A NZC call to action for a participative transition to carbon neutrality and beyond

DELIVERABLE 8.1: Desktop report on engagement

Authors: Lucy Parry (Democratic Society)

Co-Authors: Dark Matter Labs (Alicia Carvajal, Eugenie Cartron, Martin Locret), Demos Helsinki (Kaisa Schmidt-Thomé), Democratic Society (Adriana O'Phelan, Azucena Morán, Daniela Amann, Kate Goodwin, Max Stearns), EIT Urban Mobility (Monica Castañeda), Energy Cities (Blandine Pidoux, Christiane Maurer), ERRIN (Heidi Johansson), Resilient Cities Network (Nilofer Tajjudin), TNO (Joke Kort), POLIMI (Federico Rita, Felicitas Schmittinger, Giovanni Davide Zenga)

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Executive Summary

All hands on deck. We need to involve everyone in the transition to climate neutrality.

Democratic decision-making and agency are critical to achieve 100 climate-neutral cities in 2030 and a climate-neutral Europe in 2050 [1].

In this report, we make the case for cities to transform decision-making processes and engage citizens and urban stakeholders in meaningful participation to contribute towards this goal. Our aim is to challenge, inspire and support cities to reimagine the role of citizen engagement in their journeys to climate neutrality.

We do this by first laying out the current situation: cities are well placed to meet the climate challenge, but not yet prepared. They will need to create and strengthen institutional settings and tools that enable citizens, communities and other actors to make sense of facts, challenges and priorities together, continuously building collective intelligence, adaptation and mitigation strategies, participate in high-quality decision making, co-design, co-invest and co-deliver climate action in a context of complexity, entanglement, uncertainty and constant emergencies [2].

To do this effectively, cities need to address some key barriers that are ultimately political, administrative, democratic and governance challenges. Based on our literature review and research with cities, we identify five barriers that require a profound shift in mindset and practice. These barriers are (1) short termism, (2) unfair economic relationships and responses, (3) complexity, (4) governance limitations and (5) a lack of representation for the most vulnerable.

Overcoming these barriers demands meaningful engagement and participation of citizens and urban stakeholders, such as civil society organisations, citizens and communities affected by the green transition or the private sector, to tackle the challenges head on. Authority and agency will need to be redistributed. The transition needs the creativity, passion, energy and drive of citizens and stakeholders, who need to become partners, allies, and co-orchestrators of democratic change. We consider what needs to change in cities for this to happen.

Happily, there is a wealth of literature, evidence and practice that affords such a change. We introduce five different ways of doing so: a curated appetiser of how engagement and participation can - and already does - address the key barriers to effective, sustainable climate action in cities. However, all approaches are only as good as their implementation.

Lastly, we provide some key considerations to take into the planning and preparation of engagement for climate neutrality. These emphasise the importance of learning, local context, and building relationships for democratic infrastructure.

It will ultimately be up to cities to implement engagement in meaningful ways that foster distributed agency and promote the structurally collaborative, multi-actor ecosystem of change needed to make better decisions in order to accelerate towards climate neutrality. This report illustrates the ways in which this can, and has, been done.

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About the Report

How this document has been developed

This report has been written collaboratively and draws on the collective intelligence of NetZeroCities Partners, an extensive literature review as well as our direct experience working with cities, citizens, and urban stakeholders.

We have drawn methodological inspiration from some of the participatory approaches introduced in the report. The NetZeroCities Mission Platform is a consortium of 33 partner organisations and over 330 individuals working together to support European cities to become climate-neutral by 2030.

To create this report, we first harnessed our collective intelligence and experience of climate, democracy, governance and urban development to crowdsource knowledge on the methods and examples of citizen engagement and participation presented in chapter four of this report. As of March 2022, we have collated and documented nearly 100 citizen engagement approaches, methods, and tools, and identified 90 case studies that implement them in practice. Based on this knowledge, we have curated a small selection that is presented in chapter four of this report, based on their ability to address the key barriers identified in our desktop research. As part of the ongoing research, NetZeroCities Consortium will analyse and document a much larger collection of citizen engagement approaches and examples.

In addition to our internal crowdsourcing, we also draw our findings from the Report on City Needs, Barriers and Drivers towards Climate Neutrality, published by the NZC consortium in March 2022. The report compiles findings from 10 focus group meetings, which engaged 64 cities across Europe, providing valuable input on the cities' needs, challenges and opportunities for citizens engagement and climate action.

These insights are highlighted throughout the report in "what we're hearing from cities" boxes and support our desktop research on the key barriers to effective climate action.

We have drawn on the extensive academic and non-conventional literature to inform our argument. Many disciplines have contributed to the research realm on democratic climate action, including but not limited to community engagement and development, communicative and participatory planning, deliberative democracy, and collaborative governance. Of direct relevance for us are studies that weigh the strengths and weaknesses of democratic approaches and shed light on the governance reforms that are required for more effective, democratic climate action.

Finally, this report builds on our direct experience from the field, from working with cities, citizens, and stakeholders. This includes projects like the Swedish Climate Contracts (Viable Cities), Humble Governance (Demos Helsinki) and Healthy Clean Cities Deep Demonstrations (EIT Climate-KIC, Democratic Society, Dark Matter Labs, Bankers Without Boundaries, Material Economics), Social Innovation Community (Politecnico di Milano), Living Streets (Energy Cities) LocalRES (Cartif, Energy Cities), Renewable Energy Partnerships (Energy Cities), Making-City (Cartif, LGI, TNO).

Who is our audience?

We envision our audience to encompass everyone for whom learning about engagement and participation in the context of climate policy and action is in their ultimate interest: from municipal officials and expert researchers, to citizens wanting to take part in the transition of their city to climate neutrality.

This report has been created for the municipal governments, citizens and urban stakeholders of cities participating in the European NetZeroCities (NZC) program to reach carbon neutrality by 2030. However, citizen engagement and the democratising of decision making for the transition to climate neutrality are relevant for a wide range of climate and democracy actors beyond NZC cities.

Audience type	Key questions/purpose
Mayors and other elected officials	*How can engagement and participation support the implementation of climate action that withstands election cycles? How can it help address difficult issues?*
Senior civil servants in local government	*How can involving others lead to climate programs, policy design and implementation that are more widely supported, impactful and resilient?*
Public servants designing or delivering innovation programmes and policymaking focused on the transition towards climate neutrality	*How can collaboration support the design of climate innovation programmes and policy implementation that respond to both global ambition and local needs, capacities and opportunities?*
Researchers and students examining democracy and the transition to climate neutrality, and/or working in those fields	*How can theory and empirical research translate into impact in democratic practice and real-world politics? How can democratic governments meet the climate crisis head on?*
Funders of climate innovation programmes focused on carbon neutrality	*How can engagement and participation ensure that funding leads to long lasting and impactful climate action? How can funders reimagine their role from gatekeepers to social and democratic innovators?*
Private companies and businesses	*How can distributed agency help private companies and businesses transition from by-standers to active agents of change on the road to climate neutrality? How can businesses support and engage with their local communities?*
Non-profit organisations or civil society organisations	*What role can democratic decision making and distributed agency play in the transition to climate neutrality? What role can NGOs play in partnership with cities?*
Citizens and grassroots groups progressing change from the ground-up	*How can citizens, social movements, and grassroots groups define the contours of a more desirable future, write a new narrative, and engage with the climate neutrality journey at every step?*

Structure of the report

This section presents each of the chapters of the report along with their purpose or main objective.

Chapter	*Purpose*
01. What we say, and what we mean	To introduce the key concepts used in the report and why we use them.
02. Why do we need to involve everyone in the transition to climate neutrality?	To outline the need for including diverse agents in climate policy, decision making and action.
03. What do we need to change?	To explain the key barriers that need to be addressed in order to reach a sustainable, democratic climate neutrality.
04. How can this be done?	To introduce citizen and other urban stakeholder engagement approaches specifically designed to address the key barriers.
05. Design Principles	To outline the core principles that guide effective and meaningful engagement and participation of citizens and other urban stakeholders for climate action.
06. Key Takeaways	To highlight the action points to walk away with and take into planning the engagement and participation of citizens and other urban stakeholders for climate neutrality.

01.

What we say, and what we mean

"(The benefits of citizen engagement) entail increased community acceptance and support for climate measures, surfacing new insights based on local knowledge and expertise, or inducing social learning. Moreover, it has been determined that effective and meaningful participation is crucial to ensuring that policies are designed in a socially just manner that respects the rights of communities and builds resilience" [3]

Key Concepts

In this report, we use several terms which can have multiple meanings. Some of these concepts are central to our thinking and understanding. This section clarifies our approach to each of these.

1. Citizen = Person. Any individual acting as a member of the public or taking part in the life of the city.

The term **citizen** has a range of meanings. Citizens can be conceived of as individuals with a particular legal status, as individual agents in a political community, or as part of a particularly civic identity - as opposed to being conceptualised as a consumer, for example [4].

When the term takes on a legal meaning, it can exclude individuals or groups. For example, many people living or working in a city do not enjoy the same rights as citizens in the administrative or legal sense. This exclusionary nature leads some to argue that we should not use the term. Several of our colleagues use *community*, *residents*, *participants*, and simply, *people*, to describe the individuals and groups they work with. Others argue in favour of retaining the term, focusing on the rights and responsibilities associated with being a *democratic agent* – the right to be involved in decision making processes [5] - regardless of legal status.

When we use the term *citizen* in this report, we take this latter approach. A citizen is a person living or working in a city, who has the right and responsibility to take part in shaping and enacting the transition of society in response to the climate crisis.

"Citizens are functional members of a democratic society by virtue of living within it and being affected by it—rather than only those having formal legal membership" [5]

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2. Engagement = Active and conscious empowerment, collaboration and mobilisation of a plurality of agents, in this case, to reach climate neutrality.

Engagement is often conceptualised as a top-down process, where governments seek to engage with the public. *Participation,* on the other hand, is much broader and includes bottom-up and informal forms of participation such as participatory creativity and community organising [6]. Engagement and participation common goal is to increase the degree of collaboration between citizens and governments with the aim of improving policy programmes and public services [7], [8].

While there is a place in democratic societies for all levels of engagement and participation, in this report we argue that to successfully transition to Climate Neutrality, we need to radically multiply the number of agents of change that actively participate in the transition. This requires that city governments play a leading role in initiating and building new relationships towards other city actors, a new working attitude that includes a willingness to recognise that not a single actor can face the transition towards climate neutrality on their own. In order to maintain a lasting impact, move beyond business-as-usual, and unleash the potential of existing city assets, the engagement and participation of diverse actors is key, generating a sense of 'togetherness' and space for collaboration and collective action to pursue climate neutrality. Exploring and investing in the settings and instruments for this to be possible is a key area of climate innovation which offers multiple unexplored benefits. This transition entails reframing the established idea of engagement - not just informing or asking for input or consent to municipal led processes and decisions, because that will not get us to a sustainable carbon neutral society.

In this report, when we use the term *engagement*, we are referring not only to participation in processes across the policy cycle, but also to the empowerment of a plurality of agents so they are able to define, design, implement and monitor climate action. We see engagement as a way to radically increase ownership of burning issues such as climate change by city actors, and multiply their capacity to partake, collaborate, co-invest, decide and act.

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3. Citizen engagement and participation = The wide range of ways in which people, on their own or as part of formal or informal groups, participate in democratic decision making, civic and public life to actively shape and implement, in this case, the transition to climate neutrality.

When we use the terms 'citizen engagement and participation' in this report we are referring to the wide range of ways in which people take part in democratic decision making, civic and public life to actively shape and implement the transition to climate neutrality. Typically, citizen engagement has been conceptualised as governments supporting citizens to get involved in decision-making processes. It is most commonly associated with the early stages of the policymaking process such as agenda-setting and consultation. It aims at uncovering explicit and latent needs and values to elicit their engagement in collective activities, while also providing the infrastructure to allow the accomplishment of evidence-based and informed decisions in response to collective issues [9] [10] [11] [12] .

Citizen participation is more informal in nature and usually lies outside of governmental structures. The relevance of citizen participation lies in its democratising spirit, which guides its challenge of increasingly mobilising citizen support to target policy domains that lack sufficient awareness, inclusion, and accountability [6] [13] [14] [15]. However, our research and findings presented in this report suggest that the two are often intertwined in democratic practices [16], which are ways citizens can work together to address shared problems. Many of the examples we present in this report contain elements of both citizen engagement and participation.

From a climate crisis perspective, we suggest that by increasing the involvement of diverse urban stakeholders in the design, development, investment in, implementation and monitoring of climate policies and actions, we are more likely to achieve the transition to climate neutrality. We thus argue that both engagement *and* participation of citizens are needed. We believe that city governments can and need to be champions of citizen engagement and participation for climate neutrality; only through the meaningful involvement of diverse city actors throughout the process can the transition be successful, legitimate, just, and sustainable.

4. Urban stakeholders = the wide range of organised interests and groups who form part of a city's ecosystem.

The term urban stakeholder can be interpreted as an individual with a stake or interest in an issue, and it can be interpreted as an organised group and their representatives [5] (such as a business, a trade union, a civil society organisation, a bank, or a lobbying group).

In this report, we recognise that the involvement of diverse urban stakeholders and citizens, as well as multi-level governments, is crucial to address the climate challenge. The transition to climate neutrality will require significant change from all the actors in the urban ecosystem and will depend on achieving their active buy-in and collaboration. It will also need to tap into their resources, from knowledge and action to their capacity to direct finance flows whether through investment or other forms of spending. Involving only a part of the ecosystem puts the transition at risk.

Involving only urban stakeholders' risks excluding the interests of those who are not represented by organised groups. Some urban stakeholders are powerful players and can dominate an engagement process, reducing other's input and ownership over outcomes [5].

At the same time, involving only citizens risks having other urban stakeholders reject the outcomes, when implementation success may rely on them. Urban stakeholders also have valuable knowledge, resources and experience, and not involving them can compromise the quality and viability of the outputs [17].

The majority of the approaches presented in this report envisage the active engagement and participation of both citizens and urban stakeholders. In some circumstances, they need to be engaged through separate processes to protect the integrity of participation and ensure safe spaces for marginalised communities to participate on their own terms.

"An individual passionate about a particular issue or political goal is categorised as a 'citizen'; an individual who acts on behalf of an organised group focused on an issue or objective is a 'stakeholder'"[5]

5. Distributed agency = the recognition that agency - the capacity to act meaningfully - is not only the domain of individuals, but is interdependent, complex and can be collective.

Our understanding of the preceding key concepts, put together, leads us to advocate for distributed agency as an integral**,** evenly balanced, coordinated, and radically democratic form of participatory action.

This is underpinned by several key beliefs:

- that increasing citizens' agency in deciding the outcomes that affect them will make democratic institutions more responsive and thus more accountable [18].

- that we need to mobilise all agents of change - from individuals to government administrations, to urban stakeholders e.g., small and medium enterprises, research institutions, NGOs or civic society organisations, across the system, to enable the scale and speed of transformation required to reach climate neutrality and beyond.

- that we need a diversity of perspectives, capabilities and resources to build resilient approaches to the transition, given the context of entanglement, complexity and uncertainty, and that we need to include those most affected, and most often left out, to ensure the transition is just.

"Agency, with its components of flexibility and accountability is divided and shared out amongst multiple individuals while still being anchored in a single, sometimes decades-long course of action."[19]

02.

Why do we need to involve everyone in the transition to climate neutrality?

Our thesis

To reach climate neutrality by 2030, we need to make a transition that is unprecedented in terms of speed and scale, and we need to do so in a context of uncertainty, entanglement, and complex systems. There is ample evidence that if we are not able to radically multiply the number of actors and enable the whole city ecosystem to contribute to the transition, we will not achieve climate neutrality, much less in time.

Human activity has already caused over 1°C of global warming, and the impacts of climate change are felt in every region of the world [20]**. To stay below the 1.5° C threshold for global warming and reduce the risk of catastrophic impacts on people, biodiversity, and ecosystems, we need to make a transition that is unprecedented in terms of speed and scale. We also need to do so under conditions of complexity and uncertainty, and in an era of anxiety, insecurity, and polarisation** [21]**. Climate change is complex and irreversible, extends beyond political cycles and boundaries, and occurs over long-time frames.**

The climate crisis is both a test of our democracies' endurance and an opportunity, amidst significant challenges [22], for their renewal in response to our current needs and technological capacities.

In a context of complex and global-scale challenges, where successive crises lead us to live in a state of permanent emergency, our current democratic models often prove unable to deliver successful climate action. Repeated global crises, such as climate change and the COVID-19 pandemic, put democracy under massive strain. In the case of the pandemic, in some contexts technocratic governance has increased and, in some places, increased surveillance, misinformation, and expansion of governmental powers has resulted in democratic backsliding. At the same time, global civil society has demonstrated an appetite for greater participation in democratic governance through protests, volunteering and collective action [23] on the most challenging issues, including climate change.

*"Given a meaningful opportunity to have their say, most people would support action in the face of the
climate breakdown that is unfolding in front of us. But our democracies, in their current form, are just not offering people that choice."* [24]

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Existing democratic institutions, infrastructure and processes were designed and established to deal with confined problems that have immediate impacts, not complex and long-term issues [25]. In their current form, while there are exemplary cases of democratic institutions responding to emergencies such as that of the Covid-19 pandemic with agility and success, they generally seem largely unable to respond, in time and at scale, to the need for urgent climate action.

While this has led to some calls for a more authoritarian approach to dealing with climate change, the evidence stands that democracies *are* better equipped to deal with global crises. At the macro level, democracies have proven to perform better in climate policies than autocratic regimes, and this applies both to the stated level of ambition [26] and to actually taking successful action [27]. However, this rule of thumb does not hold for democracies with high level of corruption or distrust [28], nor for democracies with an influential interest group [29]. This signals the need to protect the integrity of decision-making processes required for the urban transformation to climate neutrality and healthier democracy.

The concept of democracy is multi-faceted and plural [30] but its core features, such as the free flow of information and speech, opportunities for accountability, and possibility of an active and critical public sphere are all necessary ingredients in ensuring an inclusive and just transition to climate neutrality [31]. Effective responses to match the scale of the challenges ahead requires becoming more democratic, collaborative, and collective action-oriented, and requires more than just technological advancement in order to co-create solutions that have tangible effects on people's everyday lives and leave no one behind. Over the past years, we have seen examples of many democratic governments making difficult decisions quickly, explaining the rationale clearly despite the complexity, building trust and leading with empathy. We have also seen evidence from social movements and affected communities

effectively increasing governmental responsiveness [32].

The problem, then, lies in the fact that our democratic and economic institutions, in their current, business-as-usual form, might be unable to respond to the climate crisis at the required speed and scale [24]. In a complex adaptive system, no single actor will be able to generate or sustain change on its own: we need distributed and collaborative action across public, private, and civic sectors. This means empowering citizens and urban stakeholders to have both a voice and the power to act in climate change related decision-making and implementation, and providing the institutional settings, frameworks, and capabilities to learn from, build on and align this distributed action.

"In the age of interdependency, we'll need new frameworks for how we relate to each other and our environment, how we recognise value beyond markets and money, how we organise across differences at an unprecedented scale, and how we nurture democratic agency beyond election cycles and reimagine the possibility of genuinely liberated civic spaces."[33]

All hands on deck. We need to involve everyone.

The required change will not be achieved at the needed pace without mobilising, empowering, and connecting stakeholders throughout the urban ecosystem, not only the obvious stakeholders but also the unlikely ones.

The climate challenge is also a democratic and governance challenge, and cities will need to explore more than simply how to involve citizens in municipal decision-making processes [34]. We need to rally, involve, and convene municipalities, corporate stakeholders, knowledge institutions, disruptive innovators, civil society and marginalised communities in all forms to define, design, embrace, co-invest and enact the transition to climate neutrality. This is not only a question of resources, but also of resilience and legitimacy. To achieve climate neutrality, cities need to accelerate both the demand and the supply side of innovation, to unlock and tap into the diversity of perspectives, capabilities, and solutions that the whole city system holds and to activate the desire for change and cement its legitimacy.

The multiple agents of the city need to be engaged throughout the climate transition journey, with a distributed approach which guarantees the integrity and legitimacy of the process. When citizens are actively involved in decision-making and implementation, it changes both their view of these processes, potentially leading to greater legitimacy, and their relationship with the administration [35][25]. This approach is more likely to win over hearts and minds, and to foster the needed behavioural change across all parts of the system, because processes and their outcomes are co-created, and trusted.

As we are operating in a context of complexity, mobilising citizens and urban stakeholders also makes us more resilient to unforeseen risks and changing conditions. We cannot afford to support a unique vision or attempt a single solution because we are unable to foresee all the potential implications, unintended consequences, reinforcing loops and vicious cycles of our actions.

A key challenge for democracies today is to be able to catalyse and orchestrate this multi-agent action in a directional, coordinated way.

Empowered but aligned. We need orchestration and coordinated action

It is not enough to enable and activate these multiple actors, alignment and coordination through proactive *orchestration* are also critical. Just as a conductor guides and brings coherence to musicians playing different instruments simultaneously - ensuring each member of the ensemble is able to take part in a way that contributes to the collective creation of music - *orchestration* is needed in the transition to climate neutrality. Convening and catalysing the diversity of perspectives, thought and action in the city will make it possible for efforts and resources to be combined and for all actors to collaboratively contribute to the transformation of society in response to the climate crisis.

Collectively piecing together the puzzle. We need to make sense of the complexity together

For the transition towards climate neutrality, we need to bring together different and sometimes opposing views, knowledge and practices, to achieve a deeper understanding of the systems in which we operate. Increasing the democratic vitality, participation in municipal processes, and cross-sector communication and collaboration can lead to better decision making and accountability. This may require investing in the settings, skills and institutions to support this. In some cases, and contexts, this will require countering a trend of disinvestment in social infrastructures of this type.

Many of the most critical questions that cities are faced with in the transition to climate neutrality do not have a straightforward answer. In these cases, achieving a deep understanding of the challenges might require much more time and effort than coming up with a solution, once the entangled barriers are clear. Systems mapping and problem framing thus become core capabilities for cities, citizens, and other urban stakeholders, who need to identify and fully understand the actual barriers that they might be facing. These will often involve entangled and intangible systems, structures, and processes such as those of regulation, finance, culture, habits and values.

This deeper understanding requires collective action in which the full picture and deeper understanding are only achieved by bringing together many complementary perspectives to piece together the complete system.

"There is the need to make synergies with other cities with the same problems and context." [36]

Creating the path as we walk: We need to advance through discovery, experimentation & learning

Because we operate in the context of entanglement, complexity and uncertainty, individual roadmaps are no longer valid. We need to collectively set a direction, involving a multiplicity of actors to both make sure the direction is legitimate and to strengthen the mandate, and then to work through discovery, including feedback and learning loops to continuously evolve and adapt to emerging needs and opportunities.

Learning also necessitates acknowledging failure and is central to taking a humble approach to climate neutrality. Local governments are not expected to hold all the answers. While keeping the ambitious goals of climate work in mind, cities need to adopt a listening and learning mindset, enabling 'a continuous investigation of different options that are tested in the contexts where they will be implemented' [37].

One option is to follow the so-called humble governance approach where problem-solving can start as soon as decision-makers reach a 'thin consensus' around a certain framework goal.

Then, the approach gives societal stakeholders the autonomy to pursue the goals based on their proximity and knowledge of the topic. Peer learning and iterative revision of the goal then come into play, fostering a thicker consensus as the process provides results and actors prove to be trustworthy [38]. This is how the Montreal Protocol has helped to protect and restore the ozone layer [39]. Humble timber is a great example of the complex nature of creating paths as we learn. Sustainable construction is a rapidly growing concern in efforts to decarbonise the industry. The use of timber seems to be a popular solution amongst actors. In some countries, this is currently being done through open collaboration with all industry stakeholders by firstly identifying their larger goals to create this 'thin consensus' mentioned earlier. In doing so, mutual trust is built between actors to propel action towards solving the complexity of this construction problem [40].

"Cities enjoy unique positions as advisors, motivators, and role models. They can lead by example by reducing their own energy consumption in public buildings as well as by procuring their energy from sustainable sources. They can lead more awareness-raising activities. As planners, regulators, and developers, they can take relevant legislative and other legal action. As energy producers and suppliers, they can promote and produce more renewable energy."[41]

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Change local to shift global: Cities are the key scale at which we can involve everyone

So far, countries have not managed, at the national level, to design and implement the necessary actions, plans and policies to reduce warming to the level set out in the Paris Agreement [42]. It may be that cities, while operating within multi-level government structures, hold the key to winning the fight against climate change.

Despite occupying merely 2% of the world's surface, cities are responsible for over 70% of global emissions [43] and are home to 75% of the EU population [44]. The transition to climate neutrality will have a significant impact on the way we live, work, and interact, affecting everything from how we heat our buildings and how we travel to how our consumption patterns relate to our cultural identities [45]. Climate measures undertaken by cities can have a direct impact on emissions, which can help make them more tangible. Some of the measures, such as low emission zones, can even have a physical, material expression that citizens and urban stakeholders interact with directly.

Cities are also major centres of economic activity, knowledge generation and technological development, and have been at the forefront of change and innovation throughout history [36]. A good example for citizen-led innovations in cities are urban commons. Urban commons describe resources that are collectively managed by citizens in a non-profit oriented and prosocial way [46]. The resources managed can be very diverse and include many aspects of urban life, including a joint edible garden, a food cooperative, a housing project or an energy cooperative. By collectively managing resources, taking decisions based on values rather than profit, and changing the relationship between users and producers, citizens become active agents in the transition towards climate neutrality.

Achieving climate neutrality will require significant changes in behaviour from stakeholders throughout the system. Because of this, policies for climate neutrality must respond to the realities of local contexts and communities and should be designed involving these communities and enabling them to actively take part. In cities, the distance between the governing authority and the electorate is smaller than in other levels of government, enabling policy interaction on a daily basis and arguably making it easier to work with all components of diverse populations. Cities are thus in a prime position to test new ways of working, living, producing, and consuming.

In summary, rapid action is needed and cities seem well placed to lead this transformation, yet our current democratic institutions, processes, and capabilities, seem to struggle to take the necessary steps despite the existence of sufficient technologies. There is evidence, and hope, that what is needed is more robust democratic capacities together with new institutional infrastructure to support the radical transformation required for a 1.5° C scenario to be possible [24].

More and better democracy. Our current challenges require new institutional infrastructures, capacities and capabilities

We need to move towards properly distributed agency and more radical democratic decision making, not only to improve the quality and impact of our decisions and initiatives but also to ensure the legitimacy and resilience of our climate action while accelerating and increasing learning.

Based on our research with cities [36], there is consensus that a key issue to resolve is that all stakeholders need to be involved and actively taking part, especially given the magnitude of the climate neutrality ambition. When moderate adjustments have been implemented at the municipal level, they have often received backlash and efforts to catalyse behavioural change have often been met with resistance and / or fear from communities and urban stakeholders. Contributing elements to this reaction were found to include factors ranging from a lack of trust in decision making processes, to outdated perceptions on renewables and interventions dealing with energy, mobility, and buildings, signalling unmet communication and relationship needs.
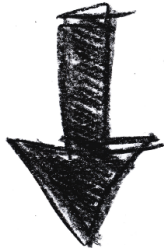
There is awareness among the cities that their role in engaging citizens and urban stakeholders needs to be changed. In our research, cities identified the need for tools, methods, and guidance on how to finance, implement and scale-up collaborative, participatory and deliberative processes. Cities also highlighted the need for more spaces for collaboration and forms of partnership. Municipalities seem to require innovative democratic tools, infrastructure, frameworks, and capabilities to take transformative decisions, and learn from them, at the speed and scope required and in ways that foster the distributed agency needed to sufficiently accelerate decarbonization.

However, local governments are likely to face obstacles in adopting such a transformative approach and making the required collaborative reform happen. What cities can do right away, however, is embrace collaboration, invest in transformative innovations, settings, resources, and tools to provide voice and agency to diverse actors, specifically those most often left out, and thereby enable transformative urban governance to emerge.

For local governments this will mean being humble in the face of complex challenges and empowering citizens and the diverse range of urban stakeholders whose support and capabilities are critical to tackle the transition. It will also require new institutional infrastructures for these new forms of engagement and collaboration to overcome some of the critical barriers that cities face, which we explore in the following section.

"A barrier to citizen's engagement is the lack of trust between citizens and politicians and policy makers. Fake news [regarding new measures] is also a problem to achieve deeper engagement."[36]

We
are
here

This is
where
we need
to get

Climate Crisis
Energy Crisis
Planetary Crisis
Social Crisis
Biodiversity crisis

Net
Zero

The transition towards NetZero will have a
significant impact on everyone's lives

Figure 1 : The change we need to make in response to the climate challenge is unprecedented in terms of time and scale.

03.

What do we need to change?

Our cities are best placed, but not yet prepared.

While cities are best placed to lead the transition to climate neutrality and achieve the required societal transformation, our institutional infrastructure, relationships, ways of working and capacities need to evolve to respond to the current needs, challenges, and opportunities.

Participatory democratic governance can help cities address many of the structural barriers they face in reaching climate neutrality and sustaining long-term, effective climate action. In the face of urgency and complexity, the climate transition requires city governments, as asset holders, regulators, co-investors, and policy setters, to become more courageous, agile, effective, democratic, flexible, and just.

Cities are key to the climate transition, but they need multi-level government support.

Their unique position leads to high expectations for cities to achieve climate neutrality, and there are also reasons to be cautious. Cities, whilst enjoying some level of autonomy, are usually still reliant on national government funding and legislation to some extent. This can be frustrating when cities are more ambitious than national governments on climate targets [47]. Shifting the burden of climate action onto cities may paradoxically undermine their capacity to act, through increased pressure from lobbying, or delegated responsibility for tackling controversial issues [48].

It is therefore essential that city level climate action goes hand in hand with higher-level policies and is integrated into a multi-level governance system, with emerging evidence that cities make better progress to achieving their emissions goals when they are supported by national level policies [49].

Cities are well placed to take on the climate crisis, but may not yet be prepared.

Embracing radical collaboration and distributed agency, at multiple levels of government, will help achieve the mission of becoming climate neutral. However, this may require that cities develop new institutional and innovative democratic infrastructure, capacities, and capabilities. Embracing more participatory, democratic governance requires rethinking the roles of different types of agents to shift the paradigm of city governance from a central authority to a coordinated multi-actor network: an empowered ecosystem of change.

To achieve this, cities need to tackle head-on a number of key barriers that currently stand in the way of achieving sustainable, just climate transitions. In the next sections, we introduce these barriers and what needs to change.

1. Overcoming short-termism

Cities currently struggle to overcome the 'present-bias', to think, plan and implement beyond political cycles. Even when politicians are motivated by the aspiration to make good long-term policy, they are constrained by the prospect of election and re-election which drives them to focus on immediate needs and results. This might in turn, be compounded by the assumption that the electorate has only short-term interests in mind when they vote [25].

> **What we're hearing from cities**
> Cities acknowledge how political cycles hinder the larger vision of citizen engagement. There is awareness that every election brings in new agendas and varying perceptions on the importance of citizen engagement. Hence it is difficult to carry on a uniform level of engagement with citizens.

Enabling long-term thinking, planning and implementation, which goes beyond the next election, requires cities to collectively explore possible futures and scenarios. It also forces them to adopt an intergenerational approach [25], which recognizes the need to decide and act now without displacing the burden or negative consequences of climate action on to the shoulders of future generations. This is exemplified by the recent decision of Germany's constitutional court to overthrow the country's 2019 climate law, on the account of the threat it represented for the freedom and life conditions of future generations [50].

Moreover, it is engagement over time that enables citizens to be real resources and co-create value. Cities need to enable this long-term participation to make citizens experience not only the initial small-scale solution, but the impact it is having long-term and at a larger scale [51].

Engagement only for short periods of time or in isolated phases of the development of solutions without providing the possibility to see the bigger picture can lead to discouragement [52]. Moreover, it can be easily overlooked that new solutions and changes in the system will impact people long-term and change their lives and ways of doing not only for a short period [53]. Participants need to be given the chance to contribute actively and see the impact of this input to stay engaged and motivated. Only in this way do they become advocates and co-create real value.

Cities need to create spaces and infrastructure for collaborative long-term thinking and implementation, both distributed and collective, to make it possible for them to expand their thinking and tackle problems such as climate change, which span beyond political boundaries, across time and borders.

One way forward consists in empowering **future focused citizens for long term solutions**, as described in chapter four. This requires creating the necessary structures and building the needed capacities and capabilities for the actors within the city ecosystem to be able to *sense* (access and understand information), *imagine* (create individual and shared mental images and narratives beyond what is possible today) and *sense-making* (individually and collectively give meaning to their experience).

"It's easier to concentrate on new innovative technologies, rather than picking a fight with powerful fossil fuel interests…It's easier to suggest small, incremental changes that won't challenge dominant social views, than trying to engage people in challenging conversations about social futures."[24]

2. Rethinking our financial structures and economic relationships

Mayors and city representatives trying to accelerate the fight against climate change face important economic challenges. While large-scale funding mechanisms exist to support climate action, most operate at the national or transnational scale. These funds are often very competitive in nature, which makes them much more difficult to access for smaller cities and metropolitan areas. They also tend to be project-specific instead of targeting long-term, sustainable, and systemic city-wide portfolios of solutions, considerably diminishing their actual impact on climate change [54].

Furthermore, barriers in procurement regulation mean that even when funding is available, governments often lack the capacity to make effective and impactful use of it. The procurement activities of national, state, and local governments are direct and indirectly responsible for 15% of global greenhouse gas (GHG) emissions [55]. However, the bureaucratic complexity of public procurement operations and the potentially higher short-term cost of greener procurement, can constitute significant barriers to harnessing the purchasing power of governments to achieve climate neutrality. At the intersection of governance, regulation and finance, public procurement exemplifies how administrative processes and ways of working may be hampering the climate transition.

The economic issues go beyond procedural challenges; they are entangled with social, legal, and political issues too. The local economy of some cities may rely on carbon-intensive industries and face justifiable opposition to reduction measures. Those affected may not see the potential benefits of climate action over the immediate cost to their livelihoods. Powerful economic and vested interests place immense pressure on authorities.

Yet, without that engagement, the substantial economic changes required are likely to continue to face opposition. The existing economic relationships, including procurement regulation, create and sustain inequalities in power distribution which result in imbalanced access, use, and control of resources, exacerbated by climate breakdown and its unequal impact distribution. This can also lead to a lack of trust in the process and key stakeholders. For example, private sector climate investment has at times been perceived as extractive, serving the interests of investors more than those of citizens at large.

As with our political system and institutions, our current economic system does not enable the required transformative change, much less at the needed speed and scale. Cities need to harness meaningful participation that can rethink these relationships and shift towards forms of interaction that are regenerative and symbiotic.

What we're hearing from cities
There is a general need for tools, methods and guidance on how to finance, implement and scale up co-creation processes and deliver effective engagement.

One way to do so is by enabling Participative finance for new economic relationships, as described in Chapter four, Ways of Doing.

This will require collaboratively designing new forms of multi actor partnership, as well rethinking how cities distribute and think of issues such as liability, responsibility, and value so they are able to embrace innovation together and build just, synergistic relationships within our planetary boundaries.

3. Successfully navigating complexity

Cities currently face difficulties when dealing with the complexity of wicked problems, such as the climate crisis. We are sometimes unable to see the big picture because of immediate and entangled issues. For instance, the economic advantages of taking action against climate change have not yet become persuasive [41] in part because cities face difficulties to measure and communicate impact well enough, in part because the cost of change is often perceived as more immediate and certain than the potential co-benefits, and in part because those incurring in the cost are often not those directly reaping the benefit. This demonstrates the entangled nature of climate change and how issues spill into different domains and related issues. Complex issues cannot be addressed with simple solutions. We need to intentionally strengthen our distributed and collective capacity to listen and make sense in order to understand the complex systems we operate in, enabling greater awareness of the multiple needs, opportunities, attitudes and perceptions of all those involved.

Retrofit, constituting one component of cities' transformations towards carbon neutrality, is only one of many examples that illustrates this complexity. While retrofit is largely approached as a technical challenge, there are many barriers in the organisational, social and civic elements of residential retrofit. One significant barrier to achieving high volumes of retrofit, particularly for districts of multi-unit dwellings, is the variety of ownership and management structures at play. For instance, to retrofit an entire building requires consent from either individual unit owners or via some form of building-level governance body that has the authority to not only consider and approve the works, but to enter into financial arrangements on behalf of the owners, and to manage the process and its impact on residents. At the same time, in order to make decisions that affect so many lives, requires taking into consideration diverse needs and wishes of owners and renters, and making the renovation process as comfortable as possible for residents.

Another difficulty derived from complexity is the uncertainty that stems from multiple changes taking place simultaneously and mutually impacting each other. We currently lack sufficient and adequate data and tools to identify all the potential cascading effects, balancing and reinforcing loops taking place in a system e.g., energy system, let alone to be able to visualise and communicate this information in a way that is digestible and actionable.

> **What we're hearing from cities**
> Citizen and stakeholder engagement is often siloed and not integrated in every action. It is also complicated for cities to engage meaningfully with the private sector. This is a result of limited partnerships and spaces for collaboration which bring all stakeholders to the table.

Therefore, our best chance is to work together, combining resources, information, perspectives, and capabilities to collectively make sense of the complexity and collaboratively address the multidisciplinary, cross-sector, multi-layered issues that we face.

A way forward to do so is by promoting **Collective intelligence for making sense of entangled realities,** as described in Chapter 4 Ways of Doing**.** This will require strengthening and improving our communication and collaboration capabilities, both within and between different networks and actors. It will also entail creating or reinforcing spaces for deliberation and making sense of complexity and entangled realities on an ongoing basis. Furthermore, we will need to improve our digital infrastructure and capacities, as well as our data gathering, processing, and communicating capacity and capabilities.

"Addressing complex problems such as climate change adaptation requires attention to scientific information, local needs, knowledge, and values in decision making."[56]

4. Adopting new governance models

Until now, by far, research and policy for climate neutrality has mainly focused on technical and inherently limited solutions. Yet, achieving climate neutrality emissions by 2030 will depend, to a large extent, on being able to mobilise the complete multi-actor ecosystem of change to make and enact transformational decisions. Our current governance models are not currently able to deliver these critical tasks.

Democratic rule offers significant advantages vis-a-vis the climate crisis. However, to make the most of these and enable the governance transformation that is needed for a successful climate transition, certain functions and democratic habits need to be reinforced. Ensuring that people are well placed to express concerns, self-organise, protest and mobilise to demand climate action from governments that are reluctant to act [24], as well as to act themselves, present solutions, co-invest, co-implement and place demands for governments that are reluctant to act is critical to achieve the transition at the necessary speed and scale. For this to happen, our governance systems must welcome critical scrutiny and guarantee the free flow of information, which are key to tackling issues of great complexity with legitimacy [29].

This challenge is compounded by the fact that increasingly, trans-national, non-governmental actors such as multinational corporations or financial institutions are shaping public policies on climate change [57]. Under these conditions of pluralism, globalisation and increasing economic -and thus power distribution- inequality we need to rethink governance models to ensure all voices are adequately included, and that actors that transcend national territorial boundaries can be held accountable for their actions.

> **What we're hearing from cities**
> Cities are in need of tools and methods to engage citizens and go beyond the usual suspects. There is limited capacity both in terms of staff and funds to effectively include all relevant voices in the engagement process.

We also need to improve and increase our learning from experience, adopting flexible governance models that are able to adapt to changing needs and rapidly respond to emerging opportunities or crises. Investment in governance innovation is crucial, as the role of government shifts, not towards doing less but rather towards enabling society wide capabilities for the transition to climate neutrality.

In the context of polarisation and the frequent and entangled economic, political, social, and ecological crises that we now live in, we need to adopt governance models that help us to make better, more transparent, and participative decisions. To do so, we need to create the space and processes to enable knowledge exchange, dialogue, and deliberation. This will entail making better use of technology and digital tools, as well as becoming data driven where relevant. To tackle our wicked problems, we need to tap into all available knowledge and promote genuine collaboration with diverse stakeholders to arrive at better decisions.

This can be done by embracing deliberative processes and collaborative governance for distributed agency and ecosystems of change, as described in Chapter 4 Ways of Doing.

"Considering the already significant scientific and technological knowledge, and yet the insufficient political response to climate change, our futures will be shaped more by our choices than by our capabilities." [58]

5. Tackling representation and ensuring inclusion

The effects of climate change The effects of climate change disproportionately impact underserved and systematically excluded communities. Exposure and vulnerability to climate related impacts, from energy poverty to extreme weather events are driven by demographics, socio-economic development, and ecosystem degradation [59]. The impact of the climate crisis is exacerbated by the inequity and under-representation of communities based on their gender, ethnicity, age, and income [60].

> **What we're hearing from cities**
> Cities recognise the importance of engaging marginalised communities and including voices that are usually left out of design processes and decision making, however they are still in the process of figuring out what works for their context.

Democratic representation has traditionally aimed to include citizens' interests, opinions, and perspectives in public policy-making processes [61] by way of an elected representative. However, many people do not feel like their interests are represented in decision making, that they themselves are not represented by politicians. This is compounded by a lack of trust in elected representatives, where decision making processes might be viewed as rigged or geared towards maintaining the status quo [62]. According to a study during the Viennese elections, non-voters have in common the lack of trust in state institutions, in politics and in the effectiveness of their own votes. This derives from the perception of an existing political inequality in Vienna, and the lack of the non-voter's participation - in economic security, social recognition or in helping to shape their own living conditions [63]. Addressing this challenge requires collectively building relationships, support mechanisms, and decision-making processes that are able to increase social equality and political inclusiveness,

as well as increase governmental responsiveness and accountability to affected communities, ultimately building trust and cohesion.

Meaningfully and thoughtfully including different voices, especially, from underserved communities, can improve communication and increase legitimacy in places facing high levels of mistrust. It can also enhance the quality of deliberation and governance [64]. Enabling a plurality of agents to meaningfully take part can result in better decisions, more effective action, and more resilient results. Furthermore, it is critical for the development of cohesive and just societies.

Ensuring that policies are designed and implemented in a socially just manner, respecting the rights of communities and building their resilience, while responding to the needs and capacities of those affected, requires enabling effective and substantial participation throughout all stages of climate action, from framing the problem, designing initiatives and policy, through implementing action and co-investing, to monitoring and assessing the results and learning from them.

A way to do this is by unlocking Meaningful participation for community climate resilience, as described in Chapter 4 Ways of Doing.

"You can't build a just and equitable society on a planet that's been destabilised by human activities. Nor can you stop the world from warming without the experience and the expertise of those most affected by it."[65]
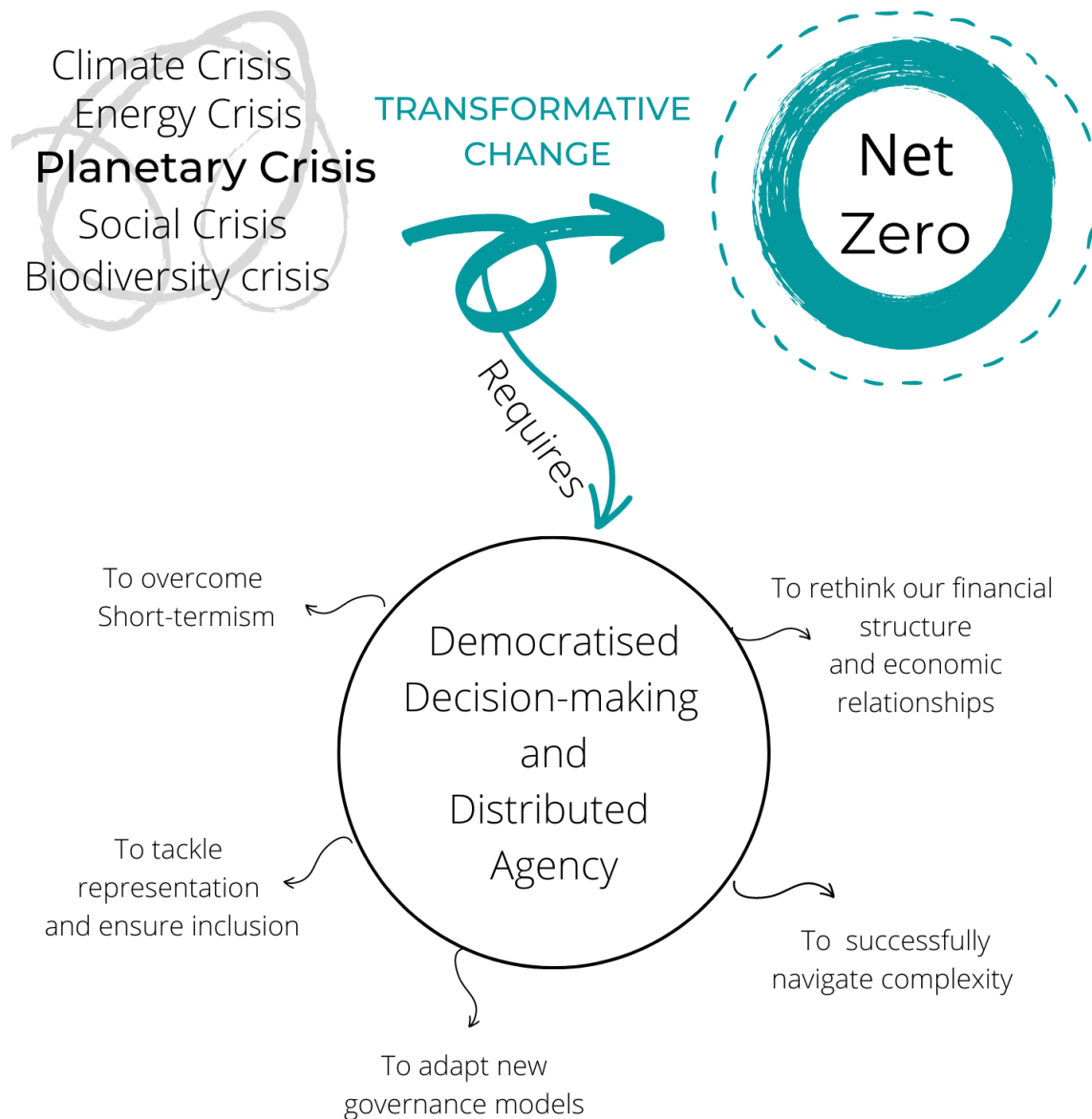
Climate Crisis
Energy Crisis
Planetary Crisis
Social Crisis
Biodiversity crisis

TRANSFORMATIVE
CHANGE

Net
Zero

Requires

To overcome
Short-termism

To rethink our financial
structure
and economic
relationships

Democratised
Decision-making
and
Distributed
Agency

To tackle
representation
and ensure inclusion

To successfully
navigate complexity

To adapt new
governance models

Figure 2 : Democratised decision-making and distributed agency are key to overcoming the critical barriers that
we need to tackle to enable transformative change to achieve climate neutrality and beyond.

04.

How can this be done?

How can this be done? Ways of doing

Ways of doing are an explanation of how citizen engagement and participation can support what needs to change in order to address key barriers to a democratic climate transition.

There are multiple forms in which citizen and urban stakeholder engagement and participation can be harnessed to overcome the barriers impeding climate action and accelerate our transition towards climate neutrality and a more just and inclusive society.

This section presents a selection of five *ways of doing* which address the identified barriers.

1. **Future focused citizens for long term solutions**

2. **Participative finance for new economic relationships**

3. **Collective intelligence for making sense of entangled realities**

4. **Deliberative and collaborative governance for distributed agency and ecosystems of change**

5. **Meaningful participation for community climate resilience**

Each way is presented along with a case study or method box, explicitly highlighting the "so what" type learning.

This selection simply highlights potential ways of doing and is not intended to describe the *only* ways of doing. As EU cities engage with the Mission to become climate neutral by 2030, we expect many more ways of doing to emerge.

Many methods and tools will help address multiple ways of doing. Multiple ways of doing overlap and complement each other; no way of doing, approach, method, or tool is to be viewed in isolation.

At the end of this section, you will find a longer list of methods, tools and approaches that can enable each way of doing.

Future focused citizens for long term solutions

Future focused citizens for long term solutions enable democratic, sustainable climate action. Governments sometimes struggle to see beyond short term election cycles, and short term promises that appeal to what they perceive as short-sighted public interests. But citizens are not as myopic as politicians might think [25]**. The bright side is that some cities are aware of the importance of moving away from short-term cycles to lead the transition towards climate neutrality.**

City governments are starting to develop climate actions and to reimagine city life with healthier and liveable spaces for citizens and without air and noise pollution, and chronic congestion. Engagement approaches that support citizens to be future and long-term focused can strengthen and demonstrate public support for long term climate action and policies. This can enable cities to implement and accelerate actions towards achieving climate neutrality. By building this social consensus, citizens create legitimacy for long-term solutions moving forward.

There are some key challenges, on a human level, that make it difficult for people to think about the future. First, it is full of uncertainty and standing in uncertainty can be daunting and uncomfortable. Futures thinking can help citizens and stakeholders 'to identify alternative futures, cope with the uncertainty and shape a preferred future' [66].

Second, future generations who will be most impacted by climate change and policies do not exist yet. How can we ever know what their future needs and interests are in order to do them justice? Deliberative and participatory approaches offer participants the time and space to imagine the needs of 'differently situated others' [67] in the future and using storytelling and narrative building techniques helps to bring future visions to life and imagine the lives of future generations. This can support people to take these interests

into account over their own short-term interests [66].

Third, it is difficult for people living in high-carbon consuming societies to imagine a different way of living, especially when it becomes clear just how much we rely on and consume energy derived from fossil fuels [24]. Using futures thinking can help people to imagine what that way of living might look like, and what we need to do to get there.

Participatory futures design as a future thinking approach entails the creation of networks among stakeholders and actors to collaboratively develop solutions. But there's more to it: it aims to enable long-term engagement and the acquisition of new knowledge and capacities increasing the potential of actors to benefit from the engagement, while creating increasing value with and for their environment.

Using future focused engagement approaches can help governments overcome perceived public resistance to long term policy options. Not by trying to get citizens on side with predetermined policy or technical solutions, but by recognising the capability of citizens to be agents of change in developing and implementing recommendations and solutions themselves, so that policies are decided by and with citizens rather than for them [68].

Illustrative Example - Vision for Scotland | How the Recommendations Could Shape our Future | Scotland's Climate Assembly

What?

As part of [Scotland's Climate Assembly](), where a group of 100 citizens were tasked with agreeing recommendations for tackling the climate emergency in a fair and effective way, participants' visions for their future were brought to life through storytelling and narrative building. Four possible scenarios of possible futures were presented to show citizens' how change can happen at different levels and paces.

Why?

The future scenarios were developed as part of the measures that aimed to incorporate a systemic approach into the design and framing of Scotland's Climate Assembly. The aim was to help citizens understand the different drivers of climate change and the process by which change might happen to tackle climate change, as well as support the participants explore the potential synergies and trade-offs between fair and effective climate action.

Who?

[Democratic Society]() and [Forum for the Future]()

Key takeaway

The scenarios represented a range of worldviews and assumptions, including the role of profit and type of decision making. Each of the scenarios was created through a fictional story that illustrated what a day in the life of an ordinary Scottish citizen might look like at some point in the future up to 2040. The scenarios were observed to provoke strong emotional reactions in some members. While some members could work very well with the material, others appeared to find it hard to move beyond emotional reactions and engage with the task.

Photos or videos if relevant

[Climate Mobilisation Scenario](), [Collaborative Communities Scenario](), [Techno-Optimism Scenario](), [Civic Provision & Regulation Scenario](), [Scotland's Climate Assembly Research Report]()

Participative finance for new economic relationships

Participative finance approaches enable a shift towards new economic relationships that are regenerative and symbiotic instead of extractive or predatory. Our existing economic relationships create and sustain inequalities in power distribution. Participative approaches to finance address those inequalities by ensuring that those affected have meaningful involvement in funding, spending and investment.

Participatory approaches to finance bring the people affected by economic decisions closer to the people who source the money and decide how to spend it. This is based on the evidence that a closer relationship between the two empowers those affected to shape and inform how the funded policies and projects develop, leading to a greater sense of ownership and ultimately, impact [69].

This is not an insignificant challenge: whilst citizen engagement and participation has become mainstreamed in many policy areas, economic policy is for the most part, an exception [70]. The power dynamics at play in the sphere of economic and financial decision-making mean that cities may face resistance in trying to introduce citizens into this domain. Empowering citizens, after all, usually means constraining the power of a dominant actor in some way.

Nonetheless, there are a range of participative approaches to finance that serve to rethink economic relationships and shift the distribution of power. Community wealth building and public-commons partnerships reimagine economic power as distributed and rooted in communities.

This enables joint ownership of assets and development plans, where investment must meet both social and environmental needs.

Community wealth building (CWB) is a system-changing approach which founding principle is to radically reverse the current approach of economy as extractive, top-down mechanism based on short-term profit and accumulation of private wealth, to an approach dedicated to ensuring ecologically sustainable, individually regenerative, truly democratic, and long-lasting prosperity and wealth for a whole community. As such, CWB is rooted in place-based economics and harnesses the power of local public sector and major anchor institutions.

Participatory investment and grant making processes are used to forge stronger relationships between investor and investee. Based on this enhanced mutual understanding, investment returns are conceptualised as not only monetary, but also include the wellbeing of the communities affected by the investment [70].

Economic power is further reimagined by the establishment of cooperative funds and associations where citizens and communities themselves manage investments and funding through a democratic decision-making process. Whilst these initiatives are most often grassroots, bottom-up approaches, cities can also embrace these principles when they open up economic structures to distributed agency and consider citizens as joint investors, owners and liability managers who can collectively support the reconfiguration of economic relationships.

"Power exerted by global corporate and financial interests is sometimes called 'shadow power'. This can be hard to pin down, but with its capacity to erode democratic institutions and manipulate public opinion, it's a concern for those working for social change"[71]

Illustrative Example - Lisboa Participa | Green Participatory Budgeting in Lisbon

What?

Participatory budgeting (PB) processes empowers communities to make decisions on a city's budget and spending. PB can be combined with deliberation to ensure a robust, inclusive process.

Why?

PB was developed in Latin America with the aim of enabling the empowerment and control of communities over government spending.

Who?

PB has been conducted all over the world. In Lisbon, it is initiated by the City Council, and has been running for many years.

Key takeaway

Benefits of PB include community building and increased trust in city governments as a result of community ownership over spending. However, PB is less well placed to deal with long term or complex issues as they tend to deal with short term projects. In recent years, some PB processes have been criticised at having lost their focus on empowerment. In addition, PB at the city level may be constrained by national level control of budgets.

Photos or videos if relevant

https://op.lisboaparticipa.pt/

Collective intelligence for making sense of entangled realities

Collective intelligence approaches acknowledge the need for local governments, citizens, urban stakeholders and other actors to participate in high-quality sense-making and decision making in a context of complexity, entanglement, and chronic emergencies [2]**.**

Our current democratic institutions and processes have difficulties dealing with the complexity of wicked problems, and climate change is a highly complex issue cutting across multiple domains and sectors.

The first step towards dealing with complexity is a humble government; the acceptance that government cannot alone deal with such a complex challenge, and that their own processes for attempting to are fallible [72]. It helps if people are well placed to organise themselves and express concerns, to protest and mobilise people to demand climate action, and to act themselves, presenting solutions and demanding ambition from reluctant governments [29]. While the awareness of all potential options and entanglement may often be limited, issues of great complexity can be better grasped if a free flow of information is secured, critical scrutiny is welcomed and ifshared mandates are build based on entangled risk awareness.

Collective intelligence as an approach recognises the value and contribution of collectively constructed knowledge. In practice this means approaching the problem of climate change from the perspective that everybody, working together, has something to offer - whether it is data, sense-making or problem-solving.

Collective intelligence approaches can lead to better understanding of a complex problem. Citizen science utilises crowdsourcing for data collection, and collective solution finding through the pooling of knowledge and resources, and stronger democratic functions through data collection and monitoring of services for accountability.

Collective intelligence by nature requires the synthesis of diverse experiences and perspectives, and collaboration across those differences. This not only pools knowledge for dealing with complexity, but it also brings citizens closer to scientific knowledge, boosting knowledge gains on climate change and its effects [73].

The transition to a sustainable society is not just a technical endeavour but entails complex normative and political choices. Without citizen participation and inclusive decision-making processes, these choices carry the risk of coming out as illegitimate. [74]

Illustrative Example - Community-driven Technology Assessment | Countering technocracy and algocracy

What?

Participatory approaches to technology assessment grounds technology assessment in the lived experience of those most affected by it, working symbiotically with experts and stakeholders who usually dominate assessments of technology.

Why?

This approach recognises that experts alone cannot tackle complex technological issues, and that citizens and communities make important contributions to democratising expert dominated approaches.

Who?

The Danish Board of Technology pioneered this approach as far back as the 1960s.

Key takeaway

Participatory approaches to technology assessment support the long-term viability of new technologies by ensuring that their impacts are assessed in a holistic and democratic way, and that sufficient public deliberation takes place before introduction of new and impactful technologies. Currently however, technology assessments are dominated by experts and vested industry interests.

Photos or videos if relevant

EXP8 | Fighting Back Algocracy: The need for new participatory approaches to technology assessment

Deliberative and collaborative governance innovation for distributed agency and ecosystems of change

Collaborative governance encompasses a wealth of approaches that recognise the need to break through existing institutional silos, build capacity for distributed agency amongst citizens and stakeholders, and enable the governance transformation that is needed for successful climate transition. Deliberation enables that collaboration, through carving out space for in-depth discussion with diverse voices and informed voices.

Developing democratic, collaborative governance is important to become more capable of dealing with the climate crisis at hand. Although it has many possible definitions, at its core collaborative governance is about governments and non-state actors working together to solve collective problems [75]. However, even though many local governments agree on this ambition, they are likely to face obstacles in making this collaborative reform happen. It is hardly possible for the cities to adopt such a transformative approach overnight.

What we're hearing from cities
There is consensus that all stakeholders need to be on board, and awareness that their role in engaging stakeholders and communities has to change. Cities want to focus on catalysing behavioural change. However, they face resistance or fear from communities to change their behaviour. There are several elements contributing to this resistance, including a lack of trust in decision-making processes.

Behavioural interventions alone however are unlikely to catalyse the sustained behaviour change needed for climate neutrality [76]without working on improving and strengthening the relationships between city governments and citizens.

Collaborative governance approaches recognise that in order to grasp wicked problems, all available knowledge needs to be used to back the necessary decisions leading to true transformation. This entails genuine collaboration with diverse stakeholders and citizens as agents of change, not objects of behaviour change.

Deliberative processes, in combination with collaborative governance, can enable citizens to get to the very heart of complex issues and wicked problems. Deliberation is communication characterised by learning, reason-giving, diverse perspectives, and an orientation towards public goods over narrow self-interests. There are many formats in which deliberation can take place, from self-organised kitchen table conversations [77] to highly structured and facilitated citizens' assemblies [78].

Deliberation opens up the possibility for greater public understanding, knowledge [79] and possible acceptance of usually controversial policies [42]. Even though most deliberative processes involve relatively small groups of randomly selected citizens, there is also evidence that wider publics can be more accepting of policies when they have been recommended through a deliberative process [65][31] [80].

Deliberative processes are not without risk or pitfalls. For one, they are resource intensive, requiring expertise in participant recruitment, independent facilitation, and most of all, they need time. Also, for citizens deliberative processes can constitute a time intensive and challenging process, as they need to agree to talk to people with different backgrounds and opinions. Moreover, deliberative processes risk becoming just another form of consultation and increased cynicism if they are approached as a way to gain legitimation for policy decisions that have already been made [62] rather than a genuine opportunity for collaboration with citizens.

Collaborative governance approaches have traditionally emphasised the role of diverse stakeholders in collective problem-solving [81]. Deliberative processes emphasise the role of citizens. In combination, these two approaches harbour the potential for distributed agency, through recognising that collaboration across all of society is needed to address the climate crisis. It is within this collaborative nexus that ecosystems of change become possible, bringing together cities, citizens, and urban stakeholders for transformative democratic climate action.

Illustrative Example - Global Assembly on Climate Change | Global Deliberation on a Global Issue

What?

The Global Assembly took deliberation to the global scale: real-time, multi-lingual deliberation with 100 citizens online, alongside community level assemblies around the world.

Why?

The long-term aim is to create a permanent global citizens' assembly based in the conviction that climate change, as a global challenge, requires global solidarity and participation. It is also driven by the desire from a bottom-up approach to citizens' assemblies which are often top-down, commissioned by governments.

Who?

100 citizens were selected through a complex sortition process to try and curate a proportionally representative sample. Over 150 organisations including academia, NGOs and civil society organisations supported the assembly's delivery.

Key takeaway

The assembly achieved the highly complex task of a public, global sortition process carried out in real time, as well as a multilingual deliberation with various methods of translation and interpretation, in itself a huge ambition. Because this happened so recently, we'll need to check back in the future for lessons on impact and outcomes. Assembly Members presented their recommendations at COP26. Because this process was not directly connected to decision-makers, it may have more of a struggle to gain traction with governments.

Photos or videos if relevant

Yasmira Moner, Global Assembly Community Host, Philippines

Meaningful participation for community climate resilience

Often governments do not have the necessary knowledge to be able to address all citizens' needs, especially marginalised or underrepresented groups and communities. Complete and meaningful participation is key in ensuring that all citizens and communities are being heard and policies do not only respond to the needs expressed by the loudest voices.

It can be difficult to address and even identify a lack of representation or inclusion. Often marginalised groups have had negative experiences in attempting to speak up and be heard in the past resulting in resignation and even rejection of participation. Historical legacies of authorities mistreating some communities means that considerable work is needed to build trustful relationships, and even then, this trust is fragile.

There are several issues to be addressed to overcome the barriers that often have been piling up for decades. These often manifest as traditional organisational structures (vertical hierarchies), prejudices, lack of consideration, or open discrimination.

One first step is the identification of groups to be involved. This can be done in collaboration with various organisations and groups which work with or consist of marginalised and underrepresented groups and communities in order to avoid exclusion. Once identified, communities need to be ensured of their power to make change and shape their environment according to their needs. Transparency and honesty are crucial factors to allow citizens to trust the process. High quality participation across different groups also requires resourcing and specific tactics.

Bottom-up approaches and methods like community-based monitoring, co-creation or collective advisory assemblies flip traditional structures upside down, making citizens the need-identifiers, idea-generators and problem-solvers and policymakers serving to legitimate their implementation, ideally in direct conversation. Ensuring the decentralisation of power [52] and the adoption of bottom-up approaches can lead to solutions that respond directly to the needs and problems of citizens, creating tangible proof of their empowerment.

Secondly, to operationalize the overall approach, a series of methods and tools can support to put meaningful participation into practice. Apart from overcoming political power structures and relational difficulties in the past, communities need to be enabled to contribute with their current capacities, capabilities, and knowledge. This can be supported by avoiding highly complex and technical language or using tools and methods that do not require specific expertise and can be used by all participants equally.

In the case of People's Policy for child wellbeing, citizens, NGOs and other actors were enabled in a deliberative process to develop a comprehensive and inclusive policy to be presented for implementation. Different modalities might be needed to unlock meaningful participation from specific groups in diverse contexts, deliberation may be favoured in some cases whereas in others active collaboration and a "doing together" approach might be preferred.

Digital tools and technologies can also be a means of fostering inclusion by enabling a broad group of actors to contribute. Engagement platforms can allow the interaction of multiple actors facilitating their interaction and active contribution to collectively co-create value for their communities [74] [82]. Such networks and peer-produced solutions can empower citizens to a point where no authorities are needed anymore to mediate or initiate the process, but the ideation, development and proposal of solutions can happen autonomously [53]. This is an example of the potential dynamism between citizen engagement and participation.

Illustrative Example - Black Sash | Supporting communities with democratic accountability

What?

Black Sash is a South African NGO working with communities to advance human rights and accountability. They support marginalised communities to conduct community-based monitoringthat evaluates government service delivery and builds stronger relationships between local governments and communities to improve services.

Why?

Community-based monitoring was developed in recognition that government and other service providers don't have all the relevant knowledge of a community's service needs. It enables communities to have meaningful involvement in the governance that affects their lives and hold authorities to account.

Who?

Black Sash has developed its own model for community-based monitoring and this is supported by a range of community organisations with close ties to the neighbourhoods where services are being monitored.

Key takeaway

A pilot of this approach in South Africa was successful in raising community capacity for claiming their political rights and increasing their voices in service delivery. One challenge was the use of specific technology used to monitor services, which participants were not familiar with. Going forward, specific support for this aspect will be needed.

Additional illustrative examples

Other methods, tools and approaches that can enable each way of doing.

Ways of Doing	*Method*	*Example*
Futures Focused Citizens for Long Term Action	People's Policy

Non-partisan, citizen-led policymaking that aims to cut through short term election campaign promises and flips policymaking on its head: policy developed by citizens, legitimated by politicians. | People's Policy on child wellbeing

In South Australia, a coalition of non-governmental organisations and stakeholders jointly funded a deliberative engagement process that enabled citizens, experts, and stakeholders to collaboratively produce a detailed, comprehensive policy document to present political leaders. |
| | Futures Thinking

Approaching the future as tangible, as malleable, and as full and rich as the present feels equips citizens to imagine possible ways forward to deal with climate change. Futures thinking includes a range of methods that support people to think and plan about the futures they want for themselves and future generations. | Open Mind

Science Gallery Dublin co-created an educational module together with to enhance high school students' mental health and well-being. The program was prototyped in four high schools in the metropolitan area of Dublin. To reflect on the future possibilities of scaling and embedding this module nationwide, a video scenario of an ideal illustrates the potential of small-scale experimentation to grow and make long-term impact. |
| | Transformative Scenario Planning

Transformative scenarios are not about predicting the future, they're about creating it. While most scenario planning methodologies focus on adaptation, transformative scenarios seek to not only understand or adapt to the future but also to shape it. The structured yet creative process helps diverse actors to see the different futures that are possible and discover what they can and must do. Transformative scenarios, with its respective transformative facilitation, offer a way for diverse stakeholders together to unblock situations that are polarised or stuck. Transformative scenarios enable | The Future of Brazilian Civil Society

In 2013, a cross-sectoral team created four scenarios of what Brazilian civil society might be like in 2023. The "Civil Society 2023" project brought together a wide diversity of players from civil society organisations, social movements, government, the private sector, and universities in a process of workshops, dialogue interviews, and collective scenario writing. The result was a set of four scenarios. These scenarios were a catalyst to spark reflection, discussion, and action relevant to the diverse social, political, and environmental actors in Brazil. |

	them to construct shared understandings, stronger relationships, and clearer intentions, thereby creating the potential for action that will shape a better future.	
	Vision Workshop Toolbox Bringing together representatives of different groups (e.g., general public, CSOs, local associations, city administration, school children, …) to make the concept of climate neutrality accessible to them and to develop a shared vision of a climate-neutral future for the city as a whole, based on the diversity of their own personal environment, views and experience.	Vision workshop in Sztum (Poland) - inspiring collaboration for climate neutrality An innovative, inclusive workshop format, gathering Sztum's stakeholders, focusing on individual ideas about the Sztum future, related to the everyday life and environment of people taking part in the event to better understand the concept of climate neutrality and to co-create a common vision of Sztum in a climate-neutral future The outcome will serve as a basis for further development of the municipal climate strategy and can increase the acceptance of related implementation measures.
Participative Finance for New Economic Relationships	Community Wealth Building A system-changing approach to community economic development that works to produce broadly shared economic prosperity, racial equity, and ecological sustainability through the reconfiguration of institutions and local economies based on greater democratic ownership, participation, and control.	Community Wealth Building strategy in North Ayrshire The council is the first to adopt a community wealth building strategy. CWB means more local employment and a larger and more diverse business base, ensuring that wealth is locally owned and benefits local people. To support the achievement of the Council Plan's vision of a North Ayrshire that is 'Fair for All' by enhancing local wealth and the creation of fair jobs and maximising the potential of all our places through working in partnership with our communities and businesses.

	Participatory Budgeting	Antwerp's PB
	Participatory budgeting is recognised internationally as a way for people to have a direct say in how public money is spent. PB enables citizens to identify, discuss, and prioritise public spending priorities, and gives them the power to make real decisions about how money is spent. Done well, it can meaningfully involve citizens in allocating resources, prioritising policies, and proposals, and monitoring public spending. Any place can implement a participatory budget.	Citizens decided before the ideation phase on the themes of the citizens' budget and how much money each theme will receive. This decision was made in a deliberative manner with mini-publics. The deliberation at this stage had a very different character from the deliberation on the final project proposals. It involved making decisions on the themes that different people want to invest in without knowing whether the completed projects were close to them. It entailed a clear discussion of priorities: did they want to invest the available money in better cycle paths, in youth work or in more green spaces in the city? This stage used consensus building to come to decisions.
	Energy Communities	Valencia City Council, Spain
	Energy communities refer to a wide range of collective energy actions that involve citizens' participation in the energy system. They can be understood as a way to organise collective energy actions around open, democratic participation and governance, and the provision of benefits for the members or the local community. It is a broad concept that can refer to collective switching campaigns, collective investments in solar panels, but also the ownership of an energy supply company, or even a distribution network. Depending on their activity and on the national regulatory framework where they operate, energy communities can take different forms and legal entities, like cooperatives, partnerships, companies with a community interest, foundations, non-profit organisations, trusts, and associations.	Local energy communities in Valencia are promoted since 2019 by the public sector as an example of commitment with the whole city climate neutrality objective in 2030. Valencia City Council, through the Climate and Energy municipal Foundation, provides legal advisory and mediation skills to promote agreements among neighbour communities around Local Energy Communities. This is provoking a chain effect among more and more neighbour communities asking for city services and accompaniment.

	Public-Commons Partnerships (PCPs) A radical reimagining of the relationships between state and market where communities, local authorities, and stakeholders collectively own and manage local assets and urban developments.	PCP for Ward's Corner, London Following a failed redevelopment plan opposed by residents, a community benefit society was established in Ward's Corner, made up of a diverse mix of stakeholders and interests. This supported a community plan for redevelopment and ensured that future investments and profits in the area must be of benefit to the community.
	Agirre Lehendakaria Center's (ALC) Open Innovation Platforms for Systems Transformation A systemic approach that overcomes the traditional division between analysis and action for open collaboration among diverse stakeholders, sustained over time. The process involves Community Listening, Collective Interpretation and Systems Mapping, Co-creating a narrative-based portfolio, experimenting at 5 impact levels and conducting Developmental Evaluation.	Last Tour and ALC Social Innovation Platform The creative sectors have been hard hit by the consequences of COVID-19. ALC has partnered with Last Tour, a leading music industry company, to collaboratively redesign a portfolio of interconnected prototypes within the Basque cultural landscape. Mapping, listening and collective interpretation led to a joint proposal for future ways of working and an Open Innovation Platform conceived to serve as an accelerator of collaborative processes between sector agents, public entities and companies.
Collective Intelligence for Making Sense of Entangled Realities	(Eco)System Map The system map is a visual representation of the system of elements, actors, and connections. It allows one to take on a systemic view on an environment or a specific solution and see connections between the different actors that might otherwise not have been perceived. It also maps out the flow of materials, energy, information, and money throughout the system. This allows the understanding where possible opportunities might lie to increase value, efficiency and/or efficacy.	Open Mind To develop a new solution for the mental health- and wellbeing management of young people in Ireland, Science Gallery Dublin mapped all the actors in the living environment of young people connecting them to stakeholders from the field of mental health to obtain a complete picture of the current landscape and develop a holistic solution taking all human factors and resources into consideration.

	Challenge-based Systems Mapping	Macro-Plastic Pollution in the Mediterranean Sea
	Systems Practice provides a method to push beyond the immediate problems to see the underlying patterns, the ways we may leverage the system, and how we can learn and adapt as the system continues to change. It doesn't make these challenges any less complex, but it gives us a way to embrace that complexity and work toward a healthier system. It is about a more general approach to grappling with adaptive problems in complex environments with the aim of making enduring social change at scale	This systems map aims to explore the causes and effects of plastic pollution in the Mediterranean Sea. Through visualisation, it tracks the interrelations between the different systems at play (political, business, academic and social) and some of the most relevant elements in each system, and how everything connects in a more holistic picture.
	MultiSolving	Multisolving in Toronto
	Multisolving policies help protect the climate while also providing other co-benefits, such as improving health, disaster resilience, the economy, and access to healthy food and clean water. They help connect us to the natural world and people around us, and they do that while saving time and energy. They are, in short, win-win solutions for people and the climate.	TransformTO was developed as a collaboration between the City of Toronto's Environment and Energy Division and The Atmospheric Fund with support from a diverse Advisory Group with members from several city divisions and community leaders with environmental, health, economic and equity perspectives. TransformTO's strategy champions a broad and innovative approach to achieving its bold goal of reducing the city's greenhouse gas emissions by 80% by 2050 and its strategy includes specific targets for energy performance in homes and buildings; energy use; transportation; and waste diversion. But what makes the TransformTO plan truly inspiring is that it intends to meet these environmental targets while also positively contributing to health, the local economy and social equity at the same time.

	Climate Democracy Model Holistic view of what we need to mitigate climate change and build climate resilience in our cities and regions in a democratic way. The Model consists of practical, interconnected tools for a city or region to assess and analyse its progress towards climate resilience through democratic means, focusing on diversity of actors and knowledge, participatory culture, resourcing, and competencies for climate democracy.	**Democratic energy transition in Amsterdam** In 2021 Democratic Society (Demsoc) were design partners in the Amsterdam EIT Climate-KIC Healthy, Clean Cities Deep Demonstration. The project focused on what is needed to achieve a decarbonised future in Amsterdam based on key principles of deeper and wider civic engagement for climate action, including collaboration amongst diverse actors, peer learning, and experimentation for new forms of governance. This is a case study of how the Climate Democracy Model method was applied to expand analysis of learnings from the four experiments conducted with urban stakeholders and citizens.
Deliberation and Collaborative Governance for Distributed Agency and Ecosystems of Change	**Tactical Urbanism** Tactical urbanism is an approach to community engagement and place-making. Tactical urbanism projects are physical urban interventions that are often interim and pop-up in nature, to catalyse long-term change for more liveable streets and spaces.	**Living Streets of Ghent** Living Streets is a series of real-life experiments whereby residents can temporarily turn their street into a place where people feel comfortable spending time once there are fewer cars and more social interactions. These experiments also help local administrations to pave the way for permanently car-free streets and neighbourhoods.
	Citizen Science A collective intelligence method that harnesses the knowledge and mobilisation of citizens to collect data, monitor service delivery and generate collective solutions. Citizen science enables the scaling of data collection across time and space which can be particularly insightful for monitoring effects of climate change and adaptation.	**The Moldovan Network of Rural Volunteering Centres for Water** In Moldova, the national government struggled to provide clean drinking water for its citizens. After an outbreak of hepatitis, a coalition of NGOs and international organisations formed a network of communities in rural Moldova to monitor and improve water quality, as well as strengthen the distributed agency of rural communities, academic institutions and local authorities.

	Civic Labs	Civic Design Lab, Oakland
	Civic labs is a method for bottom-up, local innovation that creates platforms wherein citizens together with other citizen and government stakeholders to define common challenges and co-create solutions together.	Civic Design Lab co-creates solutions in collaboration with government agencies, local businesses and communities for improved public services by applying a racial equity lens, human-centred design and systems thinking approach.
	Collective Advisory Assemblies	EmpowerMed
	Empowering the collective agency of marginalised communities to take action: collective advisory assemblies are a protected space where those most affected by an issue come together to harness their lived experience and learn from peers how to take effective action.	Energy poverty is a cross cutting, complex issue that will be exacerbated by climate change. EmpowerMed uses collective advisory assemblies and related support activities to empower women affected by energy poverty to take practical actions towards energy savings and create a mutual support network.
Meaningful participation for Community Climate Resilience	Asset Based Community Development	Resilient BoTu 2028
	Asset Based Community Development or ABCD is a method which puts at the forefront, the development of a community's assets and potentials in a sustainable manner. It involves building capacity and empowering individuals, associations and informal networks to come together and leverage their strengths to mobilise action in their communities.	In Rotterdam, the Resilient Bospolder-Tussendijken 2028 initiative has been working with the local community since 2019 to leverage the energy transition as a means to build social cohesion and community capacity. The initiative is working with local residents, informal social networks and bottom-up initiatives to (1) build an information and support network for the residents, (2) create technical capacity, local energy jobs and vocational training, and (3) address energy poverty and debt, and explore affordable energy options.

	Wisdom Councils Twelve members of "the community" are randomly selected and brought together. They meet for a few days as a Wisdom Council. Each Wisdom Council is provided with or identifies an issue of vital importance, whether solvable or not. Then the Wisdom Council meets in private where someone skilled in Dynamic Facilitation helps them engage the issue in the spirit of "choice-creating." Ultimately through shifts and breakthroughs they achieve unity on how to view this issue and how to address it. Then they present their shared perspective back to the community, along with the story of shifts and breakthroughs in getting to it.	The Office of Future Related Issues (OFRI) for the State of Vorarlberg, Austria In 1999, Austria's federal province of Vorarlberg transformed their environmental information service into an office for future questions. The citizens' council is a four-step process: - A 1.5-day meeting of 20 to 30 participants to deliberation the relevant questions, with independent facilitators guiding the process. - A citizens' café where results are publicly presented and discussed further. - A resonance group composed of the relevant institutional actors debates the practical implication of the results. - A documentation is sent to the provincial government and parliament as well as to municipalities who in turn supply information about the measures taken.
	Climate Fresk The Climate Fresk is an interactive and educational workshop based on creativity, sharing emotions and challenging perceptions of climate change. Beyond knowledge about the climate crisis, the Climate Fresk develops core values and skills: collaborative thinking, listening to others' opinions, intergenerational dialogue, call to action	The Talentia Skills programme, Bizkaia With the aim of understanding climate challenges and consciously adapting their way of life, students from the three Basque universities recently participated in the Climate Fresk workshop. This activity is part of the social action activities that Bizkaia Talent organises every year as part of its Talentia Skills programme, a skills programme for professionals.This initiative took place in the Leioa and Sarriko faculties of the UPV/EHU and in Bilbao Fabrik, bringing together more than 130 second- and third-year university students. This is a scientific, collaborative, and creative workshop, designed to raise awareness of climate change in a fun way and to understand it as a team, as well as to learn how to work together, rediscovering collective intelligence and activating the climate consciousness of the participants.

05.

Design Principles

Things you need to consider

Important aspects that need to be taken into account when considering how to implement change to involve everyone in the transition to climate neutrality

Approaches to citizen engagement and participation are only as good as their implementation. Certain conditions, such as recognition of all actors, clear and meaningful engagement in all decision-making stages or full decision-making power for those involved, are critical to achieve ambitious and transformative local climate policy [83]**. The following 5 design principles were conceived to be considered when attempting to enable the scale and level of transformation we know is needed to reach climate neutrality by 2030.**

1.   Engage deeply

Citizen engagement approaches interact with the public in different ways, and every type of participation can and should be utilised as part of a vibrant, democratic journey to climate neutrality.

However, even as enthusiasm for participatory engagement grows [84], there is a danger that it is seen as merely an effective way to gain citizen 'buy-in' for planned policies, with no intention to really open up decision making, policymaking and climate action [85].

Approaches that engage deeply, however, do not only take citizen input *into* policy seriously, but also enable meaningful diverse participation in all other stages of climate action, from problem framing to implementation, assessment, and learning, in order to create meaningful impact.

Engaging deeply means creating the opportunities and opening existing systems for governments, citizens, and urban stakeholders to be partners and collaborators. It means, for government officials, being open to having their systems and processes changed, and, at times, rethinking their role and authority. It means, for municipal administrations, being open to the unpredictability of and agility needed for meaningful citizen engagement, where decisions can be open, rather than predetermined.

2.   Trust

In order to engage deeply, there needs to be mutual trust among governments, citizens and urban stakeholders. Participation is most effective when participants trust in the process in which they are participating, and in the impact that their participation will have. Trust will be built over time, by engaging honestly and having clear accountability frameworks. Policy makers need to hold trust and confidence in other actors, such as citizens and urban stakeholders, in order to be humble, and open up complex decision making to collaboration. This is not easy, but meaningful citizen engagement can help to build these relationships [86].

3.   Be ambitious and reimagine

The nature of the climate neutrality challenge necessitates our citizen engagement approaches to be ambitious. This means pursuing not only citizen engagement to strengthen existing democratic or policy processes, but also approaches that challenge and reimagine those processes, creating new institutional infrastructure where needed, in order to tackle the barriers that democracies face in addressing the climate crisis [25] [42]. Existing governance structures and paradigms comprise some of the most deeply rooted barriers to achieving climate neutrality, but so far, the main focus of research and policy for climate neutrality has been on technical solutions. This has meant that the social, democratic, and financial implications, and possible solutions have largely not yet been tackled [87]. It is time to focus on democracy. We need to expand our democratic and economic imaginations to welcome new ways of doing.

4.   Build Democratic Infrastructure

Too often, citizen engagement can begin and end as a series of events. Funding ends, resources are used. We take a long-term, sustainable view of citizen engagement as democratic infrastructure built to last [88]. This approach goes beyond one-off citizen engagement to ongoing, embedded processes and procedures that become part of the fabric of a city. In practice, this means curating a complex web of citizen engagement approaches, that combine and layer across multiple domains and levers in a city. There is no single best option, but rather a smorgasbord of possibilities to be integrated together.

5.   Focus on Fit for purpose

And finally, how to choose from the smorgasbord? Citizen engagement methods do not work without an understanding of broader context and without a clear purpose for the engagement. Any approach to citizen engagement is only as good as its rationale, implementation, and impact on affected communities [62]. The overall approaches, methods, and tools that we present here give a flavour of what is possible, but citizen engagement must be fit for purpose: guided by a clear objective, rooted in local context, and designed to meet the needs of affected communities.

06.

Key Takeaways

Action points

To get to climate neutrality by 2030 we need to involve everyone. To do so, we will have to overcome considerable barriers, develop new capacities and capabilities, and embrace new forms of collaboration and ways of working. This section ends our report with 4 actionable insights for our readers.

The ultimate aim of this report is to inspire and mobilise our readers to take part in a participative, democratic transition to climate neutrality.

The previous sections have presented:

- the working definitions we have adopted for key concepts (Chapter 01)

- why we believe it is critical to involve everyone in our response to the climate crisis (Chapter 02)

- what we believe needs to change (Chapter 03)

- some possible ways and illustrative examples of how this can be done (Chapter 04)

- the design principles that should guide the implementation of these approaches (Chapter 05)

This last section aims to provide actionable insights in the form of four key takeaways.

1. *Action 01*: **Use citizen engagement and participation to orchestrate an ecosystem of change.** All the approaches, methods and tools presented here should not be taken as mutually exclusive, or to be implemented in isolation and then done with. They are complementary, overlapping, all dynamic parts of generating an ecosystem of change. Think about how different engagement approaches could fit into different points in the policy process and in the climate-neutral journey. Think about how methods and tools can be layered up, combined and integrated, and work together. Orchestration is needed in the transition to climate neutrality.

2. *Action 02*: **Focus on process.** Process oriented approaches cannot guarantee cities the outcomes they want. Yet, we argue that focusing on processes is essential for climate neutrality. So far debates have focused on solutions at the expense of considering how to get there. Focusing on that journey presents an opportunity for deep understanding and capacity building that is essential for long-term systemic change. It also requires the acknowledgement that processes are dynamic. Citizen engagement processes require great agility and experimentation from those who implement them. Every process offers vast learning potential for the next iteration. Sometimes processes evolve and change into something unexpected; if we are too fixated on outcomes, this dynamism of process can be lost, and with it the chance for learning.

3. *Action 03*: **Don't rush in; there are no quick fixes.** Spend time thinking about the role and rationale of citizen and urban stakeholder engagement and participation in your specific context and for your specific challenges. We support meaningful inefficiencies when challenges are novel and complex, so spend time thinking about the form of engagement and participation that will best meet the needs of your city and communities. Citizen and Urban Stakeholder engagement methods are not replicable and need to be carefully planned with local knowledge to make them fit for purpose. The journey matters as much as the destination; open, reflexive and carefully designed processes with a long-term perspective will allow unforeseen dynamics, building trust, rebalancing of power and positive outcomes and benefits to bloom.

4. *Action 04*: **Focus on building social consensus through meaningful engagement.** If the aim is to close the gap between scientific and social consensus on what is needed to tackle climate change, then we need to focus on how to develop that social consensus about radical and rapid transformation. But this cannot be done by information and behavioural interventions alone; social consensus cannot be willed or forced into existence and nor should it. Social consensus needs to be built *by* and *for* the citizens, it requires trust, sustained effort, and the acceptance of innovative and distributed agency over centralised authority. This will enable us to collectively set our direction, involving a multiplicity of actors, to make sure the direction is legitimate and can continuously evolve and adapt to emerging needs and opportunities. Everyone's voice should matter! Only then can we identify, co-create and implement socially just solutions and opportunities that will not only help and support the social fabric navigate the transition, but thrive in a Climate Neutral and Smart City.

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