THE TILTING CITY

How to redesign cities towards an eco-resilient future

Dirk Holemans, Myrah Vandermeulen and Alexander Van Vooren

GEF GREEN EUROPEAN FOUNDATION

oikos
DENKTANK VOOR SOCIAAL-ECOLOGISCHE VERANDERING

THE TILTING CITY

How to redesign cities towards an eco-resilient future

Dirk Holemans, Myrah Vandermeulen and Alexander Van Vooren

The Green Europe Foundation (GEF) is a European-level political foundation whose mission is to contribute to a lively European sphere of debate and to foster greater involvement by citizens in European politics. GEF strives to mainstream discussions on European policies and politics both within and beyond the Green political family. The foundation acts as a laboratory for new ideas, offers cross-border political education and a platform for cooperation and exchange at the European level.

Oikos Think Tank works on socio-ecological change by feeding the social debate from an ecological perspective. Oikos focuses on long-term challenges that are insufficiently addressed in the social debate, but are crucial for the future of society and future generations."

contact: info@oikos.be
May 2023

Authors: Dirk Holemans, Myrah Vandermeulen, and Alexander Van Vooren
Coordination: Adrian Toth and Alexandra Huber
Proofreading: EuroMinds Linguistics
Design: Miriam Hempel

This publication has been realised with the financial support of the European Parliament to the Green European Foundation.The European Parliament is not responsible for the content of this project.

Green European Foundation
3 Rue du Fossé – 1536
Luxembourg Brussels office:
15 Rue d'Arlon – B-1050 Brussels – Belgium
Tel.: +32 (0) 2 234 65 70
Fax: +32 (0) 2 234 65 79
Email: info@gef.eu
www.gef.eu

You can order free copies of this publication by sending an email request to info@gef.eu

In this paper, we invite you to, so to speak, close your eyes and take some distance from daily routines and established ideas. Then we want to inspire you with exciting ideas, promising concepts, and hopeful practices that can allow us to rebuild our cities. Because we need cities that sustain a good life for all, in the urban fabric but also worldwide, respecting the planetary boundaries, the fragile biosphere which we are part of.

To do this, we first introduce you to the concept of eco-resilience, a principle we badly need in a world full of shocks. Thereafter, we explain the crucial importance of widening our political imagination. Because a better future starts from being able to imagine another world. This we connect with an ethics of care, which is a vital antidote in our world where everything seems to centre around profit and competition.

With this frame, we walk you through some of the most promising concepts of an alternative urban economy: the doughnut economy, the foundational economy, and the key role of provisioning systems. Imagine an economy that is aimed at satisfying everybody's basic needs instead of responding to the preferences of consumers with enough buying power. And of course, we must revalorise state and community institutions to organise universal basic services and limit the role of markets to those areas where they are functional.

Yes, it is a long but bold story. We take the vision further, talking about exciting new developments in fields such as food and energy provisioning, material use, housing, and least but not least conviviality – living joyfully together, the capability to interact creatively and autonomously. And we end the narrative by putting forward five key proposals for an eco-resilient city.

And don't miss the story of Fatima and Filip, urban transitioners living in ImagineCity in 2030!

Table of contents

Introduction 6

A brief history of energy 7

Energy democracy and its benefits 9

European energy policy 11

Pathway to energy democracy in Belgium 14

Conclusion 17

Endotes 18

Introduction

Three out of four Europeans live in a city. This makes cities key in leading the transformation to a socially and ecologically just society. This radical change is urgent, as IPCC reports remind us: already 3.5 billion people are highly vulnerable to climate impacts. Add to this the fast pace of biodiversity loss and it is clear that we are at the brink of an ecological meltdown, while at the same time being confronted by growing forms of inequality. Different cities have a different ecological impact and will be differently affected by climate change. And within cities, certain groups are more vulnerable to the effects of air pollution, noise, and extreme temperatures than others (EEA Report No 22/2018). Without thoughtful politics and policies, poor communities suffer the consequences. This is why ecological justice is key, taking inequalities into consideration and "repairing the damage to these people's lives but also holding those most responsible for the climate crisis to account" (Kaur Paul 2020).

Cities are rightfully considered as places of hope in the light of the needed transformation. At the same time, cities today remain centres of hyperconsumption, high energy use, and waste production.
Even the much-applauded frontrunner city Copenhagen, which aimed to become the first climate-neutral capital by 2025, recently had to give up this pledge. An excessive trust in immature technology and external funding, combined with not questioning overconsumption patterns, made the goal unrealistic. And this only relates to one of the nine planetary boundaries; other boundaries like biodiversity loss are severely breached by the immense use of resources of high-income cities.

And cities are no isolated islands. Being complex systems, where people and environment go together in a unique way, each city has its own urban culture and ways of interacting with surrounding regions. Therefore, cities can only flourish if they develop a fruitful relationship with the countryside. In a future-proof scenario, the relocation of food and energy production from a global/national to a more regional/local scale for instance offers ample possibilities for a simultaneous positive transition.

The key assumption of this paper is that notwithstanding transformative policies in fields such as mobility or energy, cities will only be able to provide a good life for all within planetary boundaries when our economic system is no longer dependent on hyperconsumption and extractivism. The required and desired socio-ecological transition demands new perspectives, moving from transformative sectoral policies to holistic visions of the city of the future. For this, we introduce the concept of eco-resilience: a new level of ambition, a call for more political imagination. Our challenge is to make use of the qualities of cities as places of change and innovation, while at the same time ensuring the involvement of all groups in strategies of change. It is about providing a mode of living that is good enough for everybody, while feeling connected with other humans as well as with non-human nature.

ImagineCity, Monday 22 April 2030

Fatima and Filip sit at the breakfast table at the beginning of their three-day working week. They are rereading the story they wrote over the weekend, at the request of their city's citizen assembly. They will tell it with pleasure at the City Transition Festival. Fatima works from Monday to Wednesday, Filip from Tuesday to Thursday. In addition, they are active one day a week in their neighbourhood parent cooperative. In this way, they have gotten to know a lot of people in the neighbourhood and the care of their two toddlers is very cheap. They don't have a car, which is not necessary with the city's great public transport and safe bicycle networks. By the way, buying expensive things like a car would also require them doing more paid work and they don't feel like it. Yet they both have nice jobs, Fatima as an independent sustainable building consultant, Filip as a technician at a repair company that is part of the urban circular economy. This company has created in each district a local economy hub, which includes a permanent repair café and a library of tools (again reducing unnecessary purchases).

The couple's need for purchasing power has also fallen sharply since they have lifelong housing security as members of one of the new housing cooperatives. Supported by the city, these cooperatives are taking more and more buildings out of the speculative market. And with neighbourhood greenery and the district park nearby, it is nice to sit outside with other people without the need for your own garden. Over their cup of coffee, they discuss who will do the shopping. This is done by bike on the way back from work. And there is also a shared cargo bike available to borrow from the district committee. Friday is a special day. Since the approval of the urban Transition Plan a year ago, Friday is volunteer day. On a voluntary basis, of course. Filip then rolls up his sleeves in the rural agriculture project half an hour's cycle from home, which provides them with affordable organic fruit and vegetables all year around. Fatima helps with the energy cooperative on Fridays, which immediately ensures affordable renewable energy. In this unhurried society, there is plenty of time to take care of their loved ones.

The strange thing about the whole situation in 2030 is that when Fatima and Filip are asked what work they do, they no longer know what to answer. Certainly, Fatima is active as an independent consultant for three days, but she also works free of charge in the parent cooperative and strengthens the team in the energy cooperative on Fridays. And the fascinating thing is that they have a good life, by sharing a lot and from the urban universal services that allow them to do less wage work. And they have enough money, without a car, with their below market price rent in the housing cooperative, good and cheap childcare, affordable renewable energy, and affordable organic fruit and vegetables from the farm. These developments, open to all interested citizens, have also decreased inequality in the city fabric. Above all, they feel that they have taken their future back into their own hands, and they are happy to tell that story further afield.

Eco-resilience: Taking care to prevent devastating shocks

In a time of shocks that are hurting people and ecosystems the concept of resilience is trending. It rightly underlines the idea that we have to prepare for an uncertain future. At the same time, in the light of the shocks we can expect if we do not stop the current socio-ecological meltdown, resilience has to be redefined at a higher, more ambitious level. We here call it *second-order resilience* or ***eco-resilience***. This responds to the necessity to not only halt but also reverse the current trends of ecological breakdown, growing inequality, and the interrelated socio-ecological injustices. We see eco-resilience as a manifesto for 'hope without optimism': resilience is key in our hope to make the world a better place, while recognising that the future is not looking bright. Maybe the philosopher Spinoza already phrased it succinctly centuries ago: no hope without fear, no fear without hope.

Let's have a look at *first-order resilience* of a complex system. Cities are a clear example of a complex system. Resilience is much more than being robust. It is about socio-ecological systems that are able to reorganise themselves without losing their function and structure. Thus, **a resilient system is one that is able to *transform* itself when circumstances change to continue to provide necessary services.** (Holemans, 2020).

Resilience includes four components: **short feedback loops**, **modularity**, **diversity**, and **social capital**. The first term refers to how quickly we are confronted with the consequences of our actions. This is for instance a problem with the food system in cities, with consumers unaware of the source and impact of their food. Modularity implies that when part of a system is damaged, the other modules of this system will still function. A decentralised energy system, therefore, is a key feature of a future proof city. Diversity means that crucial things are done at the same time in different ways or by different institutions. A mixed economy with a key role for public institutions and commons is much more resilient than a market economy. Last but not least, social capital is key to enhancing resilience. Social capital not only refers to the diverse competences of an urban population but mainly to its ability to self-organise and develop innovative answers to unforeseen challenges.

Achieving this first order resilience is already a huge challenge. Many cities are working on it, for instance by making space for water as heavy rains increasingly become the new normal. In this paper, we want to inspire the conceptualisation of resilience at a higher level: not only to be able to keep functioning during and after shocks, but to take care of our biosphere and society so that the likelihood of existential shocks shrinks rather than grows. Certain cities are already doing this by implementing ambitious climate policies and thereby contributing to reducing the risk of runaway climate disruption.

But this is just one dimension of the multiple ways current high-income countries transgress planetary boundaries. What researchers rightly describe as the 'imperial mode of living', based on an extractive economy, exploits people and nature all over the world (Brand & Wissen, 2021). So for instance the growing hunger for metals in high income countries - necessary for wind turbines and solar panels, as part of climate policies - disrupts communities and ecosystems in other continents. To summarise: first order resilience of a city is about transforming it so it can remain functional while its environment produces more and more shocks; in our second order resilience we embrace this but add the equally necessary challenge of not only *transforming* but ***taking care of, repairing, and maintaining*** the one world we have and inhabit.

Eco-resilience demands we acknowledge that current transformative policies in certain cities in certain domains are necessary and valuable, but are no guarantee for the *great transformation* of our modes of production and consumption that we need in order to repair the biosphere we are part of and dependent on and build a more equitable world. As also recognised by research from mainstream economic organisations such as the Organisation for Economic
Co-operation and Development (OECD) report *Beyond Growth*, we can't build the economy of the future "using the tools of the last century. We need to rethink the role of the economy in improving the well-being of people and the planet." (OECD, 2020)
Another crucial dimension of eco-resilience is reflexivity: as we can expect unforeseen developments and forms of acute degradation we need processes of governance and management that take this new reality of unexpected futures into account, leaving behind the modern assumption of predictability and control over longer periods. What would 'reflexivity by design' imply for our thinking about eco-resilient cities?

Stimulating our political imagination

In the reasoning developed in this paper, we feel supported by thinkers such as Jason Hickel and Amitav Ghosh. As the latter emphasises in his book *The Great Derangement*, the climate crisis is in the first place a crisis of imagination. The western world has to stop considering the rest of the world as 'exploitable', resources for feeding into our economic system. This entails a transformation in our worldview: away from the illusionary separation of (hu)man and nature and the imagination which puts humanity in charge of so-called resources. A shift is needed from a view of the human as an individual *homo economicus*, who takes decisions based on soulless rationality, towards the realisation that our human identity takes shape in a web of connections, rooted in natural and social relationships and interdependencies (Holemans et al. 2021). Therefore, we put forward an ethics of care as a founding principle for a new city. This is the healthy antidote we need to the current neoliberal market society, that puts profit before people and planet. And this is not a slogan, as harsh reality shows everyday. Think of winter 2022, when families were no longer able to pay their energy bills and suffered cold and insecurity, while that same year the big five oil and gas companies made record profits of more than 100 billion euros.

To make the necessary *great transformation* possible, we first need to imagine the city we want and think beyond our current reality. For example, a few decades ago, it would have sounded utopian to transform busy roads into avenues for bicycles and tramways. Yet, this is a reality in more and more cities. Being able to imagine what kind of future city we want is the first step to realising transformations. Therefore, the first challenge to build a real resilient city is to stimulate our **political imagination**. This requires true participation where the power of diversity comes forward. In this way the new city will be a co-creation, with participation as key to each phase of the transformation. We imagine future-proof cities inspired by alternative perspectives based on care for humans and the planet. In this paper, we present alternative frames and paradigms such as the doughnut economy, foundational economy, basic needs approach, and provisioning systems. These allow us to develop a vision and a pathway to recreate our cities to meet human needs while also respecting our 'fair earthshare', meaning that we do not thwart our planet's capacity to regenerate her resources. What if the focus is on meeting our needs instead of on increasing consumption and economic growth? As we argued below, a city with adequate **provisioning systems** has the potential to increase human wellbeing while decreasing energy and resource usage. This would allow a move from an extractive to a generative urban economy.

This paper takes the potentiality of new ideas and practices as its starting point, exploring innovative concepts that bring concrete possibilities together within a broader framework of thinking. With this paper, we want to show that the city we imagine is actually not that far away.

Ethics of Care

In this part, we explore briefly the 'ethics of care', which offer a foundation to build an economy and a city based upon principles of care.

Concept of 'care'

The necessary shift in worldview starts from the basic observation that people are relational beings, interdependent with others and with more-than-human worlds. A city only functions thanks to the mostly invisible and unpaid/underpaid work of caregivers – work that was made visible thanks to the COVID-19 pandemic, although this did not lead to more valorisation.

Whereas in capitalist profit-seeking society, the human is presented as *homo economicus* – a rational being taking decisions based on personal interest, embedded in a competitive market logic – the alternative perspective we need is the *homines curans,* caring people, and its relational ethics of care. How do we care for our fellow city inhabitants; how do we care for more-than-human worlds?

When imagining cities, we for instance cannot lose sight of the farmer in rural areas feeding urban mouths, or the homeless person at the city centre bus station. When we imagine, we can be guided by our relations, and our values of "mutual aid, reciprocity and care" (Pungas 2020). As an inspiring description, we use the broadly used **definition of care** by Joan Tronto and Berenice Fisher:

Care is "*a species of activity that includes everything we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our body, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web."*
(Fisher & Tronto 1990, p. 40)

Within this framework, care is as much about the inter-human relation as it is about the connection to the soil and the surrounding environment. What would it mean if every city government decision had to *repair* the city, make it better? This 'reparation' would not stand in isolation from surrounding areas or lands and people far away. When acting with awareness of our regional and global connectedness, our actions can be for the benefit of all. This is the foundation for developing a generative urban economy.

We propose to extend the care we have for our closest communities to our global more-than-human worlds. Caring for others equals caring for our planet. Based on global solidarity and an awareness of our interconnectedness integrated in our day-to-day lifestyle, one of the concepts offering us a compass to respect the needs and lives of all beings on this planet is the idea of a **fair earthshare**. This entails "the area of available and ecologically productive land on earth [for human use], measured on a per capita basis," or the total area of productive land and fresh water on earth divided by the number of its human inhabitants (IGI Global 2022). It is an alternative or a complement to the well-known idea of the ecological footprint. These are useful tools for individuals and groups, yet we should remain alert to not make ecological responsibility an individual or technocratic task.

Living well together in cities

While the city offers the freedom of anonymity and crowds – one can feel safe in the middle of a square filled with strangers – a convivial city will at the same time offer places of proximity and connection. Both can co-exist as part of the city's identity and both can be underpinned by the centrality of 'care'. While one can prosper in anonymity, in another part of the day one might bloom in a neighbourly community. This also depends on the context: while you can enjoy sitting by yourself in the sun, if you start feeling unwell, you should feel safe asking for help from the otherwise anonymous square strangers. A convivial city provides its inhabitants with freedom and security (Holemans, 2017).

An important aspect of integrating an ethics of care is a participatory approach. To create a city which meets citizens' diverse needs, dialogue and strong inclusive participation mechanisms are key. Quantitative indicators must be complemented by local, specific knowledge. This can be done through democratic tools, such as citizen juries and assemblies. This can help policy-makers to understand social fabrics and see what people value in their communities (Bärnthaler et al. 2021). Importantly, *collective needs* must be prioritised over *individual wants*. Sectors that do not serve human need satisfaction (e.g. luxury economy/consumption) or that satisfy human needs in an unsustainable way (e.g. intensive animal farming) need to shrink or be converted (Bärnthaler et al. 2021). This is discussed in more detail further on.

Building blocks of the alternative

In the second part of this paper we present building blocks for an alternative city. These building blocks guide the way towards sustainable, healthy, and welcoming cities. Today, our cities embody the values and hierarchies inherent to capitalist relations. They are shaped by an economy which is increasingly facing its own limitations and structural unsustainability. Business as usual or adaptations within the existing economical framework will not be enough. Aware of the big socio-ecological challenges that are facing us, cities are implementing changes in fields such as mobility, food, and housing. Yet what is truly needed, as argued above, is a **systemic transformation** inspired by ethics of care and relationality. This requires – among many other things – a sharp reduction in the throughput of energy and materials to maintain a healthy urban metabolism.

Imagine *what our cities will look like if we transform our capitalist economy.* Imagine *revaluing the true foundations of our economy, our intricate relations to each other and to our natural surroundings.*
Bringing alternatives to the front does not require us to (re)invent them. Gibson-Graham's (1995, 2008) work on **diverse economies** makes us attentive to the many alternative economies that exist and proliferate around us today. Oftentimes, however, they are concealed by capitalist interpretations and vocabulary. The domi-

nance of capitalism is in a way more discursive than real, it having colonised our imagination and closed off the possibility of other narratives. It is therefore our aim to make alternatives visible again, "[t]o uncover or excavate the possible," and when required, use "creativity to generate actual possibilities where none formerly existed" (Gibson-Graham 2008).

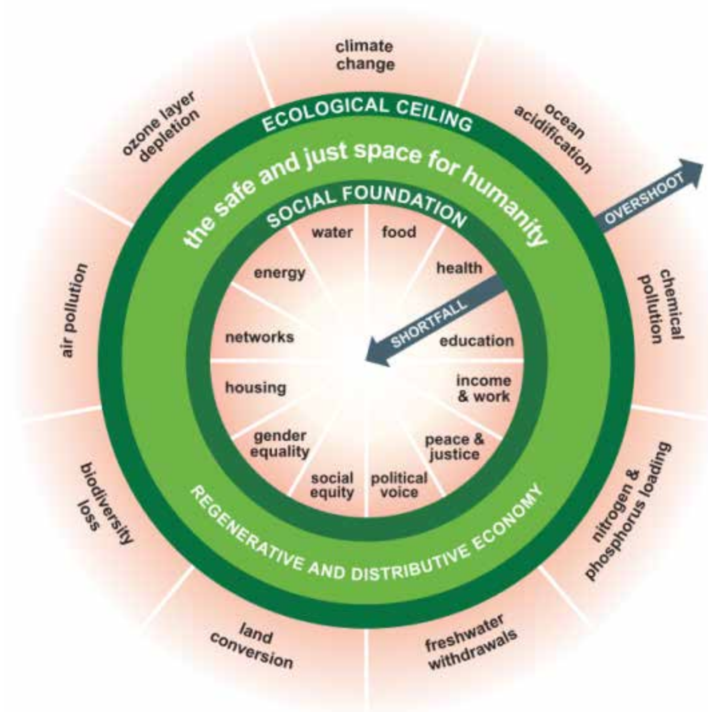
The following frameworks offer us building blocks to stimulate our social imaginary, to co-create the European cities we did not believe possible, starting with transforming our economies. We want to inspire the reader to imagine how these alternative perspectives can be applied to their places of living.

Doughnut economy

First, we discuss the doughnut model, since this presents a coherent frame for transitioning towards a new economy. Kate Raworth's *Doughnut Economy* offers us a compass towards a system where both planetary boundaries and human needs are respected. To live well and co-exist with all life on this planet, we need a life-generating economic system, guiding us from last century's degenerative economy towards a regenerative one.
The 'Doughnut' ensures that humans are being met in their basic needs while respecting the Earth's life-supporting systems, such as fertile soils, clean air, and fresh water. The inner ring shows us the absolute minimum requirements to provide a good life for all humans on this planet, based on essential material and non-material needs. The outer ring illustrates the boundaries beyond which we put the critical planetary systems at risk, by causing climate breakdown, ocean acidification, and extreme biodiversity loss (Raworth 2017). Between these two lines – the Doughnut or the 'Safe and Just Space' – is where we can build a **shared future** for all human and non-human beings. This framework can be used by a city, asking the question, how can we make our city thrive within planetary boundaries? The outer ring allows a move from a resilient towards an eco-resilient approach, integrating the need to take care of the living planet.

The Doughnut Economics Action Lab's (DEAL) methodological guide to downscale the global-scale Doughnut to a 'City Portrait' serves as a tool for transformative action. The city portrait provides a "holistic snapshot of the city's many complex interconnections with the world in which it is embedded, by considering its local aspirations – to be thriving people in a thriving place – and global responsibilities, both social and ecological" (Amsterdam City Doughnut).

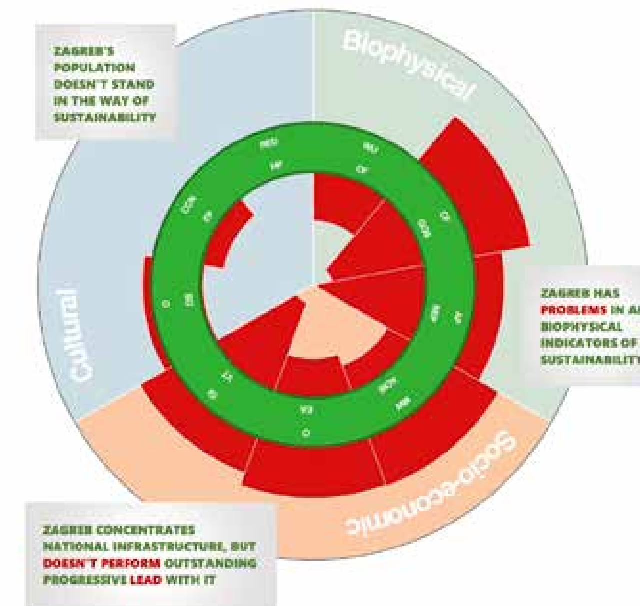
In Europe, several cities are already applying this model. In April 2020, the city of Amsterdam was the first to adopt the Doughnut as a tool to guide their social and economic recovery from the pandemic. This is being realised by a self-organising and dynamic Amsterdam Doughnut Coalition. In Copenhagen too policy-makers are exploring the concept and Brussels started using the Doughnut in September 2020, for a participatory-led approach to guide the region's post-pandemic recovery. In Croatia, the Doughnut was applied to four different cities. The 'safe and just' operating space was divided into a biophysical segment, a social segment, and a cultural segment, each one further divided in multiple micro-units of analysis. The doughnut visualisation clearly shows patterns of overshoots and shortfalls in each segment. In the case of Zagreb, the Doughnut indicates a lack of green open spaces with an indicator value (3.18 m²) almost three times lower than the aspired 9 m² of green public space per capita. In terms of climate change and pollution, CO_2 emissions are above average and levels of polluting particles are unacceptable (Cik 2021).



The Doughnut of social and planetary boundaries © DEAL

Foundational economy and provisioning systems

A useful framework to reconsider what we understand as 'the economy' is the idea of the foundational economy. Does our economy prioritise new high-tech gadgets, or does it prioritise the goods and services we can't do without? This framework aids us in reshaping our understanding of the economy, and can be embedded in a Doughnut model. The foundational economy includes all the daily essential goods and services such as healthcare, education, food supply, as well as utility services like gas, electricity, water, and adequate housing. It is the 'infrastructure of daily life' and therefore the precondition of wellbeing. To ensure the provisioning of these services, institutions at local and regional level and governmental, private, and socio-cultural organisations need to work together. Foundational economic thinking is about prioritising, expanding, and ecologising those parts of our economy that enable our everyday existence and wellbeing.



Source: Cik 2021. Institut Za Političku Ekologiju.

The foundational economy is built around our core economy and provisioning systems (Bärnthaler et al. 2021):

a) The core economy exists out of unpaid, reproductive acts of care and related services such as housework and volunteering. Within the foundational economy this part of our economy is seen as a cornerstone of a resilient economy built around care, relationality, and reciprocity. Yet in our current capitalist system, the core economy is mostly neglected and at the same time appropriated by the so-called 'productive' economy. It therefore needs to be revalued as well as rebalanced. Instead of mainly being performed by women on the low end of the social strata, this unpaid labour should become part of existential provisioning systems, public services, and public infrastructure, and valued as such. The focus on this core economy is a clear illustration of how to implement an ethics of care in redesigning our economy.

b) Provisioning systems are the other segment that shape the foundational economy. A provisioning system could be defined as "a set of related elements that work together in the transformation of resources to satisfy a foreseen human need" (Fanning et al. 2020). In relation

to the foundational economy's objective to expand, ecologise, and improve 'existential' and 'essential' services, this means transforming our provisioning systems to make these services accessible to all. How can we for instance provide every urban inhabitant with a decent home? **Existential provisioning** is part of public services and infrastructure, and includes state ownership as well as intermediary institutions such as energy cooperatives, housing associations, and other bottom-up organisation forms within the areas of healthcare, energy provision, education, transportation, water provision, and waste disposal. **Essential provisioning** in turn, is organised in regulated market dynamics. They provide everyday consumption necessities such as food and pharmaceutical goods.

Transitioning to a foundational economy would greatly improve basic human need satisfaction. In the city context, this could be translated to 'the right to the city': the right of the residents to full and equal access to the resources and services in cities (Qatamin 2020). This should entail the right to have a say in making and remaking their cities. 'Spatial justice' is a related term, meaning that "justice has a geography, and the equitable distribution of resources, services, and access is a basic human right" (Soja 2013). Care for the human community is a key motivation. Yet a foundational economy does not automatically entail a more ecologically just society, as planetary boundaries are not inherently part of the framework. It still leaves room for unsustainable consumer preferences. The foundational economy can however be a *bridge* towards a social and ecological society. Bärnthaler and colleagues (2021) state that, precisely because the foundational economy can be integrated in capitalist society, it would be a "privileged entry point" for a just and sustainable transition to a society based on care for human and more-than-human communities and environments.

In our endeavour to meet human needs within planetary boundaries, rethinking our provisioning systems is an important step. As O'Neill et al. (2018) emphasise, "the resource efficiency of meeting human needs may be improved by adopting need satisfiers that require lower resource inputs". In the field of mobility this could mean replacing private vehicles with efficient public transport and cities creating space for pedestrians and cyclists (as proposed by latest IPCC reports). Research has shown that **human needs can be met at sustainable levels of energy use**. Yet no country is doing so (Vogel et al. 2021). In general, the degree of need satisfaction is not based in the first place on energy usage, but correlates with the presence of certain socio-economic factors (provisioning factors) such as public service quality, public health, democracy, and income equality (Vogel et al. 2021). While certain provisioning factors (e.g. public services, electricity access) play a beneficial role, other factors (e.g. economic growth and extractivism) have a negative effect on human wellbeing. City policies should therefore focus on the provisioning of the beneficial factors, allowing citizens to live well at a sustainable energy usage. This is not only a matter of solidarity with other regions and nations, but also very relevant in the current energy landscape with the potential to make regions more self-sufficient and energy-efficient. This should not be confused with some kind of isolationism; we need an electricity grid that is connected throughout Europe. But the more cities and regions are self-reliant, the less heavy grid infrastructure is needed.

Basic needs approach

A related approach is the basic needs approach. As an alternative to the dominant economy based on individualist consumers satisfying their countless preferences, feminist economics have developed a clear alternative, based on three points (Holemans et al. 2021):

- Economy (oikos-nomia: household management) is about people and their opportunities for adequately satisfying their fundamental needs, not about material things or Gross Domestic Product (GDP).
- Economy is about people's vital needs. Those basic requirements are limited in number, finite, and satiable within ecological boundaries.
- The economy can be understood through systems thinking, which stresses that people are relational beings who live in permanent mutual interaction with their more-than-human worlds.

This alternative approach offers us a coherent vision of the economy, based on citizens' basic needs instead of insatiable consumer wants. It makes a clear distinction between needs and wants. While *wants* are highly subjective and susceptible to advertising, human basic *needs* entail a degree of universality (Doyal and Gough 1991). We categorise core needs into the fields of food and nutrition, basic educational services, basic health services, sanitation, water supply, and housing. We also consider non-material needs such as "self-determination, self-reliance, political freedom and security, participation in decision making, national and cultural identity, and a sense of purpose in life and work" (Streeten 1979, 136). The *human scale development* framework, developed by Max-Neef, speaks about 'satisfiers'. **While basic needs are universal, the way they are being met by need satisfiers is culturally defined**. This underlines the non-exclusivity of the market-based, commercialised fulfilment of needs.

Reinert (2020) views basic goods and services as the 'ingredients of wellbeing' which should be given priority in policy deliberations. If we define wellbeing as "the level to which basic needs are met" (Griffen 1986, 42), it is clear that there is a level at which people are satiated. Everybody needs a home, but nobody needs five houses, for example. This demands an accompanying cultural and psychological change. In this proposed **economy of sufficiency**, we connect citizen wellbeing with planetary boundaries. The concept of '**consumption corridors'** (comparable to the aforementioned 'ecological footprint' and 'fair earthshare') is a useful tool for urban policy makers, providing a clear indication of what a responsible level of consumption is. This parallels the model of the doughnut, for consumption corridors include both minimum consumption standards "allowing every individual a good life" and "maximum consumption standards… to ensure that consumption by some individuals does not threaten the opportunity for a good life for others" (Fuchs et al. 2021, 33).

Beyond the market : various forms of organisation

Current provisioning systems are often organised by capitalist market principles. These focus on growth and maximisation of profit. This is highly inefficient – or even contradictory – with regards to meeting basic needs. For example, some urban neighbourhoods become 'food deserts', because market actors only offer junk food. Additionally, gentrification and deregulation of the housing market has transformed homes into speculative assets to extract rent from. This in turn increases the cost of living and puts additional pressure on households to meet their basic needs.

An important question is how to best organise **provisioning systems** to create wellbeing within planetary boundaries, putting care and sufficiency first. Apart from market organisation, provisioning can also be organised by principles of **reciprocity and redistribution**, alongside householding (Polanyi). We therefore recommend looking into city provisioning systems to rethink them (e.g. how can we organise 'mobility' in a non market-dominated way?). **Commons** (based on reciprocity and trust) and **public services** (as forms of redistribution) are thus two crucial organisational principles to restructure the current way of organising provisioning. (Holemans, 2016)

(1) **Commons** are a resilient alternative to the market, where citizens themselves take initiative, citizen-developed rules are implemented, and ownership is held collectively. An example is housing cooperatives, such as in Zurich, Switzerland, where about 20% of all housing (40,000 housing units) is owned by cooperatives, with an average of 23% lower rents than privately owned housing. Moving beyond a logic of profit and based on the sharing of knowledge, resources, or infrastructure, commons show the strength of trust and reciprocity, while integrating values such as sustainability, social inclusion, and equality. Research shows there is now a wave of commons taking place in fields such as food, housing, and energy. (Holemans 2022).

(2) The other principle – reinvesting in **public services** – is already applied at urban level in the so-called re-municipalisation wave, with cities for example taking back control over the energy production system and the energy grid. And the covid crisis showed how vital accessible public health services with sufficient capacity are. Taking care of people also implies they don't feel insecure that care can't be provided.

The aim is not to get rid of markets, but to build **eco-resilient economies** where citizens decide democratically which areas markets can play a role in, and within which strong regulatory frameworks, alongside a broader application of the principles of redistribution and reciprocity. It is this kind of institutional diversity that guarantees the biggest degree of eco-resilience (Holemans, 2016).

The Caring City: Embracing transformative change

In this chapter, we present concrete developments and strategies to inspire city politics and policies. These are vivid and practical illustrations of the theoretical framework elaborated on in the previous chapter. We look at the fields of food provisioning, circularity and energy usage, mobility, and housing, as well as the multiple and overlapping identities of the city as green, social, and caring.

Food provisioning

Current food provision systems are flawed. Of the food produced in the European Union (EU), almost one third is lost from farm to fork, while every second day some 33 million people cannot afford a quality meal (Eurostat 2018). Furthermore, food waste accounts for 8-10% of global greenhouse gas emissions and 6% of total EU greenhouse gas emissions.
Here we briefly discuss the role that cities can play in transitioning towards healthy food systems, for humans and the planet. As cities will never be able to produce all the food they need, an urban food policy is also a great opportunity to restore economic and cultural links with the countryside, replacing junk food from agrobusiness with healthy local/regional food produced by farmers that still love agriculture: the craft of cultivating the land.

Urban common food provisioning

Alternative food provisioning systems are revaluing (urban) food production, reconnecting food with the urban inhabitants, while also breaking through public-private and rural-urban binaries. Not least, they bring to the front questions about land tenure, access, and environmental management in the city (McLain et. al. 2014). Prior to this, food had been systematically excluded from urban planning (Potchukuchi & Kaufman 2000). Food was being taken for granted, dismissed from the public domain and relegated towards rural policy areas. Recognising the importance of alternative food provisioning systems, cities have started exploring and implementing forms of **urban common food provisioning**. This ranges from the 'Agrocité' project in Paris, which fully integrates food, energy, and housing to the revival and harvest of fruit and nut trees in UK urban areas. Urban green spaces are increasingly understood as not only providers of immaterial services (e.g. physical and mental wellbeing, social interaction) but also as providers of essential material goods: food (McLain et. al. 2014). Furthermore, these material goods are multifunctional, comprising physical (nutritional), social, and cultural resources for the city (Matacena 2016).

Food self provisioning and community-centred farming

Food Self Provisioning (FSP), as one concrete example, is a commonly spread practice. Together with **urban food foraging** it is a viable diversification tool, even in the dense contexts of cities. Home gardens can flourish on rooftops, on balconies, on shared parcels of land. Edible plants can ornament public city spaces, growing alongside sidewalks and in city parks. While cities cannot be entirely self-provisional for their food, Eastern European case studies show this to be a valuable complement to agricultural practices. In the Czech Republic, the share of non-market produce of vegetables and fruits reaches two-fifths of consumption. In the urban context of Prague, around one in four households grow some of their own food.

FSP is a clear example of a practice which expresses and maintains **relationships of cooperation, reciprocity, and care**. When harvests exceed household consumption capacity, friends, neighbours, and relatives can be invited to collect and consume. Harvest can function as a gift with high symbolic value. People connect with each other and with the land, in ways the industrial food complex fails to do. The longtime framing of FSP as being either a privileged, leisure activity for rich middle class urban residents or as – precisely the opposite – a survival strategy of the poorest sections of society needs to be overcome. Although this can correspond to a reality, it is the discursive dominance of capitalism which would make us define FSP in this simplistic, divisive way. Essentially this framing conceals its value as an alternative and viable provisioning system. FSP as a practice supports a care-based economy, one that connects the inhabitants of the city with each other and with their environments, as well as one that foregrounds sufficiency.

Of course, this is no individual responsibility. In **CSA farms** (community-supported agriculture), a community of households connects with and supports the farm. Both the risks and benefits of food production are shared, as households pay an upfront annual subscription. Care is an essential principle here: care for the community, care for the farmers, care for healthy food, and care for the environment. The professional farmer is given livelihood security and supported in using ecological agriculture practices. CSA members are often encouraged to develop their own relationship with the land, e.g. by self-harvesting. CSA farms are appearing in many cities. CSA networks make it easy to find a farm close by. City governments can support this movement by providing land for community initiatives.

The city of Barcelona illustrates that cities can have a significant impact on regional agricultural practices. Part of Barcelona's policy effort is to implement '**proximity food**', focused on reducing the distance between food sourcing and consumption (Covarrubias & Boas 2020). Further efforts on increasing cooperation between the different actors within the food chain, paying attention to the specific ways in which sustainable food flows connect with energy and water use, and taking land use into consideration, would strengthen this effort (Covarrubias & Boas 2020; Ochoa, et. al. 2019; Padró et. al. 2020). Enhancing healthy reciprocal relationships between urban and surrounding rural areas is a necessary part of this effort.

Energy provisioning

Apart from food, a city and its inhabitants can't do without energy. The city is a metabolism that, as well as materials, needs a lot of energy to keep functioning. In the path to becoming eco-resilient, cities have to rethink their energy use and production. Cities need to become much more energy self-sustainable. This is only possible if the demand for energy decreases strongly, consuming only the energy that is needed from a sufficiency perspective and based on the basic principle of care for our 'world', including our bodies, our communities, and our environment. One of the most promising developments in the area of energy are Positive Energy Districts.

Positive Energy Districts (PED)

Positive Energy Districts (PED) are urban neighbourhoods that generate more renewable energy than they consume. This is only possible if the energy end-use is very low. This not only requires high efficiency in the way houses are heated, industrial production is done, and mobility is organised, but also the kind of sustainable lifestyles that are promoted from a sufficiency perspective. PEDs make cities not only eco-resilient in the domain of energy, but also promote leaner and thus less expensive electrical distribution and transmission networks. By making PEDs the standard, cities could greatly contribute to a zero-carbon future. One crucial aspect of PEDs is the social – **care** – dimension, as was experienced in an experimental PED in the city of Ghent. It is essential to ensure that all inhabitants of a neighbourhood are included, without leaving out those who rent or don't have the financial means to participate in an urban energy cooperative.

Material use: a circular city

Currently, the city metabolism is built in such a way that it consumes resources and energy and produces 'waste'. This is a very linear 'take, make, waste' system. In western countries, resources are often sourced from faraway places. Likewise, waste is often dumped in other countries and continents. Showing global solidarity, a city should be aware of the social and environmental contexts in which resources are extracted, processed, and later disposed of, or rather recycled/reused/repaired. *Imagine a city that is not allowed to export its waste, how would we then have to reorganise its economic fabric?*

Our current economic system is a linear one. Raw materials are mined to make products that are then discarded. The linear economic model has normalised the idea that we throw away materials, appliances, and other objects that we no longer use. In a circular economy, this would be different. In theory, waste does not exist in a circular economy, with products being reused, repaired, or recycled. This includes all sectors: from agricultural products and clothing to tech devices and construction materials. Products are made from recycled raw materials, with a long lifespan and a design that facilitates repair and efficient recycling. To include circularity in the first design phase is therefore essential. The goal is to keep raw materials in use for as long as possible, thus eliminating landfills and reducing extraction projects.

Yet, a perfect circular economy does not exist. There is always loss of value in a recycling process. A reduction in consumption and a focus on sufficiency thus remains necessary. We propose circularity as a partial solution within a system approach. City policy-makers can implement strategies to promote material circular use and waste management

Urban wastescapes: the eXamples of Bijlemeer (Amsterdam) and Scampia (Naples)

Mazzarella and Remoy (2021) implement circular thinking on the so-called '**urban wastescapes'**, those parts of the city which experience segregation and social exclusion, leading to social and environmental degradation. In their study of the ongoing transformation of urban areas like Bijlemeer (Amsterdam) and Scampia (Naples), they conclude that these urban wastescapes have the full potential for social and environmental regeneration. Within circular thinking they are to be valued and can be transformed through citizen participation and policy frameworks, inspired by the Doughnut model and the circular economy (Mazzarella & Remoy 2021). This circular thinking radically opposes processes of gentrification. Gentrification entails that public spaces and neighbourhoods are up-valued, giving rise to higher housing prices. This takes place when urban wastescapes are being transformed in an un-circular fashion. It is the failure to integrate these neighbourhoods into the social fabric of the city, instead displacing and reproducing them in other city areas, often in the periphery.

A first major factor impacting circular regeneration is architecture. In both Bijlemeer and Scampia circular architecture started with the demolition of large concrete housing estates, giving space to dignified and better housing services, new public spaces, street furniture, green care, and the accompanying employment opportunities. As such it not only opened up living space and space for connection, it also opened up connections to the rest of the city. As the authors state:

"Although a neighbourhood is defined by relationships between spaces and inhabitants, the synergy with the rest of the city and the socio-economic conditions of the employment opportunities offered to the inhabitants make a difference. In both Bijlemeer and Scampia, areas where the original architecture has been completely modified have taken on a new urban identity." (Mazzarella & Remoy 2021, 5)

Public city administration played a key role in these macro-scale changes, but so did people's involvement. The bottom-up engagement of community actors, and their strong connections with the neighbourhood often determined the fate of spaces and buildings. Both in Bijlemeer and Scampia certain building blocks would carry a history that the inhabitants did not want erased. They therefore remain as symbols of collective memory and as connecting landmarks.

When the idea of a circular city is present at a strategic level, taking into account the social and environmental thresholds, combined with citizen participation and bottom-up regenerative practices, cities can transform into spaces of shared imaginaries, where inclusive care and connection thrive. Public service delivery in places like Bijlemeer and Scampia, such as the provision of affordable housing, the creation of accessible open space, and the preservation of local histories and entrenched relationships, allows for the circular weaving of city spaces into a firm social fabric. In the case of Bijlemeer, this transformation towards circularity, inclusion, and social wellbeing takes place within a doughnut economic strategy, taking planetary boundaries into consideration. This is part of the city of Amsterdam's active engagement to provide adequate provisioning systems while decreasing total energy usage.

Public procurement

Public procurement is another area where cities have the leverage to make demands concerning sustainability and circularity. When united in transnational networks, cities' leverage power can be strong. An example is the procurement of Information and communication technologies (ICT), the production of which has a huge environmental and social impact (Burvenich 2018). The supply chain of ICT is not easy to follow and sustainable, fair trade ICT is rare (although there are companies working towards this such as Fairphone). To address this issue and demand change in the production of ICT, Electronics Watch was founded. This is an independent monitoring organisation looking into the condition of workers in the ICT supply chain. Public buyers can become members, thus creating the necessary strength and leverage to improve conditions for workers. Here, the focus is on social issues, but this inspiring example shows us the power of collaboration and of combining procuring power. Around Europe, several cities and universities have joined Electronics Watch: Ghent, Barcelona, Amsterdam, Utrecht, and Stockholm as well as the University of Ghent, the University of Westminster, Kingston University London, and the University of Sussex.

Space, mobility, and quality of living

A fourth field for transformative change in cities is the field of space, mobility, and its relation with quality of living. In 'Why cities need to take road space from cars', Gössling (2021) lists the negative impacts on biodiversity and quality of life of the wide-ranging availability of cars, such as air pollution, congestion, noise, and traffic injuries. This comes with ecological, economic, health, psychological, and social costs. The COVID-19 pandemic and consequent lockdowns laid bare the need to rethink our cities and to improve quality of life for citizens. And seen from a holistic view, the radical change is much more than just reducing the number of cars. This is only the beginning of imagining a new, more lively, and liveable city. Such a vision has to integrate ideas from domains such as mobility, spatial planning, and housing.

The 15 minute city

An inspiring planning approach to make the city a better place to live is the '15 Minute City'. This concept was first introduced by Carlos Moreno. Moreno (2021) advocates for urban areas where citizens can access all of their basic essentials within a maximum of 15 minutes by foot or by bicycle. The six essential urban functions include living, working, commerce, healthcare, education, and entertainment. This automatically leads to healthier urban landscapes with a stronger social fabric, with residents participating in activities that strengthen social bonds and build trust. Fewer cars and less commuting time positively impact the urban environment through reduced emissions from both vehicles and fewer power plants responsible for the extraction and processing of fuels. Another important effect would be the freeing of public space for other uses (e.g. green spaces, spaces promoting social cohesion, etc.)

When using the 15 minute city as a guiding framework in implementing accompanying strategies, there are some elements we need to pay extra attention to, ensuring the inclusion of and care for all social layers of the city. Beeckmans et al. (2021) write that the western urban middle class with the possibility to telework is all too often taken as the norm. For many people and jobs, telework is not an option. Also, for many citizens and for varying reasons, mobility is already quite limited to their immediate neighbourhood. Debates on mobility should thus broaden their scope to look beyond mobility for higher income groups. Furthermore, transforming the city into a 15 minute city entails an increased risk of gentrification. We can thus state that the 15 minute city provides city councils with a useful framework, but should be accompanied by the necessary scrutiny. A just 15 minute city should include policies of affordable housing, to ensure wellbeing for all.

This brings us to the next field where cities can play a role in transitioning towards a socially and ecologically just world: housing.

Housing

Within the foundational economy a house is to be regarded as an essential good, both socially and materially. This has become especially apparent during the latest sanitary crisis of COVID-19. As jobs and care coincided under the same rooftop, houses became even more 'valuable' goods (Aernouts 2022). However, we need to urgently question what kind of value is being ascribed to the places we call 'our home'.

David Harvey (2014), renowned for his political ecological analyses, states that housing is the domain where the discrepancy between use and exchange value becomes truly apparent (Harvey 2014). Houses have become like no other the subject of speculation, have become tradable goods and piggy banks. They have become cornerstones of wealth-based welfare (Harvey 2014; De Decker & De Wilde 2010). Yet a house becoming a commodity hampers its true functioning and purpose: to fulfil basic needs. Houses instead have become distributors of spatial and material inequalities (Aernouts 2022). In light of this, together with many scholars, we advocate for a de-commodification of the housing sector. This would allow for a much more fair and diverse urban landscape, with all-round high-quality and sustainable housing. Alternative practices and supporting policies exist and are being increasingly implemented across Europe. In this chapter we offer an introduction to some concrete and influential examples.

First and foremost, according to Aernouts (2022) social housing remains the most important measure to be taken. Public ownership of land and houses allows for the prioritisation of collective needs and long-term goals. Through public ownership and maintaining control over prices, accessibility, and environmental sustainability, cities are being protected from speculative, financialised transformations, keeping their urban transformation in firm democratic control.

Countries like Sweden, the Netherlands, and France have a history of implementing public housing in a universalistic model, where all segments of society are included in government support, albeit in different strategies (Scanlon et. al. 2015; Winters & Elsinga 2008). This reduces overall inequality, and counters social comparison mechanisms, reducing the status attractiveness of building more, bigger, and luxurious houses. Collectively revaluing the places in which we live through public ownership and (re)distribution would take housing from a growth-oriented segment of our economy to a high-quality and essential provisioning system, improving overall urban wellbeing (Schneider, et. al. 2011).

Throughout decades of housing crises and political resistance to private property systems, many hybrid pathway solutions have appeared, linking the public, private, and civil society sphere. Bottom-up, grassroots initiatives such as housing cooperatives and community land trusts have been exploring forms of collective ownership and the limitation of surplus value to counter speculation. Their various successes have led to these initiatives increasingly gaining government support through forms of subsidy, promotion, and new legal frameworks (Aernouts & Ryckewaert, 2018). Equally, these neighbourhoods are open to private investors who are interested in social and sustainable investments (Aernouts, 2022).

To reach a more concrete understanding we take a closer look at the rising practice of co-housing. The history of co-housing in Europe explains how grassroots initiatives are variably impacted by different housing policies, and equally impact urban policies themselves.

Co-housing implies 'a collective dimension of housing, as opposed to an individual, or private, form' (Thörn et. Al., 2020). In line with this, Guillermo Delgado (2010) formulates co-housing as 'a way of resistance', but the 'potential of co-housing to be a feasible alternative on the current housing market relies on municipal ownership and **the possibility it offers of sharing**' (p.54). Co-housing across Europe faces different conditions, influenced by different policies that impact the ability to 'share' with one another. Analysing these different outcomes in European cities allows us to learn from them.

As a first example we take Denmark, the cradle of co-housing practices. State support for cooperative housing was a prime reason for the 'wave' of Danish co-housing in the 1980s. However when state support dried up, co-housing again became predominantly based on owner-occupation (Larsen, 2019, p.33). This excluded low- and lower-income groups. The ability to share with, and care for, these urban inhabitants became unattractive due to speculative opportunities. Co-housing as such likely added to a rise in social and spatial inequalities (Clark 2005).

Examples in Germany and Spain show us that co-housing can become exactly the opposite when the municipality supports these cooperative endeavours. In the German city of Hamburg, despite the fact that co-housing became a lucrative market segment, the majority of co-housing groups maintained – and continued to choose – 'non-speculative ownership forms' for their projects. Their statutes have an emphasis on use value rather than exchange value (Scheller 2019, 69). Analysing how Hamburg became such a successful case, Scheller argues that:

"such a development, first and foremost, strongly depends on the provision of legal and financial support by the state and, furthermore, on unrestricted autonomy and self-organization of the projects. The non-profit provision of land for collaborative democratic use seems to be a particularly promising tool for that purpose" (69)

In the city of Barcelona, like in Hamburg and many other cities, co-housing trends are part and parcel of a political struggle against wider concerns over a mounting housing crisis. Besides offering successful 'small pockets of non-speculative spaces' and experimenting in sustainable housing forms, they could lead to a wider shift towards alternative and socially just housing policies (Scheller 2019, 70). Their successes, the ability to spread and to change, to tilt the city, often depend on the willingness of municipalities to strengthen them.

We therefore argue that such projects are to be seen and supported in their endeavour to make a more equal, resilient, and just city.

Conviviality

Apart from our essential needs such as food, water, and energy, humans naturally need connection and to belong to a community, to be able to interact creatively and autonomously. In this sense, this living together in a joyful way, called conviviality, is different from social cohesion, by emphasising living together with difference and diversity. In our current society, many experience a simultaneous lack of connectedness and autonomy while feeling the pressure to conform to dominant norms of our consumption society. In this society which values profit, productivity, and material property over different kinds of kinship and respect, this results in social isolation, overconsumption, and mental health issues. Cities play a pivotal role in offering people an opportunity to be a part of a bigger community. This holds the potential to increase citizen wellbeing without increasing (energy and material) consumption. If people for instance can meet in hospitable places where there is no need or pressure to consume, these exchanges can create human bonds and a sense of place.

Public space and conviviality

The COVID-19 pandemic and consequent confinements highlighted the social differences in society. A lockdown has a very different meaning for those who live in spacious houses with big gardens than for those who live packed in a small apartment. Now that we can move freely again, these differences remain. The importance of public spaces, where all are welcome, has become ever clearer. For city inhabitants, the proximity of a park or square contributes significantly to their wellbeing. reen spaces specifically are important for mental and physical wellbeing, as discussed further on.

When public space is privatised, this can cripple opportunities for conviviality. A striking case is that of the Singelpark in Leiden, Netherlands, which is partly owned by the university. This grass field was for years used by students just to sit, relax, have a chat, etc. But the university decided to remove the grass and plant flowers in order to prevent students from sitting there. This was done at the request of a small but influential group of inhabitants from the surrounding houses, also owned by the university (ten Hooven 2022). In this case, private interests came in the way of public interest. A more frequent example is the installation of benches with multiple armrests, preventing homeless people from finding a sleeping place. This kind of infrastructure not only affects the homeless; it affects all of us, making it more difficult to meet others in the city.

Noreena Hertz calls this 'hostile architecture': "urban design with a focus on exclusion, design that inhibits community and tells us who is welcome and who is not" (Hertz 2020).

Instead of promoting exclusion, cities can play a role in building social bonds and community. City councils can work together with grassroots initiatives or start their own community initiatives. Kounkuey Design Initiative (KDI) is an inspiring example of a bottom-up community approach. They are active in Los Angeles and Stockholm, as well as in the informal settlement of Kibera, Kenya. With participatory models of planning and design, they are transforming Kibera's urban waste spaces into public spaces that encourage social bonds. In the process, they create opportunities for diverse groups to share decision making power in the processes that shape their neighbourhoods. By physically transforming these spaces, they engage the community and create economic and social opportunities. The first step of the process is to decide on the site to be transformed, followed by identifying the community's needs, such as 'educational and economic opportunities' and 'clean and safe environments'. Various community workshops take place to define the needs and to grow the community's capacity before the construction phase.

However, public space management should not be left solely to grassroots citizen initiatives. Local governments have an important role to play in encouraging a convivial lifeworld. Physical environment and spatial planning are key to this. Adequate social infrastructure such as attractive public space (e.g. libraries and parks) designed to bring people together, supporting activities and initiatives that actively involve people, offering volunteering opportunities and so on, are possible strategies for a society where each individual can feel they belong, are appreciated and welcome, in their individuality and also as valued parts of a whole.

Furthermore, the design and use of public space has an impact on people's mental health. Holemans (2017) argues for *profit-free places*. Since people cannot choose what they see in public spaces, advertising should be removed. Research demonstrates this has a direct positive impact for citizen wellbeing. When people are not manipulated into thinking they 'need something', they are happier, more self-confident, and content. This is of course also key to transitioning from a consumerist society to one based on wellbeing and sufficiency. Buying goods that promise you a feeling of wellbeing only leads to more consumption upon the discovery that this feeling was only short-lasting. This is destructive to our planet, seeing as the average consumption in a high-income nation is about 28 tonnes of material stuff per person per year (Hickel 2021). Grenoble is an example of a city that replaced the well-known advertisement boards (owned by international corporations) in public spaces with information on civil society activities.

Last but not least, convivial cities are quiet places. Noise pollution is a serious and underestimated problem, causing many health issues, stress, and disease (WHO 2011). People living in dense cities are most affected by this. Cities should consider creating accessible public spaces of silence where people can come to relax. Silence and rest for the nervous system – essential for good health – should not remain the countryside's privilege.

Access to nature

Speaking of health, we continue to review the connections between city and nature. This has the potential of being beneficial for the health of our planet and for human wellbeing, with positive health and social effects.

Additionally to connection between humans, connection with non-human nature plays an important part in our mental wellbeing. Access to green spaces is found to reduce stress, encourage physical exercise, and facilitate social contact. Research from Canada shows us how the presence of trees in a neighbourhood has a "more powerful impact on our health and well-being than even large sums of money" (Hickel 2021). As little as the view of trees and green from your window can increase wellbeing. The availability of green and blue (water) spaces in the proximity of one kilometre has a significant impact on self-reported mental health, reducing anxiety and depression and improving concentration and personal development (de Vries et al. 2016; Simoens et al. 2014). City plans should therefore include green and blue corridors and spaces throughout the city, as Copenhagen has been doing for decades.

These spaces can promote social cohesion and encourage a sense of community, by functioning as meeting spaces. Studies show that the availability of trees, grass, and the perceived level of green influence the amount and quality of social contacts among neighbours. Green spaces thus play an important part in strengthening communities. They can be part of a strategy to reduce widespread loneliness and social isolation. This is especially important for the elderly, who are in general less mobile and have limited activity spaces (Kemmerman & Timmermans 2014). Also for our youngest, the accessibility of green spaces is essential for their development, supporting cognitive development and physical mobility (coordination, balance, agility), and reducing attention deficit disorders and hyperactivity (Simoens et al. 2014). Furthermore, neighbourhoods with more tree cover report significantly fewer crimes (e.g. assault, robbery, drug use) (Hickel 2021; Simoens et al. 2014).

Additionally to social cohesion and mental health, the proximity of green spaces also positively impacts physical health, e.g. through temperature moderation. In neighbourhoods with green and blue spaces, heat stress (an increasingly serious problem due to climate change) is significantly lower. Moreover, one of the slow killers in our cities is air pollution, caused by traffic and industry. Fine particles are associated with 75% of all environment-related health issues (Simoens et al. 2014). In neighbourhoods with more green space and forest cover, the air is healthier. A green environment also encourages physical exercise, thus improving overall health and immunity.

For all of these reasons, creating green spaces and planting trees is a city's responsibility. And why don't we take this as only a first step towards transforming our cities into green hubs, where people truly live in and with nature? In today's society, the majority of people do not experience connection to nature on a daily basis. In regions such as Flanders, people spend around 85% of their time indoors (Simoens et al. 2014). Sustaining and regenerating our natural environments and reconnecting ourselves with nature will have a significant positive impact on both human and planetary wellbeing.

ImagineCity, Monday 29 April 2030

A week later – Fatima and Filip are delighted with the plans made at the Transition Festival. The gathering allowed citizens to take stock of how in recent years the building blocks for a future-proof, eco-resilient economy that tilts the city towards a sustainable future have been developed. Supported by the city council, citizens have started an energy cooperative, helped establish two CSA (community-supported agriculture) farms, and five housing cooperatives have already removed the first significant set of buildings from the speculative market. Add to that community car-sharing initiatives and a successful farmers' market in every district, and the whole thing looks pretty hopeful.

Still, quite difficult questions were asked at the festival. Fatima also wondered if it is just a matter of scaling up, so that very large organisations arise. And other participants criticised how the different initiatives developed independently of each other. But through collective wisdom, good answers were formulated. Scaling up is probably not the right way to go; then the human dimension disappears. So Filip put forward an amazing idea he learned doing volunteer work at the farm: perhaps the way in which strawberry plants multiply can inspire how to build an alternative, community-led economy. A strawberry plant does not grow larger every year, but spreads through stolons or 'runners'. Runners extend out a little distance from the elder, take root in the soil, and produce new plants called 'daughter plants'.

Imagine that for instance each housing cooperative inspires ten other groups to start their own alternative form of housing, once again taking land and buildings out of the speculative market. And sharing initiatives do the same. And all those initiatives can unite in an urban federation. And yes, the various initiatives need synergy. This can be done by working in virtuous circles, where each initiative is explicitly instructed to strengthen and accelerate other initiatives.

And, of course, it is important to learn from other cities. That is why a group led by Fatima will set up an internet community with similar initiatives in Zagreb, Amsterdam, Vitoria-Gasteiz, Skopje, and Istanbul.

For example, they want to exchange ideas about how to set up a car-free neighbourhood, or invite students from a futuristic educational centre where each subject has a sustainable transformation perspective, so that, for example, youngsters do not learn economics but doughnut economics by default, and everybody gets a course in ethics about care, as expressed in many different cultural communities. Because just like in nature, diversity is key in society.

Conclusions and action proposals

To guide us in making our cities sustainable and just, Local Governments for Sustainability (ICLEI) Europe – in cooperation with other organisations and cities – has put together a list of Principles for Sustainable Just Cities (2022):

- Integrate justice into sustainable urban development
- Embrace alternative economic models
- Formulate policies with and for all citizens
- Build transformative capacities
- Integrate diversity, equity, and inclusion into urban planning
- Strengthen communities
- Enable universal access to the environment
- Maximise wellbeing within planetary boundaries
- Put digitalisation at the service of all

We propose, to make this list more concrete, and taking the reasoning of this paper into account, that the following five concrete concepts can be milestones in the trajectory towards becoming an eco-resilient city:

- Promote sufficiency by enabling 1.5 degree lifestyles
- Make every neighbourhood a Positive Energy District
- Redesign the mobility system and spatial planning on the model of a 15 minute city including integration of sufficient green and blue spaces
- Develop a plan to increase the amount of housing in public or community ownership, in every district
- Reconceptualise the city government/administration as a partner state focused on co-creation alongside citizens' initiatives.

Of course, as stated in the introduction, every city is different. It is up to each city to integrate local context in their strategies, aided by a participatory and community approach. The overall goal stays the same: place people and planet before profit and redesign the urban metabolism so it fits within an economy that provides a good life for all within planetary boundaries. Of course, one city by itself can do a lot, but will not be able to change the overarching political and economic system on its own. Luckily, cities have established a growing number of networks, such as *Energy Cities* or *Fearless Cities*. And at the same time, citizens establishing energy cooperatives, in cities and rural areas, have joined forces in federations. If these progressive communities work together in a deliberative way with a shared future-proof agenda, they can build the necessary levers for the desired societal transformation.

References

1. Amsterdam City Doughnut | DEAL. https://doughnuteconomics.org/stories/1. Accessed 25 May 2022
2. Beeckmans, L., Oosterlynck, S., & Corijn, E. (2021). De stad beter na corona? Reflecties over een gezondere en meer rechtvaardige stad. ASP| VUBPRESS| UPA.
3. Brand, U., & Wissen, M. (2021). The imperial mode of living: Everyday life and the ecological crisis of capitalism. Verso Books.
4. Brussels Bets on the Donut | DEAL. https://doughnuteconomics.org/news/10. Accessed 25 May 2022.
5. CloseDeleteEdit
6. de Vries S, Ten Have M, van Dorsselaer S, van Wezep M, Hermans T, de Graaf R. Local availability of green and blue space and prevalence of common mental disorders in the Netherlands. BJPsych Open. 2016 Nov 23;2(6):366-372. doi: 10.1192/bjpo.bp.115.002469. PMID: 29018562; PMCID: PMC5609776.
7. "Doughnut Economics – Solving Inequality & Ecological Degradation with a New Economic Model." Global & European Dynamics, 20 Mar. 2020, https://globaleurope.eu/globalization/doughnut-economics-solving-inequality-ecological-degradation-with-a-new-economic-model/
8. Ghosh, A. (2018). The great derangement: Climate change and the unthinkable. Penguin UK.
9. Gössling, Stefan (2020) Why cities need to take road space from cars - and how this could be done, Journal of Urban Design, 25:4, 443-448, DOI: 10.1080/13574809.2020.1727318
10. Hertz, N. (2020). The Lonely Century: A Call to Reconnect. Hachette UK.
11. Hickel, J. (2020). Less is more: How degrowth will save the world. Random House.
12. Holemans, D., Osman P. & MM. Franssen (2021), Dare to Care. Ecofeminism as Source of Inspiration. EPO/Green European Foundation, Brussels.
13. Holemans, D. (2022). Commons as Polanyian countermovement in neoliberal market society. A case study in Belgium. Community Development Journal, 57(3), 552-569.
14. Holemans, D. (2020). Resilience under shock: Time for a paradigm shift. Green European Journal, 16.
15. Holemans, D. (2017) Freedom & Society in a Complex World. Green European Foundation, Brussels.
16. Holemans, D. (2016) Institutional Diversity for Resilient Societies. Green European Journal 14: 14-19.
17. Kaur Paul, Harpeet. 2020. Climate change affects rich and poor unequally. Climate justice redresses the balance. Greenpeace. https://www.greenpeace.org.uk/news/climate-change-inequality-climate-justice/ Accessed on October 6, 2022.
18. Kemperman, A. D. A. M., & Timmermans, H. J. P. (2014). Green spaces in the direct living environment and social contacts of the aging population. Landscape and Urban Planning, 129, 44-54. https://doi.org/10.1016/j.landurbplan.2014.05.003
19. Moreno, C.; Allam, Z.; Chabaud, D.; Gall, C.; Pratlong, F. 2021. Introducing the "15-Minute City": Sustainability, Resilience and Place Identity in Future Post-Pandemic Cities. Smart Cities 4, 93–111. https://doi.org/10.3390/smartcities4010006
20. OECD (2020), Beyond Growth: Towards a New Economic Approach, New Approaches to Economic Challenges, OECD Publishing, Paris, https://doi.org/10.1787/33a25ba3-en.
21. Simoens I., Van Herzele A., Turkelboom F. (2014). Hoofdstuk 7 - Welzijn. (INBO.R.2014.6391558). In Stevens, M. et al. (eds.), Natuurrapport - Toestand en trend van ecosystemen en ecosysteemdiensten in Vlaanderen. Technisch rapport. Mededelingen van het Instituut voor Natuur- en Bosonderzoek, INBO.M.2014.1988582, Brussel
22. Soja, E. W. (2013). Seeking spatial justice (Vol. 16). U of Minnesota Press.
23. ten Hooven, Marcel. 20 april 2022. Sociale ontbinding. Als de overheid niet meer doet wat de burgers van haar verwachten. De Groene Amsterdammer. www.groene.nl/2022/16
24. What Is Fair EarthShare | IGI Global. https://www.igi-global.com/dictionary/fair-earthshare/66772. Accessed 25 May 2022.
25. Vogel, J., Steinberger, J. K., O'Neill, D. W., Lamb, W. F., & Krishnakumar, J. (2021). Socio-economic conditions for satisfying human needs at low energy use: An international analysis of social provisioning. Global Environmental Change, 69, 102287.
26. https://www.eea.europa.eu/articles/sustainable-cities-transforming-europes-urban-landscapes
27. Principles for Sustainable Just Cities. Sustainable Just Cities, https://sustainablejustcities.eu/principles. Accessed 31 May 2022.
28. Cik, Tomislav. 1 March 2021. Fitting Croatia within the Donut: The Four Cities. Institut Za Politi ku Ekologiju, http://ipe.hr/en/blog/fitting-croatia-within-the-donut-the-4-cities/. Accessed 1 June 2022.
29. Database - Eurostat. 2018. https://ec.europa.eu/eurostat/data/database?node_code=ilc_mdes03. Accessed 2 Nov. 2022.
30. Burvenich, Karolien. "Make ICT Fair." CATAPA Vzw, 24 Aug. 2018, https://catapa.be/en/make-ict-fair/.
31. Qatamin, Hadeel. How Could Urban Planners Contribute to Social Cohesion in Cities? | EcoMENA. 1 Mar. 2020, https://www.ecomena.org/social-cohesion-in-cities/.
32. "Burden of disease from environmental noise, Quantification of healthy life years lost in Europe", World Health Organization, European Commission, 2011

Contact us:

GREEN EUROPEAN FOUNDATION
Rue du Fossé – 1536 Luxembourg
Brussels Office: Mundo Madou
Avenue des Arts 7-8
1210 Brussels, Belgium

t: +32 2 329 00 50
e: info@gef.eu

Connect with us:

Visit our website to find out more about us

Follow our social media to stay informed about our latest activities and events taking place all over Europe