MISSION METRICS:

Policy evaluation tools for cities to optimise learning for the green transition

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1. The role of policy evaluation within an urban area's green transition

In recent years, decision-makers working from the international to local levels have become increasingly focused on developing and advancing the concept of a societal 'green transition'. As the existential threats of the climate crisis and environmental degradation have become pronounced and urgent, the scientifically prudent period to shift from a fossil fuel to a renewable energy-based economy has dramatically compressed in scale. This rapid transition of our energy systems and economic models, now required to take place at an accelerated rate due to decades of inaction, can be understood as the *green transition* and is defined by the need for immediate, transformational change.

Fundamentally, green transitions seek to advance a form of 'systems change'. These systems change policies require a shift in mindset by decision-makers, from their conventional linear thinking frameworks to embracing dynamic approaches characterised by complexity, uncertainty and interconnectedness. As with other systems change initiatives, political leaders and decision-makers must comprehend the green transition as a long-term process characterised by intricate feedback loops and unpredictable interdependencies.

Navigating a green transition process requires decision-makers to develop specific capabilities to design, implement, evaluate and iterate. One critical and often neglected aspect of implementing a systems change policy such as a green transition is the importance of tailoring the evaluation approach to align with the

requirements of a green transition process. Urban-scale green transitions are designed to produce 'dynamic change' — processes where activities compound over time, rapidly accelerating activity where impacts can become exponential. The monitoring and evaluation frameworks of these transformative policy agendas is a crucial component for enabling progressive systems change. Cities on the cutting edge of urban green transition policy, such as Greater Manchester, UK, are currently grappling with this need to rethink how they evaluate their transformation pathways, an emerging case we highlight later in this policy brief.

How a policy's evaluation approach is formulated has an appreciable influence over the actions being monitored and assessed. Local government policy decision-makers and other stakeholders responsible for delivering a given green transition policy are measured against subjective performance markers that are determined based on the design of the evaluation approach. Therefore, the specific benchmarks, indicators, criteria or standards outlined within the evaluation framework influence the incentives of those responsible for the policy's delivery, thus opening up and closing down potential avenues of action. When endeavouring to create long-term transformation through an urban green transition, policy decision-makers must take dynamic, risky and collaborative actions that can facilitate systems change. How those activities are evaluated is critical to enabling and enhancing the necessary delivery actions.

2. Why conventional policy evaluation practices are not sufficient for supporting the green transition

Monitoring and evaluation are critical in any urban climate policy process to understand how activities might produce change over time. Conventional urban climate and environmental governance processes, similar to other urban policy areas, are typically analysed through approaches designed with the primary purpose of creating accountability and transparency around policy actions, monitoring whether a particular actor is delivering against a desired outcome or trajectory.[1,2] Monitoring through this traditional lens focuses narrowly on tracking how an actor is implementing action by considering activities such as cost, inputs, staff time, etc. and less on the relationships between actors that innovate together and deliberately effect change. Traditional urban policy evaluation approaches serve an instrumental function where activities are assessed statically and progress is measured incrementally to evaluate linear advancement.

The specific approach urban decision-makers use to monitor and evaluate their progress in facilitating a green transition policy will likely be a significant variable in determining how effective progress is made and

whether the policy's long-term ambition is ultimately achieved. Ordinarily, decision-makers have relied on a *priori* forms of evaluation tools, such as key performance indicators (KPIs) or cost benefit analysis (CBA), which evaluate a small number of inputs that are derived from blunt quantitative data monitored from fixed sources.[3,4] Traditional evaluation approaches rely on a limited range of data that is subjectively selected and obtained through easily accessed or measurable inputs. These policy evaluation approaches are also best suited to simple, causal contexts where the impact of policy actions can easily be identified. Recently, some local governments that have prioritised policy experimentation have begun using limited mixed-methods evaluation approaches that consider multiple data sources, but these examples are relatively limited and remain skewed towards quantitative methods.

The green transition is a process synonymous with systems change, defined by complexities and overlapping feedbacks, as described previously. These types of processes are ill-suited to conventional urban policy evaluation approaches, because static quantitative monitoring and assessment frameworks are unable to capture and analyse the breadth of compounding actions needed to facilitate systems change; they provide decision-makers with a limited range of information that only elucidates impacts within a narrow area of the overall system that is intended for transformation. Urban decision-makers should, therefore, seek to utilise innovative policy evaluation frameworks to monitor and evaluate green transition policies. These novel evaluation frameworks should incorporate specific characteristics to help facilitate transformative action.

The policy evaluation frameworks local government decision-makers utilise to support their green transition pathways should be designed to improve the organisation's institutional sensemaking capabilities, rather than determining accountability or transparency. Institutional sensemaking capabilities can be understood as the multi-dimensional and continuous process of learning and deepening an organisation's understanding of the institutional change that results from complex actions undertaken by a range of actors that compounds over time, creating shifts across systems.[5,6] These institutional changes that are continuously occurring can only be perceived and evaluated when the organisation leading a systems change process has robust institutional sensemaking capabilities that are integrated through a continuous feedback loop. Policy evaluation frameworks that seek to build on an organisation's institutional sensemaking capabilities are designed to foster learning, enabling decision-makers to identify emergent tensions, analyse potential obstacles and understand how to navigate bottlenecks. Considering institutional sensemaking capabilities as the foundational element of a policy evaluation framework is a completely distinct

conception from where most urban governance evaluation processes begin, and goes beyond using policy evaluation as a binary tool to determine success or failure and aspires to serve a much more radical purpose.

3. Key elements of policy evaluation approaches for monitoring local climate action

Continuously improving robust institutional sensemaking capabilities is an essential component any local government organisation must pursue as part of its overall pathway towards achieving a green transition pathway. All organisations develop technical procedures and cultural norms which evolve.[7] At a fundamental level, institutional sensemaking capabilities in a local government context can be understood as the organisational cultural practices and processes for systematically gathering information about the nature of those practices and processes, and incorporating that learning to shape the organisation's process of change.[8,9] The evaluation approach a city develops to monitor its green transition pathways should foster learning to contribute towards the local government's institutional sensemaking capabilities and enable increasingly effective action over time.

Through our analysis of policy monitoring, evaluation literature and the practical contributions of local governments designing their own green transition evaluation frameworks, we've recognised the importance of considering *where* evaluation happens within the policy cycle. For instance, many local government decision-makers have perceived monitoring and evaluation as a discrete activity with its own stage within a policy cycle and distinct from action. An evaluation framework should be embedded throughout the policy cycle, continuously providing insights as a feedback loop, so that the innovative monitoring and evaluation approach can effectively support an urban area's green transition by improving the effectiveness of policy actions over time, and building a local government's sensemaking capabilities to facilitate the transition.

Below, we outline three critical attributions that local governments should consider incorporating within their policy evaluation approaches to monitor a green transition process. Combining these features into a policy evaluation approach will help decision-makers identify and appraise the nuances and complexities of the multiple systems that influence a green transition rather than concealing or simplifying these intricacies, which conventional approaches may do.

Monitoring and evaluating activities across multiple data sources

- The data sources utilised to monitor and analyse a green transition pathway are selected subjectively by the decision-makers designing the evaluation approach. When monitoring a systems change process, there are an infinite range of inputs and outputs that could be utilised as data sources, but in practice only a limited number can ultimately be used. The choices about what sources of data should be collected, how it should be monitored and how it should be analysed are all subjective and often involve trade-offs.

- To account for the subjectivity that influences all policy evaluation processes, decision-makers should seek to monitor and analyse several different data sources that are dissimilar. These multiple and distinct indicators should draw on data that comes from a wide range of sources; that, ideally, have few shared inputs or outputs. Monitoring a green transition pathway using a broad range of distinct data sources will increase the likelihood that the process is being evaluated more holistically, reducing the potential that a core aspect of the process is unintentionally being overlooked due to the subject view through which the evaluation was constructed. Furthermore, designing the evaluation approach to analyse indicators from a diverse range of data sources will also help decision-makers to understand how systems change may be occurring; identify what dimensions of the system are changing as a result of their policies; how that change is occurring; and where gaps may exist. Lastly, monitoring the green transition process using a wide range of data will decrease the potential that the evaluation approach will inadvertently 'cherry-pick' favorable evidence.

Policy evaluation's influence on 'opening up and closing down' uncertain trajectories

- A key challenge of the green transition cited by local government decision-makers and experts is that important technological, societal, economic and political variables are unknown, and likely to change in unpredictable ways. A significant yet often overlooked factor influencing investment and political decisions surrounding these uncertain future scenarios is how those responsible for making the decision will be evaluated. The evaluation approach used to determine the progress of a green transition process can create subtle incentives and deterrents that influence how decision-makers perceive uncertainty. For example, if an evaluation approach seeks to analyse steady, linear change, decision-makers are disincentivised from experimenting with uncertain potential interventions which could lead to dramatic impacts or could create no influences.

- Decision-makers must be open to exploring the potential of uncertain future trajectories given the transformative systems change required to facilitate the green transition. Innovation, by its nature, is an uncertain endeavour where the outcomes of a given set of actions are unclear, but done with the hope of creating new knowledge or exposing conventionally uninvolved actors, such as lay citizens or community-based networks, to a formal decision-making process. This is done in the hope that their outsider perspective and alternative lenses of analysis will breed imaginative insights. Local governments can improve their aptitude for experimentation by recognising that an evaluation approach's design influences decisions surrounding uncertainty — creating evaluation frameworks that reward uncertainty and expand an organisation's knowledge base rather than encouraging decisions and actions that are 'safe' and which limit unpredictability. Decision-makers can be incentivised to explore potential emergent solutions and constructively engage with unpredictable opportunity areas if an evaluation approach is designed to expose new insights and foster learning.

Creating space for, and encouraging, risk taking

- Facilitating the green transition requires extensive technological and social innovation. The forms of innovation needed to stimulate the systems change and societal transformation for the green transition demands decision-makers accept different risks (financial, political, policy, etc.). While it may be understood that risk-taking is needed to achieve a green transition pathway, individual decision-makers, teams or even a local government organisation may be deterred from engaging in this type of activity by how their actions are evaluated.

- The risk tolerance of a decision-maker or the willingness of a local government organisation to assume risk is determined by several different factors, one of which is the indicators that their activities are measured against. When a policy is monitored and analysed against short-term, static, linear, quantitative indicators that obscure qualitative complexity and are designed to determine success or failure in a binary manner, risk-taking is disincentivised. While an aversion to risk-taking limits the possibility of short-term 'failures', in the long term it restricts the potential of achieving the transformative actions needed to deliver a green transition pathway.

Developing trust, legitimacy and buy-in across

- As explored in detail, the green transition at an urban level is a systems change process that, by definition, can only be achieved by producing deep shifts across all the actors. In democratic, pluralistic settings, the broad societal changes required from public, private and third sector actors, as well as the wider public, will have to be sought by local governments through encouragement rather than forced or compelled. Enabling this form of shared collective action across diverse actors requires deep public engagement capabilities to help build an inclusive green transition movement.

- While policy evaluation is not typically considered an opportunity for public engagement, it could be utilised as an effective tool for building trust with the public, gaining legitimacy behind the actions it takes and ultimately mobilising buy-in across stakeholders. Local governments frequently share the results of policy evaluation processes in inaccessible ways, not designed with interested public stakeholders as the intended 'end users' that will engage with this information. If decision-makers recognise the extensive movement-building that must take place to achieve a green transition pathway, then policy evaluation should be viewed as an opportunity to develop collaboration and advance collective action across stakeholders throughout the entire policy cycle.

4. Mission metrics: an innovation approach for dynamic evaluation and long-term learning to accelerate action

The city-region of Greater Manchester, UK, began facilitating a green transition pathway through its clean growth mission, adopted in its 2018 5-Year Environment Plan[10] and Local Industrial Strategy.[11] The local government organisation leading this mission — the Greater Manchester Combined Authority (GMCA) — adopted an innovative 'mission-based approach' to implement systems change and transform towards a carbon-neutral economy.

To achieve the scale and pace of change needed to meet Greater Manchester's mission, GMCA has developed an innovative model to govern the process through a series of 'Challenge Groups', mobilising action from over 100 stakeholders.[12] The mission-based approach has been

used to create new institutions through this collaborative model, such as the Fuel Cell Innovation Centre, Energy Innovation Agency and Retrofit Accelerator, that will accelerate innovation activities and scale up action. This experimentation process is based on the premise that transformation can only come through activating all stakeholders in the city-region and having them collectively innovate in their particular areas of expertise towards a collective goal.

While Greater Manchester's mission has generated a large amount of early-phase activity from a wide range of actors, GMCA has taken a conventional KPI-based model to monitor and analyse progress towards achieving its mission. This evaluation approach is intended to support GMCA decision-makers in determining whether or not they are on track to meet the mission of enabling 'carbon neutral living within the Greater Manchester economy by 2038'.

However, the KPI-based evaluation approach is only limitedly enabling GMCA and the stakeholders currently involved in mission activities better understand what is working well, where there might be room for improvements, where there might be gaps in action and how they might mobilise new stakeholders to undertake supportive actions. The KPIs are only drawing their insights from data collected at a moment in time (e.g. number of whole house retrofits delivered) rather than monitoring and evaluating the inputs that add up into action and can support learning (e.g. *range of skills providers offering retrofit construction methods training and accessible retrofit financial instruments being accessed by 'able to pay' households*).

GMCA has long recognised that it must design a 'mission metrics' framework to evaluate its mission on an ongoing basis and to help develop its institutional sensemaking capabilities. However, this has yet to occur as GMCA has invested its capacities in continuously driving forward action. This insistence to push activities forward without developing a fit-for-purpose evaluation approach is akin to driving a car at night without fully functional headlights: GMCA and its partnering stakeholders are seemingly making progress, but risk being unaware of an upcoming bend in the road that needs to be negotiated.

Through its 2021 Greater Manchester Strategy,[13] the city-region's ten-year strategic plan, GMCA has created an opportunity to rethink how it evaluates all its significant policies, including its clean growth mission. While GMCA has continued to make progress toward its mission, it is not currently on track to meet its overall objective.[14] It is, therefore, important for GMCA to analyse what within its mission evaluation approach is working and what isn't, and to invest capacity to build its mission metrics framework to monitor and assess activities in the future.

5. Recommendations

The evaluation and monitoring of policy activities is a key element within the broader process of enabling and accelerating change through urban green transitions. These holistic city-scale systems approach to change must adopt policy appraisal frameworks that transcend conversation policy monitoring frameworks. Building on the primary research findings from the evaluation of one city-region's approach to monitoring its green transition policy and extensive literature analysis, we propose four recommendations for decision-makers that are interested in monitoring and evaluating their green transition pathways to consider.

5.1 Unpacking the purpose of evaluation: from accountability to dynamic change management

Delivering systems change at the city level inherently demands a robust theory of change that incorporates a strategic feedback mechanism. To this end, decision-makers involved in these processes must comprehend evaluation not as an accountability tool for determining whether advancements are on track with expectations, but rather as a feedback mechanism that can monitor how activities are making an impact on the ground to enable accelerated progress over time. Systems change is non-linear. It requires a nuanced understanding of multiple, overlapping inputs and a changing constellation of interacting actors that create the highly complex landscape the policy seeks to transform.

While reliance on a base of classical 'scientific' evidence as conventional policy evaluation approaches may be suitable for technical and complicated known problems, decision-makers leading urban green transition policies need to recognise the inherent uncertainty, exploratory nature and randomness that is embedded within these new modes of systems change, and that these demand innovation. A feedback mechanism that relies on scientific data that is predictable and replicable to ensure the efficient use of limited resources is ill-equipped for the level, scale and complexity of the systems change required to facilitate a green transition. Building on these foundational principles, decision-makers must understand that dynamic monitoring evaluation frameworks are needed to analyse, manage and ultimately accelerate systems change, and thus enable the urban transition.

5.2 Incorporating multiple spatial, political and economic scales of analysis into an evaluative framework

Decision-makers tasked with managing a policy's evaluation should tailor their evaluation framework to consider and sensitively analyse across multiple urban scales which are 'contextually located'.[15] By carefully appraising policy actions across multiple overlapping geographic and political scales, decision-makers can utilise evaluation as a method for enriching institutional 'learning' that deepens their understanding of the specific character of the challenges which intrinsically influence a policy's effectiveness.[16] Conventional policy evaluation methods, such as KPIs and CBA, rely on establishing generalisable trends determined through statistical metrics and quantitative data, and overlook critical yet often more subtle qualitative factors that can explain behavioral trends and frequently shape actions across political levels of bureaucracy. Failure to monitor these factors risks policy stagnation, long-term failure or misperception. However, designing a 'mission metrics' framework that can evaluate policy actions with a qualitative sensitivity to the interconnections across multiple scales of political authority will ultimately better enable decision-makers to invest and hone their policies to effectuate behavioural change, build cross-sectoral coalitions of committed actors and drive systems transformation.

To enable these forms of monitoring and appraisal, decision-makers should prioritise designing learning-centred evaluation approaches that can analyse the different scales of physical space, governance, political authority and societal activities to cultivate a robust knowledge base that can be used to influence behavioral change and affect systemic leverage points. Incorporating this multi-scalar sensitivity within a learning-oriented evaluation approach will enable decision-makers to ascertain the specific contextual 'reconnaissance' that supports action on the ground, making it possible to better understand the nature of the problem being addressed and thus improving responsiveness to that problem. Furthermore, considering multi-scalar dynamics within a policy evaluation approach will help decision-makers understand where institutional redesigning might be necessary to enable transformation by identifying what level of government is best suited for a particular activity and how responsibilities could be rebalanced. Tailoring a policy's evaluation approach to carefully considering the multi-scalar dynamics that urban action must navigate will help ensure a policy's impacts can be market-shaping in orientation and support systems change.

5.3 Citizens as co-producers: the public's role in innovation and transformative change and economic scales of analysis into an evaluative framework

To enable the urban transformation and systems change required for the green transition and other urban policy agendas targeting 'wicked problems', decision-makers must learn to recognise the value that citizens hold as more than mere passive policy 'consumers' or 'users' and embrace their critical role as active 'co-producers' whose knowledge could be assessed through a dynamic evaluation approach. Citizens can become integral to providing implicit and embodied forms of knowledge that can be used to inform solutions to wicked problems,[17] requiring governments and decision-makers to embrace 'stakeholder pluralism in confronting wicked problems'.[18] Engaging citizens within a green transition's evaluation process can be a potential means of negotiating and synergising across multiple forms of knowledge from technical and lay communities, enabling decision-makers to reach more informed and equitable outcomes.

There are numerous forms where co-production has been utilised to support substantive public participation — from policy design to service delivery to research. In the context of policy evaluation, co-production can be understood as the participative ethos, which seeks to bring stakeholders from a variety of backgrounds together to share power and responsibility in a process where all work together on a foundation of equal relationships.[19] Co-productive policy evaluation is not defined by specific methods, but rather a set of practices that facilitate an evolving culture of learning, collaborative analysis and action.[20] Particularly relevant for policy evaluation, co-production is an approach that can synergise different forms of knowledge from technical and lay communities, enabling decision-makers to collectively identify new insights which can be used to improve policy delivery over time.

In addition to contributing their diverse, often delegitimised forms of knowledge to decision-making processes, involving citizens as co-producers within a green transition's evaluation approach can also be vital for reaching just and equitable policy outcomes. There are no clear solutions to wicked problems. Part of the difficulty when endeavouring to address these challenges is negotiating between the various contentious and often competing views of how to address the problem or identify whether appropriate progress is being made. Groups that lack power often have their views and needs neglected, leading to climate and environmental justice issues in the context of green transition pathways. Ensuring these voices have a seat at the table to monitor and assess a green transition's progress ensures the solutions are being pursued equitably and reduces the risk that historically marginalised communities are further burdened by action.

Table 1. Participative forms of alternative evaluation

Evaluation approach	Definition	Example
Co-evaluation	An iterative and collaborative process involving diverse types of expertise, knowledge and actors to produce context-specific knowledge and pathways towards a sustainable future. Based on the local context in which the co-production activities occur.	The city of Dordrecht, the Netherlands, has been exploring climate-proofing and the co-production of policy and knowledge. Facing large-scale urban renewal and gentrification, decision-makers collaborated with residents in the neighborhood of Vogelbuurt through co-design workshops to design climate services while enabling the development of locally 'placed-based' climate-proof services based on residents' experience matched with their needs. A co-evaluation methodology was devised to elicit knowledge from participants which shaped a set of criteria as design guidelines to develop climate services and maintain existing local services.
Delegated power	Participants and residents are given power to influence decision-making and managerial choices, with an ability to negotiate the conditions under which 'outsiders' may change them.	The Harlem Commonwealth Council — an all black community board in Harlem, New York, USA that was brought together to implement an economic development programme — cultivated broad support and participation from local residents in large part due to its rootedness and connection with the local community. Through its work, the Harlem Commonwealth Council developed, negotiated and launched large-scale ventures by capturing $1,200,000 in awarded grant funding, a first-of-its-kind initiative for the area.
Citizen science	A process where the general public or 'lay communities' actively participate in a public policy's scientific research activities. Citizen scientists are encouraged to contribute to, collaborate and co-create the research's design, key questions, and collection and analysis of data, contributing their unique knowledge of the research subject.	The Citizen Sensing project, an urban climate resilience project in four European cities — Porto, Portugal; Rotterdam, the Netherlands; Norrkoping, Sweden; and Trondheim, Norway — utilised a co-designed, web-based mobile application that citizen volunteers were encouraged to use to supply detailed data. The citizen scientists could report and share their observations of local weather events and impacts, access real-time sensor data, view other citizens' reports, and share and provide climate adaptation recommendations linked to their reporting. This process enabled local government decision-makers in the four cities to form new knowledge about how climate events were impacting social dynamics in their city, shaping the understandings of how their communities could respond.
Deliberative democracy	A methodological process where a representative sampling of a community is brought together to learn, discuss and collectively reach outcomes on a specific question or set of questions. Through this discursive process, policy decision-makers are able to engage with alternative ways of viewing policy challenges and imaginative pathways for addressing them.	The Leed Citizens' Climate Jury (LLCJ) was established by the Leeds Climate Commission in partnership with the City Council to examine the city's response to climate change and make recommendations that would shape future responses. The jurors who served on the LLCJ consisted of a diverse representative sampling of the local community. They learned about emergent science and heard neutrally framed evidence from experts before deliberating whether the city's actions were sufficient to address the challenges at hand, while meeting the wider community's social, economic and cultural needs. The LLCJ's work resulted in a set of 12 recommendations that covered topics ranging from inclusive housing to communications to green spaces and a proposal for a transformative 'Leeds Green New Deal'.

Source: authors' own (drawing on [23,24,25,26])

There are multiple methodologies for how citizens could be engaged and involved within a policy's evaluation approach as co-producers. For instance, citizens could be engaged within a policy evaluation approach as 'citizen scientists', using their network and unique analytical perspectives to gather difficult-to-assemble qualitative data. Citizens could also be empowered within broader action research processes, where they can be involved in observing the consequences of policy action and redesigning iterative actions, which build on the knowledge they've helped assemble.[21] While many co-productive mechanisms for engaging citizens as co-producers exist, it's critical that the local governments driving these processes forward also remain vigilant and committed to increasing their co-productive capacities to effectuate this innovative way of working.[22]

5.4 Re-defining the relationship between evaluation and risk-taking

If decision-makers are to find solutions for addressing wicked problems such as the climate crisis, they must develop skills for accepting and navigating risks as a means for accelerating innovation and achieving systems change. How an evaluation approach is used to frame risk-taking behaviours matters within a policy's monitoring and analysis process. An evaluation approach can be designed to deter, tolerate, navigate or even incentivise risk-taking. It has been shown that in organisational contexts where decision-makers operate in a restrictive and rigid environment, their actions and aptitude for risk-taking are diminished and, in turn, the ways they perceive problems and design solutions to them becomes limited, reducing their overall capacity to enable innovation. While decision-makers should evaluate their systems change policy through alternative that support learning, there is a need for those evaluation methods and frameworks to support an openness to risk and risk-taking or have their capacities for identifying novel solutions greatly diminished.

Decision-makers should therefore, be encouraged to take a measured risk by having their evaluation approaches focus on developing learning rather than determining accountability. One evaluation framework well-suited to achieving this is to have decision-makers act as 'street-level bureaucrats', operating as liaisons between citizens and the state, translating experience into tangible knowledge.[27] Acting as on-the-ground street-level bureaucrats can enable decision-makers to identify how, in practice, policymaking translates into action, offering an alternative perspective between actual outcomes versus perceived risk. For policy evaluation to unlock this form of learning and healthy risk-taking, decision-makers should embrace the entrepreneurialism situated within working in the field, seeing a challenge through an alternative lens, and be encouraged to initially undertake small, managed, uncertain activities to expose how a problem might be addressed through a new approach to cultivating new knowledge about the problem itself. This measured risk-taking activity can be incrementally scaled over time, improving decision-makers' ability to adapt and respond to the evolving landscape on the ground.

New ways of evaluating policy action must be adopted for the grand challenges to be addressed in a meaningful way through bold solutions, such as green transition policies as a response to the climate crisis. As has been demonstrated throughout this policy brief, the conventional approaches decision-makers have taken to evaluating the progress of policies intended to foster systems change are not fit for purpose, severely limiting the pace of progress at best, or restricting innovation and advancement at worst. Instead, decision-makers must consider the vital role of monitoring and analysis in a systems change process, and design these evaluation approaches to meet their specific needs and objectives.

About this brief

References

1 Oliveira, V. and Pinho, P. (2010). Evaluation in urban planning: Advances and prospects. Journal of Planning Literature, 24(4), 343-361.

2 Rae, A. (2011). Learning from the past? A review of approaches to spatial targeting in urban policy. Planning Theory & Practice, 12(3), 331-348.

3 Hildén, M., Jordan, A. and Rayner, T. (2014). Climate policy innovation: developing an evaluation perspective. Environmental Politics, 23(5), 884-905.

4 Mayrhofer, J. P. and Gupta, J. (2016). The science and politics of co-benefits in climate policy. Environmental Science & Policy, 57, 22-30.

5 Thomas, J. B., Clark, S. M. and Gioia, D. A. (1993). Strategic sensemaking and organizational performance: Linkages among scanning, interpretation, action, and outcomes. Academy of Management journal, 36(2), 239-270.

6 Brown, A. D., Colville, I. and Pye, A. (2015). Making sense of sensemaking in organization studies. Organization Studies, 36(2), 265-277.

7 Kattel, R. (2022). Dynamic capabilities of the public sector: Towards a new synthesis. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2022-07). Available at: https://www.ucl.ac.uk/bartlett/publicpurpose/wp2022-07.

8 Audette-Chapdelaine, M. (2016). Sensemaking and the political–administrative interface: the challenges of strategically steering and managing a local public service. International Review of Administrative Sciences, 82(3), 454-471.

9 Charbonneau, É. (2010). Use and sensemaking of performance measurement information by local government managers: The case of Quebec's municipal benchmarking system (doctoral dissertation, Rutgers University-Graduate School-Newark).

10 See: https://www.greatermanchester-ca.gov.uk/media/1986/5-year-plan-branded_3.pdf

11 See: https://www.greatermanchester-ca.gov.uk/media/2132/gm-local-industrial-strategy-web.pdf

12 Bellinson, R., McPherson, M., Wainwright, D. and Kattel, R. (2021). Practice-based learning in cities for climate action: A case study of mission-oriented innovation in Greater Manchester. Available at: https://www.ucl.ac.uk/bartlett/public-purpose/pr2021-03.

13 See: https://aboutgreatermanchester.com/media/jlslgbys/greater-manchester-strategy-our-plan.pdf.

14 See:https://democracy.greatermanchester-ca.gov.uk/documents/s21789/06%20Progress%20Report%20Q1%2022.23.pdf.

15 Townsend, A. (2013). Action Research: The Challenges of Understanding and Changing Practice. Open University Press, Berkshire.

16 Lewin, K. (1946). Action research and minority problems. Journal of Social Issues, 2(4), 34-46.

17 Hodgkinson, I. R., Mousavi, S. and Hughes, P. (2022). New development: Citizen science—discovering (new) solutions to wicked problems. Public Money & Management, 42(2), 133-136.

18 Head, B. W. (2019). Forty years of wicked problems literature: Forging closer links to policy studies. Policy and Society, 38(2).

19 Jasanoff, S. (2004). The idiom of co-production. In: States of knowledge . Routledge, pp. 1-12.

20 Bovaird, T. (2007). Beyond engagement and participation: User and community coproduction of public services. Public Administration Review, 67(5), 846-860.

21 Townsend. A. (2013). Action Research: The Challenges of Understanding and Changing Practice. Open University Press, Berkshire.

22 Bellinson, R. (2021). Co-production in local climate politics. Available at: https://www.sheffield.ac.uk/media/29100/download?attachment

23 Arnstein, S. R. (1969). A ladder of citizen participation. Journal of the American Institute of planners, 35(4), 216-224.

24 Bremer, S., Wardekker, A., Jensen, E. S. and van der Sluijs, J. P. (2021). Quality assessment in co-developing climate services in Norway and the Netherlands. Frontiers in Climate, 12.

25 Thomson, D. E. and Etienne, H. (2017). Fiscal crisis and community development: The great recession, support networks, and community development corporation capacity. Housing Policy Debate, 27(1), 137-165.

26 Leeds Climate Commission. (2020). Leeds Climate Change Citizens Jury. See: https://www.leedsclimate.org.uk/leeds-climate-change-citizens-jury.

27 Tummers, L. and Bekkers, V. (2014). Policy implementation, street-level bureaucracy, and the importance of discretion. Public Management Review, 16(4), 527-547.

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