scenario, as they felt human connections were missing. This was especially the case in the intergenerational relationship.

“Because the lady in number two [‘Less is more to me’], she was like: phone, straight to supermarket, nothing substantial, she was able to look up anything on her phone but the mother lives in a nursing home and she sees her once a day, once a week they take her out... at least she’s able to chat with people... I just feel it’s all kind of sterile; there is no human connection at all.” (the Czech Republic, 35, Low Income)

“I wouldn’t like it if my children only visited me once a week.” (the Czech Republic, 63, High Income)

“The fact that she didn’t have her mum living with her surprised me, too.” (the Czech Republic, 35, High Income)

3.1.2.2 Germany

Participants in the German focus groups associated the ‘Less is more to me’ scenario with readily available green spaces, and generally more relaxed and less hectic lifestyles, which was seen as something very positive.

“[...] where the person cycled through the forest and said that in the past it was all much louder and today it’s all much quieter. I perceived it as deceleration and I think it’s good that it’s not so hectic anymore and a little more peace and relaxation comes in.” (Germany, 39, Middle Income)

“I liked the second one [‘Less is more to me’], with more green spaces where she said there had been only parking lots and houses everywhere and it wasn’t like that before and now we have green and fresh air and less exhaust fumes everywhere, which is also very important. I thought that was great.” (Germany, 36, Middle Income)

One participant, in particular, highlighted that the more individualistic society described in the ‘Less is more to me’ scenario would be well suited for the way societies are developing nowadays. Another participant made a similar comment, stating, however, that some aspects of the scenario were already too collective.

“Less is more for me’, as there would be individuality for everyone in this scenario. At the moment, with this jealous or envious society, there is always friction. Therefore, I would tend to ‘Less is more for me’, because there is more for everyone individually what he wants to do, go for a walk, skateboard [...]”
 (Germany, 64, Low Income)

3.1.2.3 Macedonia

Participants in the Macedonian focus groups highlighted as something positive, that the ‘Less is more to me’ scenario portrayed a more individualistic society.

“I chose the ‘Less is more to me’ scenario because I am fonder of the individualism, rather than of the motto ‘All for one, one for all’.” (Macedonia, 36, Low Income)

“I like the ‘Less is more to me’ and ‘One for all, all for one’ scenarios most. The one was more individualistic and the second one more collective, but they do not eliminate each other.” (Macedonia, 38, Middle Income)

From the many different aspects of the scenario, participants in the Macedonian focus groups did not discuss many in detail. However, participants positively referred to the images of fresh food bought at the market directly from the farmer. They underlined that in their today experiences, they also felt this food tasted better.

“Regarding the food, even though I am younger, when I go to the market I buy food from people who produce it by themselves. I have visited the village several times because my relatives live there, and I have tried the products that they grow. There is a great difference from the products that we buy in the market.” (Macedonia, 25, Low Income)

“Also, I liked the second scenario about the food. The food that we consume today does not have any taste. I am older now and I remember the taste of strawberries, tomatoes, and other agricultural products, which do not have the same taste today. Food tastes like plastic. And even the meat, frozen, imported from Brazil, or who knows where else.” (Macedonia, 67, Low Income)

3.1.2.4 Spain

Participants of the Spanish focus groups expressed strong preferences towards the ‘Less is more to me’ scenario. The most relevant aspects were described as a closer connection to nature on the one hand, and, on the other hand, a use of technology which is better controlled and less omnipresent. The better control over technology was a relevant theme throughout the different discussion groups.

“The one that I liked most is the second [‘Less is more to me’], because of the harmony of the individual with technology and nature, but unlike the first, which I didn’t like, it is the individual who controls the use of technology.” (Spain, 19, Middle Income)

“For me the best one is the second scenario, because there is a technology controlled by the user that doesn’t exceed some limits of all being technologic.” (Spain, 27, Low Income)

“I like it [the ‘Less is more to me’ scenario] more than the previous scenario, the previous scenario went away from nature and from reality. This scenario is more in contact with nature and technology.” (Spain, 19, Middle Income)

“I think the same way as [other participant], for me the best is the second scenario [‘Less is more to me’], and the worst is the first as it dehumanises and I don’t find it reachable almost in any society. Nevertheless, the second is more accessible and possible in a near future, but it is the one that I find healthier and with a control of technology.” (Spain, 37, Low Income)

Participants also voiced that the scenario showed a lifestyle that they were trying to live. They also highlighted the mixture of innovation and tradition as something positive.

“I find it excellent, because it is the lifestyle I try to carry, I think that when food you consume are more organic and less processed is better. The issue with energy is fundamental and we must put something from ourselves. I find it good the theme of community.” (Spain, 32, High Income)

“I want to do a quick remark, it has called my attention that this scenario mixes a bit of innovation with what’s traditional. For example, the shopping list, isn’t it? In the end is a typical piece of paper and a pen and you take notes. And I don’t know, I found it, quite well that some things are maintained and that the human being can continue doing [...] that it doesn’t limit its capacities.” (Spain, 22, Middle Income)

3.1.2.5 United Kingdom

Participants in the United Kingdom focus groups expressed higher levels of satisfaction with the ‘Less is more to me’ scenario compared to the first scenario. One reason for this was the understanding that life would be calmer and less rushed into this future scenario.

“I quite like the idea. Everything seems fresh and there wasn’t much traffic around either. Everyone was a lot calmer. These days everyone’s like rush, rush. Yes, it seemed a bit healthier.” (UK, 29, Middle Income)

“‘Less is more to me’ and the last one. It’s a nicer environment and you’re actually looking to buy local product and you’re not looking, nothing mentioned about pollution or waste at all. Everything is bought, used, that’s it. So, less pollution. It seems a very healthier lifestyle. Less stress.” (UK, 61, Middle Income)

One participant highlighted how all different aspects presented in the scenario, from more green space, more exercise to healthier eating, resulted in positive feelings for him.

“I like ‘Less is more to me’. It’s encouraging more of a cleaner environment. Obviously [...] green spaces. Obviously, a bit of exercise there. And the healthy eating as well. So, I prefer that one.” (UK, 56, Middle Income)

Some participants in the focus groups highlighted how this scenario resembled of old-fashioned lifestyles, and reminded them how the older generations used to handle things.

“Yes. Because that is my point again, you know what I said, it is a bit like what people used to do years ago. It is just one point, the lady said instead of, you know, when it gets a bit chilly put a cardigan on, well that is what you did before we had central heating and stuff - you know what I mean?” (UK, 50, Low Income)

“I think already, I think at the moment more of older generation, like my grandparents, see where they already try to save their energy by putting on a jumper. I have heard my gran say it many times. I think she

was older as well, but for it to become more, I should probably save more if there was more things like that really already.” (UK, 28, High Income)

“Keeping some old traditions as in shopping lists and going to the stores which appeals to me, yes.” (UK, 54, Low Income)

“And that she’s [Isabella, character from ‘Less is more to me’ video] come from old school. Pen and paper to write stuff down. Goes to the market, gets her own shopping.” (UK, 61, Middle Income)

However, this was also partly seen as critical, as it was perceived as being unrealistic to have so little influence of technology in the future.

“I just don’t think it is likely to be like that in the future because I think that is more like going backwards and the technology is like, more like, going to be like the first video.” (UK, 26, low income)

3.1.3 ‘One for all, all for one’

In general terms, the scenario **‘One for all, all for one’** has been unanimously perceived as highly satisfying among focus group participants of all five countries. Participants stressed how the scenario’s communal, local and intergenerational focus is highly appealing mainly because it would lead to increased and better social and family relationships as well as cohesion. Participants found value in supporting each other by either exchanging knowledge and experiences or simply offering help in times of need. These values have been diminishing in recent times, according to participants, and they would like to see them restored in the future. Besides, the efficient resource usage and the role and influence of local authorities was appreciated by UK, Macedonian, Czech and Spanish participants. The scenario decentralised approach to regulating, improving and advancing societal functioning is preferable due to the ability of these authorities to oversee and better tackle the population’s needs.

3.1.3.1 The Czech Republic

The Czech focus group participants expressed, generally, high satisfaction levels with the ‘One for all, all for one’ scenario. They appreciated the scenario’s focus on promoting social and family cohesion, peer support as well as the exchange of knowledge and skills in the context of intergenerational relationships.

“It spoke to me the most, because it’s about human relationships [...]. So, it’s about the help and the sharing [...].” (the Czech Republic, 44, Low Income)

“It’s nice that people come together, the families meet more often. These days they don’t have time for each other.” (the Czech Republic, 23, Low Income)

“I found number three [‘One for all, all for one’] most comprehensible, the listing of passing on the information, like in the case of older generations [...]. It’s closest to my heart. It’s about communication again [...].” (the Czech Republic, 35, Low Income)

Participants further appreciated the role and responsibilities of local authorities in this scenario.

“What I really like is that the government [local authorities] provided subsidies.” (the Czech Republic, 51, Low Income)

“What was nice about it is the state or the town subsidising the housing development [...]” (the Czech Republic, 35, High Income)

3.1.3.2 Germany

High satisfaction levels were observed in the German focus groups as well, with appreciation for the scenario’s communality and local and intergenerational features. These attributes served participants’ appreciation of more social and family cohesions and the sharing of knowledge, experiences and values.

“I find very important and the peaceful coexistence with people with different cultures and from different countries [...]” (Germany, 39, Low Income)

“I have ‘One for all, all for one’ because ultimately this togetherness with people is what makes all people happy.” (Germany, 30, Low Income)

“That they all do something together. That’s a good thing [...]” (Germany, 65, Middle Income)

“That this community idea comes to the fore again, because social media is for me the most antisocial thing there is. I call one and say “help me” and then he stands with me on the mat, that is social for me and that we come back there. Also, that not everything is thrown away, that you pay more attention to your neighbourhood, to the children.” (Germany, 53, High Income)

“This aspect of community, that somehow you still care about several generations and that you actually live this community again [...] – but that’s what I liked” (Germany, 41, High Income)

“I also liked very much that for example in the third video [‘One for all, all for one’] values as cooking with the family are passed on.” (Germany, 28, High Income)

3.1.3.3 Macedonia

The scenario ‘One for all, all for one’ was generally well received among the Macedonian focus group participants with many scenario attributes perceived as highly satisfactory.

Participants highlighted the scenario’s promotion of social (and family) cohesion as well as the support of one another while simultaneously conserving resources.

“So, I can choose the third one [One for all, all for one], since the parents pass their knowledge to the children as very useful which they might need tomorrow. Also, a smart use of less resources is suggested for everything we are doing.” (Macedonia, 26, Middle Income)

“I like local community helping the citizens rebuilding themselves, progressing, using resources, which is something more touchable closer to me. I would be most happy in that scenario. (Macedonia, 38, Middle Income)

“In general, I like thinking about the collective good. So not only for myself, for my own health, for my housing [...]. So, for the collective good.” (Macedonia, 42, High Income)

The high focus on locality and local responsibility for driving the necessary changes is another preferred attribute of this scenario.

“I think that the local community should have more influence on the citizens in our society. They know the problems and needs of the local population and can make influence much more than the central government which does not know and cannot resolve all problems.” (Macedonia, 36, High Income)

“What I also like in the scenario is the responsibility and the role of the local authorities since they know the best the needs of the community.” (Macedonia, 54, Middle Income)

3.1.3.4 Spain

High satisfaction levels were voiced among the Spanish focus group participants about the scenario. Participants appreciate the elevated social communality in ‘One for all, all for one’ scenario.

“I see it [...] likely. And there is ever more an issue of solidarity [...]” (Spain, 30, High Income)

“The third one [‘One for all, all for one’] is the one I chose 1st [as the most preferred] also because of the social issue [...]” (Spain, 52, Middle Income)

“The one I liked most was the third [‘One for all, all for one’], because I like that people are that closer, that local community is what matters, because we care about what we have close.” (Spain, 22, Middle Income)

Additionally, participants expressed satisfaction with local authorities being involved and responsible for initiating and supporting the refurbishment of houses.

“I think it’s local authorities the ones that actually care with policies close to the individual, I think the individual would have more safety.” (Spain, 61, High Income)

3.1.3.5 United Kingdom

Generally speaking, the scenario ‘One for all, all for one’ was received well in the United Kingdom. The community spirit and provision of mutual support through day-to-day living was perceived as highly satisfactory, complemented by the appreciation of helping people in vulnerable conditions (e.g. the elderly).

“More of a community spirit. Everyone looking out for each other.” (UK, 54, Low Income)

“I think it is more community spirit based. Everybody is working together as opposed to separately and conforming to whatever the ideal is.” (UK, 38, Low Income)

“Yes. That [‘One for all, all for one’: supporting each other] is my first one and improvement for the elderly, you know, the old people, was really good.” (UK, 57, Low Income)

“I did [liked] the one for all [‘One for all, all for one’] this time. Just because they said about the older people as well. [...] And also, I like the idea of if anything goes wrong everybody chips in together with neighbours. Yes, that one just appealed to me this time.” (UK, 31, Middle Income)

Moreover, participants appreciated the locality of this scenario including the efficient usage of materials that are locally sourced.

“I have gone with number three [‘One for all, all for one’] as my preference. It talks about using local based materials, building things, repairing things, do everything locally. [...] I just think it’s more local and everything is more local, local authority, local materials and local people.” (UK, 64, High Income)

Some expressed uncertainty over governance issues in this scenario, with the role of communes coming under question. Some expressed concern over the scale, others questioned the move away from personal property.

“I have gone with the same, I have put that as my number one. With sharing things and obviously as it mentioned on the video, forgetting all the processed food, food it is all fresh and everything and people are sharing but the communes, how big are they going to be that is what we are in the dark about. Whether they are going to be small pockets like one hundred people or if it is going to be ten thousand? But as the guy said before about having a local farm and things like that I think that is a smashing idea.” (UK, 33, High Income)

“I don’t like the commune scenario. I prefer just to have my own things” (UK, 55, Middle income)

3.1.4 ‘Our circular community’

Overall, focus groups participants’ reflections on the ‘**Our circular community**’ scenario were diverse, with tendencies towards satisfaction. In all five countries, concerns and doubts were expressed about the technological characteristics of this scenario in relation to the implied benefits and perceived invasion of one’s life and privacy. Nevertheless, the latter was perceived as much milder than in the first scenario (‘My life between realities’), because participants were trying to also reflect on the role of technology as a disease preventer. Indeed, the health activities and incentives in this scenario were deemed good by the Macedonian, Spanish and British participants, while appreciation about the efficient and longer usage of resources, materials and things (by reusing, repairing, recycling and/or sharing) was expressed by participant from all countries.

3.1.4.1 The Czech Republic

The Czech focus group participants expressed high satisfaction in regards to societal functioning in the ‘Our circular community’ scenario. This satisfaction was generated by the opportunities that the scenario provides to use things efficiently and over a longer time span.

“It’s nice that things would get repaired, because these days they do make everything to break three years after the warranty ends.” (the Czech Republic, 23, Low Income)

“I like the idea of repairing old things, because I really think there are things piling up that can be repaired, but people just buy new things.” (the Czech Republic, 35, Low Income)

Participants were dichotomous about the role of technology in this scenario with some regarding it as an opportunity while others loudly expressing their concerns.

“I love technology, I am not saying I don’t use it [...] but I wouldn’t want to live like that. It just destroys natural human way of thinking, the common sense.” (the Czech Republic, 30, High Income)

“The 3D printers were nice. If you break something at home and you need it, you can print it out in a minute.” (the Czech Republic, 37, Low Income)

“I really liked the idea that people’s health is under control. The active approach [...]” (the Czech Republic, 48, Middle Income)

3.1.4.2 Germany

Diverging satisfaction levels with a tendency towards high satisfaction has been noted among the focus group participants in Germany. According to participants, the scenario’s point regarding resource efficiency through reusing, repairing and recycling was highly satisfactory.

“I want to live in a way that makes it possible to fix things. But I am forced to buy new things [...]” (Germany, 31, Low Income)

“I also find these resources reuse is very important. I heard that this week, too, that in principle the earth cannot recover as quickly as the human being uses it up. That means that at some point it will go faster and faster.” (Germany, 71, High Income)

Participants expressed their preference for sharing things instead of always buying in relation to the smart use of resources.

“Well, I liked the idea of taking up this sharing topic, whatever comes more and more today, you share your car, you share foods that are not thrown away so that they come back into the cycle. I think that’s nice, this idea of sustainability or sharing.” (Germany, 46, Middle Income)

Participants were concerned about (health insurance) companies and their ability of monitoring citizens’ lives. Dissatisfaction was noted about the role of technology with concerns about data privacy and doubts about implied benefits.

“What I didn’t like at all was collecting the data. That then again, the data is definitely collected by the health insurance, that everything is monitored somewhere, that I no longer have privacy and also no control at all actually.” (Germany, 26, Middle Income)

“I was so scared about the Alzheimer’s story [...]. I thought the video was pretty good and then this point came up and then I thought: no, this would be too much.” (Germany, 58, Middle Income)

3.1.4.3 Macedonia

Macedonian focus group participants have largely expressed positive attitudes towards the ‘Our circular community’ scenario narrative. Participants found that the different scenario attributes related to food origin, increased physical activity and overall healthier lifestyles matched their values and wishes for future development.

“The fourth video impressed me. I would be pleased if that would be the case in the coming period. We are returning to organic production, we know what we eat, and we do not buy processed food from the markets.” (Macedonia, 59, Low Income)

“There was something about obtaining fitness loans. In my opinion this should be a driving force in the future if we want to represent a certain policy, if we want healthy children, this would be a great opportunity to give something specific, some benefits, credits, in order to achieve it.” (Macedonia, 36, Low Income)

“What I liked the most was presented in the video of Tereza [‘Our circular community’], the girl who was Tereza, I think that was her name. It is about an additional motivation for a better life where the citizens are playing sports and they get additional points for health insurance in their health insurance funds [...]” (Macedonia, 30, High Income)

Moreover, the approach towards resources usage, especially recycling, further contributed to the general satisfaction level with the scenario.

“I hope that in the future the recycling will function properly, since compared to how this is functioning in Europe we are very far from that. We did not even start with [...]. I hope that with the resources we have in Macedonia we will start with the practice in the next 20 years. I also think that the whole future will be based on the reuse of the old resources.” (Macedonia, 36, Middle Income)

“I have already said my personal values are protection of the nature, recycling etc. We are living in a society where no matter how much you try to do the recycling if you do not have a place to do that you will not do it.” (Macedonia, 38, Middle Income)

Concerns about the invasion of technology and its benefits were only rarely expressed, as below in the case of 3D printed food.

“[...] if something is grown/produced on the farms that is the right thing, you cannot compare 3D printing product with something produced originally on the farm.” (Macedonia, 38, Middle Income)

3.1.4.4 Spain

Average satisfaction levels were observed among the participants of the Spanish focus groups. Participants found the incentives for leading healthier and more active lifestyles satisfactory and appreciated the more efficient resource usage, however, the opposite was the case with regards to the role of technology in this scenario, especially with having this technology in one’s home and with technology monitoring one’s health.

“It would frighten me a little bit, I think people would turn hypochondriac. The first part where you get aid for doing sports and for living a healthy lifestyle I find it right.” (Spain, 25, Middle Income)

“[...] they trivialise a serious issue such as food and being controlled by companies, you are not sure if any genetic manipulation is done or whether addictions are created in people, it would put them in unnecessary risk.” (Spain, 40, Middle Income)

“I like it all except for the end, I liked the do-it-yourself, repairing but the thing of having a technology in your home to check, I didn’t like.” (Spain, 32, High Income)

“I think that you can’t be happy if you are monitoring all what is happening to your health, it is a total rejection.” (Spain, 32, Middle Income)

3.1.4.5 United Kingdom

The British participants' satisfaction with this scenario varied, but showed positive tendencies. Some of the positive points were the promotion of health and health elevating activities and incentives.

"I just think it encourages more physical activities. I like the fact that you could use the reality glasses to do like sports, in groups, in parks. I thought that was quite good." (UK, 26, Low Income)

"Yes, I like the one they encourage you to keep fit [...] with provision for bikes and the gyms." (UK, 52, Middle Income)

Moreover, the focus on circular (including here renewables) and longer usage of materials as well as the focus on local production were other satisfactory points.

"I do prefer the renewable and storing of energy as well [...]. If you had solar panels and wind generators to store surplus power for when you or others need it would be good." (UK, 33, High Income)

"It is getting away from throwaway society. Repair things and make things last longer like they used to rather than changing it every few years or throwing away materials." (UK, 69, High Income)

"I think it is great everyone did know where they were buying it from and actually bough local from the local farmer's shop. That would be fantastic." (UK, 64, High Income)

Participants did, however, not appreciate the increasing technological infiltration in one's lives, especially when it comes to the food one consumes.

"[...] what if it accidentally told you, you have got something wrong with you and you haven't? Because computers and things they do make mistakes. So that would be a bit of a worry." (UK, 52, Middle Income)

"Not really. Like the 3D printing of the food, I thought that was a bit, like I don't see how that could be nutritionally good if it is printed food." (UK, 26, Low Income)

3.2 What citizens of the five countries think about the INHERIT areas?

In each focus group, participants received a brief description on what the **INHERIT areas green space, energy efficient housing, active mobility and consumption of food and beverages** would look like in each of the four scenarios (see annex 1.2). The moderator asked the participants to read the description for one area at a time and rank the four scenarios according to their preference for living in them.

The following sections first provide a description of the text the participants read, before a summary and comparison of the discussions in the focus groups is provided. This is followed by a more detailed description of the comments and feedback provided in each country. Throughout the section, participants' comments are linked to **motivations, opportunities and capabilities** as drivers of behaviour as introduced in the behaviour change wheel in Section 2.1.3.

3.2.1 Green Space

Small share of green spaces is virtual ('My life between realities' scenario)

A small share of green spaces is virtual making it accessible to people who don't have natural green surroundings nearby. Nonetheless, physical green spaces are present, too, and people visit them regularly. Virtual green spaces are provided by large companies, while the physical ones are the result of joint efforts between companies and national governments.

Green corridors, parks and forests ('Less is more to me' scenario)

Following governmental regulation for a minimum proportion of green spaces in a city, urban infrastructure has been redesigned. Streets and parking lots have been transformed into green parks and corridors used by people for recreational purpose or as mobility pathways, while new forests have been created in rural area. Professional gardeners are responsible for their creation and upkeep incentivised by government subsidies.

Community gardens, parks, forests ('One for all, all for one' scenario)

Community gardens, parks and/or forests have substituted what used to be streets within cities. They were put into place in a joint effort between local authorities and citizen groups/communities. These new infrastructures are used by citizens to do sports, arts or other social outdoor activities.

Outdoor gyms in parks and forests ('Our circular community' scenario)

Most green spaces and popular natural spots are equipped with outdoor gyms fostering joint sport activities. The latter has been the result of collaborative efforts between companies who provided the space, financial support from governments and citizens who provided support in designing them. Digital screens show users how many health points they have acquired with their activities, while virtual reality glasses make it possible to join sport sessions without being physically present.

3.2.1.1 Summary and country comparison

Small share of green spaces is virtual ('My life between realities' scenario)

Participants in the focus groups in all five countries expressed dissatisfaction with the idea in this scenario that the use of green spaces would partly be shifted to virtual reality experiences. They expressed that VR could not replace the real experience of being in nature, that it would not feel the same as senses would not be stimulated in a similar way and activities related to being outdoors could not be performed the same way. Generally, the **motivation** for using VR in the context of relaxation was low, with small exceptions in the Czech Republic.

However, some participants in the German and UK focus groups mentioned that VR applications could replace lacking **capabilities** and provide **opportunities** for elderly or disabled people, who are unable to visit green spaces physically.

The role of companies sponsoring parks was discussed negatively by participants in the UK, as it was seen as giving companies too much influence on private life, but not further tackled in the other countries.

Green corridors, parks and forests ('Less is more to me' scenario)

Generally, focus group participants of all five countries expressed their appreciation for the main idea of the scenario to construct green corridors, parks and forests by replacing street infrastructure. Comments from the focus groups held in the Czech Republic, Germany and Macedonia show that participants feel positively about the **opportunities** of using green space and moving by different forms of non-motorised transport through the green corridors. This, according to the participants, would also lead to higher levels of **motivation** to use the greenery.

The British, however, were critical that some people might not be able to afford to go to the green spaces, if they were too far away, while the Spanish were concerned about the topography, which might prevent citizens from using the green spaces for cycling and walking.

Additional aspects like the government enforcing minimum shares of green space (Macedonia, Germany), the costs related to such a reconstruction of infrastructure (Germany) or the satisfaction with the rather individualistic way the scenario portrays societies (the Czech Republic) were only discussed in individual countries.

Community gardens, parks, forests ('One for all, all for one' scenario)

Discussions in all five countries showed satisfaction with the idea of using green spaces as places for community activities, intergenerational encounter, sports and culture. The comments made it clear that participants in all countries see these points as providing infrastructural and social **opportunities** for spending time in green areas, and, particularly through the community aspect, provide **motivation**. The aspect of increasing **capabilities** through intergenerational learning was mentioned only in the German groups.

However, in the discussions in Spain and Macedonia, participants also expressed that they would prefer some more individual time in the park than described in the scenario and that the joint activities might be perceived as a pressure to join by some.

The topic of community gardens was only discussed in the focus groups in the Czech Republic, Germany, and the UK, there, while the idea was perceived positively, some personal experiences with existing gardens also led to negative evaluation of the concept, mainly by a participant in the Czech Republic.

Outdoor gyms in parks and forests ('Our circular community' scenario)

Compared to the previous scenarios, the ideas presented in 'Our circular community' were discussed more controversially in the different countries. When discussing outdoor gyms, where people could exercise for free in the parks, this was seen as an **opportunity** for giving more people easy access to sport equipment in the focus groups conducted in the Czech Republic, Germany, Macedonia and the United Kingdom. While in these countries, some participants also expressed that it would be **motivating** to be able to exercise outdoors together with other, voices from Spain, the Czech Republic and Macedonia also made it clear that precisely these aspects would be demotivating and unpleasant for them, as it would feel weird or embarrassing to exercise in public and outside.

When discussing further elements of the scenario, different pictures emerged in the different countries regarding other factors that would **motivate** outdoor exercising and spending time in the green spaces. Czech and Spanish participants mentioned the voluntary use of digital support equipment for outdoor gyms, and the community and intergenerational approach. German participants critically highlighted the idea of gaining points for doing sports as demotivating.

3.2.1.2 The Czech Republic

Small share of green spaces is virtual ('My life between realities' scenario)

The participants in the Czech focus groups were not very positive about the future portrayed in the 'My life between realities' scenario, where VR glasses would be used in some cases to stimulate being in green spaces. Several participants expressed their dissatisfaction about this idea.

"The virtual green spots are not a good idea." (the Czech Republic, 63, Middle Income)

"You want to feel it, you want to touch it and not just putting on glasses [...]" (the Czech Republic, 44, Low Income)

However, also one participant expressed his **motivation** and interest to try VR:

“Well, I couldn’t do it more than I already do now because I do geo-caching a lot and so I’m in the woods all the time or travel a lot because of it. On the other hand, I would like to try the VR [...]” (the Czech Republic, 35, High Income)

Green corridors, parks and forests (‘Less is more to me’ scenario)

A large number of participants of the Czech focus groups stated that they liked the ideas communicated as part of the ‘Less is more to me’ scenario, especially the idea of green corridors and parking lots being transformed into green spaces. The comments show how they value this change in infrastructure as improved **opportunity** to use the green space.

“[I chose the ‘Less is more to me’ scenario] because I could move from A to B on roller-skates, which I like, or walk, and it would be nice if some parking lots turned into parks.” (the Czech Republic, 30, High Income)

“I liked number two [‘Less is more to me’] the best. I’d bring a backpack instead of a handbag to work and walk to work through grass...” (the Czech Republic, 44, Low Income)

“They said that a lot of those places that are basically just covered with asphalt now would be transformed into greenery, which I think there’s less and less of since everything is being covered with buildings. And I liked how they mentioned on the bottom that a professional would take care of the greenery that we would build, because he would know what belongs there and give it a certain order. So, I would like this option the most.” (the Czech Republic, 36, High Income)

“You can see that in Malešice, for example. It’s really nice there, we go there to visit our grandma and the median strip between the lanes on the Počernická road is beautiful now that they’ve been growing plants there, it’s great and the whole area has become a lot nicer.” (the Czech Republic, 57, High Income)

The individualistic aspect described in the scenario fits with some personal needs and **motivation** as can be seen in the following quote.

“Exactly, a rest zone if I want to rest, but perhaps just for me, I don’t want children there... Like, I spent the whole day communicating with people, working on my computer, I’d like to sit down for an hour and listen to some music or maybe the birds would be singing, I don’t know, and I’d like to be alone in that moment.” (the Czech Republic, 44, Low Income)

Community gardens, parks, forests (‘One for all, all for one’ scenario)

Participants of the Czech focus group discussed the community driven use of green spaces described in the scenario ‘One for all, all for one’. One participant highlighted the **opportunities** for using green space for organising events.

“Well the area is quite large, it’s possible to organise more events or more different events there and there is no technology like in the fourth one.” (the Czech Republic, 37, Low Income)

It became quite clear that the idea of having community gardens for the common good open to all citizens was perceived as **motivating** and positive to some people in the group.

“It’s closest to my heart. It’s about communication again, [...]. I like the community gardens because both young and old people can get together there, be friendly towards each other, even though they belong to a different generation. It’s really nice.” (the Czech Republic, 35, Low Income)

“For the same reason, because of the community gardens, parks, forests[...]. So, everyone can get together there, children, old people, young people, families, I like that.” (the Czech Republic, 52, Low Income)

However, one participant also stated that she really disliked such gardens in their neighbourhood today.

“Community gardens [...]. I see them in my neighbourhood, people do this and it’s horrible.” (the Czech Republic, 44, Low Income)

Outdoor gyms in parks and forests (‘Our circular community’ scenario)

When discussing the scenario ‘Our circular community’, the availability of digital support equipment in the outdoor gyms was discussed as something helpful, providing **opportunities** when needed and on a voluntary basis.

“I chose number four [the ‘Our circular community’ scenario], because – it’s kind of subtle phrasing but, it says: “It’s also possible to connect to”, so if I didn’t want to, I wouldn’t have to. So, the technology is there, the opportunity, but you don’t have to [...]. There are digital screens there. So, it’s like that there, you can see that [...] But as I said, you don’t have to use these.” (the Czech Republic, 37, Low Income)

“But it’s good if you don’t have a place and means to exercise on the machine then it’ll help you, right.” (the Czech Republic, 35, High Income)

“You just probably shouldn’t overthink it and imagine the screens, how wide they’ll be... Actually, there’ll be a display by the machine. It’s like... The technology is interconnected, it’s helpful. Or there are instructions, a manual on the LCD display, on the tablet, you can read it there.” (the Czech Republic, 23, Low Income)

Having sports infrastructure and offers suitable for adults was also perceived as an **opportunity** for more exercising.

“Some opportunity for tree climbing or climbing somewhere high, like a climbing wall. I would like these. More playgrounds focused on sport, also meant for adults.” (the Czech Republic, 30, High Income)

Participants in the focus groups expressed very different emotions related to the way that green spaces were described in the scenario. Some were very **motivated** by the community idea and the way that people of different generations could get together in the gardens.

“I like that citizens get together, I think that’s really good. I’m not saying it’s always the best, but whenever people of different ages get together and are excited about what they’re doing, it shows results. Plus, if it’s supported by the government or the local administration then it’s even better.” (the Czech Republic, 48, Income Unknown)

"I like it the most because people would engage in building the parks, gardens, they could participate in it. We have that where I live, I'm from Pankrác. There is a lady who created this amazing garden. It's on public property but no one minds because it's really beautiful, she grows plants there etc. If this worked and people wouldn't destroy it, it would be nice." (the Czech Republic, 35, High Income)

Regarding the topic of outdoor gyms, several critical voices were expressed. The arguments ranged from preferring to be inside a building to visit a gym to feeling weird when exercising in public and outside.

"Just that the gyms aren't all the same in a minute... And just being inside in a gym, I find that more pleasant. I just shut myself in." (the Czech Republic, 23, Low Income)

"All of it, the whole Malešice area. And it's made by professionals. It's not just regular people doing it. In contrast, they built these gyms in front of some companies where I live in Stodůlky for their employees. I've never seen anyone there. They have those workout machines. Ondra, our little son hangs himself on them with his hands every time we walk by, it's right by the metro station. Just imagining going there and exercising in front of everyone, I would feel like a lunatic. Plus, would I have to go change into a tracksuit or just wear my regular trousers?" (the Czech Republic, 57, High Income)

3.2.1.3 Germany

Small share of green spaces is virtual ('My life between realities' scenario)

Participants of the German focus groups discussed the scenario's vision of green spaces being virtual and to be experienced through VR glasses controversially. Some participants highlighted the benefits this would have for people who wouldn't have the **capabilities** to enjoy them otherwise, like those who are unable to leave the house, as they could still experience the park.

"I could imagine it very well for people in an old people's home who can't get out anymore." (Germany, 58, Middle Income)

"Yes, but there are many old and sick people who just can't get out. I could imagine a room where you meet and you sit this up and that's great. But not in real life." (Germany, 58, Middle Income)

Virtual green spaces were also seen as providing **opportunities** for enjoying the positive feelings related to green space for people who might otherwise not have access to them.

"[...] if I really lived far away now and would not get to a green space [I would use Virtual Reality glasses]. Well, I live in the countryside now. But if I didn't have any access otherwise [...]. You can already see it today, for example, in the sauna with this artificial lighting and this twittering of birds, that's something like that in miniature. Well, I'd use that before I didn't have anything." (Germany, 39, Low Income)

However, the statements also show clearly that the **motivation** for using artificial green spaces wouldn't be as high as using real green spaces, as it was perceived as not being authentic and not engaging all senses.

"I think the Virtual Reality story is basically good, super interesting, but the point is just that nature is fictitious in the end. I would dive into a fictional world. Then I always say: ok, if at some point we have fewer and fewer parks and so on and more and more industrial emissions, then we need a counterweight."

If you bring in this nature through these virtual reality glasses then I don't think it's healthy for our planet in the long run either, so I see it very critically at this point.” (Germany, 41, High Income)

“Well, I can't imagine these virtual reality glasses are already very realistic, I've already tried them myself, but I can't imagine it like in the scenarios. So, forest walk has something to do with smell, with sounds, with discovering something, with crackling when you walk over it, the smell of mould, of wood, birdsongs. When I walk through the forest with the children, we always discover something and if it is the acorns from the tree or the leaves or the sticks or something else. Now I imagine, I have such glasses on and say: Look here and look there from time to time- that looks already realistic you can reach there also such a thing, but that smells like nothing and that tastes also like nothing. And if there are any berries now, you put them in your mouth and eat them too. Seeing, touching and feeling all the senses are missing, I can't imagine that virtually. “(Germany, 46, Middle Income)

Some participants also opposed the idea of using VR glasses in general.

“I have the scenario with ‘My life between realities’ as my last choice, so with these funny glasses and all that[...]that's beyond good and evil to me. This is so weird and weird for me, nature is nature for me. And then I want to be in nature, too, and not be fooled.” (Germany, 57, Low Income)

“I had also chosen the ‘My life between realities’ scenario as fourth for the same reason, because I couldn't even walk around with such a thing on my head, not even in 20 years. I have to see this with my own eyes and if there is nothing to see, then I drive or go where there is something to see.” (Germany, 66, Low Income)

Green corridors, parks and forests (‘Less is more to me’ scenario)

Discussions in the German focus groups concerning the green corridors, parks and forests in this scenario focused mostly on the fact that there would be a minimum proportion of green spaces determined by the government and that these spaces would be taken care of by professional gardeners paid by the governments. The statements reflect that the participants felt this would provide **opportunities**, in this case, the physical infrastructure of parks, for citizens to use green spaces.

“Yes, exactly. And this minimum number of green spaces that is established and subsidized, and the design of professional gardeners, one might hope that this will be done properly. Because when I think about it, there's a place like this around me. It's sad, it's full of broken glass and stuff. Well, that seems to me to be reasonably feasible here.” (Germany, 66, Low Income)

*“And the second thing she said about the professional gardener, that they get their real salary. Otherwise it's: pay peanuts, get monkeys. And the parks look like they do today. With one-euro-jobbers. Sure, then you just do your job by the book. They've got to f***g acknowledge the work, too.” (Germany, 22, Low Income)*

“I have also chosen this ‘Less is more to me’ for the same reasons that the others said. Above all, that a few streets got away, I think that's quite good.” (Germany, 57, Low Income)

However, there were also critical voices about the costs for such measures.

“I had this ‘Less is more to me’ important for me because I think it is very important that there is good air in the cities and you can only get there by having green areas. I just thought that was very important and I thought to myself, well, if it is all so neat and with gardeners and so then it is also a nice cityscape. I just

discovered the only point for me that I find a little negative, because if the government finances it all, then we finance it through taxes. So, I wonder how much all of this cost us, including the taxpayer.” (Germany, 41, High Income)

Community gardens, parks, forests (‘One for all, all for one’ scenario)

The community character of green spaces and activities performed in these spaces was highlighted intensively by the focus group participants. They thought that it would increase the **capabilities** of citizens; on the one hand elderly people could be taken to the green spaces to enjoy them, and on the other hand they could serve as spaces where intergenerational learning could take place.

“But in ‘One for all, all for one’, church groups organize activities in nature. They can also transport older people there. That was also a reason for me to bet on one.” (Germany, 65, Middle Income)

“I also chose this scenario [‘One for all, all for one’]. Also, with the community garden, perhaps then also older generations, who are still familiar with gardening can pass something on and then knowledge is also simply not lost.” (Germany, 22, Low Income)

Participants also mentioned that these **opportunities** for enjoying green spaces were dependent on the financial situation of the individual.

“Where I live right now, I have to walk 20 minutes until there is something green and to be honest, when I go to my parents then you open the window and already another air comes towards you, as if I do this at home and it comes to me dust. Because a lot of cars drive around, you can’t avoid that. I have no alternative now, I cannot afford it financially otherwise I would say yes then I move out here and there somewhere in the country where there is a green area or whatever.” (Germany, 40, Low Income)

Different participants saw the community aspect of the scenario as a strong **motivation** for spending time together outside and also for doing sports in general.

“So, I have the scenario ‘One for all, all for one’. Because that would be the best thing for me. Different ages, different generations could do sports together.” (Germany, 39, Low Income)

“And also doing sports together, that always spurs you on and that is much nicer than living alone and sitting in the apartment.” (Germany, 22, Low Income)

“I have ‘One for all, all for one’, because ultimately this togetherness with people is what makes all people happy. And that’s why even if you have a lot of park or a lot of green space when you’re alone, that’s a good thing, but in the end if you have sports partners, people, then it’s much more fun, and it’s much nicer.” (Germany, 30, Low Income)

“I have always found it great to go to parks and meet my friends there and do sports. We connect that then always, we bring then always our dogs along, we have also dog bags with us but we do then just everything in one. [...] Then it goes up to the Fühlinger-See and back again and the dogs are there, the children are there and that’s a community for me.” (Germany, 50, Middle Income)

The fact that artistic activity was mentioned as part of the community activities was perceived positively.

"In 'One for all, all for one' it is the only aspect in the text where the artistic and social aspects are taken up as well and I think creativity is mostly neglected anyway and that's the only thing that points out that besides working and gymnastics and self-optimisation you have a few other qualities and things that are fun to do and that are also quality of life." (Germany, 57, High Income)

Outdoor gyms in parks and forests ('Our circular community' scenario)

The idea of outdoor gyms that can be used for free by citizens was seen as an **opportunity** that people already use today when it is available in urban contexts.

"[...] if one drives to Cologne-Porz, outside there are some outdoor sport devices, which are always well visited. No matter what time of day, weekend, evening, during the week, so there is also something going on and I find that more sensible than any concrete blocks where fitness equipment is in it." (Germany, 35, High Income)

The availability of such outdoor gyms combined with other people using them as well was also seen as something **motivating** people who would otherwise not be so keen on doing sports.

"I liked the 'Our circular community' one, because nowadays you get to know people so fast and you're also a sports muffle and when you go out you have some equipment, fresh air, oxygen, you can do sports and you get to know other people who also do that and drive you, so you somehow get back together more that you somehow experience something." (Germany, 36, Middle Income)

On the other hand, some participants also expressed that they would be rather demotivated by the idea of gaining points for doing sports, the portrayed role of health insurances and the perception of self-optimisation.

"Third place was for me 'Our circular community' which I found so semi-optimal because I just say that would stress me when I feel like I have to go to the park like other people and collect my health points - that's kind of a stress for me, because I think I have to compete with others so that I'm not so tailed. I don't know if it's so good for my health if I feel stressed all the time that I have to do something. That's why I have a few points of criticism here." (Germany, 41, High Income)

"That bothers me, for example, about 'Our circular community', where sport and exercise are so in the foreground - for me that sounds a bit like self-optimization and doing and monitoring by the health insurance company." (Germany, 57, High Income)

"'Our circular community', i.e. with the health points - if one has no desire to burden himself somehow then he has zero points. And the fact that the citizens do this together with the municipalities I find positive, but the companies ensure the financing - is for me a very dubious thing. If companies are financing anything, they have some ulterior motive." (Germany, 71, High Income)

3.2.1.4 Macedonia

Small share of green spaces is virtual ('My life between realities' scenario)

The discussions of the Macedonian focus group only touched very lightly upon the 'My life between reality scenario' and the use of virtual green spaces described here. The comments

made it clear, however, that virtual reality was perceived as something negative and not **motivating**, when it comes to experiencing green spaces.

“As most negative I have marked the first scenario [‘My life between realities’] since to my opinion the virtual reality cannot be compared with the real one. It is not the same.” (Macedonia, 26, Middle Income)

“I have instantly put the least preference on the first scenario [‘My life between realities’] since I do not like virtual reality with glasses.” (Macedonia, 62, Middle Income)

Green corridors, parks and forests (‘Less is more to me’ scenario)

The Macedonian focus groups discussed the construction of green corridors, parks and forests positively. The main aspects raised were connected to the minimum proportion of green spaces enforced by the government, which was seen as increasing the **opportunities** for citizens to use green spaces, also close to their homes.

“Better scenarios are the second [‘Less is more to me’] and the third one [‘One for all, all for one’] because of the gardens and parks. Today in the cities there are only few parks, not many places for cycling. The governments should be engaged in opening parks, places for people to walk.” (Macedonia, 62, Middle Income)

“Above all, by creating such conditions we solve many problems. So, we exceed traffic jams, we encourage a healthy habit of sports among the citizens. It is planned to walk from one point to another point. We breathe clean air, we are surrounded by more green areas. I like the part where professional gardeners are subsidized, and this would have a double benefit - a healthy environment, and also materially beneficial for the gardeners to work harder on those green areas.” (Macedonia, 32, High Income)

“For example, when I leave home I must go a few kilometres to get to the first green space, and I will pollute the area because I take my children by car. I am not sure what I do more – damage or satisfying my needs. I think that is very nice of the government that finances professional gardeners to maintain the green spaces.” (Macedonia, 36, Low Income)

This also translated into stronger **motivation** to use the green spaces.

“I chose the second scenario [‘Less is more to me’]. I was touched by the idea that the professionals will be responsible for green spaces, and will make the best use of it. To use the government subsidies to the maximum. I liked the transformation of parking lots into green spaces and if I lived in such conditions, would use green spaces to the maximum.” (Macedonia, 36, Low Income)

Community gardens, parks, forests (‘One for all, all for one’ scenario)

When discussing the community gardens, parks and forests described in the ‘One for all, all for one’ scenario, participants highlighted how such a future would provide them and also their children with more **opportunities** to use green spaces for moving from one place to another, sports and for playing, especially compared to their current living situation.

“I have also chosen the third scenario ‘One for all, all for one’ as the best one since the green areas are used a lot. As it is written “what were streets once upon a time now these are gardens and parks”. In our

places many parks had been destroyed for building houses and we don't have places any more for the children to play, or the adults to have a walk." (Macedonia, 26, Middle Income)

"Better scenarios are the second ['Less is more to me'] and the third one ['One for all, all for one'] because of the gardens and parks. Today in the cities there are only few parks, not many places for cycling. The governments should be engaged in opening parks, places for people to walk". (Macedonia, 62, Middle Income)

"I chose the same scenario ['One for all, all for one']. I live in Chair, and I walk on the street instead in outdoor sports facilities. It is even more natural for children to breathe clean air. And we can all take care of the green spaces. When we had a park we all took care of it and we used it. Now, there are buildings instead of parks. The children are left to play on the streets, in huge pollution and dust." (Macedonia, 49, Low Income)

While the community and sport aspects of the green spaces was seen as something **motivating** by participants, their statements also clearly show that both aspects can be seen in a negative light as well, for example as being imposed on people or as not leaving enough space for different activities, like meditation.

"I like the social dimension, joint sports, care for the environment. Those two elements I liked the most." (Macedonia, 34, Low Income)

"Out of all four scenarios the best is 'One for all, all for one'. I like that all streets are transformed in gardens, parks and what is important that there are local groups of citizens sporting together, create arts or practicing some other activities. The main characteristics of green areas are also defined. That is perfect." (Macedonia, 32, Middle Income)

"The aspect that is connected perhaps with my professional engagement is dominant, which is the creation of art, expression. So, something beyond the maintenance of health and such sports activities, it also added plus another dimension in the shared living and in the common thinking about the future. It doesn't have to be just art. There may be other areas of common input. [...] The park doesn't have to be for sports only. So, there should be some kind of, let's say, meditation moment." (Macedonia, 42, High Income)

"What I dislike in the third ['One for all, all for one'] and fourth scenario ['Our circular community'] is that there are too many imposed things. The individuality is lost, everything is done collectively. One scenario is about exercises, everybody is practicing, and the other one is about collective sports and celebrations." (Macedonia, 36, Middle Income)

The role of local communities in jointly shaping those green spaces was mentioned in a positive way by several participants, all expressions similar to the one below.

"In regard 'One for all, all for one' I think it is very positive. [...] I think that the local community should have more influence on the citizens in our society. They know the problems and needs of the local population and can make influence much more than the central government which does not know and cannot resolve all problems." (Macedonia, 38, Middle Income)

Outdoor gyms in parks and forests ('Our circular community' scenario)

When discussing the aspects mentioned in the 'Our circular community' scenario, particularly the outdoor gyms, the Macedonian participants expressed appreciation for the **opportunity** to spend time outdoors and engage in sports that is given in this scenario.

"I also chose that scenario ['Our circular community']. There are plenty of green spaces that are good for relaxing outdoors. The areas are equipped with everything, as if they are gyms. Something is being done for the common good [...]" (Macedonia, 36, High Income)

"I liked the most 'Our Circular Community'. I liked the way technology and sports are related, the very way of life. Especially that the state can provide some things, I would not say subsidies, but opportunities that people can then use. It is specifically noted that the state, municipalities, companies and citizens should function together. To have as much debate, conversations through new ideas and plans that can be further exploited and implemented." (Macedonia, 29, High Income)

Some comments also make it clear that the opportunities for using green spaces are linked to the income of citizens, which is seen as a challenge in our times.

„There are differences. We are living in a polluted city, in a place where it is very difficult to move with bicycle or roller skates except on a few locations. You can go out only in a few places since you do not have money enough to have a fun so what is left to you are the local or central City park. There is only small group of people who can afford to go out of the city. [...] They will build a sport hall than start to charge the use. Something is built and then the use is limited." (Macedonia, 38, Middle Income)

"I would give the first place to 'Our circular community' because in regard the green areas the responsibility is wide, on the government, companies and citizens. However, the local government should be most important since they can do very much. [...] The difference with today is that we do not have free spaces for such activities, you have to pay or to find other way to do it. On the end, we do not have many green areas." (Macedonia, 54, Middle Income)

Participants in the focus groups in Macedonia perceived the idea of outdoor gyms and of public sports areas as something negative and **demotivating**.

"I ranked the fourth scenario ['Our circular community'] as second and what I dislike is that most of the parks are equipped like sport halls. I think it is too much. There could be I some of them to enable you to sport if you like, but someone like to go and only enjoy the nature, so I don't know why so many outdoor sport spaces. From the other side, something which is good in the indoor halls are the digital screens showing you how much healthy points you got which is ok." (Macedonia, 32, Middle Income)

"What I dislike in the third and fourth scenario ['Our circular community'] is that there are too many imposed things. The individuality is lost, everything is done collectively. One scenario is about exercises, everybody is practicing, and the other one is about collective sports and celebrations." (Macedonia, 36, Middle Income)

3.2.1.5 Spain

Small share of green spaces is virtual ('My life between realities' scenario)

Participants in the Spanish focus groups only briefly discussed the 'My life between realities' scenario and stated that they didn't like the idea of using virtual reality instead of actual

green spaces. The low **motivation** for the use of such devices was complimented by worries of losing awareness of the natural environment.

“The one I like least is the one with virtual reality [‘My life between realities’].” (Spain, 35, Middle Income)

“I agree, of course the first case [‘My life between realities’] is the one that most scares me, what kind of environmental consciousness would we be able to solve it with glasses.” (Spain, 40, Middle Income)

“That way the environment wouldn’t be taken care of, we wouldn’t have any kind of consciousness if we could obtain it from virtual reality.” (Spain, 25, Middle Income)

Green corridors, parks and forests (‘Less is more to me’ scenario)

Several participants mentioned that they liked the green corridors, parks and forest in the ‘Less is more to me’ scenario, as they felt this would provide **opportunities** to more citizens to use green spaces.

“The scenario I like most is the second [‘Less is more to me’]. Because in the cities there should be corridors, parks, more green spaces in the cities and in rural areas new woods. It is the one I most like because it improves the air in cities and because as there is more greenery, transport will be done in a different way but all with liberty.” (Spain, 20, Middle Income)

“I like the ‘Less is more to me’ scenario because even inside the city it is possible to create “lungs” out of natural spaces where parking lots and cars were. We have to reduce vehicle emissions and find new ways of transport.” (Spain, 27, Low Income)

“I have the same opinion than the previous ones, I think that the scenario of ‘Less is more to me’ is not so far away from coming true, I think it would be the optima.” (Spain, 37, Low Income)

However, some concerns were also raised regarding the **opportunities** and **capabilities** for citizens to use active mobility choices in areas where the topography was not flat.

“I agree with the second scenario [‘Less is more to me’] being better, but I see the problem of the use of bicycles, skates... in cities where everything is flatter its use is easier, but not here. I think that nowadays residential areas are built where building blocks are not so dense and include instead small forests or gardens separating blocs and I think this is possible to obtain. The one I like least is the one with virtual reality.” (Spain, 35, Middle Income)

Community gardens, parks, forests (‘One for all, all for one’ scenario)

When discussing the ‘One for all, all for one’ scenario, some statements touched upon the role of local communities in creating these green spaces, which was seen as something positive, as it would help to put the common good into focus.

“I, with all the limitations we spoke about earlier, think that the closer to a decent lifestyle is the one that says ‘One for all, all for all’. Because it says that “Local authorities” and it is assumed, I assume, that those authorities are elected by all. They are elected by all from a perspective of common good, without partisan ideologies. And of course, if local authorities support citizen groups to define the characteristics of green

spaces and built them through local community activities, and then there are no glasses to see it otherwise, then I think that is the way it should be taken [...]. (Spain, 69, Middle Income)

“But I find the last two very interesting [‘One for all, all for one’; ‘Our circular community’] because I like the city to be built by everyone and I think it’s the future. If we decided on cities’ design, we could say where we want the basketball courts or the parks. There are European cities where citizens participate in their design, so there wouldn’t be any speculation and then participating in that design would be very interesting.” (Spain, 27, Middle Income)

When looking at the **motivation** to use the green spaces, one participant highlighted that they would feel pressured by the idea that activities in the park are jointly organised by groups:

“In the two last options [‘One for all, all for one’; ‘Our circular community’] there are also many green spaces but you find yourself more limited by what the rest of the people do. For example, in the third of them all have to agree, for activities that are organised.” (Spain, 20, Middle Income)

Outdoor gyms in parks and forests (‘Our circular community’ scenario)

Some participants of the Spanish focus group liked the collaborative approach of the scenario to engage and provide the green spaces. They expressed that this would improve the opportunities of citizens, as their needs would be considered.

“I liked the last one, ‘Our circular community’ because I like that all the administrations, companies and communities work together to achieve green spaces so that not all the burden is carried out by one.” (Spain, 30, High Income)

“But I find the last two [‘One for all, all for one’; ‘Our circular community’] very interesting because I like the city to be built by everyone and I think it’s the future. If we decided on cities’ design, we could say where we want the basketball courts or the parks. There are European cities where citizens participate in their design, so there wouldn’t be any speculation and then participating in that design would be very interesting.” (Spain, 27, Middle Income)

As above, the description is seen as imposing a certain lifestyle on some of the participants, which they find **demotivating**.

“[...] the fact that it is done in open space and that it supposes a reduction in your insurance I think it’s to impose, I don’t like it to be an obligation.” (Spain, 32, High Income)

“[...] my second option is the ‘Our circular community’ but I find it to have much obligations [...].” (Spain, 19, Middle Income)

3.2.1.6 United Kingdom

Small share of green spaces is virtual (‘My life between realities’ scenario)

Participants in the UK focus groups discussed extensively the scenario ‘My life between realities’, with a focus on the use of Virtual Reality to simulate green space environments.

While they noted positively that VR might increase **opportunities** for people who live too far away, they also critically remarked that even if you perceive to be in a healthy and green environment, the air pollution in cities would still remain bad for you.

“I think that might be better for people who are living more in cities because obviously – It says it is for the people that can’t – what did it say? They are not near to the green areas so it gives them a chance to maybe get a feel for it.” (UK, 26, Low Income)

“I was just going to say the effect of virtual, being in a city you are still, even with the glasses on, going to have all the pollution in the air you are surrounded by rather than being out in the fresh air.” (UK, 28, High Income)

One participant also extended the discussion to people with disabilities, who might not have the physical **capabilities** to visit parks, and might therefore benefit from virtual green spaces.

“It would give disabled people that chance to do things that probably is its only benefit that I could think of.” (UK, 62, High Income)

When discussing the **motivations** for using virtual reality, the comments of the participants show that they find it hard to understand why one would want to engage in VR. Even experiences from their real life do not help to bridge this gap.

“You can’t beat the real thing!” (UK, 69, High Income)

“I put that as my least favourite.” (UK, 28, High Income)

“Maybe it a generation thing, I can't see why? If you want to do something do it, it is just a very lazy way of doing things.” (UK, 64, High Income)

“I find it difficult, to get my head around it, I went around my son’s. Him and his friends have got these glasses on and they are doing all that [mimes VR movements]. It is weird and I just can't get my head around it. They are catching balls and it is just very strange to me.” (UK, 56, High Income)

Additionally, this group also did not appreciate role of companies that would sponsor the parks and provide VR equipment to their employees in this scenario. The comments show that participants disliked the idea of companies dominating their private life.

“Another one where companies provide their employees with virtual, where the company you work for provide you with everything.” (UK, 64, High Income)

“If you have worked hard enough you don't get it.” (UK, 69, High Income)

“Dominating your life again.” (UK, 62, High Income)

“Companies sponsor virtual spaces.” (UK, 64, High Income)

Green corridors, parks and forests (‘Less is more to me’ scenario)

When discussing the ‘Less is more to me’ scenario with its increased share of green corridors, parks and forests, participants highlighted that such a future would provide

opportunities for people who cannot afford to leave the city to find green spaces there and that the change in infrastructure would be relaxing for them.

“The community. Everybody working together and yes, I mean we are very lucky that we live here but obviously if you live in the city, you are never going to get rid of car parks I don’t think but being able to have some green space so that people can, and affordability because not many people can afford to sort of drive out to the countryside.” (UK, 54, Low Income)

“Well it is, if the car parks turn into parks sounds good and relax, more relaxing and getting from A-B on bikes and that sort of thing, so it is more leisurely and more healthy living – that appeals to me.” (UK, 65, Low Income)

Community gardens, parks, forests (‘One for all, all for one’ scenario)

When discussing the idea of having more community-driven activities in parks, one participant highlighted that this would help in making full use of parks and that it would create **opportunities** for more people to use them.

“You are utilising parks. Nowadays parks are, people take their children to the park but maybe they go for a walk round and look at the flowers but it is probably under used. Whereas what they are suggesting here would make fuller use of them and maybe more of them a well. Something for everybody.” (UK, 62, High Income)

Having community gardens and sharing things is highlighted as a highly **motivating** vision of the future in the two quotes below. It becomes clear how close the positive connotation of cultivating food and being closer to nature is.

“Yeah, community gardens and parks and forests. Sharing gardens and things. I like places to go and food growing in the earth and enjoying my surroundings more so.” (UK, 33, High Income)

“I have gone with the same, I have put that [‘One for all, all for one’] as my number one. With sharing things and obviously as it mentioned on the video, forgetting all the processed food, food it is all fresh and everything and people are sharing but the communes, how big are they going to be that is what we are in the dark about. Whether they are going to be small pockets like one hundred people or if it is going to be ten thousand? But as the guy said before about having a local farm and things like that I think that is a smashing idea.” (UK, 56, High Income)

Outdoor gyms in parks and forests (‘Our circular community’ scenario)

When discussing the outdoor gyms described in the ‘Our circular community’ scenario, it was highlighted that better equipment in parks would increase **opportunities** for using green spaces.

“I like the ‘Our circular community’. I like the idea of having better parks, which are better equipped. It would be nice to have children that could go to these lovely parks rather than slightly run down you know, have the dodgy old chap in the corner looking at you.” (UK, 35, Middle Income)

One participant stated that such places already exist today, as areas of the park where adults can exercise on public equipment.

“In Malpas Park they have got a community gym there which has got weights and exercise, spinning bikes and things which are free for anyone to use. Which is similar to the fourth one. It is like an adult’s area of the park as well for cycling and gym equipment.” (UK, 33, High Income)

Different opinions were expressed concerning the **motivation** potential of VR in engaging people in more physical activity.

“I am not quite sure how virtual reality would compare to a proper spinning class though which is supposed to be quite strenuous. So, I don’t really see the correlation between those two.” (UK, 62, High Income)

“I just think it encourages more physical activities. I like the fact that you could use the reality glasses to do like sports, in groups, in the parks. I thought that was quite good.” (UK, 26, Low Income)

3.2.2 Energy Efficient Housing

Smart homes optimise energy consumption (‘My life between realities’ scenario)

Household energy consumption has been optimised through the deployment of smart homes concepts, which connect all energy using devices and monitor human behaviour to offer need-based, customised solutions. All energy is renewably sourced with large companies providing market offers in all price segments.

Saving space and energy where possible (‘Less is more to me’ scenario)

Flexible and customisable living spaces, implemented through new housing standards, ensure the efficient use of living spaces based on inhabitants’ spatial needs. Energy efficiency is improved through governmental subsidies as well as information campaigns to increase awareness about saving and efficient energy consumption.

Local retrofitting and co-housing (‘One for all, all for one’ scenario)

Multi-generation co-housing solutions enable improved living conditions for older people and more efficient use of living space. Local bio-based and reusable materials are being used for the refurbishment and construction of houses and to satisfy inhabitants’ needs for heating, cooling and lightning. Local authorities and ‘train the trainers’ initiatives help people to build and repair things as well as to pass on their skills.

Renewable energy and bio-based solutions (‘Our circular community’ scenario)

Joint efforts between energy companies, governments and citizens have made it possible to base the complete production and usage of energy on renewable sources. Companies offer connected systems of small- and large-scale renewable energy production, local electricity grids as well as energy highways between regions. A system of shared energy devices such as

electric vehicles or washing machines support the energy storage. Houses are heated with renewable bio-based energy.

3.2.2.1 Summary and country comparison

Smart homes optimise energy consumption ('My life between realities' scenario)

Concerning the idea of smart homes and technology supporting the reduction of energy use on the household level, very different opinions were expressed by the participants of the different focus groups in the five countries. The scenario was discussed extensively in Macedonia and the UK.

Czech and Macedonian participants mostly evaluated the idea positively, as technology would help to save energy and money more efficiently than human behaviour. Participants from Germany, Spain and the UK, on the other hand, were divided on the topic. Some saw the **opportunities** of technologies for making one's life easier, while others mostly mentioned concerns and discomfort, as they felt smart home technology was not necessary and would collect personal data about their behaviour.

The fear of giving large companies too much power over and insight into personal in-house behaviour through smart home technology was expressed by British and German participants.

A Czech participant expressed concern on the possibility that technology could fail. During the discussions in the UK, it was also mentioned that smart meters would increase personal **capabilities** with regards to understanding the energy consumption of specific devices.

Only in the Macedonian discussions, were smart homes perceived as eliminating the need for personal behaviour change, as the technology would take care of it. This was considered as a **motivation**.

Saving space and energy where possible ('Less is more to me' scenario)

The 'Less is more to me' scenario was discussed only briefly in Macedonia and Spain and very briefly in the Czech Republic, Germany and the United Kingdom. Discussions in the Czech Republic, Germany and Macedonia showed positive feedback on the idea of modular housing, which could be adapted to the actual needs of inhabitants. Participants in all three countries saw this model as an **opportunity** to save space and energy.

Discussions in Spain and the United Kingdom put more emphasis on the topic of increasing the **capabilities** of citizens to have awareness and knowledge for saving energy. In both countries, this was discussed as something useful, though in Spain far more comprehensively.

Another point only mentioned in more detail in the focus groups in Macedonia was the topic of governments providing subsidies for citizens to refurbish their houses and increase energy efficiency, which was again seen as an **opportunity**.

Local retrofitting and co-housing ('One for all, all for one' scenario)

All countries, except Macedonia, discussed the 'One for all, all for one' scenario in some detail. The discussions mostly revolved around the idea of intergenerational co-housing, as presented in the scenario.

In the Czech, German, Spanish, British and to a smaller extent Macedonian focus groups, intergenerational co-housing was seen as socially and emotionally **motivating**, as it would enable a feeling of community, taking care of elderly family members and would support social cohesion. At the same time, discussions in the UK, Spain, the Czech Republic and Germany also showed the potential conflicts for such models related to not having good relationships with relatives, possible conflicts arising from sharing the living space, or external limitations like the lack of suitable real estate. Positive comments on the topic of co-housing, based on personal experiences or planning, and their **motivations** for this step were given by participants from Germany and the UK.

Participants from the Czech Republic and Macedonia positively highlighted the idea of increasing citizens' **capabilities** through helping each other and learning from each other.

Renewable energy and bio-based solutions ('Our circular community' scenario)

Discussions in all five countries on this scenario mainly focussed on the topic of increased use of local and decentralised renewable energy. Participants of all five countries saw a shift to this form of energy generation as very positive, providing **opportunities** for a more sustainable use of energy and better meeting energy needs. The southern countries Spain and Macedonia put a special emphasis on how well renewable energy production would complement the amount of sunlight available in their countries. Participants from the Czech Republic and Germany, however, also brought up that they disliked the look of wind farms.

The question on whether citizens would be willing to change their personal behaviour to save energy was only discussed in the German focus groups, with arguments for and against being **motivated** to do so in the scenario.

The aspect of sharing devices like washing machines as presented in the scenario was only discussed in the United Kingdom, where the idea was seen rather critical, as **motivations** for doing it might be low.

3.2.2.2 The Czech Republic

During the discussion, a number of participants indicated that they would prefer to combine elements of different scenarios, instead of choosing one or the other. These reactions are based on the fact that the descriptions of the four scenarios cover different aspects of the energy system and energy use.

"Exactly. Take something from each, something that makes sense. That's right." (the Czech Republic, 27, Low Income)

“Well, it should be combined.” (the Czech Republic, 51, Low Income)

“I liked something in all four options, because there are good ideas in all of them.” (the Czech Republic, 57, High Income)

Smart homes optimise energy consumption (‘My life between realities’ scenario)

The participants in the Czech focus groups by and large expressed positive feedback on the smart homes idea presented in the ‘My life between realities’ scenario. Their comments show the different **opportunities** they saw in relation to smart homes, like having the technology to save energy and money.

“I have a different one, number one [‘My life between realities’] is in the first place for me. Because I have experience with this, I have a smart house system, which uses these kinds of different resources, so you can really save a lot of money and you can use a lot of different things for heating.” (the Czech Republic, 37, Low Income)

“In the end, I gave the blue one [‘My life between realities’] number one, but mainly because the intelligent houses, the technology here makes sense to me, because the passive houses... I was dealing with that, we thought about that and I really liked it. In fact, it seems to me there’s maximum space for the technology. So of course, as I read, big corporations created a set, but there could be big charity organisations, for instance.” (the Czech Republic, 48, Middle Income)

Some of the comments however make it very clear, that due to the costs associated with the technology used in smart houses, participants were worried that they would not be accessible to citizens with lower incomes.

“I find the first one [‘My life between realities’] good, intelligent house of course, it already exists, it is interesting, but it is accessible to only a certain part of population.” (the Czech Republic, 27, Low Income)

“Well, big companies created a set of proposals, so it is clear that it will be paid and it is clear that big corporations will have it hugely overpriced, so this is what I don’t like, that big corporations would be in charge because it would be the same as today. It would be inaccessible for 99 % of people...” (the Czech Republic, 27, Low Income):

Despite the positive associations with smart homes, one participant also expressed concerns about such connected digital systems, as one would become very dependent on them and face challenges when technology fails.

“I think number one [‘My life between realities’] is the best option, however, it’s not ideal. As soon as something goes wrong, you won’t even be able to live in a house like this, because everything’s connected. You can easily ruin your air quality, change all the appliances’ settings etc. with one bad code. It’s all dependant on technology. But if I have to choose, number one is the best, mostly because of the first sentence that says that a large scale of renewable energy installations provide energy to houses.” (the Czech Republic, 36, High Income)

Saving space and energy where possible ('Less is more to me' scenario)

The second scenario 'Less is more to me', was not discussed in much detail. Nonetheless, different participants pointed out that they liked the idea of saving living space and energy where possible. This can be related to **opportunities** in housing infrastructure and to **motivation** for reducing the need for energy.

"I also like the second option ['Less is more to me'], the red one. I like the energy efficiency and government funds and the fact that they're considering the living space and don't want to waste it." (the Czech Republic, 63, High Income)

"I like 'Less is more for me' option best. Saving space and energy. But I don't agree completely that the government should be the only one to invest. We should all try to make an effort: start with saving somehow and maintain the nature, energy and all." (the Czech Republic, 51, Low Income)

"Of course, I like number two ['Less is more to me'] also, it makes sense too, save place and energy." (the Czech Republic, 27, Low Income)

Local retrofitting and co-housing ('One for all, all for one' scenario)

When discussing the 'One for all, all for one' scenario in the Czech focus groups, most comments were focused on the topic of multi-generational co-housing. While it was seen positively in terms of socio-economic **opportunities** and partly seen as **motivating** for family cohesion, the comments also show a number of concerns or possible conflict points when it comes to keeping privacy or levelling the interests of older and younger generations.

"I like the third option the most [the 'One for all, all for one' scenario] [...]. Especially multi-generation co-housing. However, I realize that older people would like that more than the younger ones." (the Czech Republic, 63, High Income)

"I chose number three ['One for all, all for one'], but as we discussed, we can combine from multiple choices... Yeah, it's good, multigenerational co-housing, you can do that, but you need to separate it a little bit. It's like... It can be multigenerational, but everyone needs to have his or her own entrance. You can't just have one door and grandma living downstairs, parents upstairs and on the third floor someone else, all in one house unless everyone has a door they can close. So, it's just... I wouldn't mind it, if everyone could keep their privacy and it won't be in one open space, the multigenerational living, right..." (the Czech Republic, 23, Low Income)

"...And I'm not saying I would want it but for example the multi-generation co-housing is great for people who need it, especially for the older ones and I'm getting to that point. The thought of being old and alone one day is scary. I already see it with our grandparents – we have to decide what to do with our grandma right now – whether to have her move to our place. And it will happen to me one day. Our grandpa died so she's alone, but it's complicated. And it is a solution but our flat is really small." (the Czech Republic, 57, High Income)

Additionally, one participant also highlighted that they liked the aspect of **capabilities**, namely of helping and training each other with work.

*"I like in number three ['One for all, all for one'] that people help each other with building, the train the trainer and just... So, it's about the help and the sharing and help and the feeling and emotions actually."
(the Czech Republic, 44, Low Income)*

Renewable energy and bio-based solutions ('Our circular community' scenario)

The focus groups briefly touched upon the fourth scenario with a focus on renewable energy provided by the cooperation between energy providers, public authorities and citizen associations, which was mostly seen in a positive light.

"I have 'Our circular community' too [...]. Of course, it has to be with the help of the government and some money and funding, but there are also things we ourselves can contribute." (the Czech Republic, 27, Low Income)

"I like number four 'Our circular community', because I'm interested in saving energy. I would like to talk about it with our housing co-operative and see if we could use solar panels or something like that. I would like that." (the Czech Republic, 35, Low Income)

One participant made it clear that they would not want wind farms to impact the view.

"About the last one, number four, if there are wind farms and these things it will ruin the look of the buildings and the landscape. [...] The energy might be free but it still cost us something. The landscape is more important to me." (the Czech Republic, N.A., N.A.)

3.2.2.3 Germany

Smart homes optimise energy consumption ('My life between realities' scenario)

Participants in the German focus groups discussed the 'My life between realities' scenario, where a smart home automatically takes care of different energy devices and thereby saves energy. Interestingly, two very different opinions towards such smart houses can be seen in the responses of participants. One group highlighted the benefits of connected technologies in the house, as they would make life easier and shared the experiences they already have with it. Here, smart homes are seen as infrastructures and services providing **opportunities**.

"I'm at blue one ['My life between realities'], that's the favourite. ...I think it's good if a lot of things are handled automatically in the house for me. You come home and it knows it's dark now, it's winter and the light switch on. But you shouldn't give up control. I program it beforehand so that you don't have to pass this data on and if I'm at home for the weekend now it should be like this when I'm away to start the washing machine. I think it's great why not, it makes life easier." (Germany, 40, Low Income)

"But now I also find it not bad with the ['My life between realities'] that one tries to optimize the technical possibilities. I do not see the monitoring component so strongly, if one can shape the data protection." (Germany, 44, High Income)

"I have to say with this Smart, with my app I can turn on the lights at home in the evening and I use that too. This may be a bit playful and cheesy, but I'm using it, I'm sorry. Neighbours always think there's someone at home or the burglar, and I have security for myself. I come home and the light shines. Not in

the bright perimeter, but the lamp in the living room is on, the floor lamp. When I'm not at home, the lights go on." (Germany, 50, Middle Income)

Nonetheless, a large number of participants also expressed concerns or dislike about the ubiquitous role of technology in the smart home, as it is seen as something people don't need and want to decide by themselves, as well as about their discomfort with personal data getting into the hands of companies.

"I also have 'My life between realities' in fourth place. I don't need someone to tell me when I need air. When I'm cold, I turn the heating up and when it's warm I turn it down again, so I don't need anyone who thinks they know better than me. That's situational and if I have a different temperature sensation the day after tomorrow because I ate hot and I'm warmer than usual, then the app doesn't know that or the smart home generator, which, like that, doesn't." (Germany, 46, Middle Income)

"My life between realities' fourth place. Cause I see it the way you do. How does the Smart Home know if I'm warm, if I'm cold? I always have to set that anyway, then I can also turn the heater on by myself." (Germany, 36, Middle Income)

"The least I like 'My life between realities'. That's not for me. It's all controlled from the outside, so I'm even more alone. Then I'll give everything away. Like in former times bread baking machines that were programmed or the coffee machine. I like to press the button myself." (Germany, 53, High Income)

"Where I would really go into resistance would be if the devices were all networked together. So, when I'm at home and I know my toaster and my fridge and my electric toothbrush would like to be networked, then I don't feel at home anymore. Then I think every flush you press or every movement when I go from a room to the kitchen will register everything and my private smart home is networked with other smart homes and that will be statistically evaluated in any data centres. My privacy would go with it, too." (Germany, 30, Low Income)

Saving space and energy where possible ('Less is more to me' scenario)

The topics highlighted in the scenario 'Less is more to me' were only discussed very briefly. One participant stated that they were convinced by the idea of adopting living spaces to the needs of residents.

"I have 'Less is more to me' on number one, because I find it simply practical, this approach, that the needs of the residents can adapt accordingly also regarding the living space, I find it very efficient." (Germany, 41, High Income)

Local retrofitting and co-housing ('One for all, all for one' scenario)

When the German focus groups discussed the topic of multi-generational co-housing, several comments were made around **opportunities** and **motivations** related to such living concepts. A number of comments show that the idea of co-housing was generally well perceived as it was associated with more interaction and caretaking among habitants. However, several possible limitations or challenges were also mentioned, for example older people's sensitivity to noise, missing real estate for such concepts and the cultural shifts and new technology that would make such concepts difficult to implement nowadays.

"In 'One for all, all for one', I put as first, because I like these multi-generation housing solutions. But older people are often a bit more sensitive to noise, when there are many children walking around it is always such a thing, but I still liked that best." (Germany, 65, Middle Income)

"Yes, I have a completely different one. This used to work-I know it from my grandparents and this anonymity nowadays, which I find very strange. I think it would be very good if that were the case again, because then everyone would take a little more care of each other." (Germany, 53, High Income)

"And I think it is also no coincidence that this idea of multi-generational houses is again very popular and growing and, in many cases, it fails because people can't find suitable real estate where they can implement it. [...] That doesn't mean that anyone is forced to do so, but that you simply create a forum to enable such an exchange, which is not virtual, I also find a charming idea." (Germany, 57, High Income)

"For me, the last to choose was 'One for all, all for one'. Because I think it used to be about multi-generational households, everyone had their job and their function. I think this has all changed a bit over time and we are all developing much too differently now. So, in the past you had no television, no radio, you used to sit together, there were these kitchens, it was much more this interaction, you talked more.

Nowadays we simply have these technical possibilities and I cannot imagine that society is actually developing back to what it used to be. I don't think that's really realistic, although the thought in itself would be nice, but I think there would be more conflicts probably and that's why I see that as critically common." (Germany, 41, High Income)

Two participants actually shared with the group that they were currently in the process of setting up a multi-generational house, highlighting why this was something quite **motivating** and strengthening for family cohesion and quality of life for them.

"We're trying to do that with the multi-generation house. My son and his family will probably move into the house next door. This has several advantages: I know how the houses are built, I have implemented a lot of energy saving measures also from the heating technology etc., he can help me then with heavy renovation work and we can look after the grandchild. We had a case like this in the neighbourhood, where the parents and the children live next to each other, that works out wonderfully. Now we have to say that we also live in a part of the settlement where the neighbourhood is very close together. If you feel like it, you go in front of the house, can talk to the others and if you don't feel like it, you go back to the house on your terrace and have peace and quiet and are on your own." (Germany, 71, High Income)

"I also have 'One for all, all for one'. What I find very nice is with the multi-generation house, we are also working on it right now. [...] Well, I think there are now many topics that we also talk about privately at home." (Germany, 39, Low Income)

Renewable energy and bio-based solutions ('Our circular community' scenario)

When discussing the 'Our circular community' scenario, participants in the German focus groups highlighted that they had positive attitudes towards the local and decentralised renewable energy production described in the scenario. They saw an **opportunity** for better infrastructures to meet energy needs.

"My favourite is also 'Our circular community', which I think makes sense if energy is produced where it is used and where it can be consumed, which may not always be possible, but in principle I find the idea already charming." (Germany, 46, Middle Income)

"Well, I like the last thing, 'Our circular community', because it responds to local power grids and local opportunities to generate energy itself. I think that makes sense simply because it already doesn't work to send wind energy from the sea to Bavaria. [...] I see that this has to be solved locally." (Germany, 35, High Income)

"[...] then I decided to put the 'Our circular community' in first place for me, because I think this is basically good with the local energy supply. But I'm not a fan of windmills either, I find them kind of creepy, I don't know why." (Germany, 28, High Income)

When looking closer at the **motivations** for saving energy related to the scenario description, one participant clearly pointed out that even if the energy would be produced locally, it would not influence their behaviour with regards to energy consumption at all.

"Energy efficient - that's nice to be asked. That slipped my focus again, which is the real thought behind it. I don't think it actually makes me more efficient, I don't think so. It would be nice if the electricity was produced on my doorstep and didn't have to go halfway across the country to come to me, but that's not why I'm personally more efficient. I still turn it on and off when it's cold or darker or something. Therefore, my actions are not more efficient." (Germany, 46, Middle Income)

Another participant, on the other hand, confirmed her willingness to also change her personal behaviour.

"Yes, that's important to me. So, I do think that we have to take some initiative and responsibility for our lives here on this planet. I don't think you can keep everything away from you, it's not gonna work. You have to do something about it and that's why I think it's important to take people to task for a while and I'd take that for me." (Germany, 41, High Income)

With regards to the passing on of **capabilities** through joint learning initiatives, one participant critically questioned whether this was possible to implement in our times.

"Also, these joint learning initiatives - that's good but even there are some distortions, tensions and I think it's not that easy to realize nowadays in the time we live in. On paper that may sound good, but in reality, I find that critical." (Germany, 41, High Income)

3.2.2.4 Macedonia

As seen in other focus groups, some of the participants in the Macedonian focus groups also expressed their preference for combining elements of the different scenarios presented on the topic of energy efficient housing.

"I chose a bit of everything. Saving electricity, good insulation." (Macedonia, 67, Low Income)

"This time it was harder for me to choose because each scenario has good features." (Macedonia, 36, Low Income)

"If we take some parts from each of the scenarios, we can create a perfect one." (Macedonia, 32, Middle Income)

Smart homes optimise energy consumption ('My life between realities' scenario)

The first scenario, and especially the topic of smart homes and the use of technology for increasing energy efficiency in houses was discussed by far in most detail by the Macedonian focus groups. Several participants highlighted the **opportunities** arising from mainstreaming new technologies to control energy consuming devices and to produce energy more efficiently. People very concretely linked these technologies to their everyday life, the personal experiences they had made in other countries and the amount of sunlight in the country that could be used.

"I chose the same scenario ['My life between realities'] because I consider it very useful. With this technology, which is not too distant future for Macedonia, you can use smart technology from wherever you are and turn on your boiler at home. It can help to save energy. For example, in order to take a shower, I turn on the boiler when I leave home in the morning and it stays on until I come back. I would save energy by using these installations. The energy is turned on and used only when it's needed. And the solar panels are quite useful because they use natural sources." (Macedonia, 25, Low Income)

"I think we're really jumping back behind the IT world. We need to focus on improving in a way that, whether it's about villages or cities, because we know that there are plenty of sunny days in Macedonia, this sun can be used further to heat water, water heaters or whatever could be done. We do not think about that other side. We know that when we go to Greece on vacation, in all those houses where we are accommodated, the water is heated by solar collectors." (Macedonia, 29, High Income)

"I also chose the first scenario ['My life between realities']. I lived in Turkey for three years and we had solar panels in our apartment. That was very useful, we had hot water at any time, the apartment was warm and we didn't have any expenses." (Macedonia, 49, Low Income)

"Recently, I started investing in a solar heating system and realized that such a small investment can totally change my life. The energy is the most expensive, and in fact we have it for free and available all the time. I lived differently until recently, I wasted electricity to heat the water in the boiler, and now I use the sun when I have it." (Macedonia, 36, Low Income)

Quite interestingly, one participant also said that they would consider smart technology to be more efficient in reducing the need for energy than people and their behaviour:

"I gave my points to the technology. 'My life between realities', since a renewable energy has been introduced. The use of renewable energy is very much important to me. The homes are smart. So, when it is time to go to sleep, the heating will be decreased. I think the contribution of smart technology is more efficient than the option when the people are doing the regulation by themselves." (Macedonia, 36, Middle Income)

Another one added that they liked the scenario 'My life between realities', because it wouldn't require them to limit energy use, as technology would optimize everything. This corresponds to motivations like pleasure and enjoying life.

"I chose the first scenario ['My life between realities'] [...] because I didn't need to limit or disconnect myself of any energy use, but only to optimize the use. I liked that, as well as the control system, installations that enable balanced, timely energy when needed. For example, refrigerator that does not cool continuously at the same temperature, but depending on need." (Macedonia, 36, Low Income)

One participant positively mentioned the role of companies in offering tailored solutions for different groups of citizens, also taking different income levels into account.

"I chose the first option [‘My life between realities’]. I particularly like that companies extend different offers to citizens according to the category of people, from poor to rich. I also like that technology really helps, and we have control over the energy we spend. I think the first option is the best." (Macedonia, 36, High Income)

Saving space and energy where possible (‘Less is more to me’ scenario)

During the discussion of the ‘Less is more to me’ scenario, the idea of designing houses and flats in more modular ways (providing **opportunities**) so that living space could be better adjusted to actual needs of the inhabitants resonated with some participants.

"In regard the living space, as it is written here, no space should be lost if the family has a need of different spaces. You need much more energy to heat one house than one room. Everybody choose that option, heating to be restricted either in number of rooms to be heated or in the quality of heating, to be able to save energy and money." (Macedonia, 26, Middle Income)

"In reality I see myself in ‘Less is more for me’, because of the simple reason for example my parents are living in a house of 200m² which they needed to raise three children 20 years ago, everybody to have an own room, to study, to the place for playing games. They still live in that house today, alone, though they do not need it anymore. That is wasting of space, resources etc. Because to heat that house you need a lot of energy. That is why I think the adaptability is very important in certain stages of the life for energy saving among others." (Macedonia, 38, Middle Income)

The aspect of providing the monetary **opportunities** in the form of subsidies to people for refurbishing their houses to become more energy efficient, was also perceived positively by the members of the focus groups.

"I chose the second scenario [‘Less is more to me’] because of the subsidies provided by the state with which people can reconstruct their facades, change the windows and install solar panels. This aid contributes to energy efficiency. Therefore, you can save the energy and not waste it unnecessarily." (Macedonia, 59, Low Income)

"I also choose ‘Less is more to me’ because of the government subsidies. If we speak realistically we have those subsidies today as well, but how much of them have been used I do not have information. I have heard that not too many people can get the solar panels. If they make, everybody to get some subsidy it will be good." (Macedonia, 26, Middle Income)

Local retrofitting and co-housing (‘One for all, all for one’ scenario)

The few comments made while briefly discussing the topics presented in the ‘One for all, all for one’ scenario positively highlighted that **capabilities** of citizens were strengthened through the mutual help in the neighbourhoods and that **opportunities** arise from co-housing.

"I put the third scenario [‘One for all, all for one’] on the second place as second most agreeable because of the mutual help. Again, a social component to save resources and time." (Macedonia, 57, Low Income)

“I like that training initiative, as training of trainers, where people are jointly learning how to find common solutions to different problems in their common living aspects. In principle, I like the co-residence as a concept and as a possible future and also indispensable.” (Macedonia, 42, High Income)

“I also think that the third scenario [‘One for all, all for one’] is the best Modernization, co-residence is very important, local authorities should support it together with the citizens.” (Macedonia, 63, High Income)

Renewable energy and bio-based solutions (‘Our circular community’ scenario)

The comments from the Macedonian participants concerning the ‘Our circular community’ scenario make it quite clear that they see a large need for increasing **opportunities** for renewable and bio-based solution to shift the energy system. They highlight the lack of those and clearly state the negative impacts of the current energy sources on the environment and on citizens’ health.

“I like the latest scenario [‘Our circular community’] for renewable and bio-based solutions. This is especially important for us, because they replace the heating fuels in the houses. This is a big problem for us, especially with pollution in the winter period. We do not know what they are doing in the houses to keep the heat. So, finding renewable energy is a very positive element.” (Macedonia, 36, High Income)

“To me ‘Our circular community’ is the best option. Everybody is included and shifted on energy efficient use. Everything would go that way. Electric vehicles will have a huge impact on the environment. Here we almost do not have renewable energy. Everything is on electric power, wood or liquid fuels. If government start to subsidize we might change something. Otherwise, everything is on non-renewable energy.” (Macedonia, 54, Middle Income)

“I chose the fourth scenario, ‘Our circular community’. I would like to live in such society where the fuels are replaced by renewable energy sources. We are aware that we receive energy from everywhere, and if the current sources of energy are replaced we would be able to live in a healthier environment. I like that companies offer solutions in cooperation with citizens. My current life totally differs from this; I do not use any renewable source of energy and I would like to live differently, like in the scenario.” (Macedonia, 36, Low Income)

One participant clearly pointed out that in their current life, they didn’t have the **opportunities**, the infrastructure and appliances in place to save as much energy as they could.

“Compared with the current life similarity is the intention of saving, to have energy efficient homes, but the opportunities are limited, do not enable us to save. We know that we would have saved much more if we use solar panels, but we don’t have them. One thing are the capabilities and what we know, other is what we do. Today we spend more energy than we need.” (Macedonia, 38, Middle Income)

3.2.2.5 Spain

Smart homes optimise energy consumption ('My life between realities' scenario)

The participants in the Spanish focus groups discussed the idea of smart homes from the 'My life between realities' scenario only briefly. **Motivations** for being surrounded by smart technology in one's own home were expressed as both positive and negative.

"The 'My life between realities' doesn't convince me either because it dehumanises." (Spain, 32, High Income)

"[...] though I also like the 'My life between realities' because even if they would control us in our house it would avoid human mistakes in energy consumption." (Spain, 40, High Income)

The discussions also showed concern about the price of smart homes and that not all households would have the monetary **opportunities** to obtain the technologies. The role of large companies was also negatively pointed out.

"...because the one with the virtual reality may be effective but I don't see that it could be implemented in 22 years because I don't imagine that all society could have those connected homes, though I don't know what price would those technologies have, moreover, it would be privatised and oligopolistic companies would constitute it." (Spain, 35, Middle Income)

"From the 'My life between realities' it worries me not so much that the home has the control but that there would be people that couldn't have access because of lacking resources, as it would be big companies who provide without Government's cooperation." (Spain, 19, Middle Income)

Saving space and energy where possible ('Less is more to me' scenario)

Interestingly, the topic of **capabilities**, specifically of understanding and knowledge on energy efficiency, was discussed extensively in the Spanish focus groups. Several comments were made about the need to strengthen awareness through education.

"All citizens should intervene, from the education of our children and of next generations, because a person is needed to teach you what you don't know and you to teach the others, which is a thing that isn't happening nowadays, what I know I keep it for me, and that's the problem. Therefore, everything moving in the local level implies having more information and more introduced in that society." (Spain, 69, Low Income)

"I would create a new model that would take into account local authorities and citizens, which would take into account national education policies for rising awareness as well as new ways of educating at all ages." (Spain, 27, Middle Income)

"I think it is interesting in the scenario of 'Less is more to me' to be consistent of saving energy, it is possible to improve in technology and energy but if you don't know how to use them you don't advance so educations would be very important." (Spain, 27, Low Income)

The discussion shows clearly that the participants of the Spanish focus groups perceive energy conservation as highly relevant. Such social norms relate to the area of **motivation**.

“The option I liked most is the second [‘Less is more to me’], because on top of being important where the energy comes from it is also important the awareness over energy saving and efficiency in use in order to avoid overspending. Apart from the Government other actors should play a role.” (Spain, 40, Middle Income)

“[...] because I think that what’s most important is to be aware that we have to consume and save, do things using the brain, we must be aware of doing a good use.” (Spain, 37, Low Income)

Local retrofitting and co-housing (‘One for all, all for one’ scenario)

The discussions of ‘One for all, all for one’ touched upon multi-generational co-housing, where the aspect of having different generations in a house was perceived positively, while the idea of sharing living space provoked negative reactions. The strong role of local authorities in this scenario is seen as positive, as they are trusted to implement infrastructures and services suitable for citizens (and through this increase **opportunities** for them).

“I tend to like most the third [‘One for all, all for one’], maybe because of a generational issue, but I like the thing about intergenerational households and most of all who offer it, in this case, local authorities. I think it’s local authorities the ones that actually care with policies closer to the individual, I think the individual would have more safety.” (Spain, 61, High Income)

“I think what would be interesting is between the third [‘One for all, all for one’] and fourth [‘Our circular community’]. The third option there is a lack of domestic space but I like the part of the cooperation between citizens and the administration, but from the third I like the multi-generation housing and I like that local authorities are involved more than in other options.” (Spain, 27, Middle Income)

“The one I found least appealing is the ‘One for all, all for one’ because I find it important the personal and individual space and I wouldn’t like to share to optimise.” (Spain, 32, High Income)

Renewable energy and bio-based solutions (‘Our circular community’ scenario)

When discussing the scenario ‘Our circular community’, the Spanish participants made it clear that generating energy from renewable sources was something beneficial. Creating the **opportunities** for using renewable energy was perceived to connect well to the availability of sun and wind in Spain. Participants also made it clear that the funding for renewable energy generation would need to be coming from governments or the private sector.

“The ideal scenario would be the ‘Our circular community’ as renewable energy is the best for the Earth even if it’s far away from reality.” (Spain, 32, High Income)

“The one that has convinced me most is the one on the circular community, because it is something that is possible to achieve, feasible and people can have access to it [...]. Taking profit of the fact that Spain has good solar wind and other resources. I think the one I spoke about could be done, and also if everyone agrees with each other: companies and government, it could be realised.” (Spain, 35, Middle Income)

“Well, I think that in the 21st century what we must do is to bet on renewable energies. We have the advantage that Spain is a country with lots of sunlight [...] well, but to me, energetic companies have to be

there, because someone has to carry it there. At a private level, I can't afford to have enough solar panels in my household to feed everything. Most of all because it isn't established that way. I don't know, if [public] aids were given maybe yes, but they would always be linked to electric companies, the government, etc. But I find it hard that in the 21st century we are not taking a bet on renewable energies." (Spain, 52, Middle Income)

"In my opinion, the best is the 'Our circular community', I like how it thinks about renewable energy. We are still very far away from what is shown, though there are already a lot of subsidies from the state to reach them, but it is not fulfilled." (Spain, 32, Middle Income)

"The ideal scenario would be the 'Our circular community' too because of renewable energies, collaborating citizens and corporations and administration, but I think commercial interests divide us." (Spain, 27, Low Income)

"I have chosen the 'Our circular community' because apart from liking renewable energies, I like that the state, businesses and citizens reach an agreement." (Spain, 19, Middle Income)

3.2.2.6 United Kingdom

Similar to participants from other countries, also the participants in the focus groups held in the UK expressed that they would prefer to mix the elements of the different scenarios.

"I think they've all got little good bits in each of them." (UK, 52, Middle Income)

"Yes. I found that hard to choose between." (UK, 56, Middle Income)

"I'd like a bit of everything together." (UK, 52, Middle Income)

Smart homes optimise energy consumption ('My life between realities' scenario)

During the discussion in the UK focus groups, satisfaction about the **opportunities** to save time and efforts when it comes to taking care of energy consuming devices was expressed by one participant. Also, the advantage of knowing precisely which costs were accruing when using different electrical devices was mentioned as something helpful and supportive of personal **capabilities**.

"It's the only time I will kind of agree with Virtual Reality. Because I like the idea that it is virtual I am defiantly liking that if you are not there it will turn the lights off and things like that, so it will reduce your energy. I am always worrying if I have turned the lights off and things like that. Even to know how much energy stuff I'm actually using at one time. My husband tells me don't use the tumble drier, it costs money. So, it would be nice that I actually physically know." (UK, 28, High Income)

However, the scenario suggested that few large companies were responsible for providing the technology for smart homes, which was perceived negatively by several participants. From their comments it becomes clear that they worry about monopoly and negative monetary implications of such power concentration, which would decrease their **opportunities** to use the energy efficiency technologies.

“Well if they [the companies] could agree. I mean that first one is quite sort of, it would be good if that happened with large companies but it is whether, they are obviously differently priced.” (UK, 57, Low Income)

“It is no good having one company in charge of it all.” (UK, 54, Low Income)

“Because they are all, like you said they are all greedy and want more profit and the Government have had to come into it and say, right, you know, yes – do you know what I am trying to say, sorry? They’ve had to like tell them no, you are not all going to price it as you want, there is a cap on it like, you know?” (UK, 50, Low Income)

Several participants in the group stated that they did not like the idea of smart homes monitoring their behaviour and adjusting the energy use and hence would not feel **motivated** to use them. The concerns ranged from feeling monitored by technology, to it becoming addictive to watch it monitor energy consumption, up to not feeling that smart meters would provide any insights into how to better save energy.

“One’s a bit too sci-fi and too controlling because everything’s monitored [...] Big brother’s watching you in your house isn’t it and modifying all of your temperature.” (UK, 52, Middle Income)

“I wouldn’t like to be controlled. That’s what it looks like. You’re being controlled by big brother somewhere. It’s technology isn’t it? [...] Why do I need a smart meter to tell me where to save energy?” (UK, 56, Middle Income)

“We have already got the smart meters installed which show you how much energy you are using and where. We have not got one yet, but I expect we will all have to get them eventually. That possibly goes a little bit too far, the behaviour of humans within their house is a bit Big Brother as far as I can see.” (UK, 62, High Income)

“Also, an elderly person had one and you see the thing going up when you boil a kettle [makes whistling noise]. [...] They end up getting obsessed by looking at this thing what you’re using and they end up ... It’s great to see how much a kettle uses.” (UK, 61, Middle Income)

“I know how to save energy. Turn your lights off. Turn your tap off. Doesn’t it use electricity to have a smart meter in?” (UK, 56, Middle Income)

Saving space and energy where possible (‘Less is more to me’ scenario)

The second scenario, with a stronger focus on saving both energy and living space was hardly discussed by the British focus groups. The topic of educating citizens to save energy and therefore increase their **capabilities** was mentioned.

“But I like the second one there, ‘Less is more to me’. The government would have to invest heavily into this to make it work with campaigns. You look at what has been done with this renewable energy, they are putting lots and lots of money into it to make it happen and I think if the government get behind it they will motivate most people to switch it on, switch that way really.” (UK, 56, High Income)

“Then at the same time the second one [‘Less is more to me’] is still, like it customises to you, where you live, your energy. That also says about people being more aware how to save energy.” (UK, 28, High Income)

"[...] So personally, I would go more for the 'Less is more'. Educate people and energy efficiency of houses as well." (UK, 62, High Income)

Local retrofitting and co-housing ('One for all, all for one' scenario)

The topic of intergenerational co-housing sparked discussions in the British focus groups, which reflected on a multitude of dimensions connected to this topic. Whereas some participants highlighted the **opportunities** related to efficient use of living space and to having the chance to have older relatives close by, others referred to more **motivational** and emotional aspects, such as an increased community spirit and taking care of the family.

"I did the 'One for all, all for one' this time. Just because where they said about the older people as well. And efficient use of the living space. Yes, the heating, lighting situation. I also liked the idea of if anything goes wrong everybody chips in together with the neighbours. Yes, that one just appealed to me this time." (UK, 31, Middle Income)

"Yes. That is my first one and improvement for the elderly, you know, the old people, was really good." (UK, 57, Low Income)

"No. I get that. I mean my mother is no longer with us but I'm thinking more of like an annex next door. I don't, with the community, yes, I get where you are coming from, yes." (UK, 50, Low Income)

"Community spirit as well." (UK, 26, Low Income)

"I'd like to get an annex for my mum, elderly mum, next door, keep an eye on her, look after her, I'd love that, yes." (UK, 57, Low Income)

"It is going around full circle. So, I would like to think my children – hopefully, would like to look after me one day." (UK, 50, Low Income)

"Well I think a lot of it is there is not much hope within the care home system, is there, the amount of abuse that you hear or nursing homes closing [...]" (UK, 38, Low Income)

However, participants also made it clear that having a good relationship with relatives was not a given and hence some might not want to live close to their immediate family.

"Is that different because your, your parents are more elderly whereas my mum is still like, like I'm a different age, aren't I?" (UK, 26, Low Income)

"I didn't really like any of the 'One for all, all for us'. I didn't like the idea co-housing. Imagine if you hated your relatives(!). [laughter] That's why children move away, isn't it? So, I think I wouldn't want to do that personally. That 'One for all, all for us', none of that really kind of floats my boat. But all of the rest of them, yes, I could live with." (UK, 35, Middle Income)

Regarding the application of local approaches to energy supply and usage as well as using local materials, one participant stated that this would be positive.

"I have gone for number three ['One for all, all for one'] as my preference. It talks about using local based materials, building things, repairing things, do everything locally. Doesn't mention anything about sharing anything or governments doing this or that. I just think it's more local and everything is more local, local

authority, local materials and local people. So, I would prefer that one rather than all the rest.” (UK, 64, High Income)

Renewable energy and bio-based solutions (‘Our circular community’ scenario)

Discussions of this scenario with its strong focus on renewable energy in the UK demonstrate a general support for those technologies as well as a good understanding of their **opportunities**, functioning and related regulations in the UK.

“I do prefer the renewable and storing of energy as well. Things like the Tesla Power Wall and things. If you had solar panels and wind generators to store surplus power for when you or others need it would be good.” (UK, 33, High Income)

“I quite like that idea with ...and solar panels, it has almost started now, has been overdone in a way. They pay too much for the premium tariff in the first place, can’t afford it, I don’t know.” (UK, 58, Low Income)

“I was between third [‘One for all, all for one’] and fourth [‘Our circular community’]. Verging towards the fourth. Fourth is renewable energy not relying on coal and gas and oil and nuclear.” (UK, 69, High Income)

“Well it is all there, the wind, the waves etc. So why not use it to make your power rather than polluting the atmosphere. The waves will always be there, they will go back to being waves. But you can make electricity with them. Same with the wind – the wind will always be there – so why not use it?” (UK, 69, High Income)

“The biomaterials used for heating, cooling and lighting. That’s a good idea.” (UK, 56, Middle Income)

One participant mentioned his concern about the sharing of electrical appliances like washing machines, as suggested in the scenario. His comments demonstrate doubts in the physical availability of the machines (so **opportunities** for the behaviour) as well as the **motivation** related to sharing washing machines with others.

“I am not sure about the sharing system, how that would work? We are all so used to having our own items to use, such as vehicles and washing machines. If you have got a big family lots of washing on the go all the time. It would be ‘oh I want to get my go’, so I am not sure how well that would work. Renewable energy obviously yes.” (UK, 62, High Income)

3.2.3 Active Mobility

Highly connected, electric and autonomous transport system (‘My life between realities’ scenario)

Transport and mobility systems are interconnected, electric and efficient with public transport as the main means of mobility complemented by shared self-driving cars and biking or walking. Thus, reaching all desired destinations (even rural areas) is possible. Benefits for citizens who walk or bike more are provided by companies and health insurances.

Infrastructure makes biking and walking pleasant (‘Less is more to me’ scenario)

Individual car use is restricted in urban areas as a result of governmental regulation, while biking and walking have been made more pleasant, comfortable and safe through infrastructural changes (transforming streets to paths solely for biking and walking). The latter are complemented by government-driven campaigns and educational measures to inform citizens about the benefits of active mobility and support the shift towards it.

Reduced mobility in short distance cities ('One for all, all for one' scenario)

Following urban infrastructure changes driven by local authorities, cities and towns are characterised by living environments in which companies, jobs, schools and public services are located within a short distance. This, in turn, has caused the drastic reduction of the need for motorised transport. Highly developed biking and public transport sharing schemes support uninterrupted movement.

Connected system encourages e-bike and bike use ('Our circular community' scenario)

Transport systems are comprised of different mobility modes that are digitally connected, leading to easy changes from train to bus to e-bike and bike. Technology has optimised this experience by enabling interactions among citizens e.g. via apps, also in terms of group competitions, encouraging them to move more around by bike or foot. Companies support and incentivise active commuting by providing e-bikes financing models for their employees or rewarding schemes for other citizen groups.

3.2.3.1 Summary and country comparison

Highly connected, electrified and autonomous transport system ('My life between realities' scenario)

The idea of interconnected and efficient mobility systems with public transport at their centre received generally good feedback from the participants in all five countries. This preference was driven by increased efficiency as well as time saving **opportunity** and complemented by convenience as an additional **motivational** factor.

In general terms, self-driving cars were the backbone of the dichotomous discussions. Czech participants expressed satisfaction about the concept with convenience and efficiency as **motivation** and **opportunity**, respectively. Germans acknowledged the concept's current immature practical implementation, however, the technological aspects of it were also mentioned as a cause for concern. Similar concerns, with the addition of the risk of software hacking and related implications were mentioned in the UK, too. The concept was not discussed by the Macedonian and Spanish participants.

Macedonian and Spanish participants believed that financial benefits would serve as **motivation** to increase the share of walking and biking as mobility means, while in the other countries this possibility was not discussed.

Thinking in terms of potential challenges, Czech, British and German participants mentioned reliability and sanitary conditions of public transport as an obstacle for an increased future usage.

Infrastructure makes biking and walking pleasant ('Less is more to me' scenario)

The possibility of urban planning that is centred around and promotes cycling and walking as mobility means was discussed in all countries besides the UK. Czech, German, Macedonian and Spanish participants expressed satisfaction with this concept, even though they gave different and disjointed reasons. Czech and Spanish participants were driven by the **opportunity** to reduce car presence urban environments. Moreover, the Czechs reasoned with the positive contribution this **opportunity** would have on improving and increasing the access and usage of these mobility modes by all members of society. Germans valued the **opportunity** to move around without any interruptions, while as Macedonians were **motivated** by increased comfort and safety resulting from these infrastructural changes.

Moreover, Czech and Spanish participants, once again, agreed on the suitability of governments as overarching institutions for initiating and driving these actions.

With regards to potential challenges, unsuitable weather conditions for cycling were mentioned as an obstacle among the British, German and Macedonian participants. Germans additionally mentioned the poor current cycling culture in their country making it unsafe. Czech participants were concerned about potential inconveniences (e.g. shopping or moving around with little children) when trying to complete daily activities for which cycling might not be suitable.

Reduced mobility in short distance cities ('One for all, all for one' scenario)

The possibility for spatial urban redesigning to allow for movement and operations within short distances was not discussed much by the focus group participants, especially those in Macedonia, Spain and the UK. Generally speaking, this **opportunity** was perceived as positive in all countries. However, Germans expressed concerns about confining social operations and movement to such a short radius, while the British expressed the need to account and plan for distances of a length that allows normal and convenient daily operations.

Czech and German participants' preference was **motivated** by the increased convenience in moving around, while the reduction of time spent in traffic, hence the time saving **opportunity** was mentioned as a driving factor by the Czech and Macedonian participants. The reduced presence of cars was related to environmental and consequently health benefits by the Czechs, Germans and Macedonians. The decentralised approach driving these initiatives in this scenario was found suitable by the Czech and German participants as it is better able to cater to citizen needs and preferences.

Connected system encourages e-bike and bike use ('Our circular community' scenario)

Participants of all countries expressed positive views towards the **opportunity** of multi-modal and digitally connected systems with overlaps in the factors driving their preference. Nevertheless, the concept was not discussed much further by the Spanish participants.

Czech and Macedonian participants were driven by the opportunity of uninterrupted and efficient movement, with Macedonians additionally **motivated**, together with German participants, by the related convenience as well the **opportunity** to preserve and implement individual mobility choices. The concept's inclusion of all social groups, their needs and preferences were another **motivational** factor for the Macedonian participants.

Motivational financial rewards to incentivise and increase the share of active mobility means were positively regarded by the Czech, German and Macedonian participants, and perceived as challenging by the British participants due to their reservations about the increasing role and influence of companies.

With regards to challenges, according to the UK participants, the mobility characteristics of this scenario do not account for citizens with vulnerable status and are inconvenient for people with families. Based on current practices, Czech participants once again expressed their concerns about the reliability of public transport, while Germans were concerned about the reach of public transport networks beyond city limits and the possible exclusion of citizens living in those areas.

3.2.3.2 The Czech Republic

Highly connected, electrified and autonomous transport system ('My life between realities' scenario)

Motivated by convenience and driven by the **opportunity** of increased efficiency, namely fast commuting and multi-tasking, Czech participants found the highly interconnected and efficient public transport in this scenario very desirable. The same behavioural drivers underpinned the preference for the sharing self-autonomous cars as well. However, the technology behind the latter was perceived as a challenge.

"This interconnectedness is obviously an advantage when a person wants to get somewhere, it connects in a way." (the Czech Republic, 23, Low Income)

"I liked the autonomous car [...]. Now I just drive, but when you go on a business trip then you can do something else instead of driving, so that's why. [...]. I consider it efficient, exactly. And also, if the car is autonomous, someone else can also use it as a part of the sharing economy, meaning there would be a lot fewer cars in the streets." (the Czech Republic, 35, High Income)

"And what if the car breaks down on the road, god forbid, and I don't have a computer to do an analysis of the problem." (the Czech Republic, 57, High Income)

"[...] like for robots, everything's controlled, digital and autonomous little cars [...]" (the Czech Republic, 44, Low Income)

Based on present-day experiences, doubts about the reliability and safety of public transport as a mobility mode were expressed by the Czech Republic participants.

“For example, I took a train today that was two minutes delayed. And if you need it to connect with another type of public transport, then it doesn’t connect and you have to wait for the next one.” (the Czech Republic, 37, Low Income)

“[...] security is a problem and there are some issues with hygiene and so on.” (the Czech Republic, 48, Middle Income)

Infrastructure makes biking and walking pleasant (‘Less is more to me’ scenario)

The **opportunity** for infrastructure changes in the city, i.e. increasing the availability of cycling and walking paths, was one of the preferred attributes in this scenario among Czech participants. Besides the reduced presence of cars in urban areas, participants’ preference was driven by the **opportunity** for increased equity of members of society in accessing and using these mobility modes.

“I liked the higher number of cycling and walking paths. They consider people of different ages and individual cars use is restricted, which means that the government supports active mobility [...]” (the Czech Republic, 63, High Income)

“[...] one is that the pedestrian and cycling zone for all ages would be improved, and on the other hand, I like that in London it has been significantly reduced the transit of cars in the middle of the city, I think in the centre those cars will not be used. They will move from town to city, but the limitations in those cities are relevant to what can be facilitated. [...]” (the Czech Republic, 36, High Income)

Moreover, the role of government in driving these initiatives was considered highly suitable.

“I think this should be centrally planned by the state [...]. The transport should be controlled by the state because it decides for the entire country, so the entire country should be covered by some net.” (the Czech Republic, 51, Not Disclosed)

Nevertheless, the high reliance on active mobility means is rather inconvenient to some participants because of weather conditions or the obstacles it might produce for completing daily activities in an efficient and comfortable manner.

“The problem in this country is that the weather isn’t dry like in coastal countries. You go outside in the morning and the weather is nice and you come home drenched.” (the Czech Republic, 37, Low Income)

“I cannot. Whenever I need to get something from the shop, I need to pick it myself. And I don’t mean only food but work stuff too.” (the Czech Republic, 23, Low Income)

Reduced mobility in short distance cities (‘One for all, all for one’ scenario)

Urban planning that supports living within a short distance from important places is highly desirable, according to participants. That perception is **motivated** by the increased convenience, decreased need of motorised transport and increased **opportunity** of saving

time as well as money. Moreover, this kind of planning would contribute to a cleaner environment and better air quality and reduced noise pollution. Participants appreciated the decentralised approach to driving and organising the society as an appropriate approach to match citizens' needs.

"[...] reduced mobility in the cities, short distances, and that there will actually be everything in small distances." (the Czech Republic, 52, Low Income)

"[...] because all of them mention something about car use, but they literally say in the ['One for all, all for one'] that: "The need for mobilised transport is drastically reduced." That people themselves realized it, not that it's restricted, banned but they realized that rather than sitting in a car in traffic it would be faster on a bike. First of all, it costs money, then there's ecology, the air and things like that. So that's my winner. The need for mobilised transport is drastically reduced." (the Czech Republic, 35, Low Income)

"Everything would be accessible in the walking distance or in a shorter distance by public transport. I also agree with local authorities having control, because they should know best what is needed where, for example increase the capacity or move it according to the local needs." (the Czech Republic, 51, Low Income)

"I find it logical that the people should be working near their houses so that they don't waste the means to commute hundreds of kilometres from Brno to Prague to work." (the Czech Republic, 63, Middle Income)

Connected system encourages e-bike and bike use ('Our circular community' scenario')

In this scenario, the **motivational** financial rewards, offered by different companies to increase the share of active mobility were found satisfactory by the Czech participants.

"I'd say that for example what they showed in number four ['Our circular community'], that those who will have a bike and ride it will receive a subsidy from their insurance company or from the State. An excellent idea." (the Czech Republic, 27, Low Income)

Moreover, participants found the digitally interconnected multi-modal transport system appealing and positively contributing towards increasing the **opportunity** for uninterrupted movement.

"I like [...] the claim: "Various ways of transport are digitally interconnected, [...]" (the Czech Republic, 47, High Income)

However, time inefficiency was seen as an issue when it comes to using public (multi-modal) means of transport.

"I agree that it's faster to use public transport in Prague during rush hour, but not everyone lives in Prague. I, for instance, go to my cottage regularly. [...] I found out that what usually only takes me 20 minutes if I'm driving, took me an hour and a half when I used the public transport, because I had to take the bus and the train, or take the metro to get to the train, then change again and take another bus. And now some roadworks have been taking place so instead of taking the bus that would take me there within an hour, I have to combine all these different means of transport and it ends up being an hour and a half, which is ridiculous. It's not worth it to spend an hour and a half getting there and back if I only need to mow the lawn, which takes me two hours in total." (the Czech Republic, 35, High Income)

3.2.3.3 Germany

Highly connected, electrified and autonomous transport system ('My life between realities' scenario)

German participants found the **opportunity** of combined public transport and shared self-driving cars within a connected transport system appealing, **motivated** by the mobility efficiency it entails, the financial benefits and the preservation of individual choice and self-autonomy or independence.

"I liked the fact that public transport is highly networked and efficient, but I still have the theoretical opportunity to move around in my private car without constantly using only these public means of transport. Even if it is a bit more expensive, I can still limit it a bit, but I have the feeling that I am a bit more autonomous in my way of life. And the self-propelled communal cars that I found so interesting from the basic aspect, that appealed to me." (Germany, 41, High Income)

"I was attracted by the community cars. Public transport is strongly networked and efficient [...]" (Germany, 27, High Income)

"I like, for example, self-propelled communal cars that are driven by several people. Or surcharge incentives for the use of public transport. What he has just mentioned is that public transport is becoming cheaper so that everyone can and wants to use it." (Germany, 57, Low Income)

However, self-driving transport was at the centre of a discussion among participants who disagreed about the benefits of using it.

"I have a problem with the whole system. It's too technical for me, it rolls over me. [...] Because of technology and self-propelled communal cars[...]. I live in the world, not in another star. No, I don't need to have that." (Germany, 53, High Income)

"In Dubai the trains also run themselves. That's better than in Germany. They're on time. [...] This is strange for us, but once we realize that it is more efficient for us than ourselves, we accept it. But first I find it strange." (Germany, 30, High Income)

"At Düsseldorf Airport, too, at the terminals, completely without a driver." (Germany, 71, High Income)

Germans found the sanitary conditions of public transport and its reliability problematic and saw it as an obstacle to making better use of it.

"[...] the trams in Cologne are just dirty [...]. They don't get cleaned up" (Germany, 26, Middle Income)

"I sat there and thought it smelled funny" (Germany, 58, Middle Income)

"I took the train four times the other day, two of them were out and one came too late. Sorry, this is not an advertisement for public transport. I already drove my car to the parking lot at the city limits, drove one stop, then you take the tram in - this is a disaster, so with the car I am simply faster." (Germany, 71, High Income)

Infrastructure makes biking and walking pleasant ('Less is more to me' scenario)

Participants found satisfaction in using bikes as means of transportation, **motivated** by the ability to move around without any interferences. This increases their time saving **opportunity** by avoiding to spend time in traffic.

"[...] so, I am a convinced cyclist and especially here in Cologne if that works somehow, then I save myself everything that is connected with traffic jams, standing in the city, red traffic lights, KVB -local public transport company- waiting and so on. I prefer to get a lap wet and get on my bike and know I'll be home in ten minutes or a quarter of an hour. That is very convenient for me [...] but today I actually see it as an advantage and do it quite specifically with the aspect that you move a lot and are outside and are independent and flexible and all these things." (Germany, 57, High Income)

Doubts and dissatisfaction with today's cyclist culture and safety were some of the reasons for German participants to speak against this concept, they do, however, also find satisfaction in the **opportunity** of infrastructure changes to support cycling or walking.

"[...] Those who live in Cologne's Agnesviertel and watch the cyclists will get the crisis. You have to jump two to three times a day on the sidewalk, although there is enough space on the road." (Germany, 65, Middle Income)

"[...] I don't dare to ride my bike on the road. There is a cycle path, but it stops at some point and then I have to drive on the road, but the cars drive and then - I am afraid. I also think that in Cologne is blatant the way cyclists ride. When I went here, for example, this is a pedestrian zone and this cyclist just didn't get off. If I hadn't looked to the left, he would have run over me. Or I probably him. Because he would've fallen, I wouldn't. But they also drive on the road, they don't look, they don't keep their arms out, I don't even feel safe as a motorist when there is a cyclist in front of me. I'd rather go 10 km/h and wait until the rider is gone. I think this is better if there is more space, because I would also like to ride my bike." (Germany, 27, High Income)

German participants were divided with regards to the idea of imposing car restrictions. Some find it satisfactory because it matches their life principles, but others are not very fond of the idea of imposed limitations.

"On number one I have 'Less is more to me', because I am basically born against car use in the city, i.e. in the inner-city area. For example, I find a number like the one in London, I think it currently costs 14 euros if you want to drive into the city by car, as a daily fee and toll, which I find a sensible use. This would probably encourage some to take the four or five stations by train after all. I don't have that much for one thing, that's how it is now." (Germany, 35, High Income)

"And if it says here: the vehicle consumption in urban areas is limited [...] so I don't know who wants to restrict me there and whether I only have five km's free per day now? The wording used is a deterrent to me." (Germany, 46, Middle Income)

Participants wondered about how the weather conditions would inhibit bicycle usage.

"This can be done on the 30 days when the sun shines. Then this works. 330 other days are more unlikely." (Germany, 46, Middle Income)

Reduced mobility in short distance cities ('One for all, all for one' scenario)

Besides finding the **opportunity** of urban planning that supports short distance movements appealing, German participants found the role of local authorities in driving, implementing and developing these initiatives suitable due to the authorities' better understanding of local needs.

"The second place is for 'One for all, all for one', because local authorities, who actually need to know best what their city should look like, develop and present such a concept." (Germany, 64, Low Income)

"[...] because I mean, it's better if there's a municipality as responsible than if there's a company or if there's a health insurance company that's responsible for the expansion of possibilities." (Germany, 66, Low Income)

Moreover, participants' **motivation** for moving short distances by bike or foot is related to convenience as well as its benefit to one's health by reducing stress which results from the time spent commuting and/or in traffic. Further health and environmental benefits stemming from reduced air pollution **motivate** people to support the reduced presence of cars on city roads.

"[...] If I'm stuck in traffic for three hours every day, I don't see it as a pleasure gain." (Germany, 57, High Income)

"[...] That is because of short distances to school, to events, and that is because when I see all these reports today, people are still rushing away, and only commute 30-40 km to work, either by car or by train, which costs resources, especially by car, and also by train ,electricity or diesel, and what it also means in terms of health restrictions, you get exhausted faster, you get sick because you are stressed because you are in traffic jams.[...]" (Germany, 31, Low Income)

"I got 'One for all, all for one'. Because the need for motorised means of transport is drastically reduced. I was thinking about the environment. Because of the pollution of the air and so on. [...]" (Germany, 36, Middle Income)

"I also have the 'Musketeer-motto', 'One for all, all for one'. For the reason that it is the only one that considers a correct approach for less traffic. Namely the city of short distances." (Germany, 54, Middle Income)

However, some participants did not find comfort in the idea of confined social spaces.

"I think I have the feeling that I'm confined to such a microcosm. It bothered me a little. I'm always within that radius, and at some point, it would be boring for me. I would also like to have the opportunity to go somewhere else and to actively move myself somewhere without constantly moving within my radius of ten kilometres. I take a somewhat critical view of this in the long term. Of course, it's convenient when I have everything with me in the area, but in the long run I find it boring." (Germany, 41, High Income)

"[...] because all this is too limited for me. I don't like the idea of people only moving around in their own neighbourhood." (Germany, 65, Middle Income)

Dissatisfaction about the current bike sharing schemes and their maintenance, as well as the perceived unappealing look they give to a city were some of the reasons, participants expressed against bike sharing schemes.

"These dreadful rental bikes, which I've seen in all cities in China, they've stacked them into piles as high as houses [...] because they're just thrown somewhere, [...] I think it's terrible here too. When you ride the train here in Neumarkt, there are always a lot of bicycles, that's just terrible. And the rental bikes are right in the middle of the sidewalk." (Germany, 35, High Income)

"It's not pretty in Münster either. They've got their own bikes and they're all in the way. The sidewalks are so wide and then there's such a wide bike, that's the horror." (Germany, 71, High Income)

Connected system encourages e-bike and bike use ('Our circular community' scenario)

Motivated by financial rewards, convenience benefits and the **opportunity** of preserving individual choice, German participants found the connected systems which encourage biking as a means of transportation appealing.

"I also favoured ['Our circular community'] because of the lower part, companies reward the active commuting of employees [...]" (Germany, 64, Low Income)

"I find the networked system quite positive [...]" (Germany, 71, High Income)

"There are still own cars that are less attractive due to higher costs, but I still have them. So, I can go somewhere myself if I don't feel like riding my bike or if I'm in a hurry. Sometimes we don't have time either, then the bike is too slow. That technology is also used." (Germany, 30, High Income)

However, challenges were perceived with regards to the public transport network beyond city limits, based on today's practices.

"But I live behind the city limits and then it gets quite difficult with public transport. The bus leaves every two hours on Sundays. Well, we have the S-Bahn, that's great, but depending on where you live, you are dependent on the bus, it doesn't help to travel by bus and train for nothing. The thought was already a catastrophe, because the trains and suburban trains are full without end." (Germany, 71, High Income)

3.2.3.4 Macedonia

Highly connected, electrified and autonomous transport system ('My life between realities' scenario)

Motivated by the financial rewards and incentives offered by companies for biking and walking, Macedonian participants appreciated the increased convenience, efficiency and time saving **opportunities** of a well-connected public transport system. These factors influenced participants' preferences for the scenario.

"I like the rewarding of all traffic participants who will use public transport, bicycle or who will go by foot. The use of cars would be more expensive. The companies would stimulate the health insurance for benefits for citizens who will use the alternative way to commute." (Macedonia, 36, Low Income)

"[...] is a good basis for greater mobility of citizens. It will save time, there will be no unnecessary nervousness in everyday life." (Macedonia, 30, High Income)

"[...] it is very important for us to have timely and efficient public transport. I am not very fond of cycling, but if I am stimulated by companies and health insurance companies, I wouldn't mind to commute with bicycle or by foot. However, I mainly chose it for public transport." (Macedonia, 57, Low Income)

"[...] in my real life I commute by public transport. I chose it instantly when I read that is well connected and efficient. I wish it could happen. There is no way for me to get from Aerodrom [Airport] to Chair [Macedonian district in the capital] without changing buses. So, the city is not connected. Not to mention efficiency." (Macedonia, 59, Low Income)

"[...] I like limiting cars, giving price incentives because it builds public awareness. If it is stimulated or if something is punished, it gives a path to which it should go." (Macedonia, 42, High Income)

Moreover, the idea of cars becoming more expensive was found appealing due to the reduction of environmental pressures (i.e. air pollution) and related health benefits (i.e. better air quality).

"I liked the offers of incentives to the citizens, because, unfortunately, only in this way are habits created and things are functioning. More use of public transport is stimulated, cycling or walking. I would increase the price for the use of vehicles and I think that it will regulate the hustle in traffic in that case, there will be less crowds and be more efficiently, and reduce pollution." (Macedonia, 32, High Income)

"[...] because the whole activity would be reduced to public transport. They would eliminate cars and most commonly use public transport, with an emphasis on further development. Even in our country, during the winter period when air was polluted, cars were not supposed to be driven. [...] we would have clean air, modern transport, communications will be much faster, more efficient, the time saving will be greater. We would know that transport from one neighbourhood to another will not last too long." (Macedonia, 63, High Income)

Infrastructure makes biking and walking pleasant ('Less is more to me' scenario)

Macedonian participants almost reached an agreement when it came to their satisfaction with an infrastructure that makes biking and walking pleasant, **motivated** by the increased safety and comfort when riding or walking, as well as the benefits it would entail for their health and environment.

"[...] because it highlights the health benefits, the way of a healthy lifestyle through mobility with a bike, with a good bicycle infrastructure. [...] It differs from a safety aspect. I don't feel safe when I ride a bicycle on a longer distance. I would use it in such a safe infrastructure. And from the ecological aspect." (Macedonia, 34, Low Income)

"I want to have more comfortable and safer cycling routes. I love to ride a bike, but I try to ride only Sunday when there is not much traffic, because I'm afraid. People are driving like crazy with their cars, buses, and there are no trails properly regulated." (Macedonia, 63, High Income)

"[...] if we want to ride a bicycle, the appropriate bike paths are of great importance. In our current situation, if we ride the bicycle on the street we hinder the cars, and if we ride on the sidewalk we hinder the pedestrians." (Macedonia, 26, Low Income)

"[...] especially because I saw better, nice and more comfortable paths for the cyclists and pedestrians. We know that in Skopje, except the river bay there is no other place for this. I do not even know how safe is this path for the cyclists nowadays." (Macedonia, 26, Middle Income)

"[...] because there are better and safer paths for the cyclists. Moreover, for the pedestrians as well. Here, even on the sidewalks which are for the pedestrians, we have a lot of parked cars, and it is not safe at all." (Macedonia, 59, Middle Income)

However, some participants mentioned that weather conditions might act as an inhibiting factor for increasing the share of cycling in their mobility patterns.

“With our weather conditions, it is difficult to use a bicycle because we have a lot of cold winters and hot summers. In winter it is very difficult to use, and in summer it is so hot, so it is again difficult.” (Macedonia, 36, High Income)

“[...] depends on the distance and the weather conditions” (Macedonia, 67, Low Income)

Reduced mobility in short distance cities (‘One for all, all for one’ scenario)

Even though they did not discuss it extensively, participants expressed satisfaction with this possibility, mainly because of the **opportunity** to save time when operating within short distances and the cleaner environments resulting from a decreased need to use motorised transport.

“[...] the roads will be better, interconnected, more ecology friendly so we will have better environment. [...] It is nice to build the streets and roads in order to get somewhere for short time. [...] We should build smaller cities in order to get somewhere for a short time.” (Macedonia, 32, Middle Income)

“The idea of spatial displacement is interesting, especially to reduce the distance between home and work, to be as close as possible.” (Macedonia, 36, High Income)

Connected system encourages e-bike and bike use (‘Our circular community’ scenario)

The **opportunity** of connected and multi-modal mobility systems was found highly appealing by the Macedonian participants. The main **motivational** factor was the convenience and efficiency in moving around quickly and without many interruptions, while including all socio-economic groups and preferences. Moreover, another **motivating** factor were the financial rewards schemes offered by companies for increasing the frequency of choosing to bike among the population.

“I especially liked this - connected and efficient public transport. [...] I want to start [...] with a bicycle, then to use a public transport, and then to continue riding my bicycle. Unfortunately, we do not have this privilege in our region, and I would appreciate it very much if we did have it.” (Macedonia, 36, Low Income)

“This is the best also because the companies are giving awards. [...] because there is changing of different types of transport, you can go from one to another, from bike to bus, and from bus to bike. Moreover, I believe in the human spirit for competition, awarding etc. [...]” (Macedonia, 62, Middle Income)

“Possibilities to frequently change the train, bus, bike, I like very much. Even when somebody cannot use the bike, either because of the age or the aim of the travel, you can use other means of transport, not necessary to be only bike.” (Macedonia, 36, Middle Income)

3.2.3.5 Spain

Highly connected, electrified and autonomous transport system ('My life between realities' scenario)

Spanish participants showed a preference towards mobility systems which are based and centred around public transport. This is **motivated** by easier and more convenient movement while maintaining citizens' **opportunities** to reach locations without regards to proximity.

"I like that public transport is important, the other options restrict more transport and it is a fact that we move, to go to study, to work... and for me the train option is important. Also, the first option too connects rural areas and it is very important, that for many of them, nowadays, you can only go in your own car, so I find it OK that everything gets connected but in a sustainable way. [...] I would promote the use of public transport, because nowadays it conditions the time we dispose and if you have to go to work and you go by bicycle you can get in non-adequate conditions, therefore public transport would be the best." (Spain, 25, Middle Income)

"[...] seems perfect for me, [...]. because it promotes public transport and most of all you deal with the problem of cars." (Spain, 30, High Income)

Moreover, the complementary financial rewards for walking and/or biking are listed as another **motivational** factor.

"[...] because measures like incentivising public transport prices or facilitating connections with areas further away are also great measures for mobility." (Spain, 22, Middle Income)

"[...] everything is more automatized, with ecologic and efficient public transport and where companies and health insurers offer benefits for distances covered, so it is promoted that people move combining with public transport." (Spain, 20, Middle Income)

Infrastructure makes biking and walking pleasant ('Less is more to me' scenario)

The preference of moderated car usage rather than abolishment was one of the main factors **motivating** Spanish participants' preference towards this system.

"[...] because the use of bicycles and public transport is alright, but it doesn't restrict the use of vehicles and we can move to areas further away. Not inside cities the vehicle, but in the outskirts, but we get near with the vehicle." (Spain, 40, High Income)

"I think is a good idea is to sanction a car driving with only one person. Except when you drive one of those tiny cars that are for one person or two. But don't take a car for 8 with only one person, because you are polluting." (Spain, 52, Middle Income)

Moreover, governmental activities to support and increase citizens' **capabilities** in choosing healthy lifestyles were deemed important by participants as well.

"[...] because it rises awareness among citizens over this lifestyle headed towards safe cycling and comfort because nowadays cycling has to share space with cars and in occasions it doesn't settle in Spain because it is not safe. [...]" (Spain, 27, Low Income)

“[...] it’s important what it says [...] that “campaigns and education show the personal health benefits” and that it would also be public transport I think that that is very important. It’s more about taking consciousness and educating than any other thing.” (Spain, 44, Middle Income)

Reduced mobility in short distance cities (‘One for all, all for one’ scenario)

Close proximity to operational facilities was seen as an **opportunity** by Spanish participants, because it promises the efficient completion of daily activities without the need of using a car.

“[...] it says everything is near [...] if you have the campus or work nearby your home, you don’t need to take the car. [...] Everything is near your home and we don’t need to take the car.” (Spain, 20, Low Income)

“[...] it is important the planning so that distances are shorter.” (Spain, 19, Middle Income)

“[...] it tends to reduce mobility to go to work and with a well-developed public transport.” (Spain, 32, Middle Income)

Connected system encourages e-bike and bike use (‘Our circular community’ scenario)

The multi-modal and well-connected transport systems were also seen as an **opportunity** by the participants.

“[...] because it is easy to combine transport means.” (Spain, 27, Low Income)

3.2.3.6 United Kingdom

Highly connected, electrified and autonomous transport system (‘My life between realities’ scenario)

The British focus group participants based much of their discussion around the idea of highly connected transport systems with public transport at its centre. They found the **opportunity** of a rather efficient, well-connected, comprehensive and accessible public transport system appealing and saw it as a further **motivation** to move around more without cars.

“I like the idea of more efficient public transport. I think if we had more efficient public transport it would give more people incentive to use public transport instead of having cars and that is like more of a, to me it is more of a realistic way of getting people to stop using cars so much.” (UK, 19, Low Income)

“I reckon for one thing public transport needs to be more interconnected, more accessible and more efficient, to give people incentives to use public transport rather than use their car. That seemed sensible to me.” (UK, 65, Low Income)

“I like the public transport and everything. [...] So, I would like to live somewhere like that, where I didn’t need a car. The trams were really reliable and because I have seen it somewhere that is why I got drawn to it.” (UK, 28, High Income)

"[...] because it covers the whole country. So, if you were going up to say Scotland you could do it because everything would be computerised and you would have the correct times, different transport systems. Whereas all the others just seem to be in their own area." (UK, 69, High Income)

However, for some participants, influenced by current practices, using public transport as mobility means is rather unacceptable due its lack of reliability, high costs and related time limitations.

"If you live in the country here, well I mean bad enough [...] you need to get somewhere. To Camborne. Yes, it's ridiculous. You have to wait about three hours to get the bus from Redruth. That's not good." (UK, 61, Middle Income)

"[...] it's really expensive. [...] they wonder why the buses are virtually empty. Same with trains. Train fares are ridiculous. But if they drop the price down a lot then people will use the trains. They don't seem to understand that." (UK, 61, Middle Income)

"As long as it doesn't make catching the bus more expensive than driving your car. I mean to say, the price of going on a bus to get to Truro from the centre of, from Bodmin, Chacewater, is about a fiver. You could do that in a car journey twice. They have got to make it affordable. This is why people are not jumping on them, they wonder why there are so many empty buses." (UK, 54, Low Income)

"[...] you can only use it after half past nine in the morning. Now take for example I've got a hospital appointment next week and I've got to be able to get the early bus to be able to get to the hospital appointment on time. And I'm going to have to pay. I don't mind paying but it is just the fact that you have a pass for a reason, isn't it?" (UK, 57, Low Income)

During the discussion, participants expressed their doubts about technology, especially in relation to autonomous cars, and hinted at the potential risks of software hacking.

"Driverless cars. I can't get my head round that." (UK, 57, Low Income)

"Hijack the software and send you to somewhere different! Which is something my kids would do, they're teenagers." (UK, 38, Low Income)

Infrastructure makes biking and walking pleasant ('Less is more to me' scenario)

The discussions of this option revolved mainly around the inconvenience of having cycling as the main means of transportation, either because of weather conditions or life's unpredictability.

"I think maybe if you ask this question when it's snowing outside you might get different answers." (UK, 56, Middle Income)

"Yes, if you want to go on a beach with dogs and kids ... you couldn't go on your bikes, could you?" (UK, 52, Middle Income)

Reduced mobility in short distance cities ('One for all, all for one' scenario)

The reduced mobility in short distance cities was not discussed in detail in the UK focus groups. They generally found the **opportunity** of redesigning cities to be positive, however, only when the proximity would be reasonably short without causing inconveniences for the planned activities.

"Say they're going to have close communities to towns. That would be okay if like it was 15/20 minutes away. Not like some might be an hour or so on your bike. By the time you get to work you're knackered, aren't you? [...]" (UK, 56, Middle Income)

Connected system encourages e-bike and bike use ('Our circular community' scenario)

Driven by the **opportunity** of uninterrupted movement, British participants appreciated the digital and connected multi-modal transport systems.

"There were some good ideas there, everything connected digitally. Different modes, download maps and that sort of thing. That is where technology is really taking off I think. It is all about the use of cars, using less and less cars." (UK, 56, High Income)

"[...] you can dock it anywhere and go off shopping for an hour and then release another one and you have already paid for the twenty-four hours. Then you can get on a train and go ten miles down the road and then release another bike, go cycling for another hour and then drop that off wherever you are like a bus stop." (UK, 33, High Income)

Participants expressed their worries about the policies' inclusion of the disabled (in relation to making car usage more expensive) as well as the degree of inconvenience associated with moving around by means other than a car for families with young children.

"So, then you're discriminating against the disabled. Because you're actually going to charge them more to be able to have that access." (UK, 36, Middle Income)

"[...] because I've got children and you are trying to, as it is, juggle children with work and school and I don't think it is realistic that everything will just slip into place." (UK, 38, Low Income)

"I have friends with younger children and, you know, that would be just impossible really." (UK, 57, Low Income)

Doubts towards the involvement of companies through financial reward schemes were expressed as well.

"Things like when you get rewards from companies, are just not for me." (UK, 64, High Income)

3.2.4 Consumption of food & beverages

Complete transparency and personalised food ('My life between realities' scenario)

Consumers are able to adopt personalised diets based on their nutritional and health requirements. Meat is produced in laboratories using real animal cells, while value chains of other products are highly transparent and accessible to consumers. Large companies offer personalised products based on an increased understanding of consumer health and needs.

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

Governments implement fiscal measures as well as information and awareness campaigns to support the consumption of healthier and environmentally friendly food/diets while inhibiting the opposite. Meat consumption has been reduced and substituted with the consumption of self-grown vegetables and fruits.

Self-grown and seasonal food from the region ('One for all, all for one' scenario)

Food consumption has taken a more local, seasonal and traditional approach. Growing a large share of one's daily food in private or community gardens has almost become the norm. Diets include large amounts of vegetables and fruits and very little meat. Local governments have concrete actions plans for their regions, supporting the availability of fruits and vegetables at good prices for all. Food is often used as an exchange currency among neighbours.

Technology shortens food value chains ('Our circular community' scenario)

Technological innovations, developed by start-ups and large companies together with consumers have shortened value chains and enabled a virtual link between farmers and consumers. Via apps, consumers can order their food from nearby or more distant farms leading to an increased appreciation for and reduced waste of food. Meat is 3D-printed, reducing its environmental impact without losing its authenticity.

3.2.4.1 Summary and country comparison

Complete transparency and personalized food ('My life between realities' scenario)

Focus group participants in the Czech Republic, Macedonia, Spain and the UK expressed positive views towards the concept of personalised diets **motivated** by the expected beneficial contributions to improving and/or maintaining good health conditions and lifestyles. However, the implied monitoring of human behaviour was not acceptable to the Germans who found it invasive and controlling. Additionally, German, as well as the Czech and Spanish participants were distrustful towards the increasing role and influence of large companies in this scenario.

Laboratory-produced meat was the basis of controversial discussions. The Czech participants expressed scepticism towards the idea, while Macedonian and Spanish participants feared the potential negative health impacts. British participants considered this process of food production too artificial. On the other hand, British and Spanish participants agreed on the concept's benefits, mainly **motivated** by their animal welfare beliefs.

The scenario's contribution to optimal transparency throughout the value chain(s) did not match some of the German participants' values, while Spanish participants considered it as a positive **opportunity**. Participants from other countries did not discuss this possibility.

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

Overall, the fiscal governmental interventions to regulate food markets and related products were perceived as positive by the participants in all five countries. Increasing access to food that is healthier and affordable was mentioned as an **opportunity** and **motivational** factor in all five countries. Additionally, improved social equity resulting from these interventions was another **opportunity** driving the German and Macedonian participants' satisfaction. These participants also appreciated the preservation of individual dietary choices in this scenario. On the other hand, Spanish participants did not share the same opinions, considering these interventions threatening to individual choice and autonomy.

The role of national governments as the institutional actor driving these changes was doubted by the Czech and Spanish participants. The British and German focus group participants appreciated the governmental efforts to increase citizens' **capabilities** of maintaining healthy and sustainable diets. Czech, Spanish and UK participants were not very content about the reduction of meat in this scenario, regardless of their **motivation** for animal welfare. The opposite opinion was noted among the German participants.

Self-grown and seasonal food from the region ('One for all, all for one' scenario)

Increased consumption of more seasonal, regional and/or self-produced food products was univocally perceived as a good **opportunity** by participants from all countries. Driving Macedonian participants' **motivation** was their expectations for cheaper, more healthy and diversified food options. Financial **motivations** drove the Spanish participants' preference for this policy, too. Pro-environmental beliefs, taste and product quality were **motivational** factors for the British participants.

The **opportunity** of using surplus food as market exchange currency was considered positive by the Czech, German and Macedonian participants. However, the Macedonians were more reserved in their opinions. The Germans preference was **motivated** by the potential for social cohesion, while both nations criticised this scenario as being too regressive. Criticism was expressed towards the reduced meat consumption in this scenario by the Czech, Macedonian and UK participants.

The transfer of knowledge and skills in this scenario was appreciated by the Germans who considered it a helpful contribution to fostering citizens' **capabilities** of maintaining healthy dietary patterns and food preparation.

Reflecting on challenges, the Czech and German participants considered infrastructural obstacles to growing one's own food. Czechs, additionally, mentioned the lack of knowledge and cultivation skills, while Germans accounted for the elderly's potential inability to engage in this activity. The British mentioned the lack of time and the Spanish noted the need to preserve individual autonomy and choice when designing these policies.

Technology shortens food value chains ('Our circular community' scenario)

Focus group participants from Germany, Spain and the UK were content with the **opportunity** to obtain food directly from the farmers. Germans were **motivated** by the expected price reductions as well as the **opportunity** to circumvent large producers and their offerings. Spanish participants were **motivated** by the expected increase in market and social justice/ fairness. However, Germans also expressed solidarity concerns with farmers and the necessary changes they would need to undertake to adapt to this position and role.

Macedonian participants appreciated this scenario's contribution towards increasing citizens' **capabilities** about evaluating food origin and production methods. This appreciation was **motivated** by the value and desire for increased food safety as well as the perceived need for fairer remuneration for farmers.

The reduction of food waste in this scenario was considered a good and necessary **opportunity** by Macedonians and Spanish participants. Macedonians were **motivated** by the need to increase social justice not only for current societies but also for those to come.

The concept of 3D printed meat was discussed with diverging opinions by the British, Czech, German and Spanish participants. Participants from all those countries considered it difficult to grasp and accept the concept. The Germans additionally listed the unconventionality and preference towards traditional ways of producing food or meat as a challenging factor. However, participants also agreed on the potential benefits. Animal welfare was a common **motivator** for this reasoning among Czech and German participants. Moreover, the Czechs considered the concept's potential contribution to improving the quality of products as well as reducing environmental pressures.

3.2.4.2 The Czech Republic

Complete transparency and personalised food ('My life between realities' scenario)

Czech participants were divided in their preferences towards the concept of personalised diets and nutritional suggestions in this scenario. Those who expressed satisfaction were mainly **motivated** by the expected health improvements or maintenance of good health levels.

"But I also like these from the health point of view because they are not the possibilities, you will find it mostly when you are sick or if you have some problems and you have to adjust the diet for this." (the Czech Republic, 48, Income Unknown)

"[...] but if it should be that I can choose something for my health and I'll get it, and that's really true and it's not going to be a scam, then it's supplied. Regardless if it is meat or no meat according to my needs. When I am training, I will want meat. When I reduce, it will be a macrobiotic or I do not know what." (the Czech Republic, 57, High Income)

However, to other participants these options are very restrictive to the freedom of choice and behaviour and disregard the authentic experience of cooking. Moreover, Czech participants were distrustful towards the increased role and influence large companies would have on citizens.

"The first one ['My life between realities'] is a bit ok [...] it is fine from a certain health point of view. Today many people try to live healthy so they are healthy, so it is great but on the other hand a bit restrictive. When the person feels like having something tasty it simply is not possible, because the refrigerator will not offer it." (the Czech Republic, 34, High Income)

"Well it scares me a little. Because I really can imagine the capsules here. I imagine the big companies would work with it besides the food. There would be a capsule that would be interesting in terms of price [...]. And they will guarantee it with great health and other similar claims." (the Czech Republic, 48, Middle Income)

"[...] it is a complete loss of experience from anything, yeah, cooking, the act of eating the food itself, that's awful. And the worst is that the big companies control us already." (the Czech Republic, 27, Low Income)

Scepticism towards the idea of laboratory-grown meat was expressed, too.

"That sounds terribly nice." (the Czech Republic, 36, High Income)

"Sounds strange." (the Czech Republic, 35, High Income)

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

Czech participants discussed the potential of governments regulating the operations within the food market and guiding consumer choices. Some participants confirmed the rightfulness of these actions **motivated** by their preference for food which is healthier and cheaper.

"Well, I like it too that the unhealthy food is more expensive or that the healthy ones are cheaper, and that there is support and encouragement for people to grow their own food but also have healthier lifestyle." (the Czech Republic, 62, High Income)

"I think there shouldn't be unhealthy food at all, should it?" (the Czech Republic, 47, High Income)

"You know what? Unhealthy food shouldn't be produced at all. Then there's no temptation. Let's produce only healthy food." (the Czech Republic, 51, Income Unknown)

However, for another participant the government was not considered the right actor to drive these initiatives, even though the concept of food moderation was deemed right.

“But I wouldn’t leave it for the government here. I wouldn’t like the government to change the patterns. Not that.” (the Czech Republic, 48, Middle Income)

Moreover, the idea of reduced meat consumption was not favoured by some Czech participants.

“Because I like everything, we are omnivores, why... Why should we stop eating meat in the future? Meat, that’s not only beef or pork, it’s also fish or poultry, more or less.” (the Czech Republic, 37, Low Income)

“Especially effective proteins are contained only in the meat.” (the Czech Republic, 36, High Income)

Self-grown and seasonal food from the region (‘One for all, all for one’ scenario)

Czech participants perceived as positive the **opportunity** for citizens to grow their own food and exchange or use the surplus as market value.

“I also like the idea that its own cultivation and seasonal food from the region where people farm it themselves and know how many chemicals they use and just cultivate it all by themselves. I like it. And that food is often used as a currency for exchange between neighbours.” (the Czech Republic, 35, Low Income)

“I chose [‘One for all, all for one’], from the same reasons that were already mentioned, the exchange, to possibility of some form [...]. My own growing with the possibility of exchange.” (the Czech Republic, 35, High Income)

However, according to participants, the current city infrastructure is not very supportive of the idea and hence is a challenge that needs to be tackled.

“[...] the people are trying to grow it in their own gardens, but on the other hand, I am not sure where they would put it in the cities. It’s true that there are many allotments but not for everyone. I don’t know how that would be solved, but I still like it. This exchange, that I can exchange food for something else is pretty nice.” (the Czech Republic, 44, Low Income)

“I do not know, now I cannot imagine it could work. Maybe you should tell me that it does not work. If I lived in a village, it’s different. But in town? On the balcony? I have basil there, I have this to get my food, if I want to go to the balcony, I’ll cut the chives, okay, but can I live off this? That I could sustain the family from the plants on the balcony? When I get four tomatoes, it is wonderful and I show it to the whole family.” (the Czech Republic, 57, High Income)

“Well, it is probably a matter of cultivating at home that is not realistic in today’s style of housing, even in the housing estate issues really, surely it is great in the countryside.” (the Czech Republic, 34, High Income)

Lack of knowledge and cultivation skills was posed as another challenge by another participant.

“Not everyone has a talent for cultivation.” (the Czech Republic, 36, High Income)

Dissatisfaction with the idea of less meat was expressed by one participant in this discussion, too.

"I do not fully agree with the idea of very little meat. I love my meat, so I do not have it every day, but I like meat." (the Czech Republic, 35, Low Income)

Technology shortens food value chains ('Our circular community' scenario)

The short discussion about turning the ideas of this scenario into reality was centred mainly on the concept of 3D-printed meat. For one Czech participant improved product quality, environmental performance and animal welfare were sufficient **motivational** factors to recognise the concept's potential benefits.

"So, it's just [...]. If I buy it over there already packed, processed meat or salami, that's cool. But if I had to do it, I wouldn't. But I would print it. I would print it because if there were the right ingredients and because it will be of higher quality, I think, since the animal won't feel the stress. I would have clear conscience [...]. It seems ecologic to me and humane or something. Humane, right." (the Czech Republic, 51, Income Unknown)

Other participants perceived this option as unacceptable.

"So, then, nothing. No meat here for me." (the Czech Republic, 36, High Income)

"I'd like ['Our circular community'] if there wasn't the meat printing. That's just rubbish." (the Czech Republic, 47, High Income)

3.2.4.3 Germany

Complete transparency and personalized food ('My life between realities' scenario)

German participants were not satisfied about monitoring human behaviour and offering personalised diets suggestions due to finding it invasive and controlling. This is complemented by their tendency to be distrustful towards large companies and their activities.

"I can't handle being told what to eat and drink. That I'm just being controlled, that's not mine at all." (Germany, 53, High Income)

"And then 'the food and drink that is adapted to your state of health because of the nutrients', so that's no fun. They can take out the organic and install something terminator-like." (Germany, 35, High Income)

"I simply don't trust the big companies. I don't trust the farmers either, but I don't trust the big companies. They're so profit-maximized somehow, and when something really goes wrong somewhere, it's always big companies that are in on it." (Germany, 71, High Income)

"[...] The food and drink are adapted to your state of health. This means that it is 'functional food' where someone in the laboratory thinks: you get carbohydrates, you get fat and then we mix in a few vitamins. [...] Well, that's not possible. [...]" (Germany, 46, Middle Income)

Moreover, some participants showed disregard towards the elevated transparency of food value chains. According to them the latter does not rank the highest when they make their food and drink purchasing decisions.

"Nor do I want that transparency. I want to decide for myself what I eat. I don't want anything bred in the lab. No, you can't do that." (Germany, 58, Middle Income)

"Do I really want to know? Does that have any added value for me, if I know that? When I eat an Argentinean hip steak, I suspect it was on pasture or in the stable in Argentina. But can I check it out? Did it give me a real boost? No, it didn't! [...] I don't know if that's really an added value for me." (Germany, 26, Middle Income)

"It's nice to know where the Coca-Cola comes from, but honestly, it's still a Coca-Cola. If I don't have a health point now, I don't care if I know it's from Essen." (Germany, 46, Middle Income)

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

German participants found the governmental fiscal interventions to regulate food products based on their health contributing performances satisfactory. This preference is motivated by the related financial implications (i.e. making healthier food cheaper) which it is perceived as positively contributing towards improved social justice by increasing the opportunity of all social members to have access to healthy and affordable food. Additionally, this preference is driven by the opportunity to preserving individual choice depending on one's momentarily food preferences.

"I find the aspect that healthy foods are promoted and unhealthy and fast foods are becoming a very important aspect [...] Because if we look at which social classes are overweight and which food these people consume, especially if we look at other states, for example the USA, then these are social classes that cannot afford the most expensive food. And as long as vegetables and fruits are more expensive than the cheap meat and the pre-packed hamburger and as long as the cucumber is more expensive than the bag of chips, most people who don't have so much money and who don't think so much about it, will grab the cheaper one. That's the aspect I think is good." (Germany, 26, Middle Income)

"I think it's great [...] they then put this traffic light on the food, so that what's unhealthy is really taxed differently. And that you can decide for yourself, okay, I'll eat that or I won't eat that. Determine them yourself." (Germany, 40, Low Income)

"Here is the point, however, that the government itself has started to change everything and intervenes with communication and financial instruments to change food consumption. [...] I would also support healthier and sustainable food becoming cheaper. It should be up to each person how much meat he eats. You shouldn't patronise anyone." (Germany, 64, Low Income)

"I would like unhealthy food to become more expensive. Because e.g. with water and tea when you go out for dinner, it is often more expensive than these sweet drinks and so it is also in the shop and then of course, even if a child goes into the shop with his pocket money, of course he buys himself sweet things first because he thinks it is better, but basically if I have little, I buy what is cheaper." (Germany, 28, High Income)

"[...] but here is after all the personal health. I can still influence what I do and what I want and of course you can't do it one hundred per cent [...] I think the polluter-pays-principle is basically good, that they

should pay for it and everyone has the individual possibility to say, do I or do I not and there I find it first of all the better option.” (Germany, 57, High Income)

Moreover, a participant expressed satisfaction towards the **capability** increasing oriented education measures contributing to citizens’ elevated understanding of healthy and sustainable food choices and products. Similarly, another supported the idea of reduced meat consumption **motivated** by environmental beliefs as well as the need for better animal welfare.

“I also find education super. Just because a lot of people I think still need it.” (Germany, 39, Low Income)

“I also like this aspect with less meat, because apart from the animal suffering, I also think it is important, because I had read at some point that all the excrements caused by the animals mean that they are also very harmful to the environment and that is why this has a positive influence again.” (Germany, 41, High Income)

Self-grown and seasonal food from the region (‘One for all, all for one’ scenario)

The focus on consuming food products that are seasonal, regional or self-grown **motivated** the preference of German participants. Moreover, the **opportunity** to use goods as market exchange currency value is positive and **motivates** the increased cohesion among social peers.

“I think it makes sense to consume local and seasonal products and if you have the opportunity, even if only on the balcony, to plant something yourself, you should do so. I think everybody can handle tomatoes, even I can do that.” (Germany, 35, High Income)

“I think is good, that's the way to do it. I grow a lot, too, and we swap. My boss has a big garden I get, what she has as surplus, and she gets what I have extra, I find that a good thing.” (Germany, 53, High Income)

“I prefer this regional one anyway. Seasonal and regional, fits. I think that's kind of funny. This is already partly being practised. Food is also used as currency to trade among neighbours. Clean my windows, you get three cabbages. That's how I imagine it right now, to put it bluntly. Well, I think it's totally great.” (Germany, 66, Low Income)

“[...] because it makes me feel better regionally and sustainably [...]. And then the exchange with the others, I would somehow like that if that were a solid future. And fewer things are imported from Spain or Portugal, which is also totally harmful to the environment. And it would be nice if we simply did without strawberries in winter, and it is when they are grown here in Germany again, so that we are happy about it again and do not always have the huge supply.” (Germany, 22, Low Income)

“I think there is nothing better than swapping something as a gardener. If you have five pumpkins now, you cannot eat them all - you'll be happy if the other gives you tomatoes. And if he now has tomatoes without end, he is happy when he gets a lettuce for a change. Because, you cannot plant 30 different vegetables. [...]. This exchange has always existed. I think that's great. [...]” (Germany, 46, Middle Income)

Moreover, participants valued the transfer and sharing of skills as contributing to one’s **capabilities** to make better use of food products and implement more nutritional diets.

“But it's nice to know yourself. When you learn to cook, for example. If I want to cook, then I can. I learned how to do it from my mother. Why is it today that so many can't cook?” (Germany, 57, Low Income)

“I would prefer everything the natural way, the social way, the common way, and away from isolation or the digital filter bubble. Instead of looking at Google when I don't know something, I ask more and more people now. If I don't have a dentist then I don't go to Google and look, I ask my neighbour. Because I realize that this face to face situation is worth so much more than any report on the Internet, which can also be written by the PR, or by any competitor, or a supporter. [...]” (Germany, 30, Low Income)

However, for different participants the same characteristics were not satisfying either because of infrastructural challenges to produce one's food, dislike towards food exchange or the idea of communality gardens. Moreover, some participants found this reality as challenging for the elderly members of society.

“My place up on the roof or what? I don't have a balcony. Also, in a free community garden, no I have no interest in it. So, I'm more of an anonymous guy, I want to be alone with the people I know. But I don't need any more people around me. I already have enough people around me every day at work. That's good enough for me. I am happy when I can close the door and have the people around me who understand me, or who sometimes say ok 'he is having a bad day' and let me in peace.” (Germany, 31, Low Income)

“[...] one I did not like the exchange of food. That's the only downside. And I live in a block of houses in Cologne-Nippes, where no one has a garden. That's how it is. How am I supposed to get my fruit or vegetables?” (Germany, 50, Middle Income)

“I didn't like it with these community gardens either. It was a bit of a collective bargain. Also, with the obligation to work there. Here the question also arose, what about the old people, if they can no longer contribute to the garden with work.” (Germany, 54, Middle Income)

“[...] although I was wondering what the older people who can't do that physically are doing now. They will have to be supplied again. So, it's difficult.” (Germany, 58, Middle Income)

Technology shortens food value chains ('Our circular community' scenario)

German participants expressed dissatisfaction towards the production of meat by means of 3D printing technologies due to its unconventionality and preferences of traditional ways of meat or food production.

“I had to work my way into the subjects of in vitro meat and 3D printed meat. The whole thing is definitely not yet mature, maybe in this time. In the final defect, nothing beats a piece of meat that has lived and lived healthy before. This is the best and healthiest and I don't need anything grown in test tubes. Food should be original, uncontrolled and not somehow over-commercialized or artificially produced.” (Germany, 39, Middle Income)

“That's impossible. With 3D printing - I prefer not to eat meat at all. I don't need it then.” (Germany, 58, Middle Income)

“[...] i.e. meat from the printer in cells, so quite honestly, I'm swimming in the Rhine - I find that so disgusting.” (Germany, 35, High Income)

"I still find this idea quite absurd with 3D printers at the moment. In five years, maybe it won't be like that anymore, because you try it and you don't taste any difference anymore and then you don't ask anymore, it's 3D or real-that may change quickly. But right now, I still find it a very perverse idea to eat 3D steak from the printer [...]" (Germany, 57, High Income)

However, for other participants 3D printing is beneficial, with animal welfare being listed as the background **motivational** factor.

"I think 3D-printing is very good e.g. for meat, because it avoids animal suffering. I don't mind, I think, if you've been to the slaughterhouse and looked at it, I think it's a pretty good alternative. And also, how the animals have to live before, [...] so I am very positive about this." (Germany, 44, High Income)

"I liked the addition of the 3D printer. I don't see it as critical either, if it's not really harmful now, I can't judge that now, I think it's a great replacement. It can be perfectly adapted to the population as it is needed." (Germany, 30, High Income)

The position and role farmers within these developments was another diverging point for German participants. Some participants found the opportunity for a direct consumer-farmer trade satisfactory, leading towards reduction of food prices as well as the presence of other large producers.

"I think this is a good direct relationship with the farmer. And above all to eliminate retail, because it eats away a lot, makes things more expensive, but also throws away a lot, and because it thinks up some quality requirements that do not necessarily correlate entirely with consumer wishes. I also think that agriculture based on solidarity is a good concept." (Germany, 44, High Income)

"I think it's good [...] for me to leave the biggest food producers in the world. [...] There are so five big companies in this world that control practically everything we eat. [...] That's why I think it's a benefit for everyone to know how this can be done for Germany to supply vegetables, fruit and the like regionally [...]" (Germany, 30, High Income)

Other participants found these new developments to be challenging for farmers since they would need to adapt and offer additional services beyond those conventional farmers currently offer.

"[...] because I feel a little sorry for the farmer. As opposed to how things run nowadays, if I order via an app -maybe because it's easier and more practical- the farmer should build up logistics network and a supply chain to deliver the products [...] the farmer would not be a farmer anymore. He'll have to build himself a much bigger network and I don't think that will make the farmer happy and that there will still be as many farmers as there are now." (Germany, 28, High Income)

"[...] because I just think, how is that supposed to be, which farmer is already a logistician, I personally found that a bit strange, at least for me." (Germany, 41, High Income)

3.2.4.4 Macedonia

Complete transparency and personalised food ('My life between realities' scenario)

These consumption attributes were not discussed much by the Macedonian participants. However, satisfaction was expressed towards the idea of personalised diets **motivated** and driven by the **opportunity** of maintaining good healthy conditions and lifestyles.

"[...] because you find out everything about the food you eat, for each ingredient so you can choose in accordance to your health. Because isn't it that we eat to live and be healthy, not because a pleasure? [...]"
(Macedonia, 32, Middle Income)

"[...] we would know what to eat thanks to technology. According to me the technology is very useful."
(Macedonia, 42, High Income)

The lack of knowledge about the potential negative effects, laboratory produced food on human health was perceived as a challenge by the participants.

"[...] I did not like the fact that meat was produced in laboratories. It may need to be examined whether it has negative effects on the human organism. [...]" (Macedonia, 36, High Income)

"[...] I also did not like the fact that meat is produced in a laboratory, I am sceptical. [...]" (Macedonia, 36, High Income)

"[...] What I am afraid very much in the other scenario is the fact the meat is produced from real animal cells. Though it will happen in 20 years I still don't like it." (Macedonia, 59, Middle Income)

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

The possibility of increasing the expenses of unhealthy and unsustainable diets was highly liked by the Macedonian participants, **motivated** and driven mainly by the **opportunity** of increased access to food that is healthier and affordable for all citizens leading to improved social equity, while preserving individual dietary choices.

"[...] some subsidies for producing healthy food would be given through government measures, so that it would have a lower price. We know that [...] is not available for most of the population for financial reasons. In this case, that problem would be solved. [...]. So, I especially like this, because healthy food would be available to all categories of people." (Macedonia, 32, High Income)

"A difference is made between the healthy and unhealthy products. Sometimes I may choose to eat junk food. And the same as I said earlier. Consciousness has changed, we have become aware about the difference, and you have the opportunity to get it cheaper than before." (Macedonia, 57, Low Income)

"I like this way of changing the approach toward food prices. For this what is unhealthy, the price is going up, but who still want to get will take it. The prices of healthy food are going down what is opposite from today's situation." (Macedonia, 38, Middle Income)

"[...] because of the price and the opportunity for cheaper but healthier food." (Macedonia, 59, Low Income)

"[...] the price is a decisive factor what food the population will consume. We all know there are many healthy food items, with high nutritional value, but their price is too high compared with food which is less healthy but will satisfy the essential needs for food. I am sure if the healthy food is cheaper it would have been used much more often" (Macedonia, 26, Middle Income)

"[...] some subsidies for producing healthy food would be given through government measures, so that it would have a lower price. We know that [...] is not available for most of the population for financial reasons. In this case, that problem would be solved. [...]. So, I especially like this, because healthy food would be available to all categories of people." (Macedonia, 32, High Income)

"The healthier food is cheaper, the opposite is more expensive, and I am definitely against the consumption of meat. I especially liked it." (Macedonia, 36, High Income)

"The prices are much more acceptable for the consumers. [...] it is also good because the healthy food is cheaper." (Macedonia, 32, Middle Income)

Moreover, Macedonian participants appreciated the governmental initiatives to increase citizens' **capabilities** to understand and distinguish between various diets and their health implications.

"Awareness raising campaign is more or less available, but it's not a bad idea to increase that campaign, especially among the youth." (Macedonia, 32, High Income)

"Now healthy food is much more expensive. I would like to live this way because the food is much cheaper. Campaigns also influence awareness-raising. On the other hand, reducing the meat consumption is crucial for a healthier society in the future, and the state would have positive influence through fiscal elements." (Macedonia, 36, Low Income)

Self-grown and seasonal food from the region ('One for all, all for one' scenario)

Increased diffusion of self-produced, regional and seasonal food, which ultimately is healthier and cheaper, were some of the **motivational** factors driving the Macedonians preference towards this reality. This is complemented by the **opportunity** to one's diets by increasing the share of fruits and vegetables.

"I lived like this and I will continue to consume seasonal goods. I don't consume much prepared and finished goods. I put the seasonal goods in the freezer to keep them fresh. I buy meat directly from the stock-breeders who slaughter pigs or other animals for us. I like that kind of life." (Macedonia, 49, Low Income)

"It is about healthy food that is the most important and seems to have shortage of it. People are aware that fruits and vegetables are healthy. [...] Also, we have already mentioned the return to the past and the use of home-grown food. I use such food in a certain period of the year." (Macedonia, 67, Low Income)

"The food we get is only from the safety places, everything is under control. [...] What I also like in the scenario is the responsibility and the role of the local authorities since they know the best the needs of the community." (Macedonia, 54, Middle Income)

"[...] because we have much more fruits and vegetables and less meat. I also like the gardens for self-production of food. At our markets, the food is not expensive and I always choose to buy from older people, because I know the food is their own production." (Macedonia, 59, Middle Income)

"[...] because the accent was put on the seasonal approach." (Macedonia, 36, Middle Income)

"It's expensive if we eat imported foods or non-seasonal foods. For example, tomatoes are now 100 denars [Macedonian currency], and in one month they will be 10 denars per kilogram. I liked the promotion of a local, seasonal, traditional approach as it is written." (Macedonia, 30, High Income)

"I liked the part for the production of food for my own needs in the gardens, where one knows what will plant, what will spray, what will eat. It is normal for the products to be more bio, with less pesticides, because now we do not know what we are buying, whether in the supermarket or bazar, where it originates. We need to limit this. It will surely be more expensive, but if there is an opportunity [...]."
(Macedonia, 63, High Income)

Participants have the **opportunity** of exchanging goods among social members with some finding it as beneficial and others as an unnecessary regression to previous times.

"I liked that food was used as a currency for exchanges between neighbours. It took me back a little, to exchange goods, but let it be so. It's happening also now, you give some product to someone, and they will return to you another." (Macedonia, 30, High Income)

"[...] in regard the food being used as a currency for product exchanging among the neighbours; it is a practice we can see even today in our rural places. I will give you cucumbers, you will give me milk. Like stock exchange. I think it is much natural and better. Compared with today, it is written that the own production of food will be a sort of a norm, and that is the biggest difference with what we have today."
(Macedonia, 36, Middle Income)

"The exchange of goods between my neighbours seemed to me a really de-mode, retro [...]" (Macedonia, 29, High Income)

"[...] to use the food for exchanging products is utopia to me. It is not good, that is in the past, and we cannot go back." (Macedonia, 38, Middle Income)

However, participants expressed dissatisfaction in regards to limitations imposed on the meat consumption.

"Why we should not have meat, why someone else would define that. That is not necessary." (Macedonia, 54, Middle Income)

"With the healthy way of eating, the consumption of meat was very much satanised. No everyone is bothered by meat consumption and I do not know why it would be forbidden if it's consumed in normal, balanced amounts, just as we consume high sugar containing fruit, and this is also not good." (Macedonia, 30, High Income)

"I don't like the fact that the meat is less consumed, but better less than in 3D printing." (Macedonia, 67, Low Income)

Technology shortens food value chains ('Our circular community' scenario)

Macedonian participants found positive the narratives aimed at increasing citizens' **capabilities** about the origin and production of the food one is consuming. This preference is **motivated** by the desire to increase the safety of the food citizens are consuming as well as increase the opportunity for farmers to receive fair compensation for their efforts.

“[...] most of all I liked the fourth, in the part where there is a direct virtual link between farmers and consumers. We have a direct insight into what we eat, where it comes from, how it is produced and what we consume.” (Macedonia, 36, High Income)

“[...] because there we know the origin of the products, and I think that is useful to be in touch with the manufacturer.” (Macedonia, 67, Low Income)

“I liked the idea to reduce margins and farmers to get their deserved compensation for what they produce.” (Macedonia, 42, High Income)

Also, participants found positive the **opportunity** for less food waste. This is **motivated** by the perceived need for increased social justice, not only for the nowadays societies but for the future ones too.

“[...] it gave me the impression of planning the consumption of food and bringing it to less waste food. We know that now in the world food is being wasted, so that by planning food it would be possible not to throw a sizable amount of food that is indispensable to humanity. We know that the global population is growing and is being questioned if in 40 years, the Earth will be able to feed the population. Will there be a capacity? So, we have to save even now, not to waste large amounts of food.” (Macedonia, 63, High Income)

3.2.4.5 Spain

Complete transparency and personalised food (‘My life between realities’ scenario)

Motivated by the possibility of improved and elevated health conditions, a large share of Spanish participants found the idea of personalised diets and the role of technology in driving it as satisfactory. The latter’s role in leveraging the **opportunity** for increased food production and chain transparency is appreciated too.

“[...] because it would make many illnesses to disappear, we would have the vitamins and nutrients we need.” (Spain, 40, High Income)

“[...] for the personalisation, if the individual has health problems or other issues, his food is adapted [...].” (Spain, 22, Middle Income)

“I am not fully convinced by any, but if I have to choose I would go with [‘My life between realities’], because of the individuals with health problems who get personalised treatment.” (Spain, 37, Low Income)

“I like too [...], because there is transparency in foods that are consumed.” (Spain, 32, High Income)

Animal welfare was a **motivational** factor for some participants to show preference towards the idea of laboratory produced meat.

“I like the idea of generating meat from real cells I like it because, even if I’m not a vegetarian, I feel bad about meat consumption and I would feel better if I could consume meat but that the animal would still live.” (Spain, 20, Middle Income)

However, some participants expressed dissatisfaction and fear towards companies' increased influence in monitoring consumption behaviour as well as the technological manipulation of food and its impact on human health.

"[...] trivialize a serious issue such as food and being controlled by companies, you are not sure whether any genetic manipulation is done or whether addictions are created in people, it would be putting health in an unnecessary risk." (Spain, 40, Middle Income)

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

Spanish participants found satisfactory the governmental interventions to make unhealthy and unsustainable food more expensive driven by **opportunity** it would entail, namely, increasing the affordability and accessibility to food that is healthier and more sustainable.

"[...] because the government achieves with more sustainable food that is cheaper, which is what it should do and not the other way around, because nowadays it's the opposite." (Spain, 32, Middle Income)

"[...] for the government intervention, incentivising consumption of healthy foods and restricting what's less healthy." (Spain, 22, Middle Income)

"I agree [...] with the incentives for education and motivation of citizens towards new diets, also making cheaper healthy products to promote their consumption [...]" (Spain, 27, Low Income)

However, some participants found these interventions as imposing and threatening the individual's freedom of choice.

"I don't agree because [...] making more expensive some food you force people to eat those products. You can eat any kind of products in a diet as long as they are not very processed because what matters is quantity." (Spain, 32, High Income)

"I would choose the second option, though I see a problem in the government intervention, but it is the most adequate because healthy foods are promoted." (Spain, 40, Middle Income)

Participants had controversial opinions on the idea of reduced meat consumption.

"There is one thing I see it appears in all descriptions that say less meat and more vegetables and almost no meat eating... Meat isn't a bad thing, it's something always surprises me. Meat has vitamins that we need. And people that don't eat any kind of meat you can see they have problems, also anaemic people need..." (Spain, 35, Middle Income)

"No, sorry, there are lots of foods that compensate for vitamins or nutrients that the meat could have and a person can perfectly survive without eating meat." (Spain, 52, Middle Income)

Self-grown and seasonal food from the region ('One for all, all for one' scenario)

The opportunity of growing one's food and increasing access to seasonal and regional food drove the Spanish participants' preferences towards the characteristics of this reality.

“[...] because it returns to a seasonal focus, because even if technology improves, agriculture needs a climate, and consumption must be done in the corresponding season.” (Spain, 27, Middle Income)

“Because of what it says about the crops on one’s own and the healthy food.” (Spain, 52, Middle Income)

“[...] I believe that as a consumer, I can take action, this is, I’m a consumer-activist: Then, as I’m a consumer-activist I don’t even drink Coca-Cola... because it comes from 600 km away and I don’t eat chickpeas coming from the United States.” (Spain, 58, Low Income)

Moreover, participants were additionally motivated by the expected cheap prices regional products would have.

“I think that price will depend on where it comes from [...]” (Spain, 27, Middle Income)

However, they also noted the need for these initiatives not to be imposed on consumers and to preserve the individuals’ choice of action.

“Nevertheless, I don’t agree with the [‘One for all and all for one’] scenario that makes into a norm to cultivate as, for lifestyle or for time issues, it may be that people would not be able to do it. It is a good idea to incentivise farming, but not to force it.” (Spain, 27, Low Income)

Technology shortens food value chains (‘Our circular community’ scenario)

Spanish participants found satisfactory the **opportunity** of less food waste and direct communication between farmers and consumers with increases market and social fairness/justices as **motivational** factors.

“[...] it establishes a connection between farmers and consumers, a fairer market could be done with less intermediaries.” (Spain, 32, High Income)

“I like the control of waste, as we already throw away too much food and with hungry people...” (Spain, 20, Middle Income)

However, similarly to the production of meat in laboratories, Spanish participants were not satisfied with the idea of 3D printed meat, also.

“I think that the thing about printing meat [...] is backwards, because it’s producing something with technology and I don’t like it.” (Spain, 27, Low Income)

“[...] the thing about 3D printed meat disgusts me.” (Spain, 22, Middle Income)

“The least the [‘Our circular community’] because of 3D printed meat.” (Spain, 32, Middle Income)

3.2.4.6 United Kingdom

Complete transparency and personalised food ('My life between realities' scenario)

The **opportunity** of having technological support in maintaining healthy dietary patterns and lifestyles was considered positive by the British participants, especially when considering the increasing dynamicity of life or the lack of knowledge in general.

"[...] would be good for someone who needs the extra help with the technology to tell them what they need and what they should eat and shouldn't have.[...]" (UK, 33, High Income)

"Well I like the idea of the first one because it says you can personalise your nutrients so then your food, like your health conditions. I think that would give people lot better life quality as well, less illnesses, less side effects from illnesses, would give people a better quality of life." (UK, 58, Low Income)

"I think we have all got busy lives as well and it is kind of, you know, are we going to want to do all that." (UK, 38, Low Income)

British participants were not satisfied with the possibility of meat or any other food to be grown in the laboratory because they considered the process or experience to be too artificial.

"You would feel like a bit of an experiment, wouldn't you?" (UK, 50, Low Income)

"I understand what he is saying, I understand what he is saying but I don't know, eat something produced, no. Like a fly or something, isn't it? I do understand what it is saying but I'm not sure I would be happy with eating" (UK, 65, Low Income)

"I don't like that very much at all, not at all. I like to see where my meat is coming from. [...] There is a lot of people out there as well like me as well that don't want their meat being, some scientist doing it - do you know what I mean?" (UK, 54, Low Income)

However, one participant expressed satisfaction with the laboratory-grown meat with animal welfare being the main **motivational** factor.

"Also, I like that the scientists can grow meat from using animal cells, so that stops people killing animals as well." (UK, 58, Low Income)

The youngest participant was in favour of lab-grown meat, but not with 3D-printing of meat.

"It wasn't so much 3D meat [I am in favour of] but the idea of growing meat using cells of animals, 3D meat it wouldn't be real meat as much but that would be from the animal so it sort of is." (UK, 18, Low Income)

Unhealthy and unsustainable food options become expensive ('Less is more to me' scenario)

British participants were satisfied with governmental interventions regulating and moderating the food market and its products. This satisfaction was driven by the **opportunity** of increased access to and affordability of food that is healthier and cheaper. Moreover, they were satisfied with the efforts to increase citizens' **capabilities** about recognising and maintaining a healthy diet as well.

"I quite like [...] because it is positive on health and unhealthy food becomes more expensive [...]" (UK, 64, High Income)

"It's good that they encourage you to eat more healthily. And tell you how to do that. And it's good that they put the price up on foods that aren't good for you which they are doing at the moment." (UK, 52, Middle Income)

"That's the trouble even today. If you want to eat healthy foods it costs you an arm and a leg." (UK, 61, Middle Income)

However, strong dissatisfaction with the reduction of meat consumption was expressed, as participants perceived it as limiting free choice.

"I thought [...] Where's the meat gone? What's wrong with meat?" (UK, 52, Middle Income)

"Yes, they're trying to take away your meats. They're trying to take away your travel. They're trying to take away the freedoms that we'd have now. I think it's too far out." (UK, 36, Middle Income)

"Well, looking at this in 22 years' time [...] you aren't going to have a choice. This is what you have. This is what you've got." (UK, 61, Middle Income)

Self-grown and seasonal food from the region ('One for all, all for one' scenario)

The **opportunity** to grow one's own food, also in cooperation with other members of society and focus more on seasonal and regional food was found satisfactory by British participants. Avoiding the negative environmental impacts, eating food with known origin, better quality and taste were some of the **motivational** factors driving this preference.

"Going back to growing food seasonably so you have not got everything all year around, transporting it hundreds of miles just to have strawberries all year round." (UK, 69, High Income)

"Well it is position in growing approach, you know, showing vegetables and fruit and veg and meat, that sort of thing, yes. Private gardens and community gardens with neighbours, that sounds good to me." (UK, 65, Low Income)

"I think I'd be eating healthier than I do today. I mean you would have a lot more locally sourced stuff by the looks of things. And it would be seasonal. So, you would get your mix of foods that you would, used to have years ago you know before you could buy in stuff from Spain and stuff like that. So, you'd probably get a lot more of that and it would be a lot tastier. So, you wouldn't need as much. You know organic stuff generally tastes better. So, you probably wouldn't need as much. I think generally the lifestyle for that is quite good." (UK, 35, Middle Income)

“The satisfaction of cooking it yourself and you know where it’s come from... fresh.” (UK, 61, Middle Income)

“I think you would get self-satisfaction from it as well knowing that you have grown it.” (UK, 38, Low Income)

For one participant, lack of time might pose a challenge for people to engage in producing their own food.

“I don’t think everyone has got time to get involved with growing their own food.” (UK, 26, Low Income)

Similar to the opinions on the previous scenario, British participants expressed dissatisfaction with the reduction and limitations imposed on meat consumption.

“Seems to be a lot of veg. [...] I like my meat.” (UK, 40, Middle Income)

“They are trying to make us vegetarians.” (UK, 56, Middle Income)

“Yes, we are carnivores, aren’t we? So, I don’t know why meat’s gone and it’s so bad for you. Because some meat’s good for you, isn’t it?” (UK, 52, Middle Income)

Technology shortens food value chains (‘Our circular community’ scenario)

British participants did not discuss the characteristics of this scenario in detail. One participant perceived the **opportunity** to access and obtain food directly from the (local) farmers as positive.

“Yeah, I’ve got the last one [preferred] where you’d order things direct from the local farmer.” (UK, 56, High Income)

Other participants discussed and were divided in their opinion on the possibility to 3D-print meat or other food products, with some participants opposing the idea completely and others agreeing on the **opportunities** or implications.

“Taste like cardboard!” (UK, 62, High Income)

“That’s disgusting.” (UK, 61, Middle Income)

“I also think people being born today would be into the 3D because they are going to be more brought up with it. We weren’t brought up with it and say what you like, there is a lot of us that don’t want change.” (UK, 54, Low Income)

“Futuristic.” (UK, 65, Low Income)

“Come a long way since the microwave!” (UK, 54, Low Income)

Conclusions

The INHERIT focus group analytical report compiles European citizens' insights for a healthier, more equitable and sustainable Europe by 2040. It builds on a preceding scenario building exercise in which this vision and four narratives for reaching it were developed. The four narratives are represented by four future scenarios: 'My life between realities', 'Less is more to me', 'One for all, all for one' and 'Our circular community', each depicted a possible future society in the year 2040 along four main lifestyle areas: green spaces, energy efficient housing, active mobility and consumption of food and beverages. The report provides the analytical outcomes of data gathered through the conduction of focus group exercise in five different European: comparing citizens' perceptions about the future displayed in the scenarios in general, as well as the behaviour drivers (capability, motivation, opportunity) determining their preferences for each scenario's developments within the above-mentioned specific lifestyle areas.

The 'My life between realities' scenario proved to be the most controversial scenario among the four. Its technological attributes, including virtual reality, big data and the monitoring of citizens' behaviours to offer customised products and services led to highly dichotomous attitudes towards the scenario's developments. Fear of the unknown and of losing experiential authenticity, privacy issues as well as the potential negative impacts on social interaction were some factors causing negative attitudes. On the other hand, increased convenience and efficiency, especially within the mobility and housing area, factor into positive attitudes towards the scenario. While concerns and dissatisfaction with the dominant role of technology were expressed in all countries, interest and opportunities related to increased convenience and monitoring one's health were only brought up in the Czech and Macedonian groups. Furthermore, for this scenario, participants from Germany, the Czech Republic and Spain were distrustful towards the increasing role and influence of large companies in this scenario.

Focus groups participants of all countries agreed that Virtual Reality (VR) applications could not replace the real experience of spending time in the greenery and that virtual experiences should not replace actual **outdoor activities**. In Germany and the United Kingdom however, opportunities related to VR for less mobile or handicapped citizens were positively mentioned.

The idea of increasing the levels of **energy efficient housing** through smart homes was positively valued - by Czech and Macedonian participants - as it allows for more efficient saving of energy and money than human behaviour. For example, discussions in the UK highlighted that smart meters could increase personal capabilities with regards to understanding the energy consumption of specific devices. Opposing opinions on the topic, however, emerged in Germany, Spain and the UK: e.g. some participants were sceptical about the prioritisation of technologies for making one's life easier, others were concerned about the usage of personal data.

In all five countries, the idea of interconnected and efficient and interconnected **mobility** systems received generally good feedback, mainly because of its potential for saving time and increasing citizens convenience. Comprehensively discussed in the Czech Republic,

Germany and the UK, self-driving cars were evaluated as convenient and efficient (the Czech Republic), though also still technically still immature (Germany) and risky (UK). Regarding the general increased in the use of public transport, Czech, British and German participants commonly mentioned the reliability and the sanitary conditions of such transport means as obstacles for increased future usage.

When discussing the **consumption of food and beverages**, focus group participants in the Czech Republic, Macedonia, Spain and the UK expressed positive views on the concept of personalised diets. These views were motivated by the expected benefits for one's health. Germans, in contrast, judged the implied monitoring of human behaviour as too invasive and controlling. Others food topics, such as laboratory-produced meat was sceptically received (the Czech Republic), perceived as too artificial (UK) or as negative for one's health (Macedonia and Spain); even though some participants also expressed that some benefits could be derived in terms of animal welfare (UK and Spain).

The increasing share of green spaces, which simultaneously allow for more active mobility, the promotion of healthier food habits as well as more energy efficient housing were some of the attributes driving participants' preference for the **'Less is more to me'** scenario throughout the five countries. When looking at the overall storyline of this scenario, participants in the Czech Republic, Germany and United Kingdom mainly appreciated the large share of green space shown and the calmer life portrayed. Moreover, the scenario's attributes of preserving individuality and individual autonomy, also in contrast to the collectivist scenarios, were found satisfactory mainly by German and Macedonian focus group participants. Nevertheless, some participants also expressed the need for careful moderation of this dynamic, as they considered the developments of this scenario to be possibly contributing towards the creation of a more egalitarian European society.

When looking at the way that **green spaces** were described in this scenario, high levels of satisfaction were reported in all five countries, with respect to the idea of constructing green corridors, parks and forests replacing old-fashioned street infrastructures. Participants from the Czech Republic, Germany and Macedonia also stressed how this could translate into increased levels of motivation to use green spaces (also for active mobility). Nonetheless, concerns were raised by the British and Spanish participants respectively with respect to affordability to visit the green spaces and challenges related to topography

The idea of **energy efficient housing** encompassing modular housing - which could be adapted to the actual needs of its inhabitants – has been positively received by participants from the Czech Republic, Germany and Macedonia who also highlighted the opportunities related to space and energy savings. Participants in Spain and the United Kingdom also expressed satisfaction with the idea of increasing the citizens' awareness and knowledge of energy saving solutions.

Czech, German, Macedonian and Spanish participants expressed satisfaction with the concept of urban planning that is based on and promotes cycling and walking as **mobility** means, for different reasons. Czech and Spanish focus groups participants favoured the opportunity to reduce car presence in urban environments; Czechs also were fond of increasing the access and usage of these mobility modes by all members of society. Germans valued the opportunity to move around without any interruptions, while Macedonians were

motivated by increased comfort and safety. Unsuitable weather conditions for cycling were mentioned as an obstacle among the British, German and Macedonian participants.

When discussing the topic of **consumption of food and beverages**, the governments' fiscal interventions to regulate food markets and related products were perceived as positive by participants in all five countries. Increasing access to food that is healthier and affordable was mentioned as an opportunity and motivational factor in countries. Additionally, improved social equity resulting from these interventions was positively highlighted by Germans and Macedonians. Czech, Spanish and UK participants were not content with the idea of reducing meat consumption portrayed in this scenario.

The *'One for all, all for one'* scenario was, in general terms, the most appealing scenario according to citizen discussions in all five countries, mainly due to its strong focus on locality, communality and mutual support in driving local lifestyles. Focus group participants expressed appreciation for this kind of social dynamics, and considered it a value that has diminished throughout the past years but that would be desirable for the near future. Social and family cohesion were the most important behavioural factors driving participants' preferences. The extensive use of green space and energy efficient housing were also well received. Food aspects were positively received in view of the possibility of growing one's own food which for participants corresponded to the opportunity of accessing more affordable and healthier food options. Participants also accounted for the need of moderation when planning respective policies so that individual choice is preserved and citizens' needs are considered.

Discussions in all five countries showed satisfaction with this scenario's use and availability of **green spaces** as places for community activities, intergenerational encounter, sports and culture. Participants of all countries highlight the related opportunities for spending time in green areas, and the motivation of conducting a more active lifestyle resulting from increased community activities. However, in Spain and Macedonia, participants also expressed their preference for some more individual time in the park. Community gardens were mostly seen in a positive light in the Czech Republic, Germany, and the UK.

Looking at the concept of intergenerational co-housing for reaching **energy efficient housing**, the Czech, German, Spanish, British and to a smaller extend Macedonian focus group participants evaluated the concept as socially and emotionally motivating, since it would enable a feeling of community, taking care of elderly family members and would support stronger social cohesion. Participants in the Czech Republic and Macedonia positively highlighted the idea of increasing citizens' capabilities through helping each other and learning from each other. At the same time, discussions in the UK, Spain, the Czech Republic and Germany also showed the potential for personal conflicts in such housing models.

The idea of reduced **mobility** in short distance cities was perceived as positive in all countries, with only slight concerns about confining social operations and movement to such a small radius (Germany), and the need to inconveniently account and plan for such reduced distances (UK). Czech and German participants' preference on this option was motivated by increased convenience, while the reduction of time spent in traffic was the driving factor for Czech and Macedonian participants. Furthermore, the resulting reduction of cars in urban

areas was related to environmental and health benefits by the Czechs, Germans and Macedonians.

Increased **consumption of more seasonal, regional and/or self-produced food** products was univocally perceived as a good opportunity by participants from all countries. Motivations ranged from expectations of cheaper, healthier and diversified food options (Macedonia), to financial arguments (Spain) and pro-environmental beliefs, better taste and increased product quality (UK). Using surplus food as market exchange currency was considered a positive approach by the Czech, German and Macedonian participants. Criticism was expressed towards the idea of less meat consumption by the Czech, Macedonian and UK participants.

Well received by the focus group participants was the *'Our circular community'* scenario, mainly due to its inclusion of citizens into the planning of societal processes and the promotion of resource efficient and circular models of production and consumption. Moreover, participants appreciated the possibility to engage in outdoor activities, to access local and decentralised renewable energy production, as well as in the possibility to obtain food directly from the farmers. Macedonian, Spanish and British participants expressed their preference on health activities and incentives, while participants in all countries showed appreciation for the efficient and longer usage of resources, materials and products. Notwithstanding, these positive perceptions, in all five countries, participants expressed concerns and doubts about the technological characteristics of this scenario in relation to the implied benefits and perceived invasion of one's life and privacy. Nevertheless, discussions were less controversial than in the first scenario.

When discussing **green spaces**, feedback mostly evolved around the idea of having outdoor gyms to exercise in parks. Discussions in the Czech Republic, Germany, Macedonia and the United Kingdom demonstrated how participants perceived outdoor gyms as an opportunity for easier access and uptake of more active lifestyles for different socio-economic groups. In these countries, some participants also expressed that it would be motivating to be able to exercise outdoors together with others. However, interestingly, some participants from Spain, Czech Republic and Macedonia found precisely these aspects demotivating and unpleasant.

Discussions on the area of **energy efficient housing** mainly focussed on the topic of an increased use of local and decentralised renewable energy, which was perceived as something very positive in all five countries. The southern countries, Spain and Macedonia, put a special emphasis on how well renewable energy production would work with the amount of sunlight available. Participants from the Czech Republic and Germany, however, also brought up that they disliked the outlook of wind farms.

When discussing **mobility**, participants of all countries expressed positive views towards the idea of multi-modal and digitally connected systems. Czech and Macedonian participants were driven by the opportunity of uninterrupted and efficient movement, while Macedonians (additionally) and Germans were motivated by the related convenience, as well the opportunity to preserve and further implement individual mobility choices. Czech, German and Macedonian participants appreciated the idea of financial rewards to

incentivise and increase the share of active mobility means, whereas the British perceived them as challenging due to their reservations about the role and influence of companies.

When discussing the **consumption of food and beverages**, focus group participants from Germany, Spain and the UK expressed satisfaction with the concept of purchasing food directly from the farmers, while Germans were motivated by the expected price reductions and the opportunity to circumvent large producers and their offerings. Spanish participants were motivated by the expected increase in market and social justice/ fairness. Macedonian and Spanish participants also considered the reduction of food waste as a rather positive consequence. British, Czech, German and Spanish participants considered the concept of 3D-printed meat to be difficult to grasp and accept. However, Czech and German participants agreed on potential benefits linked to it, such as increased like animal welfare.

A final reflection needs to be made with respect to patterns that have emerged during the analysis. In the context of the **INHERIT triple-win principle**, participants were mainly concerned and attentive towards the scenario attributes promoting health and environmental concerns, while health equity aspects were only marginally considered throughout the focus group discussions in all five countries. When thinking about the **behaviour determinants** driving participants' preferences for the different scenario attributes, from the analysis it emerged that the key ones are financial **motivation** and convenience as well as availability and accessibility to services and infrastructures in terms of **opportunities**. Family and social cohesion has also been repeatedly mentioned as a key factor and value influencing and shaping citizens lifestyle patterns.

Finally, despite the stated differences and identified countries patterns, European citizens, among others, ultimately, agreed that combining various scenario elements would lead to a more comprehensive and systemic approach for reaching future societies which are healthier, more equitable and sustainable.

The results of this citizen consultation, particularly the preferences expressed for certain characteristics of green space, energy efficient housing, active mobility and the consumption of food and beverage will inform the **Policy Kit**, which will be developed during the concluding year of the INHERIT project. It will contribute to highlight effective approaches for inter-sector interventions that lead to healthy and environmentally sustainable lifestyles and to the formulation of final recommendations for policy makers at the European, national and regional level.

References

- Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science and Medicine*, 14, 1667–1676.
- Edwards, R. & Holland, J. (2013). *What is qualitative interviewing?*. London: Bloomsbury.
- Georgina Guillen-Hanson, Rosa Strube, Arlind Xhelili, Collaborating Centre on Sustainable Consumption and Production (CSCP), INHERIT: Reaching the 'Triple-Win', Four Future Scenarios of a Healthier, more Equitable and Sustainable Europe in 2040. August, 2018.
- Glaser, B. G. (1992). *Discovery of grounded theory*. Chicago: Aldine.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.
- Guba, E. G., & Lincoln, Y. S. (1994). *Competing paradigms in qualitative research*. Thousand Oaks, CA: Sage Publications Inc.
- Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for qualitative data analysis triangulation. *School Psychology Quarterly*, 22, 557–584.
- Leech, N. L., & Onwuegbuzie, A. J. (2008). Qualitative data analysis: A compendium of techniques for school psychology research and beyond. *School Psychology Quarterly*, 23, 587–604.
- Masadeh, M. A. (2012). Focus Group: Reviews and Practices. In: *International Journal of Applied Science and Technology*, Vol 2, Issue 10, pp. 63-68.
- Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci*. 2011, 6:42.
- Morgan, D. L. (1996). Focus Groups. *Annual Review of Sociology*, 22, 129–152.
- Morgan, D. L., Krueger, R. A., & King, J. A. (1998). *The focus group kit (Vols.1–6)*. Thousand Oaks, CA: Sage Publications Inc.
- Orr, D. (1992). *Ecological literacy: Education and the transition to a postmodern world*. Albany, NY: State University of New York Press.
- Peek, L. & Fothergill, A. (2009). Using focus groups: lessons from studying daycare centers, 9/11, and Hurricane Katrina. In: *Qualitative Research*, Vol 9, Issue 1, pp. 31-59.
- Stokes, D. & Bergin, R. (2006). Methodology or methodolatry? An evaluation of focus groups and depth interviews. In: *Qualitative Market Research: An International Journal*, Vol 9, Issue 2, pp. 26-36.
- Stalmeijer, R.E., McNaughton, N. & Van Mook, W. N. K. A. (2014). Using focus groups in medical education research: AMEE guide No. 91. In: *Medical Teacher*, pp. 1-17.
- Strauss, A. (1987). *Qualitative analysis for social scientists*. Cambridge, UK: University of Cambridge Press.

1 Annex

1.1 Moderator script

INHERIT Focus Group Moderator script		
Actions for participants are in bold , questions for the group discussion in blue .		
Moderation and questions	Aim	Time
<ul style="list-style-type: none"> • Offer coffee or tea • Let participants sign consent form • Let participants sign sign-in sheet • Ask them to fill in short questionnaire (section 1 + 2) of the participant sheet • Turn tape on 	Ethics requirements First content input	10 min (before real meeting)
<p>Good afternoon. My name is (XXX) and this is my colleague (XXX). I'd like to start off by thanking each of you for taking time to participate today. We are here today to present to you 4 different scenarios that describe how our lives in cities in Europe could look like in 2040 with the aim to show how healthier, more sustainable and more equitable societies could look like. These scenarios were built as part of a European research project called INHERIT and as a next step of this work, we want to understand how you, some "normal" citizens, from their personal perspective and different life phases, feel about these scenarios. We will therefore ask you today to imagine you, with the age you have today, would be living in these scenarios we have created. We are conducting this same process in 5 European countries and will use the results to create policy recommendations for EU policy makers.</p> <p>I'm going to lead our discussion today. I will be asking you questions and then encourage and moderate our discussion.</p>	Introduce yourself and thank participants for agreeing to come	2 min
<p>I am not here to share information, or to give you my opinions. Your perceptions are what matter. We are not trying to achieve consensus, we're gathering information. There are no right or wrong or desirable or undesirable answers. You can disagree with each other, and you can change your mind. I would like you to feel comfortable saying what you really think and how you really feel.</p> <p>Before we start, I would like to set some ground rules, just to make it comfortable for everyone. First of all, I'm hoping for a discussion, so you do not have to agree with each other nor is there a wrong answer. Everyone doesn't have to answer every single question, but I'd like to hear from each of you today as the discussion progresses. I want this to be a group discussion, so feel free to respond to me and to other members in the group without waiting to be called on. However, I would appreciate it if only one person did talk at a time. Please do allow everyone to finish his or her sentence and do not start a side conversation. However, since I am</p>	Explain discussion rules and how long the focus group will last	2 min

<p>interested in all you have to say, it could be that I interrupt you, just to make sure we cover all the things I would to know of you in the available time.</p> <p>Let me know if you need a break. The bathrooms are located (XXX). Feel free to enjoy a beverage and a snack. Please turn off mobile phones if possible.</p> <p>Are there any questions?</p> <p>We'll be here for a bit more than two hours.</p> <p>I will record the discussion and (XXX) will take some notes in parallel. Everything you say during this focus groups will be saved anonymously and without any reference to you.</p>		
<p>Alright, I would like to start with an introduction round to get to know each other.</p> <p><i>I'd like to ask everyone to say his/her name, and to share one moment of the last weekend, where you felt satisfied and why. I will start. I will start: my name is [name], [household composition] and I felt very satisfied last weekend when [name moment] because [reason]."</i></p>	<p>Participant introduction</p>	<p>5 min</p>
<p>There will be two stages in which I will be asking you to participate in today.</p> <p>At the first stage we are going to watch videos of different scenarios – so pictures of the future - and I will ask your opinion about these videos.</p> <p>At the second stage you will see pictures and descriptions about some details of these different scenarios and I will ask you to choose in which of them you would like to live most and discuss on your preferences.</p> <p>Please take one thing into account when answering these questions – the scenarios are set in the year 2040, but when you think about the questions, please imagine you were in these scenarios at your current age.</p>	<p>Introduction to structure</p>	<p>2 min</p>
<p><i>Our scenarios take place in 2040, which is 22 years from today. Just to give you a feeling on the time span we are talking about, this is about as long away from today as when Dolly the Sheep was cloned, or as 1% of the global population had mobile phones.</i></p> <p><i>You will now see five short videos, one as an introduction, and then four ones which will show you different options on how our lives could look like in 2040. Each of them will be just over a minute, and for each scenario, one character will introduce you to how things look like then.</i></p> <p><i>Please note that these characters are fictional and can't represent EU population or ethics in the future</i></p>	<p>INTRO Video</p>	<p>3 min</p>

Have a look at the first video now and get to know all 4 characters.		
<p>Now you will see the first video of the four different scenarios of 2040 – it is called “My life between realities”.</p> <p>After watching this, you will be asked to answer two questions on your participant sheet:</p> <ul style="list-style-type: none"> ➤ From what you saw in the video, how satisfied would you be with your life in the future portrayed here? ➤ How likely do you think is it that this scenario will have become reality in (<i>insert respective country</i>) in 2040? <p>The same will happen for the other three videos. After this, we will have a short exchange about all the four videos.</p>	VIDEO 1 – My life between realities	2 min
Please take a minute to complete the questions A & B on your paper.	Get general feedback on how they liked the scenario	5 min
Now you will see the second video of the four different scenarios of 2040 – it is called “Less is more to me”. After watching this, you will again complete the questions on your paper.	VIDEO 2 – Less is more to me	2 min
Please take a minute to complete the questions C & D on your paper.	Get general feedback on how they liked the scenario	5 min
Now you will see the third video of the four different scenarios of 2040 – it is called “One for all, all for us”. After watching this, you will again complete the questions on your paper.	VIDEO 3 – One for all, all for us	2 min
Please take a minute to complete the questions E & F on your paper.	Get general feedback on how they liked the scenario	5 min
Now you will see the fourth video of the four different scenarios of 2040 – it is called “Our circular community. After watching this, you will again complete the questions on your paper.	VIDEO 4 – Our circular community	2 min
Please take a minute to complete the questions G & H on your paper.	Get general feedback on how they liked the scenario	5 min
<p>I am now putting up a reminder of these 4 scenarios that you just watched on the screen (<i>slide with pictures of all scenarios</i>) and I would like to hear from you:</p> <p>Q1: What did you particularly like about the society portrayed in the scenario videos you just saw? (This is not about how much you liked one of the characters)</p> <ul style="list-style-type: none"> ➤ Why so? ➤ How does it relate to what is important to you (your values)? ➤ How does it relate to your hopes of the future? ➤ How does it connect to your life today? <p>Q2: What did you particularly dislike about the society portrayed in the scenario videos you just saw?</p> <ul style="list-style-type: none"> ➤ Why so? ➤ Is this really different from what you think is important (your values)? 	Have a first open discussion on elements that strike participants most (Put up slide with reminder on videos)	20 min

<p>➤ How does it relate to your fears of the future?</p>		
<p>Now we will be turning to the second part of the exercise, where we want to look in more detail into four areas described in the scenarios. For this, I will ask you to first read about each of these areas on your sheet, think about them, before we discuss this in the group. This will happen for four topics.</p>	<p>Move to second part</p>	<p>1 min</p>
<p>“Green space” refers to parks, green public areas and nature close by human settlement. Please have a look at the four different future descriptions of green space. Imagine you could choose a scenario to live in. Please rate, which scenario of green space you would be most satisfied living in (1) to the one that you would be least satisfied living in (4). We will discuss your choice and the reasons for it in the group.</p>	<p>Discussion on green space. Picture and description of the 4 different scenarios for green spaces</p>	<p>5 min</p>
<p>Q3: Please explain which scenario you would choose to live in and why.</p> <ul style="list-style-type: none"> ➤ Does anyone feel similar about this? ➤ Does someone have anything to add? ➤ Does someone have anything else to say about this? ➤ How does the situation described in the scenario differ from your reality today? ➤ If you were living in the scenario, would you make more use of the green space than today? ➤ Does anyone have a different view on this? 	<p>Discussion</p>	<p>10 min</p>
<p>“Energy efficient housing” refers to how flats and houses are isolated, heated and cooled. Please have a look at the four different future descriptions of energy efficient housing. Imagine you could choose a scenario to live in. Please rate, which scenario of energy efficient housing you would be most satisfied living in (1) to the one that you would be least satisfied living in (4).</p>	<p>Discussion on energy efficient housing. Picture and description of the 4 different scenarios for energy efficient housing</p>	<p>5 min</p>
<p>Q4: Please explain which scenario you would choose to live in and why.</p> <ul style="list-style-type: none"> ➤ Does anyone feel similar about this? ➤ Does someone have anything to add? ➤ Does someone have anything else to say about this? ➤ How does the situation described in the scenario differ from your reality today? ➤ If you were living in the scenario, would you use less energy in the household than today? ➤ Does anyone have a different view on this? 	<p>Discussion</p>	<p>10 min</p>
<p>“Active mobility” describes mostly that part of the transport system, that uses biking and cycling. Please have a look at the four different future descriptions of active mobility. Imagine you could choose a scenario to live in. Please rate, which scenario of active mobility you would be most satisfied living in (1) to the one that you would be least satisfied living in (4).</p>	<p>Discussion on active mobility. Picture and description of the 4 different scenarios for consumption</p>	<p>5 min</p>
<p>Q5: Please explain which scenario you would choose to live in and why.</p>	<p>Discussion</p>	<p>10 min</p>

<ul style="list-style-type: none"> ➤ Does anyone feel similar about this? ➤ Does someone have anything to add? ➤ Does someone have anything else to say about this? ➤ How does the situation described in the scenario differ from your reality today? ➤ If you were living in the scenario, how would you get from A to B compared to today? ➤ Does anyone have a different view on this? 		
<p>“Consumption” here is mostly about food and drink consumption. Please have a look at the four different future descriptions of consumption. Imagine you could choose a scenario to live in. Please rate, which scenario of consumption you would be most satisfied living in (1) to the one that you would be least satisfied living in (4)</p>	<p>Discussion on consumption. Picture and description of the 4 different scenarios for active mobility</p>	<p>5 min</p>
<p>Q6: Please explain which scenario you would choose to live in and why.</p> <ul style="list-style-type: none"> ➤ Does anyone feel similar about this? ➤ Does someone have anything to add? ➤ Does someone have anything else to say about this? ➤ How does the situation described in the scenario differ from your reality today? ➤ If you were living in the scenario, how would you eat and drink compared to today? ➤ Does anyone have a different view on this? 	<p>Discussion</p>	<p>10 min</p>
<p>Though there were many different opinions about _____, it appears unanimous that _____. Does anyone see it differently? It seems most of you agree _____, but some think that _____. Does anyone want to add or clarify an opinion on this?</p> <p>Is there any other information regarding your experience with or following the workshops that you think would be useful for me to know?</p> <p>Thank you so much for coming and sharing your thoughts and opinions with us. Your time is very much appreciated and your comments have been very helpful.</p>	<p>Closing</p>	<p>5 min</p>

1.2 INHERIT Participant Sheet

Section 1

Personal Information

1. Please indicate your gender

Female

Male

Other

2. What is the highest level of education you have attained?

Less than primary education

Primary education

Lower secondary education

Upper secondary education

Post-secondary non-tertiary education

Short cycle tertiary education

Bachelor's or equivalent level

Master's or equivalent level

Doctoral degree

Not elsewhere classified

3. In what year were you born?

4. Including yourself, how many people live in your household at present?

1

2

3

4

- 5
- 6
- 7 and more

6. How many (if any) children under the age of 18 live with you in your household?

- 1
- 2
- 3
- 4
- 5 and more

Your Name, Surname: _____

_____ **this section will be filled out by moderator** _____

Date:

Focus Group Session #

Section 2

General questions

- 1. Different people have different values. Please indicate on the following scale how important each of these is as a guiding principle in your life by circling the value.**

	Opposed to my values	Not important			Important			Very important	Of supreme importance
A world of peace (free of war and conflicts)	-1	0	1	2	3	4	5	6	7
Equality (equal opportunity for all)	-1	0	1	2	3	4	5	6	7
Social justice (righting injustice, care for the weak)	-1	0	1	2	3	4	5	6	7
Preventing environmental pollution (protection of natural resources)	-1	0	1	2	3	4	5	6	7
Respecting the earth (harmony with other species)	-1	0	1	2	3	4	5	6	7
Authority (the right to lead or command)	-1	0	1	2	3	4	5	6	7
Influence (having an impact on people and events)	-1	0	1	2	3	4	5	6	7
Wealth (material possessions, money)	-1	0	1	2	3	4	5	6	7
Protecting the environment (preserving nature)	-1	0	1	2	3	4	5	6	7
Pleasure (joy, gratification of desires)	-1	0	1	2	3	4	5	6	7
Enjoying life (enjoying food, sex, leisure etc.)	-1	0	1	2	3	4	5	6	7
Self-indulgent (doing pleasant things)	-1	0	1	2	3	4	5	6	7
Healthy (not being sick physically or mentally)	-1	0	1	2	3	4	5	6	7
Sense of belonging (feeling that others care about me)	-1	0	1	2	3	4	5	6	7
Reciprocation of favours (avoidance of indebtedness)	-1	0	1	2	3	4	5	6	7
Family security (safety for loved ones)	-1	0	1	2	3	4	5	6	7

- 2. All things considered, how satisfied are you with your life as a whole nowadays?**

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely dissatisfied</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely satisfied</i>
-------------------------------	---	---	---	---	---	---	---	---	---	---	----	----------------------------

Section 3

Overall scenarios

VIDEO 1 – My life between realities



a). From what you saw in the video, how satisfied would you be with your life in the future portrayed here?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely dissatisfied</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely satisfied</i>
-------------------------------	---	---	---	---	---	---	---	---	---	---	----	----------------------------

b). How likely do you think is it that this scenario will have become reality in **Germany** by 2040?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely unlikely</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely likely</i>
---------------------------	---	---	---	---	---	---	---	---	---	---	----	-------------------------

VIDEO 2 – Less is more to me



c). From what you saw in the video, how satisfied would you be with your life in the future portrayed here?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely dissatisfied</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely satisfied</i>
-------------------------------	---	---	---	---	---	---	---	---	---	---	----	----------------------------

d). How likely do you think is it that this scenario will have become reality in **Germany by 2040?**

(Please circle your answer on the scale,, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely unlikely</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely likely</i>
---------------------------	---	---	---	---	---	---	---	---	---	---	----	-------------------------

VIDEO 3 – One for all, all for one



e). From what you saw in the video, how satisfied would you be with your life in the future portrayed here?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely dissatisfied</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely satisfied</i>
-------------------------------	---	---	---	---	---	---	---	---	---	---	----	----------------------------

f). How likely do you think is it that this scenario will have become reality in **Germany** by 2040?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely unlikely</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely likely</i>
---------------------------	---	---	---	---	---	---	---	---	---	---	----	-------------------------

VIDEO 4 – Our circular community



g). From what you saw in the video, how satisfied would you be with your life in the future portrayed here?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely dissatisfied</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely satisfied</i>
-------------------------------	---	---	---	---	---	---	---	---	---	---	----	----------------------------

h). How likely do you think is it that this scenario will have become reality in **Germany** by 2040?

(Please circle your answer on the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied)

<i>extremely unlikely</i>	0	1	2	3	4	5	6	7	8	9	10	<i>extremely likely</i>
---------------------------	---	---	---	---	---	---	---	---	---	---	----	-------------------------

Section 3: Scenario Specific Areas

Green Space

“Green space” refers to parks, green public areas and nature close by human settlement. Please have a look at the four different future descriptions of green space. Imagine you could choose a scenario to live in. Please rate, which scenario of green space you would be most satisfied living in (1) to the one that you would be least satisfied living in (4). We will discuss your choice and the reasons for it in the group.

	My life between realities	Less is more to me	One for all, all for us	Our circular community
How green spaces look like and how they are used?	 <p>Small share of green spaces is virtual</p> <ul style="list-style-type: none"> ◆ Many companies provide their employees with virtual reality glasses, which they can use at home and virtually experience green space and relax. ◆ This makes it easier to enjoy green space for people who don't have a park or forest close to their homes. ◆ People go to the “real” green space just from time to time. 	 <p>Green corridors, parks, forests</p> <ul style="list-style-type: none"> ◆ In cities, many streets and parking lots have been transformed into parks and green corridors, which people now use for relaxing outdoors and also for getting from A to B via bike, inline skates or walking. ◆ In rural areas, new forests are created. 	 <p>Community gardens, parks, forests</p> <ul style="list-style-type: none"> ◆ In cities, what used to be streets before is now used as community gardens, parks and by a number of local groups that jointly do sports, arts or social activities in the parks. ◆ In rural areas, community groups organise joint activities in the nature. 	 <p>Outdoor gyms in parks and forests</p> <ul style="list-style-type: none"> ◆ Most parks and some popular spots in nature are equipped with outdoor gyms, fostering joint sport activities. Digital screens show users how many health points they have gained with their activities. ◆ It is also possible to connect e.g. to spinning classes in the park virtually via virtual reality glasses.
Who is responsible for green spaces?	<p>Companies sponsor virtual spaces while the physical ones are jointly created by governments and companies</p>	<p>Government sets minimum share of green spaces and subsidizes their creation by professional gardeners</p>	<p>Local authorities support citizen groups to define the characteristics of green spaces and built them through local community activities</p>	<p>State, municipalities, companies and citizens jointly create and equip green spaces. Governments provide the space, companies support financially and citizens engage in their design</p>
Your ranking				

Energy Efficient Housing

“Energy efficient housing” refers to how flats and houses are isolated, heated and cooled. Please have a look at the four different future descriptions of energy efficient housing. Imagine you could choose a scenario to live in. Please rate, which scenario of energy efficient housing you would be most satisfied living in (1) to the one that you would be least satisfied living in (4). We will discuss your choice and the reasons for it in the group.

	My life between realities	Less is more to me	One for all, all for us	Our circular community
How energy efficient housing looks like and how they are used?	 <p>Smart homes optimise energy consumption</p> <ul style="list-style-type: none"> ◆ Large scale renewable energy installations provide energy to houses. ◆ All energy related and electric devices in the household are virtually connected. ◆ The behaviour of humans within the house, such as air quality are carefully monitored and integrated into the smart home. 	 <p>Saving space and energy where possible</p> <ul style="list-style-type: none"> ◆ New standards ensure that new houses become more customizable to the needs of the inhabitant. This way, no living space needs to be wasted when family sizes change together with their spatial needs ◆ Energy efficiency of houses is improved through government subsidies ◆ Citizens are more aware about how to save energy 	 <p>Local retrofitting and co-housing</p> <ul style="list-style-type: none"> ◆ Multi-generation co-housing solutions also provide improved living conditions for older people and more efficient use of living space. ◆ Local bio-based materials are used for refurbishment to satisfy citizens’ needs for heating/cooling/ lighting. ◆ “Train the trainers” initiatives help people to build and repair things together with their neighbours. 	 <p>Renewable energy and bio-based solutions</p> <ul style="list-style-type: none"> ◆ Large and small companies offer connected systems of small scale and large scale renewable energy production, local electricity grids and energy highways between regions. ◆ A system of shared energy using devices like electric vehicles or washing machines supports storage of energy. ◆ Renewable bio-based solutions replace fuels to heat houses.
Who is responsible for the energy efficient housing?	<p>Large companies have created a portfolio of different renewable energy offers and energy efficient appliances of different price levels</p>	<p>Government has heavily invested into campaigns to inform and motivate people to save energy in their houses.</p>	<p>Local authorities have supported refurbishment and construction of houses using reused and local materials.</p>	<p>Energy companies, often in collaboration with administrations and citizen groups have fully switched to renewable energy production</p>
Your ranking				

Active Mobility

“Active mobility” describes mostly that part of the transport system, that uses biking and cycling. Please have a look at the four different future descriptions of active mobility. Imagine you could choose a scenario to live in. Please rate, which scenario of active mobility you would be most satisfied living in (1) to the one that you would be least satisfied living in (4). We will discuss your choice and the reasons for it in the group.

	My life between realities	Less is more to me	One for all, all for us	Our circular community
				
How transport systems look like and how they are used?	<p>Highly connected, electrified and autonomous transport system</p> <ul style="list-style-type: none"> ◆ Public transport is highly interconnected and efficient. ◆ Price incentives are given for the use of public transport, biking and walking, while individual car use becomes more expensive. ◆ Shared self-driving cars help to connect public transport to more rural areas. 	<p>Infrastructure makes biking and walking pleasant</p> <ul style="list-style-type: none"> ◆ Better, safer and more comfortable cycling and walking paths make it easier for people of different ages to move via bike or walking. ◆ Individual cars use is restricted in urban areas. ◆ Campaigns and education show the personal health benefits of active mobility to citizens. 	<p>Reduced mobility in short distance cities</p> <ul style="list-style-type: none"> ◆ Cities and towns are characterised by living environments of short distances for local companies, the job place, schools and public services. ◆ The need for motorised transport is drastically reduced. ◆ Public transport, including bike sharing schemes, is well developed 	<p>Connected system encourages e-bike and bike use</p> <ul style="list-style-type: none"> ◆ Different mobility modes are connected digitally, leading to easy changes from train to bus to e-bike and bike. ◆ Individual cars become less attractive due to higher costs. ◆ Technology also maximizes interactions between citizens, e.g. via apps that encourage users to move by providing group competitions.
Who is responsible for the transport systems?	<p>Companies and health insurances offer benefits to citizens for distances covered by walking or biking</p>	<p>Government sets a plan to transform more and more streets to cycling and walking paths, while advertising their benefits</p>	<p>Local governments have planned their cities and towns with the aim of short distances</p>	<p>Companies reward active commuting of their employees by providing financing models for e-bikes and reward schemes for people commuting by bike or walking.</p>
Your ranking				

Consumption

“Consumption” here is mostly about food and drink consumption. Please have a look at the four different future descriptions of consumption. Imagine you could choose a scenario to live in. Please rate, which scenario of consumption you would be most satisfied living in (1) to the one that you would be least satisfied living in (4). We will discuss your choice and the reasons for it in the group.

	My life between realities	Less is more to me	One for all, all for us	Our circular community
				
How food consumption looks like?	<p>Complete transparency and personalised food</p> <ul style="list-style-type: none"> ◆ Consumers can pick between food and drink with introduced personalized nutrients based on their health condition ◆ Scientists have succeeded in growing meat in laboratories using cells from actual animals ◆ Value chains of food and drinks are completely transparent and accessible to consumers 	<p>Unhealthy and unsustainable food options become expensive</p> <ul style="list-style-type: none"> ◆ Food with positive effects on personal health or environment is cheaper than other food due to governmental measures. ◆ Awareness campaigns have increased citizens understanding and support for the changed diets. ◆ Diets have now a very low share of meat and include fruits and vegetables that many people cultivate themselves. 	<p>Self-grown and seasonal food from the region</p> <ul style="list-style-type: none"> ◆ Food consumption has taken a more local, seasonal and traditional approach, with high share of vegetables and fruit and very little meat ◆ Growing a part of the daily food on your own has become almost a norm, be it in private gardens or more common in shared community gardens with neighbours ◆ Food is often used as a currency for exchanges among neighbours 	<p>Technology shortens food value chains</p> <ul style="list-style-type: none"> ◆ Farm to fork services are enabled by technology to create direct virtually connected relationships between farmers and consumers ◆ Food grown at the farm nearby or further away can be ordered via an app directly at the farmer, which increases also the consumers’ appreciation for the food and leads to less food waste ◆ Meat is 3D-printed, reducing environmental impacts while having an almost authentic eating experience
Who is responsible for the food consumption?	<p>Large companies have an increasing knowledge on food preferences and health needs of consumers and provide personalised products</p>	<p>Government has intervened with communication and financial instruments to shift food consumption patterns</p>	<p>Local governments have defined food action plans for their regions, supporting the availability of fruit and vegetable at good prices for all</p>	<p>Start-ups and larger companies have together with consumers developed a number of food innovations and communication platforms that change consumption patterns</p>
Your ranking				

1.3 Coding book

The codes used for the qualitative content analysis, as used in this report, have been derived by the core components of the INHERIT Common Analytical Framework (CAF). These were combined with the key unit under analysis, namely the INHERIT scenarios and areas, and with the socio-economic indicators of the focus group participants, such as gender, age, income and education level, life satisfaction etc. Furthermore, additional codes also emerged throughout the analytical coding process, such as: policy recommendations, perceived fear and inequalities, perceived risk/challenge. The below table provides a summary of the whole coding system applied.

Main Code Group	Sub coding	Sub coding	
INHERIT scenarios	My life between realities		
	Less is more to me		
	One for all, all for one		
	Our circular community		
INHERIT areas			
	General level		
	Active mobility		
	Consumption of food & beverages		
	Living		
		Energy efficient housing	
		Green spaces	
	Behaviour change drivers		
		INHERIT Triple Win	
		Health	
		Health equity	
		Environment	
Capabilities			
		Skills	
		Knowledge & Understanding	
		Others	
Motivations			
		Moral (i.e. social justice)	
	Social/Family cohesion		
	Pleasure/Enjoying life		
	Authority		
	Safety		
	Social Norms		

		Financial
		Convenience
		Others
	Opportunities	
		Socio-economic factors
		Monetary
		Time
		Infrastructures/Services
		Others
Scenario preferences1 (Satisfaction)		
	Low preference	
	Medium preference	
	High preference	
Scenario preferences2 (Reality check)		
	Low possibility	
	Medium possibility	
	High possibility	
Income group	Low	
	Medium	
	High	
Education level		
	Low (secondary education)	
	Medium (higher secondary education/Bachelor degree)	
	High (Master/PhD)	
Age group		
	Youth (18 – 29)	
	Adult (30 – 64)	
	Senior (65 – 100)	
Gender		
	Female	
	Male	
Life satisfaction	Low (0-4)	
	Medium (5-7)	
	High (8-10)	

Number of people in household		
	1 person	
	2 persons	
	3 to 4 persons	
	5 to 6 persons	
	More than 7 persons	
Additional factors		
	Actor role	
		Citizens
		Business
		Government
	Policy recommendations	
	Inequalities	
	Perceived fear	
	Perceived challenges/risks	