

## Critical challenges and solutions in the scenario Local Loops

### Q1. How to avoid biodiversity decline and soil fertility loss caused by local resource overuse and competition for land allocation between energy and food production?

1. There is strict regulation based on global treaties on biodiversity and other environmental issues. These treaties are linked to a global trading scheme on the limits of globally traded commodities. Regulation ensures that everywhere 10% of the land and water areas are protected as biodiversity reserve. This limits the use of these areas for building, farming, transportation or recreational use.
2. Living in resilient mid-sized towns with surrounding production areas and nature reserves make people aware of and able to enjoy biodiversity and different types of living ecosystem services.
3. Values of localism steer people to favour local tourism. Local biodiversity reserves come to have great recreational significance and to be sources of regional pride.
4. Breakthroughs in solar technology enable roofs, walls and windows to be used as local, customized means of energy production. Locally developed technologies offer reference solutions.

### Q2. How to avoid inefficiencies that result from the decrease in global competition?

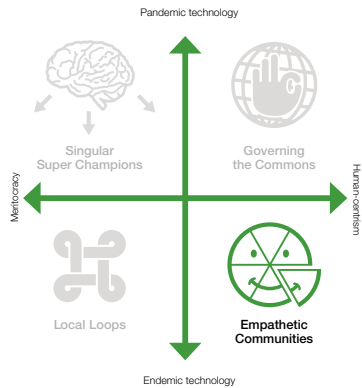
1. Technology focuses on local, bottom up solutions that use resources efficiently as a result of high expertise and experience of local professionals. Benchmark cases on best solutions are provided with public support and are open for everyone to utilise.
2. Local maintenance, reuse and recycling services are widely available and supported by product design. People favor the use of these services. Longevity and user-centric tailoring of products is ensured by a broad range of local professionals.

### Q3. How to avoid status competition based on material consumption triggered by elites and their access to natural resources?

1. Work is seen as a more interesting field for status competition than consumption, which further strengthens the impetus to use more services instead of material goods.
2. People value local, service-based consumption and are aware of its role as the engine of the local economy.
3. Tight guild and neighbourhood communities result in shared ownership of goods and spaces so that people's homes are smaller and less equipped. People appreciate individual and tailored, long-living products maintained and personalized by the local service providers.
4. As a result of the insecurity caused by peak oil and global resource use, people have placed their trust in expert-oriented local decision-making. People appreciate transparent Local Loops and trust in the self-regulation of guilds.



# Empathetic Communities



# Empathetic Communities

Alternative Sustainable Society 4: Supporting 8 000 kg Sustainable Lifestyles

*Empathetic Communities is a scenario where Western societies faced a crisis they had long dreaded, and how the change turned out to be easier and more fruitful than anyone had expected. It is a story in which the global economy as we knew it in 2012 fails, followed by paralysis of nation states and their political decision-making structures. By 2050 this all leads to lifestyles in which the community and neighbourhoods have an important role in everyday life. New forms of collaboration and governance grow on the level of cities and towns making them the most powerful level of public decision-making. In Empathetic Communities the many fruits of global culture and advancements in latest technologi-*

*cal innovation are enjoyed, although people in general focus on communicating and developing solutions on the local level.*

The breakdown of the economic system and nation states has its roots in resource constraints, decline in trust in financial institutions and the public debt crisis. Many European regions never recovered and a growing number of people faced difficulties finding jobs, income and livelihoods. Increased risks in the financial markets led to dramatic interest rate hikes, which drove several major industries into bankruptcy and evoked a breakdown of value chains.

Most of the governments could simply not afford to bail out these companies as they had before. The result was a political crisis where cabinets stepped down and the formation of new, trusted government turned out to be impossible. When both the economy and national politics were in a state of paralysis, people started organising "Plan B" solutions on local and regional levels. This development pushed forward reforms that helped companies, individuals and local authorities to re-focus on nurturing the local economy. Gradually cities and towns increased their political power over dysfunctional nation states.

The birth of a society of Empathetic Communities was not, however, only the result of an economic crisis. In the early 2020s a new view on human nature started to gain popularity. New research at that time showed an increasing amount of evidence on genuinely altruistic features in primate and human behaviour. The way people perceived

their own place at work, in their community, in their families and in society at large started to change.

New types of collaborations and innovation both technological and social, emerged and helped people to reform political decision-making and workplace practices. This created huge efficiency gains in organizations. Compared to preceding generations, people in 2050 feel that collaborating and sharing duties, spaces and goods with other people is a natural and pleasant part of their life.

The simultaneous decline of nation states and the global economy, together with the new rise of collaborative norms in all aspects of human life, gave impetus to new local governance models. During an era of high unemployment many people started exploring new and alternative ways to improve living conditions for themselves and their peers. Hundreds of experiments with local energy and food production, energy retrofitting and different types of peer-to-peer services provision started to take place all over Europe. Gradually these projects grew into larger local initiatives in which entrepreneurs, community leaders, civil servants and politicians joined forces to build the new foundations for a local economy. Cooperatives developed step by step into providers of local education, health and social services, sources of secondary income and platforms for local infrastructure and construction projects.

In Empathetic Communities people spend a great part of their leisure time in activities that take place within their neighbourhood. It is through these gatherings that co-created innovations de-

velop. This in turn creates new types of (economic) activity. Frequent encounters in public spaces create opportunities for ideas and initiatives on new collaborative projects, services and businesses. Daily practices and lifestyles are formed strongly around collective activities and sharing.

One of the greatest changes people experienced over one generation relates to the use of their surroundings and physical infrastructure. People understand courtyards, streets and different types of shared indoor-spaces as something that is in their shared possession and in active use.

## How are sustainable lifestyles achieved?

The breakdown of the global market economy changed people's lives permanently. As global and national structures could no longer be trusted, people increasingly turned to look after themselves and each other. Communities and neighbourhoods became key elements in people's lives as global transactions decrease in number. Apartments and public spaces are shared and used for many functions.

There is a real scarcity of energy, food and many other products in Empathetic Communities. When prices soar to ridiculously expensive levels new solutions start to emerge. After all, people still have the high skill-levels and access to information that industrial and knowledge economies delivered in the 20th century. People and their communities learned to cope with new circum-

stances and some of the most wasteful lifestyles patterns were abandoned.

The infrastructure in Empathetic Communities is mainly the same in 2050 as it was in 2012. However, what has changed is the way it is used. For example transportation and mobility is of little significance. Hence, streets and roads built in the 20th century and in early 21st century, are either transformed to farming land or adjusted to support healthy mobility, such as cycling and walking.

There is smart housing design and diverse retrofitting of existing buildings. As global production chains lose significance, local production rises in importance. Food and other necessities are provided locally. Urban farming spreads everywhere. People helping one another becomes an essen-

tial element of the society and a guiding principle for everyday life. Cities fragment into villages that aim for self-sufficiency meaning that food people eat is seasonal and locally grown.

### Empathetic Communities scenario narrative – how did it all happen?

- » The system breaks down
- » “We can” generation works together
- » Public, private and people (PPP) – the new welfare
- » Communitisation of urban planning

**These drivers are depicted as events on the timeline.**

## What is life like in the Empathetic Communities?

What changes between 2012 and 2050?	
<b>Education</b>	Education and learning are problem-based and collaboration-driven.
<b>Work</b>	Work happens collaboratively in hubs and people learn through asking for input from colleagues. Hands-on work is highly valued. Work is neighbourhood-based and aims at contributing to the community.
<b>City</b>	Village infill from sprawl to farm village. Parking lots are turned into places of food production. The public space gains great significance. Villages within cities are key elements in the urban fabric.
<b>Health</b>	Paradigm of quality over quantity characterizes the health-care system. This means that the meaningfulness of a person's lifespan is seen as more important than the amount of years lived. Local administration prioritizes health-care and healthy living. Every municipality has a hospital. Healthy-living-circles share preventative knowledge locally.
<b>Living</b>	Farming opportunities raise property values. People live in shared apartments and make use of shared spaces.
<b>Food</b>	Growing food in urban farming circles meets local food demand. Food transportation needs are very low. In addition to production, high importance is also placed on food quality, and distribution.
<b>Mobility</b>	Local mobility is emphasized and less road space is devoted for private vehicles. Old and new infrastructure is adapted to cycling.
<b>Consumption</b>	Consumption is geared towards meeting people's basic needs. Sharing, swapping and renting succeed private ownership.
<b>Economy</b>	The economy is organized around the self-sufficiency of small units. Food production is prioritized. Experimentation happens on the local level and high value is given to community activities.
<b>Sense of security</b>	Sense of security is generated by communities, closed circles, cooperatives as well as by health and food circles. PPP-systems guarantee participation and sense of ownership in public and social affairs.
<b>Leisure time</b>	Leisure time is mostly public and used for social activities, e.g. in gardening circles. Vacations provide time for self-reflection.

## The system breaks down

2015: Unemployment in many European countries and in the USA remains high due to the effects of austerity measures on public budgets, and because of a hesitant mood in the business world, an ageing pool of consumers and a continuing decline in manufacturing jobs.



*I get most of my daily groceries through urban farming pools that exist around the city. Some of the food I receive directly from our neighbourhood garden. I only buy from supermarkets what I cannot get easily get through these channels.*

2017: The high price of energy and other natural resources affects household budgets with prices of food, mobility and electricity soaring.

2018: GDP is replaced with more adequate indicators for tracking social development and progress in sustainability. Health, happiness and an individual's ecological footprint are among the aspects measured.

*Together with my family, I participate in huge demonstrations to support energy efficient policies and protest against the inability of government to provide people with a decent livelihood in this era of expensive oil.*



## The "We can" generation works together

2015: A new television show format, "The Altruist", turns out to be a huge success all over the world. The concept is created in the Netherlands, but within couple of years it spreads across Europe and becomes localized. Contrary to the hundreds of competitive TV-show formats of the past 50 years, the show celebrates empathy and the capacity for collaboration. For many, this symbolizes a turning point in prevailing thinking about human nature.



2018: People's interest in studying examples and experimental projects around the "science of empathy and compassion" grows rapidly.

## Public, private and people (PPP) – the new welfare model

2015: The organization of work changes due to long recession and high unemployment. More and more people start to work outside of traditional companies.

2018: People in many regions are stimulated to find new ways to secure income, built on mutual help and affordable access to basic resources such as energy and food. The result is a new boom in cooperatives that employ people and help them to create local versions of sustainable lifestyles.

## Communitisation of urban planning

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

*Here in Nijmegen children grow up participating in communal activities from a young age as part of the local social environment. Learning by doing is emphasised.*

2015

2020: Due to high unemployment and rising prices, people have time to start experimenting with local production of energy and food.

2021: New models of local collaboration emerge around energy and food safety.

2020: Applications of the Science of Empathy have had a significant supportive impact on such fields as collaborative consumption and the organisation of work.

*At school, kids want to do their homework and even exams together with other kids. This is because the hugely popular TV series *The Altruist* is running in its fifth year and is being copied in schools.*



2022: The financial markets face severe crisis. Several big banks collapse as a result of the bankruptcies of big companies, the bubble in energy markets, turmoil in real estate markets, uncontrolled risk-taking and perverse incentives for managers and CEOs working in hedge funds.

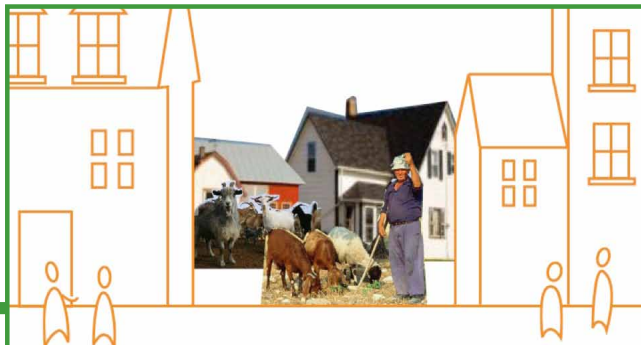


*"Most of the space outside our building is for farming use. We had to pay a substantial amount for a plot to grow our food, but now we produce enough for our neighbours, as well."*

*I used to work in the finance sector, but I gained and lost money at an incredible speed, which led to a horrible personal situation. I want to work hands-on from now on.*

2025: As the 'Twin crisis' of financial markets and national politics persists for several years, an increasing number of towns decide that energy and food security must be addressed through new policies and ways of organizing at the local level.

2025: A new Europe-wide network of "villages in towns" is established. Members of the network establish urban farming cooperatives in their neighbourhoods and start negotiating with municipalities, real-estate owners and inhabitants for access to under-used land for farming purposes.



**2020**

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

**2025**

## The system breaks down

2026: In many countries governments resign and it turns out to be impossible to form new coalitions, which paralyzes national politics and public investments.

2028: The absence of dynamic global markets results in extreme energy and food scarcity. People rely on their immediate circle to guarantee access to food and other basic commodities. Products are used as efficiently as possible.

## The "We can" generation works together



*I do most of my work at hub-like office spaces that exist everywhere. I like these collaboration spaces as I find them stimulating. They spur on new innovations as I meet more and more new people.*

2027: Given the high and persistent unemployment, many local communities have adopted new practices for peer-to-peer networking based on the latest understanding of people's capability for empathy and collaboration. The shift from ownership to access is fostered. This means more and more products are shared and consumption is very needs-based.

## Public, private and people (PPP) – the new welfare model

2028: Visionary politicians, entrepreneurs and civic leaders gather and unite local (human, material and financial) resources to reform existing infrastructure and service provision to match the new political reality.

## Communitisation of urban planning

*I am really looking forward to the BBQ night next week. I like it when co-housing communities decide to cook and eat together on a regular basis. This builds community*

2028: "Villages in towns" start to develop local nutrition cycles through collecting organic waste and helping inhabitants build their own dry-toilets. The idea of town villages spreads fast and soon shapes the geography of many European towns and cities.



2030: While lack of both public and private money in R&D slows down the dissemination of new innovations, applications of the 'technology of empathy' seem to be an exception and they pick up pace in comparison to other fields.

*Health is of the highest importance in local administration and in every municipality here in the Netherlands, as it is in all other European countries.*


2030: The most successful modifications of the new Public-Private-People-model (PPP) gain plenty of attention at a time when most of the regions of Europe are hampered by rocketing energy and food prices and occasional shortages.



*My monthly output of soil is enough to support my own farming needs. I get my soil through my super-efficient dry toilet and compost.*



**2030**




At any given time, I'm part of at least five different co-operatives that are involved in hobbies, food and elderly care – all of the necessities of life are provided for by making communities resilient. The rapid decline of public welfare has forced people to start looking after themselves.

2035: Towns and regional councils in different countries resize their power to compensate for the dysfunctionality of national governments and global markets.



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



Every day I actively offer my tools for other people to share. This means that when I have a vacuum cleaner, my community can use it as well.


2034: The biggest technological boom since the arrival of the internet and mobile phones is created as new applications are developed at local and global level. These include many things from neural scanners that help to detect when you are feeling empathy to network tools that reflect how other people are feeling and training courses in reinforcing the benefits of compassionate actions within groups.

Here in Croatia spontaneous neighbourhood dancing sessions are a sign of trust and healthy community.

At election time, I support acts, like a lower tax on local food, not a person or a party. This leads to a more participatory political system, as elected politicians are no longer the key.



Active farming classes educate children to become adequate farmers knowledgeable in sustainable methods. This type of education emerges in schools all over Europe.




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

I share a 140m<sup>2</sup> apartment with my parents, my friend Christina and her parents and my mother's long-time friend Jan. 20 years ago the same apartment was home to an elderly couple. Apparently their design for using the space wasn't as clever as ours. My parents built me my own room last month. It took us one weekend.

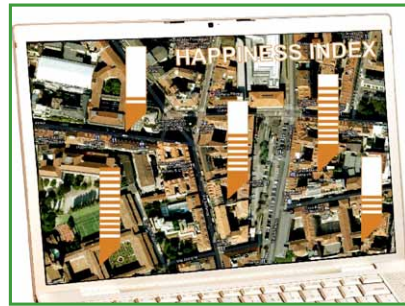
2035: In many cities and towns local PPP-councils have focused their efforts on establishing accessible public spaces for every neighbourhood and village.

Unfortunately we had a series of conflicts between different neighbourhoods here in Madrid, over how to share land that was freed up from car use.

## 2035

## The system breaks down

2038: Solutions of emerging cities, towns and regions focus on creating a new kind of local economy and new type of shared power between the public sector, companies and individuals.



*Each neighbourhood's average level of happiness is something I follow closely when I'm looking to change apartments. The index allows me to spot the happiest areas to live in – I want to know about more than the material offerings of the area.*

2040: The United Nations is practically transformed into United Cities, Towns and Regions as the significance of the nation state diminishes. A new Global Trade Council is formed through which micronations manage trade and commerce.

2040: Political participation takes place at the local level and new methods of direct decision-making are introduced.

*As most of my time is spent working and collaborating in very social settings, I spend my holidays going somewhere where I can be by myself in silence and reflect on past experiences and feelings.*



## The "We can" generation works together

2038: A group of initiators that allocate local resources emerges. They set up experiments on ways to take care of local resources through new types of long-term planning of e.g. rare minerals.

*I use a new service that provides efficient intra-city product logistics through a network of bicycles that deliver products wherever and whenever.*



2040: The generation of people who have grown up within the empathy paradigm gain permanent positions in politics, companies and communities.

2041: Several micronations have adopted new decision-making processes assisted by Technology of Empathy tools. These tools make it possible to engage citizens at new levels, and they help in creating consensus on many far-reaching issues that in the previous era of party politics became locked in stalemate.

## Public, private and people (PPP) – the new welfare model

2037: One of the most successful methods of PPP has been the formation of neighbourhood cooperatives. These structures were kickstarted with the help of municipalities and PPP voluntary groups that went to advise neighbourhoods on how to organize peer-to-peer services, start their own energy and food production, gather resources for infrastructure alterations and how to form sustainable models for collaboration.

*Some of my friends are educated to help the elderly. They're the most respected individuals among my friends.*

2040: One million European cooperatives agree on open source standards for their technologies and ways of organizing. The standards require mutual help from cooperatives in teaching the best possible methods. The history of the new agreement goes back to open source entrepreneurs from the Nordic countries in the early 2000. These entrepreneurs argued that everybody would have something to offer for the society if only they were provided with the access to the data.

*I'm pursuing an option to attend a program that allows me to move into a better functioning neighbourhood. I know I have to work hard there, but I really appreciate that more prestigious communities arrange these type of PPP possibilities.*

## Communitisation of urban planning

2037: Funds are collected from individuals, local enterprises and municipalities to form plazas, inner courtyards, meeting spaces and neighbourhood assembly halls where people can join their neighbours, start planning for local energy and food production, and learn how to form timebanks, peer-to-peer services and other types of sharing systems. Reorganising public space also helps reduce the need for individual space.

*Former council blocks operate like self-sufficient villages. Parking lots have been turned into agricultural fields, new infill provides modern, well-designed flats and new types of communal space.*

2040: 'Sharing the village', a collaboratively created manual on planning local energy, food production and smart sharing of neighbourhood indoor and outdoor spaces, gains immense popularity all over Europe.

*People who are ill can quarantine themselves from their wider community in flu hostels, thus reducing their impact on community's resources.*

*I've heard that they just started to slash and burn land to create better farming possibilities here in Finland. That's an old and local tradition, but it's now done by applying new technology.*

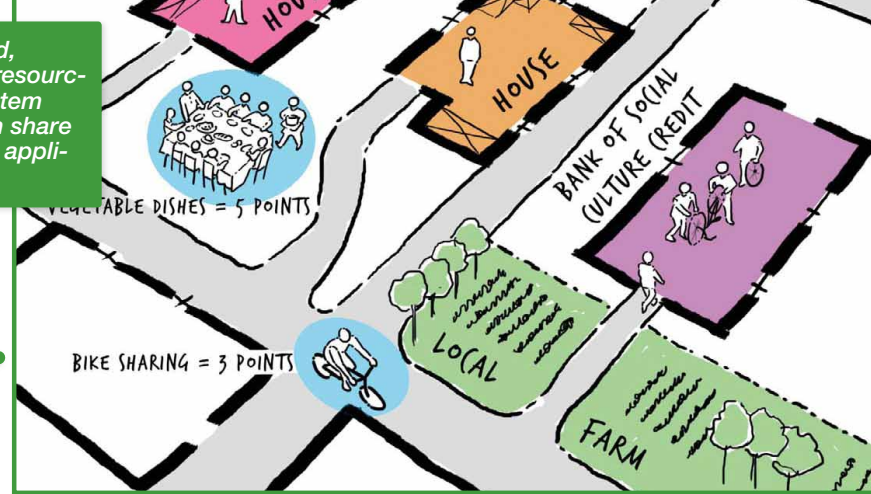
**2040**



Today is the final match of the World Cup for Cities where football clubs compete in this most prestigious of tournaments, held every four years.



In my neighbourhood, there's a neighbour resources' management system so that everyone can share necessary tasks and appliances efficiently.



2043: The new generation that now dominates the work life has greater experience working collaboratively than ever before. These people understand that brains also need some time off.

2045: The notion of leisure time changes. People seek 'reflection time', time when they are free from information flows and social roles. Addressing this need for 'reflection time' requires special services, because the majority of people live in such close neighbourhoods.

2047: People spend time that would previously have been called 'vacations' in solitude in cabins located in the midst of nature.

I work for a local council coordinating a network of neighbourhood health programmes. My routine working day is 6 hours long. In addition to my day job I spend two hours every day (occasionally a little bit more on weekends) working with my neighbours on farming and different types of maintenance work.

2044: Most of the villages in Europe have trained one or two of their inhabitants to be their "sharing architects". They take care of developing a village's buildings and spaces to serve the needs of the new era.

My grandparents are still active members of society and their efforts in taking care of community well-being are very much valued. They take care of children in the street park outside our building.

**2045**

"I love the fact that the old streets are now turned into urban farming plots while still maintaining plenty of space for walking and cycling."



Minor streets transformed and divided into local neighbourhood gardens

Re-appropriation of public space regenerates local social life

Provides complementary food resources for houses and apartments nearby

Former sidewalks maintained for local mobility

There's a monthly preventative health circle in my community. We discuss topics such as nutrition, diets and sleep cycles. These health circles are very popular.

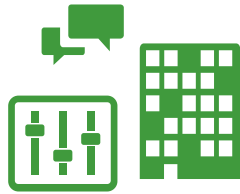
**2050**

## Gatekeepers for lifestyle changes



### Local leaders from business, politics and civil society

...emerge as key decision makers pushing for alternatives after the breakdown of the global system.



### Architects

...focus on designing opportunities for flexible housing and public space.



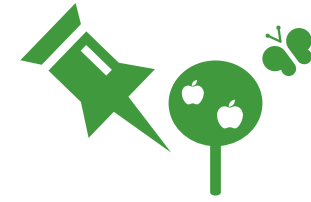
### Neighbourhoods

...start co-ops to support self-reliance in energy and food security.



### Journalists and media producers

...conceptualise the new notion of human nature that spreads empathy and human centrism.

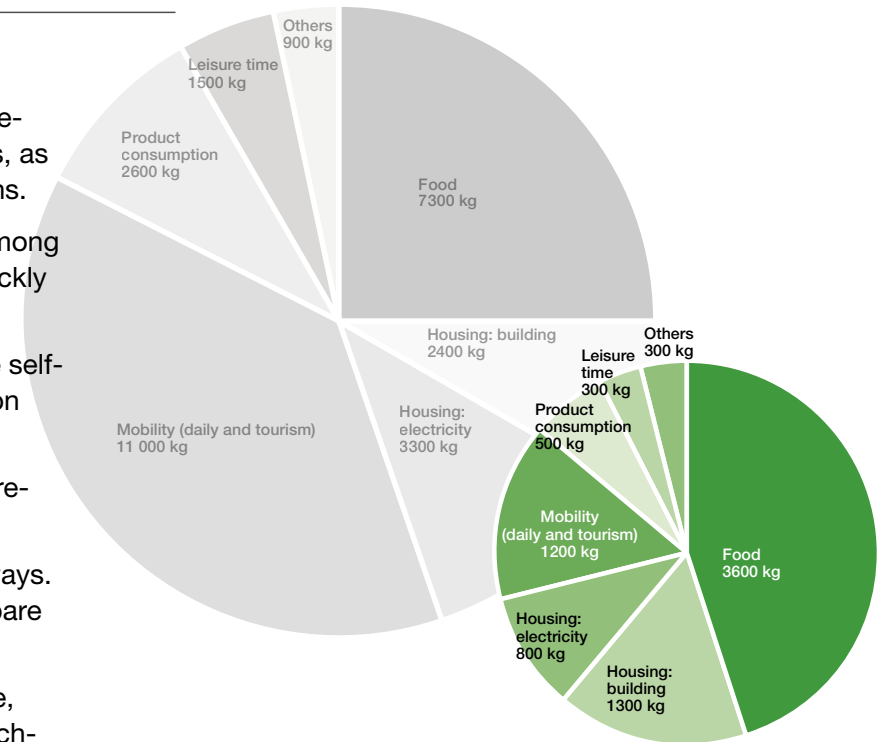


### Urban planners

...help people and communities in adapting to the new regime by changing streets and public spaces to new uses.

## Six-pack of most influential lifestyle triggers

1. Rising energy and food prices combined with a long economic downturn lead to people becoming more interested in and aware of the structures that underpin their lifestyle patterns, as well as of alternative, cost-effective solutions to current food, housing and mobility patterns.
2. Do-it-yourself (DIY) farming, energy production and retrofitting solutions gain popularity among many of the unemployed. The internet and social networks help spread best practices quickly and create space for alternative economies.
3. New local partnerships empower people to shape their neighbourhoods to better facilitate self-sufficiency in food and energy production, and in different forms of communal consumption (shared use of tools, appliances and spaces).
4. Health ceases to be an individual issue and becomes a communal one. People practice preventive healthcare in workplaces and in neighbourhoods together with their peers.
5. New tools and services for interior designs make people think about their homes in new ways. The functionality and flexibility of homes are features that people in 2050 are able to compare and improve as easily as people used to compare living space in 2012.
6. Occasional shortages change attitudes and expectations. A reduction in food, living space, consumer expenditure, travel and other leisure time activities is compensated for by the richness of social life and a sense of purpose in one's work and communal activities.



The average material footprint of a European in 2050 in the Emphathetic Communities scenario (8000 kg per person in a year) compared to the average material footprint in 2007 (29 000 kg).

## Critical challenges and solutions in the scenario Emphathetic Communities

### **Q1. How to avoid biodiversity decline and soil fertility loss caused by local resource overuse and competition for land allocation between energy and food production?**

1. The imperative of self-sufficiency makes communities plan the villages around nutrition cycles. Different communities network and exchange solutions on how to make nutrition cycles work.
2. Reduced level of mobility and increased need for farming land result in local initiatives to convert former traffic infrastructure into green spaces. This has allowed biodiversity to come back into villages and towns while also facilitating food production e.g. with local fruit varieties on former infrastructure space.
3. Municipal partnerships offer services, peer help and support in money and materials for neighbourhoods to build up new village infill, new social practices and community spaces. Urban sprawl decreases.
4. Local communities utilize local low-tech energy solutions. Best practices are exchanged between communities in global online networks that encourage communities to experiment and innovate. High prices and high levels of unemployment push people towards communal ways of living which enable lower levels of energy consumption and smaller living spaces

### **Q2. How to avoid global resource overuse, regional conflicts and inefficient use of local resources?**

1. Occasional scarcity of certain foodstuffs, products and resources foster lifestyles based on sufficiency. People learn to share spaces and goods and enjoy communal ways of living. Different types of swapping systems make people feel sense of sufficiency and increase efficiency of material use.
2. Open source exchange systems for certain natural resources and manufactured products increase cooperation between regions and provide some additional value to local communities thus avoiding conflicts.

### **Q3. How to avoid unhealthy diets and lifestyles?**

1. Equal access to preventative health information and services is a major field of public sector on the local level. Municipal partnerships and neighbourhoods collaborate in creating series of interventions aiming at pro-health culture within communities. Life is based on physical work so people are in good shape.
2. Mobility based on walking and cycling and a do-it-yourself lifestyle promote good health.
3. Scarcity of imported foodstuffs make people adopt seasonal diets that constantly utilize varying sources of protein and vitamins. Therefore people's nutrition is mostly sufficient and balanced, but not excessive or overabundant as in earlier decades.