PERITIA

Policy, Expertise and Trust

Policy Brief

Uses of Deliberative Mini Publics for Restoring Trust and

Ensuring Trustworthiness

Deliverable D11.2

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1 THE CONTEXT

1.1 Trust as an outcome of deliberation

Deliberative processes are well-established in practice and a solid evidence base has demonstrated that they can provide alternative means of citizen engagement and decision-making that work alongside more established forms of governance. For instance, Ireland's Citizens' Assembly, otherwise known as We The People, deliberated on a range of constitutional issues which ultimately led to the repeal of the 8th amendment, effectively legalising abortion.

Scholars in the field have identified a range of benefits that deliberation can bring to the workings of governance and public decision-making. Some of these are intrinsic, and result in direct gains to the quality of governance. For instance, it has long been understood that opening up democracy to a plurality of voices leads to tangible benefits in the quality of democratic decision-making (Carugati, 2020), as both new perspectives can be identified and the voices of the most powerful do not dominate.

Deliberative processes can also lead to legitimacy gains. By requiring participants to explain the reasons for their opinions, and to support their claims with evidence, decisions are made more transparently and can also be easily revisited. This means that the outcomes of policy decisions can be examined, and lessons learned, in a non-confrontational way.

These processes can also result in a range of broader benefits in the wider population. Thanks to the direct involvement of citizens, deliberative processes have been argued to yield results that are considered legitimate by the broader population (MacKenzie & Warren, 2012; Parkinson, 2006).

What is less examined is the impact that the process of deliberation has on trust. This matters as confidence in parliament tends to be relatively volatile (Hewlett et al., 2023). Compounding this, the younger generations have experienced some of the biggest shifts in attitudes. Taking Great Britain by way of example, confidence in the government among Millennials has halved since 2005 (Duffy et al., 2023). If deliberative processes can not only improve policy outcomes and their legitimacy but can also increase trust in decision making then there is an even stronger case for mainstreaming these approaches in ways of governing.

In this report, we focus on trust as an outcome of deliberative processes through the lens of participant experience, observing attitudinal change over the course of deliberation as well as exploring what participants take away from the experience over the longer-term.

1.2 About the PERITIA Deliberative Mini Publics

Design
- 5 day-long Deliberative Mini Publics, run between November 2022 and March 2023, each in a capital city: London, Berlin, Dublin, Warsaw and Yerevan
- Central question: "What urban transport policy changes are citizens prepared to accept in the context of climate change?"
- 30-35 participants per city, recruited to quotas
- Stimulus from three expert presentations: academic, journalist and civil society (NGO)
- Mix of plenary presentations, breakout discussions and tasks, and interactive voting
- Impact assessed via pre- and post-workshop surveys, plus follow-up interviews

In PERITIA, we ran five Deliberative Mini Publics (DMP) across five contrasting capital cities, focused on reforms to urban transport. This was chosen as an area of focus as urban transport is not only a major contributor to climate change, but it is also an issue that the public could relate to that is of relevance in all five cities.

In general, DMPs are forums where citizens with a range of views and lived experiences are brought together (in person or online) to discuss a particular issue in small, facilitated break-out groups (Grönlund et al. 2015). Central to the success of any DMP is that the participants are provided with a range of information which they can use to guide their discussions. According to the OECD, "participants should have access to a wide range of accurate, relevant, and accessible evidence and expertise. They should have the opportunity to hear from and question speakers that present to them, including experts and advocates chosen by the citizens themselves" (OECD, 2020).

Alongside this, DMPs try to achieve a diversity of viewpoints among participants, the goal being a microcosm of the people (Fishkin, 2009) in order that their views can serve as a proxy for an informed public opinion. To achieve diversity of participants, some kind of random sampling is typically used when recruiting people to mini-publics.

In the PERITIA DMPs, we set out to test how people responded to one of the most common forms of stimulus used in deliberative processes: expert presentations delivered in person. In particular, we sought to understand:

- How credible and accessible do participants find the evidence provided?
- What facts or policy ideas stick with people, and why?
- To what extent do participants draw on expert stimulus in deliberation?
- Do participants discriminate between different fields of expertise? If so, how?

- To what extent does exposure to expert testimony via deliberative processes influence levels of trust in those taking action on the issue and the perceived trustworthiness of the policies proposed?

The workshops were delivered by local partners in Armenia (American University of Armenia), Germany (ALLEA), Ireland (University College Dublin), London (Sense About Science) and Poland (Polish Academy of Sciences). Local partners were responsible for arranging logistics, recruiting participants, identifying and engaging local experts, and processing the data. The design and analysis were overseen by researchers from the Policy Institute, King's College London with applied experience of deliberative approaches.

Each workshop had a balance of comparative and country-specific elements. The opening and closing sessions followed the same protocol in all cities. The start of the workshop focused on how concerned participants were about climate change coming into the workshop, what they saw as its causes and impacts, and their perceptions of who was involved in addressing it. Whereas the closing session used a consistent framework and set of prompts to support participants in generating and prioritising reforms to urban transport to best effect climate change.

Where the design diverged between cities was in the delivery of expert stimulus. Each city engaged their own set of experts, inviting one academic, one journalist and one non-governmental organisation (NGO) representative to speak. In each city, the expert delivered a formal presentation, followed by plenary Q&A and breakout discussions with the speaker, allowing participants the time to clarify and critique the evidence presented.

Using local experts, rather than the same expert across all five cities, was a key factor for credibility: drawing on the expertise of the local teams, we considered it was important to have individuals who were fluent in the native language, who understood the local context and represented a familiar institution. Though to aid comparison of discussion between cities, each type of expert received the same brief, which were as follows:

- Academic | How urban transport systems contribute to climate change and international examples of initiatives to make positive change.
- Journalist | The state of play for local transport policy in the city, and live policy debates around how it could be improved.
- NGO | Three policy options for urban transport reforms to address climate change, and what benefits they would bring.

After the presentations, participants discussed the evidence in small groups, guided by a consistent set of prompts across all cities. To aid active engagement, they also completed snap polls, voting exercises and tasks within their breakout groups – the format and wording of which was kept the same across all five workshops.

How the experience impacted participants – particularly their disposition to trust policy actors or to see policy initiatives to address climate change as trustworthy – was detected through three mechanisms. Coding of transcripts of breakout discussions, tracking of attitudinal change across the day via pre- and post-workshop surveys, and longer-term reflections on the experience, captured in follow-up interviews a month or more after the event.

1.3 Caveats

In this report, we offer headline findings that synthesise discussions from the five workshops that speak specifically to the question of whether deliberative processes such as DMPs can influence public trust in expertise. However, the report should be read with the following caveats in mind.

The PERITIA DMPs were a methodological experiment to better understand the utility of deliberative mechanisms as tools for engagement with expertise that support more trusted and trustworthy systems of governance. As such, they do not have a clear link into power to secure the take-up the recommendations, as is ideally the case with deliberative mechanisms used to support the implementation of policy – nor was any potential for take-up of recommendations communicated to participants. As such, findings in this report offer insights into how participants experience the process of deliberation and how it impacts them as individuals, not how these mechanisms are perceived in society overall.

Moreover, we consider trust as a potential outcome of engaging with evidence through deliberative processes – though we recognise that trust is just one outcome of many that might be experienced by individuals who take part in deliberative processes. We are explicitly not treating trust as an aim of deliberation, recognising it is not the central purpose of deliberative processes.

2 THE STARTING POINT FOR TALKING ABOUT ACTION ON CLIMATE CHANGE

Deliberative processes can offer an inclusive and informed way of developing public policy. It has been argued that these processes provide participants with relevant and balanced information and can include members of previously disempowered groups (Beauvais & Warren, 2019; Smith, 2009). While participants can be initially misinformed, or have expectations which do not match reality, deliberation has the potential to correct this (Himmelroos & Rapeli, 2020). And thanks to the direct involvement of citizens, it can lead to outcomes considered to be legitimate by the broader population (MacKenzie & Warren, 2012; Parkinson, 2006).

However, it is important to understand participants' starting points prior to any deliberative process, in order to determine its impact, and the factors underpinning any attitudinal shift. This section, therefore, draws out how concerned participants were about climate change before the workshops and why; the effect of proximity to the impacts of climate change in how they see the issue; what kinds of actions they are aware of and how effective they judge those actions to be; and the factors that stand in the way of believing that progress will be made on the climate crisis.

2.1 Understandings of the climate crisis

Participants largely came to the workshops with high levels of concern about climate change, albeit with variable levels of knowledge

Coming into the workshops, around two thirds (64 per cent) of participants were already concerned about the impact of climate change on them personally. This pattern was consistent across all four European cities, with slightly higher levels of concern in Warsaw (see Figure 1). Yerevan, however, is an outlier, with around nine in ten participants saying they were not very worried or not worried at all about the impact of climate change for them personally.

Figure 1: Concern about climate change pre-workshop

How worried, if at all, are you about the impact of climate change for you personally?

■ Very worried ■ Somewhat worried ▢ Don't know ▢ Not very worried ■ Not worried at all

Warsaw: 2, 1, 15, 16
Berlin: 10, 7, 17
Dublin: 5, 5, 1, 19
London: 3, 1, 7, 1, 19
Yerevan: 2, 1, 1, 18, 13
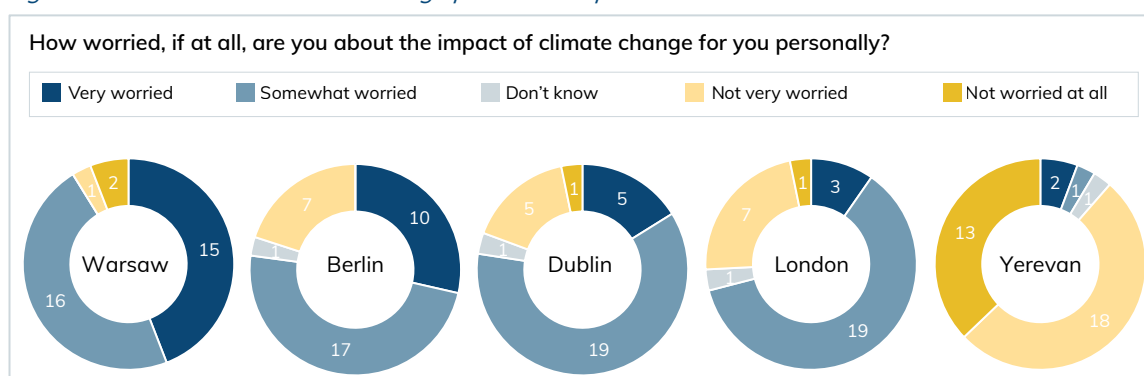
Levels of self-reported knowledge about climate change were, however, more mixed. In the pre-workshop survey, just over half (51 per cent) of attendees said that they felt knowledgeable about climate change, compared to two in five (41 per cent) who considered themselves unknowledgeable. However, there were notable differences between cities. Participants in Berlin and Yerevan rated themselves as most knowledgeable, where majorities felt either extremely or quite knowledgeable about the issue (23/35 and 21/35 participants, respectively), compared to those in Dublin and Warsaw, who predominantly identified as not being very knowledgeable (19/31 and 19/34 participants, respectively).[1]

Though in discussions, it was clear that most participants observed climate change through the lens of changing weather. Of the people who elaborated on what they understood climate change to be, roughly three quarters mentioned this. However, there was also a focus among smaller groups of participants on pollution, the depletion of natural resources, such as water and trees, and the disruption of the food chain, in how they understood the term (see Table 1)

Proximity to the impacts of climate change was one of the most common justifications for levels of concern, along with concern around inaction

By far the most common justification given for concern about climate change was that the impacts of climate change now feel tangible for participants, mentioned by around half of those concerned. This was often exemplified by the impacts of changing weather patterns in the local area: grass and trees dying, rivers drying up, and damage caused by storms were all identified as consequences of climate change seen in their local area:

> *"Summer this year, the grass was, my God, I have never seen-, I have been in this country for 24 years and I have never seen the grass brown like I did this summer." (London, workshop)*

Participants tended to discuss such events in relation to the impacts felt by themselves and the people they know. For example, one participant in London described how increasingly warm temperatures in the summer forced them to stay indoors, while in Berlin a participant reflected on how "severe damage" from storms in Germany had forced her family to remain inside their homes: they "couldn't go out for days, playgrounds were destroyed" (Berlin, workshop).

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[1] Question not asked in London.

Table 1: Common understandings of the term "climate change" among workshop participants

CHANGING WEATHER PATTERNS	POLLUTION
• Extreme weather events, including earthquakes, monsoons, droughts and wildfires – both in one's own country as well as in countries such as India, Pakistan, Australia and the US. • Rising temperatures, with some referring specifically to the polar ice caps melting. • Unseasonable weather, particularly changing of the seasons, no longer seeing cold temperatures, rain or snow ("a white Christmas") in the winter, and unprecedented temperatures in recent years – both hot and cold. *"Even things like it's a late autumn or early spring, is this part of the big picture of just something happening? You don't always think of it in a scientific way, but you notice changes." (London, workshop)*	• Pollution understood in broad terms – from CO2 emissions and greenhouse gases to contamination, air quality and waste. • Participants highlighted emissions from cars, planes and industry (eg mining) as contributors to high levels of pollution. • Participants in Berlin, Yerevan and Dublin identified densely populated and heavily congested cities across the world as being responsible for high levels of pollution. *"When you have countries where there's 800 million or a billion, and all of a sudden people can't walk through the streets with the fog or smoke or whatever else. … I think it's those countries, by right, that should be not made accountable but should be helped to stop it." (Dublin, workshop)*
DEPLETING NATURAL RESOURCES	**DISRUPTION TO THE FOOD CHAIN**
• Deforestation and the destruction of greenery in favour of construction was a concern in most cities, with trees not being replanted. Participants linked this to increasing levels of carbon dioxide in the atmosphere. • A few participants spoke about rising temperatures killing plants and creating water shortages, and the potential impact this could have on the health of the population. *"I am extremely worried about the heat in the city and the lack of drinking water. In a report the other day, it said that [in Germany] we are in 152nd place in terms of rainfall, so still behind Israel. … I think we are going to get a massive water problem in the city." (Berlin, workshop)*	• Concern about food shortages, linked to changing weather patterns. • Participants in Yerevan and Berlin noted how extreme weather events such as heavy rain and drought had impacted on the quality of crops, ultimately leading to food shortages and poverty. *"Climate changes are visible. For example, in our village at one time many people were engaged in agriculture, there was food. But now it is the opposite, people are going into poverty." (Yerevan. workshop)*

There was a general sense that future generations would experience more extreme consequences of climate change, especially repercussions that would significantly impact life in the cities where the workshops took place. As one participant in Dublin put it:

> "That's why it's kind of worrying, because we are the ones doing the damage. Not consciously, because in earlier years we didn't know, but I think by the time our generation is kind of gone and their generation has taken over, at that point there will be a lot more they'll have to do. A lot more." (Dublin, workshop)

In parallel, almost a third of those who were concerned about climate change also emphasised the perceived lack of action as something that drove their levels of concern, both at a societal and structural level. For example, one participant in Warsaw expressed their dismay at the waste created by excess packaging on goods, while a teacher in Berlin described feeling "despair" over their students' resistance to using more sustainable forms of transport, despite acknowledging emissions caused by cars as a problem.

A small number of participants specifically talked about structural inaction through the lens of feeling "helpless" – particularly those who felt that climate change had been on the agenda for decades:

> "For me it is difficult to assess how concerned I am. For me, [climate] change is not just change, but a crisis. The effects this change has had so far are difficult for me to assess. I'm almost 40, and for as long as I can remember, we've been talking about a greenhouse effect – so in school. At the time I thought, 'ok, we know, but something is changing.' What really worries me [now] is the helplessness of nothing happening. That worries me a lot. Now we are aware, but it's getting harder and warmer, and nothing is happening." (Berlin, workshop)

Competing concerns, feeling uncertain about the link to human activity, and believing that the threat is overblown or distant were justifications for why we should worry less about climate change

In the opening discussion, around one in ten participants expressed little to no concern about climate change. Their reasons for this tended to vary, from feeling that there are more pressing things to worry about or that the threat has been overblown or is too distant to worry about now, to actively challenging the idea that climate change is primarily caused by human behaviour (see Table 2).

Table 2. Common reasons for low concern about climate change among workshop participants

WE FACE BIGGER ISSUES

- For a small group of participants in London and Dublin, dealing with climate change was a long way down their list of priorities for government spending, and/or not seen as an immediate or "pressing" concern in their own lives.

- The cost-of-living crisis, investment in public services, housing, work and caring responsibilities, in contrast, were all considered issues in need of attention and more important to focus on.

"To be brutally honest with you, it's not something I am really worried about. I think there's other things in the world that we should be worried about more immediately, like the cost of living and everything else like that – nurses, fire stations, you know, everything else like that." (London, workshop)

QUESTIONING THE ANTHROPOGENIC BASIS OF CLIMATE CHANGE

- A view expressed by one participant in Berlin, London, Warsaw and Yerevan, but all in slightly different ways.

- This ranged from questioning whether we truly know what the consequences of climate change will be, how they connect to human behaviour relative to other environmental causes, to seeing changes in the climate as part of a normal, cyclic process that will right itself.

"I don't know how scientifically it is substantiated, but ... subconsciously I would assume that it is cyclical: there will be warm times, then the climate will change. [But] I don't think that it will always increase the temperature." (Yerevan, workshop)

UNAWARE OF AND UNEXPOSED TO THE NEGATIVE IMPACTS OF CLIMATE CHANGE

- A small group of participants said they did not think about climate change or worry about it, as it did not impact their daily life.

- Others observed that their low level of concern resulted from not knowing enough about the subject.

- Some participants in Warsaw and Yerevan also spoke positively about the benefits of warmer temperatures, such as saving money on heating bills.

"[For me to be concerned, I'd need] to feel for myself if my house was flooded or it burned down – and if it was proven that it was actually related to climate change." (Warsaw, workshop)

IMPACT FEELS DISTANT

- A few participants – again, mostly in London and Dublin – attributed their lack of concern about climate change to not having children or grandchildren. These participants felt future generations were most at threat from climate change, but didn't feel invested enough in the current population to act.

- One participant also mentioned how the impacts were felt more in other countries, not their own.

"[I'm] not very [concerned]. ... It's for purely selfish reasons, cause really I don't have any kids or whatever, so basically I don't really give a damn about what sort of planet we are leaving, I'll not be here!" (Dublin, workshop)

Although these participants expressed little to no concern about climate change, they did not question its existence. Rather, they tended to question the validity of its status as a "crisis", with one participant describing the subject as "overblown" and "not, in fact, a crisis at all" (London workshop).

Most of those who were unconcerned about climate change were relatively passive in the justifications they gave for being unworried, putting the issue out of their mind until the impacts become more tangible to them:

> *"At the end of the day, it's out of my control and I refuse to worry about things I don't have no control over. I'm prepared to do my part in terms of recycling and not driving as much, but I refuse to worry about it to an extent because I've got much more pressing things to worry about."*
> *(London, workshop)*

However, a small group of participants – one in each city except Dublin – actively questioned the anthropogenic basis of climate change. Among this small group, some participants perceived extreme weather events to be the result of "cyclical" weather patterns that have led to periods of severely hot and cold temperatures, with one participant pointing to the ice ages as being a result of such cycles. One of these participants framed this scepticism around the scale of emissions generated by humans paling in comparison to those emitted in nature:

> *"I think really the problem is this is something that's been overblown. … I think, you know, they were saying that if one volcano goes, it's the equivalent to us running cars for 200 years. So you're going, really and truthfully, how much of an impact are we really having when you compare? So one volcano goes off, which we have no control over. And I think the system is going to heal itself. It is going to come back to a balance." (London, workshop)*

2.2 Taking action on climate change was seen as both a structural and a personal responsibility

Levels of prior exposure to actions being taken to address climate change varied considerably coming into the workshops, particularly between cities (see Figure 2). Majorities in London, Dublin and Warsaw felt they were either very or somewhat aware of what was being done to address the issue, whereas in Berlin and Yerevan roughly three in five participants described themselves as being not very aware or not aware at all – with a much higher proportion of participants in Yerevan saying they were not aware at all.

Figure 2: Awareness of actions being taken to address climate change pre-workshop, by city

How aware, if at all, would you say you are about actions currently being taken to address climate change in [country]?

Legend: Very aware · Somewhat aware · Don't know · Not very aware · Not aware at all

London: 1, 19, 1, 11
Dublin: 19, 1, 11
Warsaw: 5, 14, 12, 3
Berlin: 2, 12, 18, 2
Yerevan: 2, 3, 8, 12, 10

Participants tended to focus more on structural responses to climate change, but generally felt their impact was limited

When asked to reflect on adaptations being made to affect climate change or examples that had stuck with them, participants emphasised a range of both structural and individual actions – though with a slight balance towards structural responses.

Some participants were aware of top-down measures being carried out by authorities such as governments, national bodies, international organisations and industry leaders, while others spoke about the limitations of current systems to adapt to the needs of climate change. These tended to cluster into five areas of activity:

1 ### Developing alternatives to fossil fuels

Participants talked about a range of potential innovations, from investment in technologies such as electric vehicles to alternative energy sources such as hydrogen or wind energy. However, there was a general sense that these solutions were either ineffective or limited by other factors. Some participants criticised western countries that "outsourced" environmentally harmful production methods to countries such as China and India. Whereas others questioned the promotion of electric vehicles as a climate friendly mode of transport, given the environmental impact of the production and disposal of batteries, as well as the dependency on fossil fuels to charge them. Participants were also sceptical about the realism of a wholesale shift to different energy sources, citing a lack of incentives and infrastructure costs as barriers.

2 | Nudging people towards pro-environmental behaviours

People frequently discussed the need to provide incentives to citizens to encourage them to adopt environmentally friendly behaviours, although had mixed opinions on feasibility due to limitations of infrastructure. Transport was often cited as a potential area in which to encourage more sustainable behaviours, with participants referring to schemes providing free or subsidised public transport, car sharing or financial incentives for not using a car. Shopping locally to reduce transport emissions, opting for reusable packaging and encouraging people to reduce their consumption of goods were also endorsed as positive actions to encourage behavioural change by participants in Berlin and Dublin.

3 | Penalising behaviour that is harmful to the environment

Participants in London and Berlin observed examples of the state penalising environmentally harmful behaviours, often framed around discouraging people from using private vehicles. Charging for parking, creating car free zones and taxing cars that produce a certain level of emissions were all mentioned as mechanisms that encourage a move away from environmentally harmful behaviour. However, on balance they were seen to be more ineffective than promising. Equity was an important factor, with participants noting that these types of actions impacted people on lower incomes the most.

4 | Rethinking urban planning

A small number of participants in Berlin and Dublin noted initiatives to rethink urban environments. In Dublin, this was framed around the introduction of bike lanes in the centre to promote more sustainable ways of moving around the city. The initiative was seen by some to be a positive step but ultimately flawed by failing to complement the existing road system, leading to more congestion. One participant in Berlin spoke positively about examples of streets being temporarily pedestrianised in their local area, describing it as being important for encouraging Berliners to reimagine public spaces.

5 | International networks supporting climate action

Participants in London, Berlin and Yerevan referenced meetings attended by representatives from different countries and industries to discuss the impact of climate change and monitor targets set to mitigate it. Opinions were mixed as to whether this form of action was effective. While one participant in Berlin was unsure about the realism of meeting targets, participants in London and Yerevan saw the meetings as a positive step in acknowledging the problem and signalling that "everyone wants to contribute", and felt these networks had a role to play in ensuring those they lead are taking steps to stop climate change.

On balance, when participants discussed structural action, they tended to speak more about actions taken in their own country than further afield – despite only a third of participants observing the impacts of climate change in their own country.

Around half of the references to top-down responses related to actions taken in their region or country, and a further third were geographically ambiguous. Much less emphasis was placed on actions taking place in other countries or continents, which were mentioned by around one in five participants. Even then, these were often examples that had been observed directly, suggesting that proximity and lived experience play an important role in shaping awareness of responses to the climate crisis:

> *"We are all in the same boat. I was recently in Africa myself. Africans desperately need wood, need to cut fresh bushes. What can they do, they have no choice. They can't really respond well. While here we have many options, [but solutions] are still a way off – prosperity neglect!"*
> *(Berlin, workshop)*

Behavioural change to build action from the "bottom up" was also considered important, with examples often rooted in experiences from participants' own lives

While participants primarily considered authorities such as government and industry leaders to be responsible for implementing actions to solve climate change, they also identified several actions citizens could take to play a role in preventing climate change. These actions typically fell into one of three categories:

1 | ### Using more sustainable forms of transport

Adopting sustainable transport habits was the most common suggestion by participants across the five workshops. Using public transport instead of a private vehicle was often referenced as a positive way for a person to be environmentally friendly, as was walking, cycling, flying less and driving an electric vehicle such as an electric car, bicycle or scooter.

2 | ### Reducing personal waste

Participants regarded reducing personal waste as beneficial way for individuals to support the environment. People in London, Berlin and Dublin frequently mentioned recycling as a way in which they try to cut down on waste. Participants also referred to utilising reusable materials, restricting their water supply and using products with low carbon dioxide emission as ways to live sustainably.

3 | ### Cultivating nature

To a lesser extent, participants identified taking care of trees, growing your own food and collecting rainwater as actions that citizens can take to live in an environmentally friendly way. As one participant told us, "I have the ambition to produce my own food, that is to have my own garden and make the most of it. … It also has an impact because industrial food production is also a burden on the environment." (Warsaw, workshop)

When discussing the actions that individuals can take to be more environmentally friendly, participants predominantly referred to their own actions, as opposed to those around them. They also frequently used their own experiences, or those of friends and family members of using unreliable or non-existent public transport infrastructure to justify behaviour that was not environmentally friendly, such as driving.

Yet one of the biggest barriers to taking action on climate change that participants expressed was tied to a sense of fatalism about whether the actions of individuals, particularly in countries with relatively low emissions, would actually have any

effect on the global stage. There were a range of lenses that participants brought to this mindset – from the efficacy of their own actions to those of the nation overall.

> *"I saw this once on the internet, but I don't know if it's true at all, but I think it's nice: if Germany suddenly stops driving cars, and only uses bicycles on the road, and does everything for the environment like this, that helps less than 5 per cent, as long as the other countries don't do anything, especially India and China." (Berlin, workshop)*

A repeated comparison was made with India and China, where without commitment from these countries to act, sacrifices made by individuals in countries such as their own were seen to be futile. As one participant put it, "we can do our bit and make that little bit of a difference but ... China – with all their factories – if they're not going to make a difference, I guess all of our work goes to waste "(London workshop). Others referred to the actions of specific individuals, particularly the wealthiest in society, who were felt to operate outside of the behaviours asked of everyone else:

> *"Of course, I can make sure I only shower for five minutes, not ten, but then I feel like, "But when Taylor Swift flies from LA to San Francisco every day in her private jet, I kind of think, what difference does it make if I shower for ten minutes or five?" (Berlin, workshop)*

Participants in Berlin, London and Yerevan also spoke about the actions of others and their impact on the environment, often expressing concern about inaction. One participant in Berlin specifically questioned whether behaviour change would even be possible, given the German population's attachment to driving vehicles. Yet people also questioned how equitable some of the solutions were. In particular, in all cities switching to an electric vehicle was considered to be out of reach for most people due to the prohibitive cost: "I consider it very positive that people recently started importing electric cars for personal use, [but], of course, it is also a matter of opportunity and finances" (Yerevan, workshop).

A concerning outcome of this is that it led some people to disengage, as they felt they couldn't make a difference. For one participant in London, they expressed this as feeling excluded from being part of the solution:

> *"As a local person, I'm thinking what am I going to do then? I can't do any of those things – you know, electric panels or an electric car. And they're fundamental – that's what they're saying. They're fundamentally needed to do this, but I can't do that. ... It feels like I'm just left here to wither in the wind, because I can't actually help to resolve the issue.*
> *(London, workshop)*

3 TRUST AND TRUSTWORTHINESS AS OUTCOMES OF DELIBERATION?

Within PERITIA, we have explored a range of ways in which the trustworthiness of experts can be judged, falling into six key dimensions. For each dimension, there are several markers that are considered important for assessing and establishing trustworthiness (see Table 3).

These dimensions and markers have been developed into a "trustworthiness toolkit" (see peritia-trust.eu/toolkit/), which aims to inform decisions about when to rely on expert advice and when to exert more caution. Yet these types of considerations play an important role in deliberation too: to feel confident about making reliable recommendations, participants need to judge the veracity of the evidence offered, as well as the interests and motivations that lie behind policy propositions.

For this reason, we set out to use the DMP model to better understand how members of the public interact with expert advice in deliberative settings, and the influence this has on what they determine to be trusted courses of action. In the following section we focus in particular on how participants engaged with the evidence presented by experts and how they framed the responsibilities of key actors in the policy process, as a basis from which to reflect on whether deliberative processes can enhance the perceived trustworthiness of evidence-led policymaking.

Table 3: Dimensions and markers for assessing and establishing trustworthiness

Dimension	Markers of trustworthiness	Relevance in deliberation
Credible content	Confidence about what is known / what isn't known, coherence, scientific consensus	Assessment of the evidence and content presented
Trustworthy sources	Diversity, tone of the content, distinguishing fact from opinion, consensus among the scientific community	
Psychology	Social stakes associated with the message, stakes of knowing the truth, vulnerability	
Expertise	Training, experience, knowledge of the policy issue / science, and credentials	Assessment of people providing information and enacting policies
Reputation	Authority, status, influence	
Ethics	Conflicts of interest, integrity, accountable, transparent about values, aware of social consequences, benevolence or willingness to act in others' interests	

3.1 Assessing evidence

Building knowledge and awareness were key short-term outcomes, leading some participants to feel more optimistic that tackling climate change would be possible

Building knowledge around the issue of climate change was one of the biggest shifts that we observed in responses to the pre- and post-workshop surveys (see Figure 3). By the end of the workshop, the proportion of participants who did not feel knowledgeable about climate change had halved (41 per cent pre-workshop vs 19 per cent post-workshop). Whereas there was a 25 per cent increase in those who described themselves as quite or extremely knowledgeable post-workshop (50 per cent pre-workshop vs 77 per cent post-workshop).

Similar shifts occurred across all cities. However, they were most pronounced in Dublin, where roughly two thirds of participants who described themselves as not being knowledgeable at the start of the day, left feeling quite knowledgeable (12 of 19 moved).[2]

Importantly, for some, the information provided by experts helped to debunk their scepticism around the efficacy of action on climate change, as reported in Section 2.2. For example, one participant in Warsaw noted how one presentation led them to question their beliefs around the environmental impact of electric vehicles:

> *"For me, the most interesting thing was that an electric car is – despite being powered by 'carbon electricity' – still 1/3 more 'eco' than a regular combustion car. Even taking into account the whole operation, production and disposal. I had heard in the past that electric cars are ultimately less eco-friendly, but this convinced me nonetheless."*
> *(Warsaw, workshop)*

There was also a notable shift in one specific marker of "trustworthy sources" – perceptions of consensus among the scientific community. As shown in Figure 4, there was a large jump post-workshop in the proportion of participants who judged that between 91-100 per cent of climate scientists have concluded that human-caused climate change is happening – the bracket in which best estimates of consensus fall (Cook et al., 2016).

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[2] Data not available for the London workshop.

Figure 3: Self-rated knowledge about climate change pre- and post-workshop (survey)

How knowledgeable, if at all, would you say you are about climate change?

■ Pre-workshop   ■ Post-workshop

Category	Pre-workshop	Post-workshop
Not knowledgeable at all	2%	0%
Not very knowledgeable	39%	19%
Quite knowledgeable	44%	64%
Extremely knowledgeable	6%	13%
Don't know	8%	3%

Note: Question not asked in London (n=135, blanks not shown)
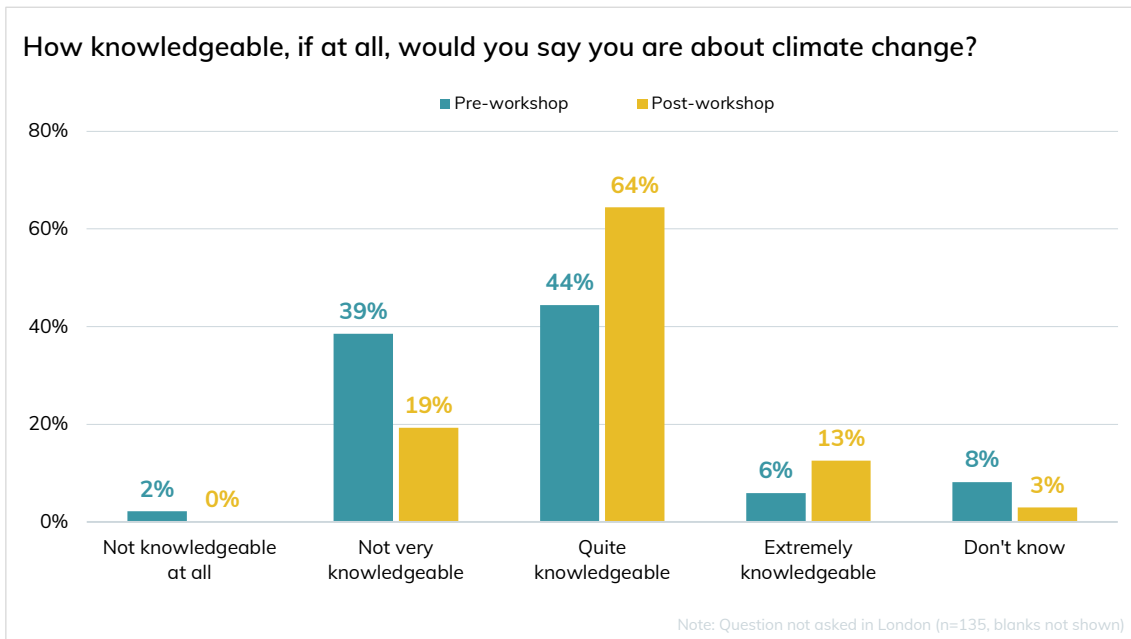
Figure 4: Perceptions of scientific consensus on climate change pre- and post-workshop (survey)

To the best of your knowledge, what percentage of climate scientists have concluded that human-caused climate change is happening?

■ Pre-workshop   ■ Post-workshop

Range	Pre-workshop	Post-workshop
0-10%	4%	0%
11-20%	1%	1%
21-30%	4%	2%
31-40%	3%	4%
41-50%	14%	11%
51-60%	5%	2%
61-70%	9%	11%
71-80%	15%	14%
81-90%	14%	11%
91-100%	21%	35%

Note: Data aggregated for all five cities (n=168, blanks not shown)
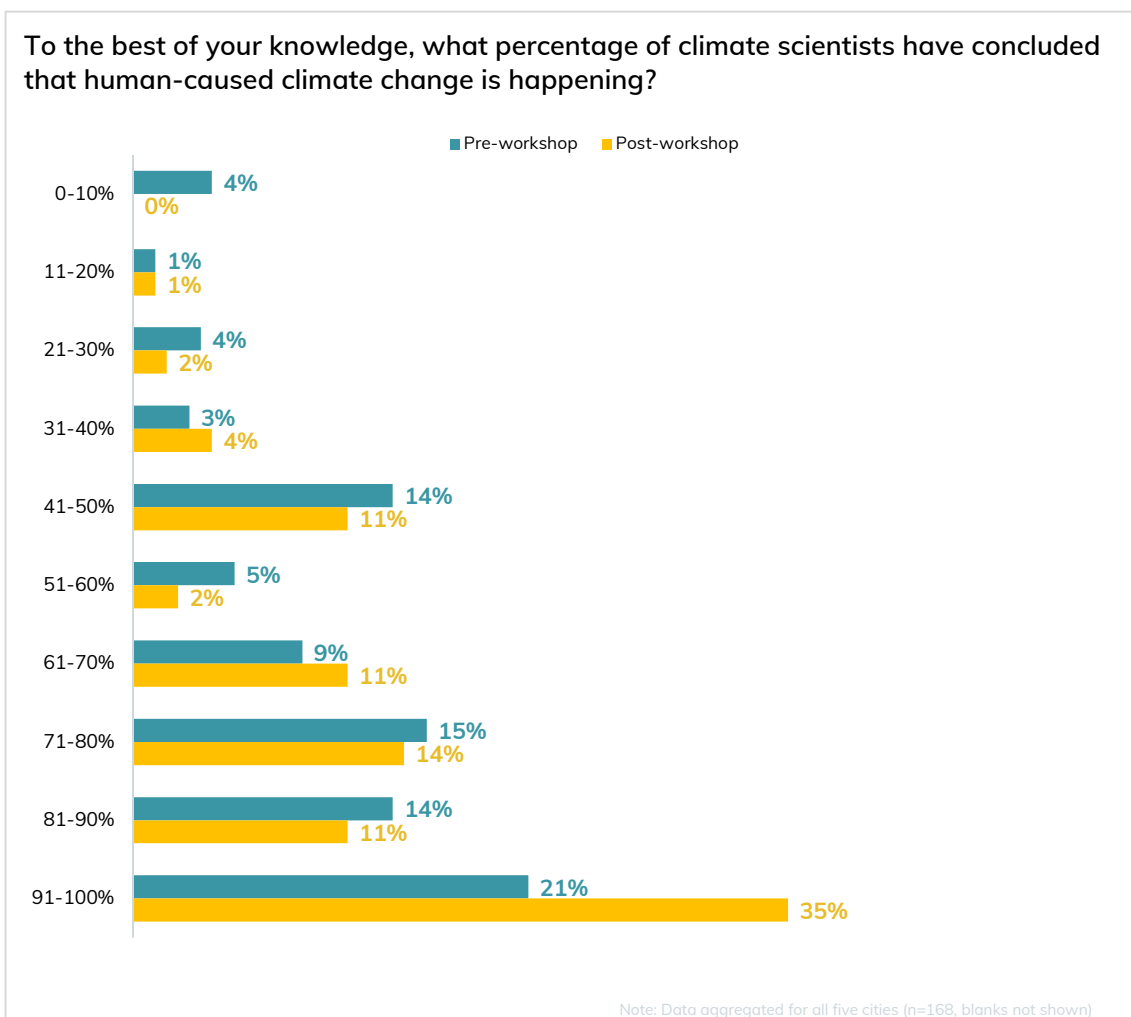
Participants also became more aware of policy action over the course of the day. There was a general shift across all cities from feeling "not very aware" about actions being taken to address climate change in their country to being "somewhat aware". Overall, roughly half as many participants described themselves as not being aware at the end of the workshop compared to the start (47 per cent pre-workshop vs 25 per cent post) along with a 50 per cent rise in those who said they felt either somewhat or very aware (a rise from 46 per cent to 71 per cent) (see Figure 5).

London saw the biggest shift in those who said they felt very aware of current policy actions post-workshop (increase of 5 people). But participants in Yerevan reported the biggest degree of change overall: after having the lowest levels of awareness pre-workshop, the number of participants who said they were "not aware at all" of actions being taken in Armenia to address climate change dropped from ten participants to just three.
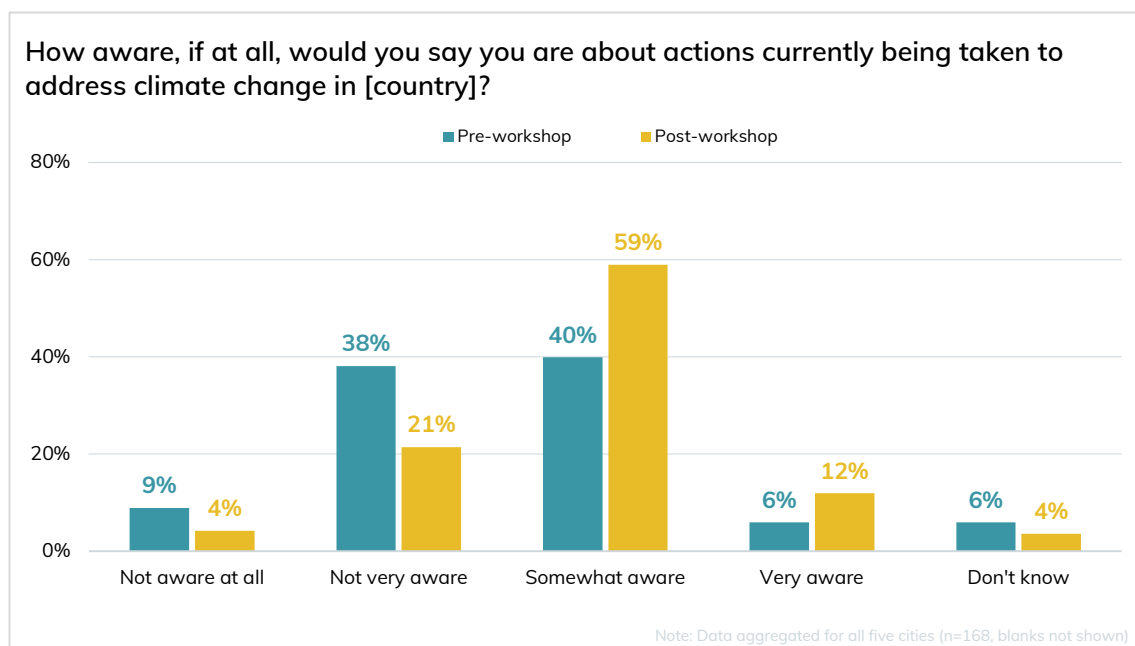
Figure 5: Self-rated awareness of policy action pre- and post-workshop (survey)

How aware, if at all, would you say you are about actions currently being taken to address climate change in [country]?

Note: Data aggregated for all five cities (n=168, blanks not shown)

Participants spoke explicitly about how building knowledge and awareness from reputable sources gave them cause to be more optimistic about our ability to do something about climate change. Some people focused on the facts: that we could half current levels of emissions, or that climate change was reversible, not just delayable. But the most common cause for optimism was learning about practical examples of initiatives that have been successful elsewhere or were being implemented in their own city:

"Towards the end, I actually felt a lot more positive. I didn't realise that there were things in different cities ... and that there was a lot of thought going towards what was happening in big cities like London, and things were already implemented. So I think I felt like there was maybe hope – slightly – and that changes might happen." (London, follow-up interview)

For other participants, the types of barriers to supporting action on climate change identified in Section 2.3 continued to have resonance when weighing up evidence provided by the speakers. For example, one participant questioned whether efforts proposed by the journalist to reduce emissions in Warsaw would be effective if they were not mirrored globally:

"There was an important piece of information missing: that the scale of emissions in Poland in relation to global emissions is negligible. Even if we went back to the Stone Age, the effect on a global scale would be 0.7 percent / none. This is an incentive to change behaviour, to give up a certain way of life, which is justified, but there is no indication of what needs to happen for it to have a global effect. It will make a difference if the countries that emit join in." (Warsaw, workshop)

For most, fatalistic mindsets didn't move much over the course of the workshop– particularly in Berlin, Warsaw and Yerevan. Overall, there was only a slight shift from agreement to disagreement that "it is just too difficult for someone like me to do much about climate change" (Figure 6). However, these small shifts in aggregate were driven largely by changes in attitudes in London and Dublin, where six out of 33 and 31 participants, respectively, shifted from either agreeing or not being sure to actively disagreeing with this statement.

For one table in Dublin, the shift away from a more fatalistic mindset was explicitly acknowledged by the group. At the start of the workshop, two participants in dialogue described it as a "depressing" and "hopeless feeling" that even "if I recycle every can, if I drive a Tesla, if I don't eat meat it would make no impact on climate change:" "you could be killing yourself and not making a drop in the ocean" (Dublin, workshop). Referring back to this conversation at the end of the workshop, another person from this group noted how, despite initially agreeing, their opinion had changed over the course of the day, to seeing how their own actions and those of others in Ireland could make a difference:

"At the very, very start, one participant brought up a topic when we were chatting about how, if the whole of Ireland went under the sea, is

our reaction to climate change going to make a difference? And I was
really on board with that. ...
[Then] somebody else at our table asked the last speaker, can Ireland
really genuinely make a difference in the world? And his response was,
first of all, that the richest countries need to be the forefront leaders in
making change and that really surprised me because it changed my
mind. It doesn't matter whether what we do is insignificant in the grand
scheme of things, ... it's our actions on the global stage that will make a
difference." (Dublin, workshop).

Figure 6: Fatalism about your ability to affect climate change pre- and post-workshop (survey)

To what extent do you agree or disagree with the following statement: 'It is just too difficult for someone like me to do much about climate change'?

Legend: ■ Pre-workshop ■ Post-workshop

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
Pre-workshop	12%	30%	18%	24%	11%	4%
Post-workshop	10%	29%	17%	29%	14%	1%

Note: Data aggregated for all five cities (n=168, blanks not shown)

Not all information cuts through: participants tended to latch on to examples of tried and tested initiatives, and policies that were practical, tangible and signaled a more hopeful future

Success stories shared as case studies, and visions of innovative and hopeful futures resonated strongly with participants and enabled them to think critically about the viability of different policy proposals for their city.

When reflecting on the presentations and in conversation with experts in their breakout groups, participants responded positively to the use of case studies. As highlighted below, having real-life examples of proposals that have been carried out enabled participants to understand the potential of such a scenario, and critically assess whether it would work in their locale.

Dublin

Participants in Dublin responded positively to a case study focusing on the adoption of a public transport card in Vienna, which citizens pay for through a fixed annual fee. People in Dublin considered this proposal to be advantageous as it would enable people to take multiple trips around the city without worrying about the cost, providing a positive incentive to use public transport. Their confidence in the concept was strongly enhanced by knowing the approach was successful in Vienna. Participants returned to this idea repeatedly in later stages of the workshop as a proposal for their group to consider.

"I thought the point about Vienna – he said there was an annual transport ticket – was a great idea. ... I think people may be attracted to buy an annual ticket ... like an annual football ticket to try and get as much value as possible and I think that would be required for people to use public transport."

London

In London, the academic presented participants with a case study explaining the steps the city of Paris has taken to promote "active mobility". Complemented by photographic evidence, the expert noted how the city encouraged walking and the use of bicycles through the creation of pedestrian-only zones and extensive bicycle lanes. Learning about the success of this initiative in Paris allowed participants to consider this proposal as a viable option for London.

"I was really fascinated by those case studies. I thought it was really interesting because I'd never heard of them, and I thought it was quite good that they worked, and you know [were] something that could be implemented elsewhere. I used to live in Paris and it's really good that it can work in a city that is kind of a bustling, equivalent to London."

Warsaw

In Warsaw, a journalist discussed their fight in Gdansk for improvements to the city's public transport system. Frequently publishing articles on the issue and convening regular discussions between locals and the city authorities led to the transport system being modernised and adapted to reflect the needs of the community. Participants spoke positively of the initiative and specifically the "bottom up" approach employed, noting that it allowed local people to have an influence on policy. The success of the story led participants to

"This project is such a 'success story', because it's the first time we've heard of such a situation in a big city at a time when nobody believed in it."

consider if such a scenario would succeed in their
city.

As noted above, one of the main reasons participants gave for why this element of the expert testimony stood out for them was because it inspired feelings of hope for the future. Evidence that was pragmatic about what was achievable in the fight against climate change was highly regarded by participants, who reported gaining a sense of optimism from such information: "What have I learned from this presentation? I have more optimism that things are happening already, and they will continue to happen." (Warsaw, workshop)

In Berlin, one participant was similarly enthusiastic in their reaction to learning about the French government's high tax on the registration of vehicles with high carbon dioxide emissions, and the resulting decrease in emissions in recent years. This participant was highly receptive to the possibility of enforcing such laws and described the possibility of such a rule being enforced as "exciting" – despite punitive taxation being an area of policy that most participants viewed unfavourably at the start of the workshop:

> *"I was not aware of the example of taxation in France. That shows me that it is still possible. … The rich still have the power, so to speak, to go ahead and buy a big Land Rover, but for someone who is currently on the brink, does he want to pay the 40-50k more? I find it exciting to know that there are such possibilities." (Berlin, workshop)*

The examples above also signal the resonance of information considered to be practical and tangible. Indeed, participants engaged most actively with well-explained proposals that were easy to conceptualise. In London, the journalist showed participants how the city could improve its urban transport system to encourage the uptake of more environmentally friendly behaviour. As part of the discussion, the expert specifically proposed pedestrianising streets in the city centre such as Oxford Street. This ended up being one of the main focuses of the breakout discussion, as participants' familiarity with the location enabled them to clearly envision the scenario and thus enhanced the discussion around the potential impact of the policy.

However, not all information that resonated with participants was considered plausible. Participants across the workshops had mixed responses to the concept of the 15-minute city. People could see the benefits of such a proposal – in Yerevan, for example, one participant noted the proposal would encourage people to walk

more (as everything would be in close proximity), thus benefitting public health. And in Dublin participants acknowledged the policy would reduce the amount of cars in the city, thus reducing emissions. However, those in London and Dublin questioned the viability of such a proposal given their city's current infrastructure, and suggested that it would be challenging to alter the city to the extent that such a policy was possible:

> *"I live in Stephen's Green. You can't get more central and there's no hospital within 15 minute's walk. I don't think anywhere in the world would have a 15-minute walk to a hospital no matter where you are in that city, I really don't". (Dublin, workshop)*

Various participants were also struck by the scale of harm caused by transport. Particularly in Warsaw, participants in all four groups singled out the statistic that 25 per cent of pollution produced comes from private vehicles: "we make more harm with cars than with planes. It was surprising! I did not expect that." (Warsaw, workshop). Similar statistics also stood out in Yerevan, with participants from one group noting that while they were aware of the damage caused by cars, learning the true scale of it was "a cause for fear" (Yerevan, workshop).

The extent to which participants retain this type of quantitative knowledge is, however, unclear. In follow-up interviews, which took place a month or more after each workshop, most interviewees were unable to recall specific facts from the presentations. Rather, they recalled more general ideas or propositions that left an impression on them. These tended to be rooted in places that were familiar to them or scenarios they could imagine, such as learning about the history of transportation in London, as a grounding for thinking about the issues the city faces today. Being able to situate and imagine what was proposed appears to be key to information retention and creating a lasting impression:

> *"That stuck with me: thinking if I lived down around Grove Park and Rathmines and I had to go down the other end of Dolphins Barn, how am I going to get there now if there's a toll? … But I do think about it sometimes because I would be around that area quite often." (Dublin, follow-up interview)*

Others overwhelmingly remembered things that they felt would positively affect them or would make a positive change to their lives within the city. In the London workshops, most participants could still recall the specific proposal to pedestrianise Oxford Street, stating their belief that it would make a positive difference to the city. Similarly, in Yerevan, many respondents mentioned a presentation proposing the

implementation of cable cars in the city and stated their hopes for those plans to be realised:

> "I was impressed by the information about the cable cars, which can ease traffic jams in the capital and reduce the number of cars in the city, which in turn leads to air pollution. I am still impressed by the alternative solution in the cable car and I want to know that they have started making all that in our country." (Yerevan, follow-up interview)

Discussions about what participants remembered from the workshops also signal that certain presenters made more of an impact on participants than others. For example, in the follow-up interviews from the London workshops, the journalist was mentioned several times as being "engaging", "enthusiastic", and "entertaining". And in Berlin, those interviewed could still mention two presenters by name, stating that they had particularly enjoyed their presentations, even though they could not recall specifically what they talked about.

The longevity of knowledge gains is something that requires further investigation. Though some interviewees attributed this to the sheer amount of information taken in over the course of the day: "I can't say anything for certain now, because he talked about so many things … I don't know everything anymore, it was a while ago." (Berlin, follow-up interview).

Discussions with peers and experts seem as important a form of stimulus for participants as exposure to new information

A central tenet of deliberative processes is that participants are exposed to a selection of impartial and credible evidence on the subject at hand. However, it is helpful to reflect on both the amount and substance of the evidence presented to participants. In particular, it has been suggested that practitioners typically take an "empty vessel" approach to informing participants, assuming they know nothing about the subject in question and need to "fill them up" with knowledge. But this can cause participants to be overwhelmed and can lead to them having difficulties differentiating between what they have heard (Boswell, 2021).

Building on this, Boswell (2021) argues that the amount that participants learn in a deliberative process is less important than the idea that a mental shift takes place, whereby they start to see themselves as experts on a level footing with those presenting information to them – something that can be achieved in other ways over and above expert testimony.

For participants in the PERITIA DMPs, the value of being able to speak directly to experts was a common theme noted in follow-up interviews. Just under half of interviewees from all cities told us that being able to ask questions and exchange ideas with the experts, to clarify points that were not clear and to speak to them on a personal level, allowed for a setting where formulating opinions was seen as a collaborative process, something that participants had joint control over: "We didn't just listen and believe what was said. We listened and made [our own] conclusions based on which of our beliefs were shaped" (Yerevan, follow-up interview). Another interviewee described how this more "dynamic exchange, both between the other participants on the table and our group leader, presenters" helped them to "feel like I'm really involved in dealing with the issue" (London, follow-up interview).

> *"Actually what was good was that the experts were coming to each desk as well. ... So rather than having to speak in front of the whole audience, you could speak to them on a personal level on the table. .... They were going by each table and sitting down and looking to our views on the topic, they were speaking about and giving their input as well. I think that was quite good as well." (London, follow-up interview)*

Though when asked in follow-up interviews what the most important part of the day was, participants tended to emphasise their exchanges with their peers, more than with the experts. Most interviewees spoke about feeling at ease to share their opinions and hear from people with different ideas and perspectives, referring to interesting and formative group discussions as a positive and important element of the workshop.

A third of interviewees spoke positively about having the opportunity to discuss a topic in depth they ordinarily wouldn't, be it because it's socially taboo to do so or because they lack knowledge or awareness of the issue. Others directly attributed shifts in their own thinking, or that of others' to stepping outside of their usual social circle or "bubble" to discuss ideas with people who hold contrasting viewpoints. While for some the change might not have been "radical", one interviewee noted that "during the discussion, opinions changed both for me and for the participants, and they changed for the better." (Yerevan, follow-up interview).

Specifically, the generational diversity in the group was singled out by a small number of participants as being an important factor for thinking about how to address as complex an issue such as climate change. Younger participants reported feeling reassured that older generations were also concerned about the climate,

while older participants tended to focus more on feeling understood by the younger generation:

> *"I had a very good discussion table and I was also maybe the oldest person at the table. ... And I say that because sometimes seniors are always attacked. ... But we all had the same situations like that. We do all our annual journeys by train, but we haven't parted with the car yet. I found that very interesting. And the young people who were at the table also understood us. It was such a pleasant experience." (Berlin, follow-up interview)*

Across all cities,[3] we also heard how the breakout discussions allowed participants to share their experiences and personal situations, cultivating empathy. One person we followed up with from the Dublin workshop described how the opportunity to talk to different people who "were expressing their views and what they are struggling with" was "one of the most beautiful things" about the experience. Others noted how this helped them to understand why people made different choices:

> *"Yes, it did make me think that actually in some ways we all take for granted what we're able to do but there are others who [can't], whether it's a forced choice or whatever. ... So yes, I did take away a lot of that actually, that sometimes, we all want to make different choices but there are things that contribute to us into not being able to, I guess." (London, follow-up interview)*

It was widely reported that these enriching and often transformative discussions were made possible by the open and accepting atmosphere in the workshops. Most respondents commented on the respect they felt from other participants, or that they felt comfortable, at ease and therefore able to share their opinions honestly and without judgement. One participant from Yerevan noted how they had initially anticipated that there would be "a little fear of how they would accept each other's position", "that people might laugh at others'opinion". Whereas, "on the contrary, people were encouraged to express themselves fully" (Yerevan, follow-up interview).

These reflections signal that situating the evidence in the context of their own lives and that of others, was as salient a form of stimulus as expert testimony – if not more so – in supporting participants to see themselves as

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[3] Excluding Warsaw, as follow-up interviews were not conducted in this city.

experts, and to arrive at recommendations that they felt were fair and inclusive.

> *"I liked the fact that there were experts there who also had a clue, but that other opinions were also tolerated. ... Maybe I could have had the feeling that somehow you're saying something wrong and somehow making yourself 'unpopular', right? Yes, or that something somehow does not fit? I didn't have that feeling. So everyone was listened to and every opinion was tolerated and discussed, also with reasonable arguments."*
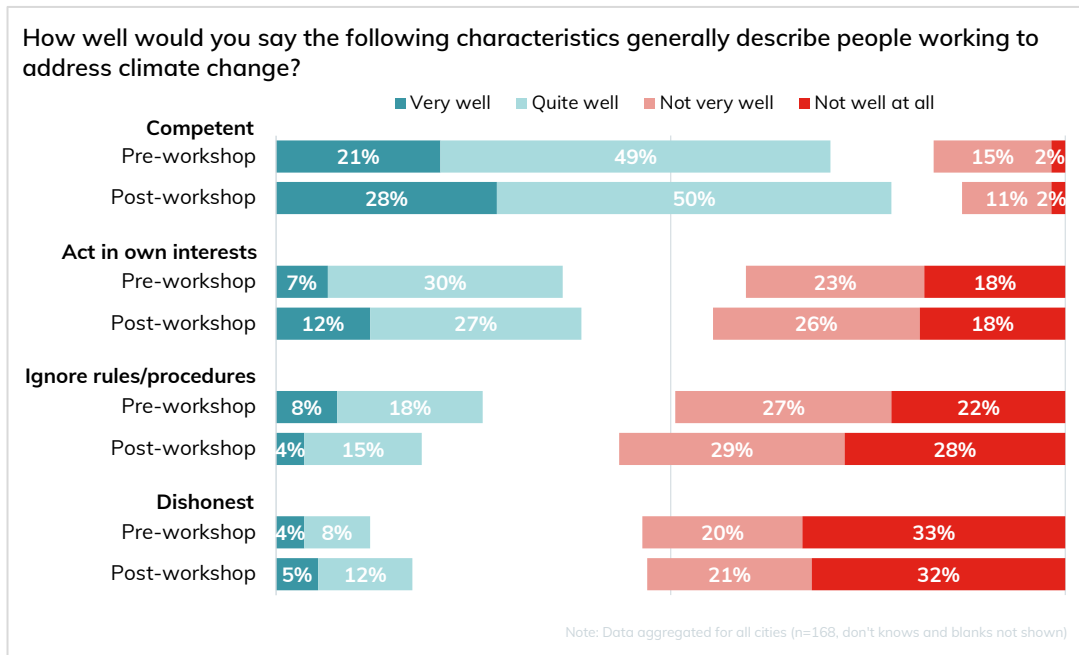> *(Berlin, follow-up interview)*

3.2 Assessing the trustworthiness of the people involved

There is no clear pattern to changes in trust levels post-workshop: in some cases they went up, in others down, yet this broadly reflected the framing of policy actors in discussions

Participants' general perceptions of people working to address climate change did not shift much over the course of the day. Both before and after the workshop, there was a consistent perception of those addressing climate change as being a group who were competent, honest and who follow rules and procedures, with a split of opinion as to whether they act in their own interests (see Figure 7).

However, this favourable perception of policy actors – and the extent to which it was shaped via deliberation – varied considerably for different types of actor. In this section, we look at dispositions towards three groups in particular: governments, media and scientists.

Figure 7: Perceived traits of people working to address climate change pre- and post-workshop

How well would you say the following characteristics generally describe people working to address climate change?

Legend: ■ Very well ■ Quite well ■ Not very well ■ Not well at all

Competent
- Pre-workshop: 21% | 49% | 15% | 2%
- Post-workshop: 28% | 50% | 11% | 2%

Act in own interests
- Pre-workshop: 7% | 30% | 23% | 18%
- Post-workshop: 12% | 27% | 26% | 18%

Ignore rules/procedures
- Pre-workshop: 8% | 18% | 27% | 22%
- Post-workshop: 4% | 15% | 29% | 28%

Dishonest
- Pre-workshop: 4% | 8% | 20% | 33%
- Post-workshop: 5% | 12% | 21% | 32%

Note: Data aggregated for all cities (n=168, don't knows and blanks not shown)

Government

Across all five workshops, participants considered the national government to primarily be responsible for implementing solutions to climate change. People commonly believed that the government played a key role in ensuring the public followed any protocols they developed to address climate change and challenge those who refused to engage with such laws.
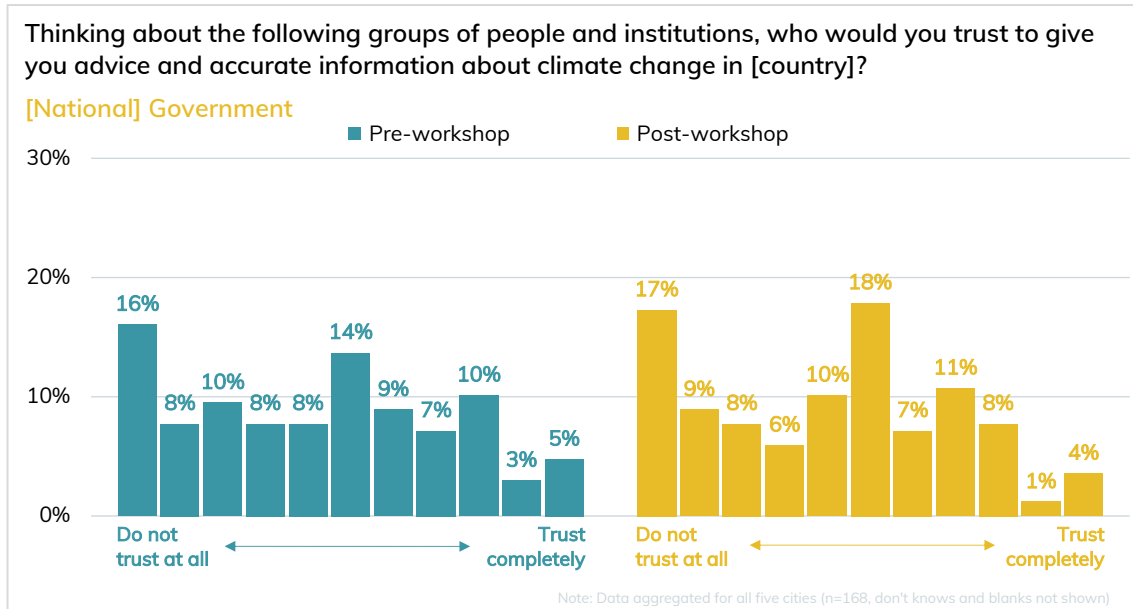
> "The buck stops with them [ie the government], no matter what. They have to give the go-ahead, they have to sign off on stuff. No matter what's going on, whether we like it, that's my opinion. They have to give the final word." (Dublin, workshop)

While there was strong consensus on the government's role as an enforcer of laws aiming to address climate change, the state's rationale for choosing to implement specific solutions was repeatedly called into question. Participants in Berlin, Dublin, Warsaw and London described their national government as "untrustworthy" or "uncredible" – an opinion that clouded their belief that positive actions to address climate change would, or even could be taken by government.

This view is also reflected in findings from the pre-and post-workshop survey. As seen in Figure 8, on a scale from 0-10, where 0 indicates having no trust at all and 10 complete trust, there was a slight shift post-workshop towards the distrusting end of the scale when it came to the national government. This suggests that for

some participants, trust in government to provide advice and accurate information on climate change weakened via deliberation, rather than being restored.

Figure 8: Trust in the government to provide advice and information (survey)

Thinking about the following groups of people and institutions, who would you trust to give you advice and accurate information about climate change in [country]?

[National] Government

Pre-workshop · Post-workshop

Note: Data aggregated for all five cities (n=168, don't knows and blanks not shown)

Movement on this measure varies a fair amount between cities. Respondents from London and Dublin were largely responsible for driving the skew to the lower end of the scale, reflecting the overwhelmingly negative tone of discussions around the actions of government in these sessions. Whereas survey responses in Berlin and Yerevan saw more movement into the middle – and in Warsaw there was little change.

These trajectories reflect a general sense that national governments would not implement effective policies to address climate change if they felt they would contradict their political agenda or damage their electoral prospects. In Berlin, London and Dublin, people reflected that their government would not take action that could lead them to lose favour with the general public, believing that they are "always doing a big balance act, thinking they don't always want to do important things that might make them unpopular" (London, workshop).

Additionally, participants in Warsaw, Berlin and London noted how the country's economic status can inform the direction of the government's agenda on climate change. People in these groups considered their government's political decisions around climate change to be motivated by the impact the actions they could have on the economy in general, or, in the opinion of a participant in Warsaw, on influential industries that contribute to a country's financial status.

The competence and integrity of the national government was also often assessed in reference to other levels of governance, such as the European Commission and local government bodies.

The European Commission was largely considered to be a trustworthy actor in the fight against climate change – and participants became more trusting of its role in providing advice and accurate information on climate change over the course of the workshop (see Figure 9). Participants saw the European Commission as taking on several roles in addressing climate change. In Warsaw, Dublin and Yerevan, they felt the Commission had a part to play in coming up with solutions for climate change. These included funding scientific programmes that investigated possible solutions to climate change and creating laws to address climate change for countries within the European Union to follow.

Figure 9: Trust in the European Commission to provide advice and information (survey)
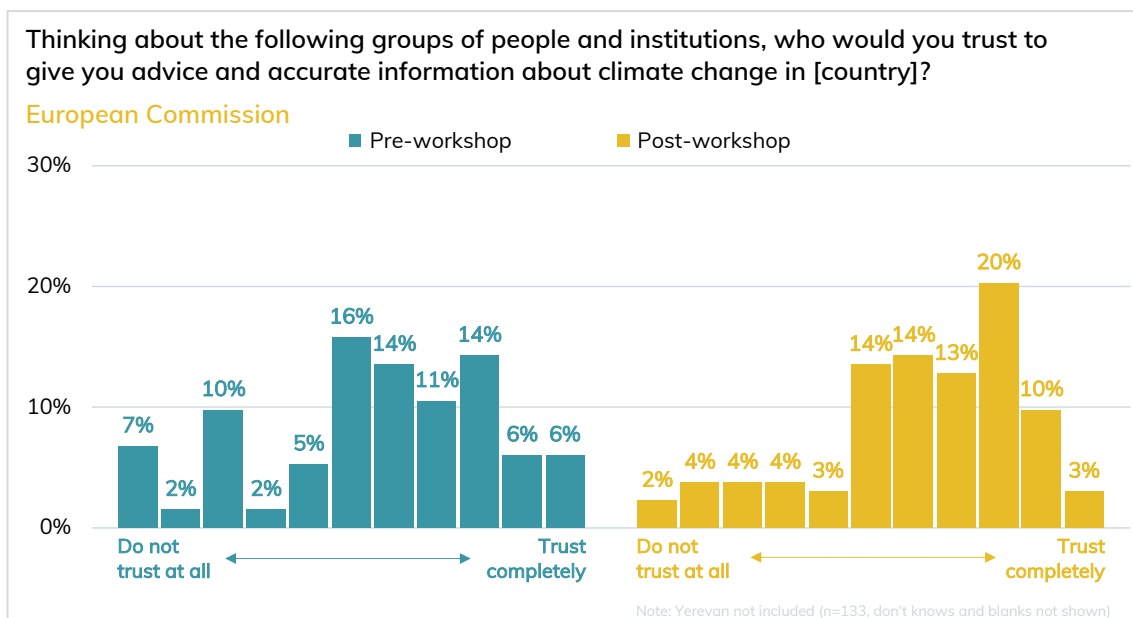
As a body with legislative oversight on countries within the European Union, people in Yerevan, Berlin, Warsaw and Dublin also commonly considered the European Commission to be responsible for implementing the laws they produced to address climate change. This view was particularly acute in Dublin and to a lesser degree in Warsaw, where participants noted how European Union funding influenced their country's willingness to adopt policies set out by the European Commission. These people believed that the fear of not receiving this income drove their government's decision to implement the laws.

"Whatever the EU say, goes. They have the money so every country has to obey the rules, we've signed up to it. I think they're responsible for making sure every country implements the solutions." (Dublin, workshop)

To a lesser extent, in Warsaw, a participant in Warsaw saw the European Commission as having a role in communicating solutions to climate change to citizens of countries within the European Union.

"I would add some EU institutions here which widely inform about climate changes." (Warsaw, workshop)

In contrast to the national government, participants also largely considered their local government (also referred to as their local authority or local council) to be trustworthy. As residents in the area, there was a view amongst participants in Dublin and Warsaw that people in local government would be more invested in the location, and thus more likely to work towards alterations that sought a balance between addressing infrastructural issues in the location as well as climate change:

"Because the local authority members live in the communities, they experience the problems on a daily basis and they understand what needs to be done." (Dublin workshop)

In Warsaw, participants specifically noted how the local government afforded older people a place to voice their opinions and express concerns about climate change, something they may not be able to do elsewhere due to issues such as an inability to use the internet.

The local government was also felt to be a useful tool in communicating information about climate change. Participants across the workshops described several forms of communication offered by their local government that could be used to raise awareness about the issue. A participant in London described the information she receives via regular emails from her local council as "very important and very useful", while another participant in Dublin described a free local paper as "widely read." People in Warsaw also suggested their local government organise activities for people in the area that also serve to raise awareness about climate change.

While local governments were commonly considered to be a positive and credible source of information and action, a person in Warsaw did express voice their concern about them, describing them as too "comfy and settled in their position" to work towards change. Furthermore, a participant in London reflected that conflict between adjacent boroughs that are made up of people from different political
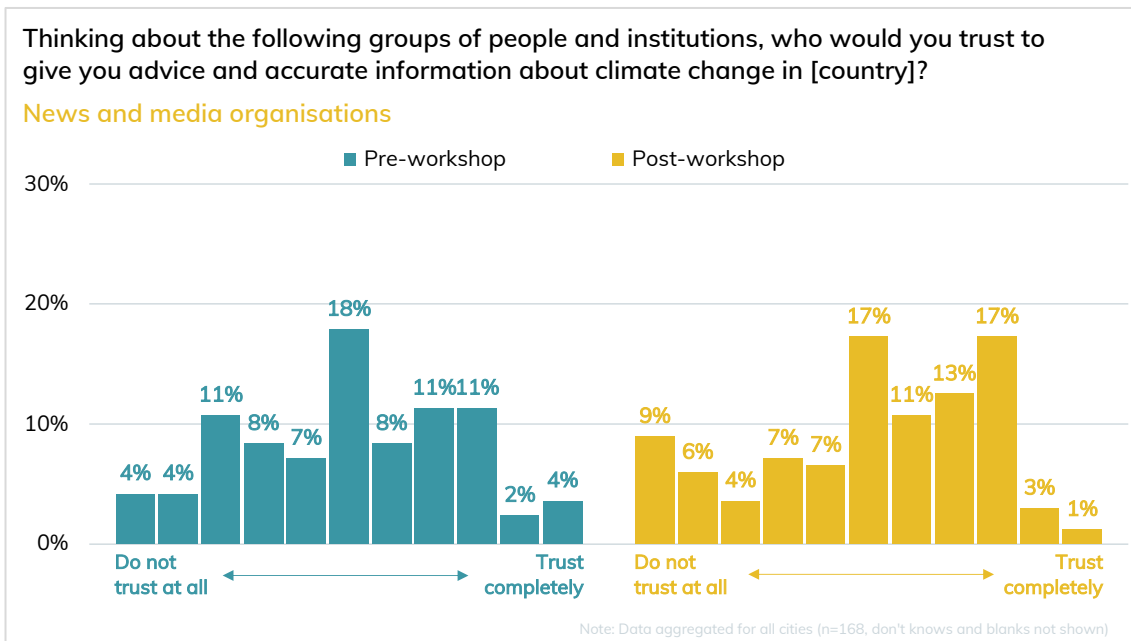
parties often impedes positive infrastructural changes such as improved bike lanes and called for local councils to be run by citizens as opposed to politicians:

"One of the solutions could be local councils: stop becoming politicised and be independent, and might help join our ideas as mutuals, instead of having two different parties at opposite ends of each other." (London workshop)

Media

Participants in each city felt the media had an extremely important role to play in communicating solutions for climate change to the public. News outlets and social media were particularly identified as mediums consumed by the public that had a considerable impact on their views of climate change.

Figure 10: Trust in news and media organisations to provide advice and information (survey)

Thinking about the following groups of people and institutions, who would you trust to give you advice and accurate information about climate change in [country]?

News and media organisations

Note: Data aggregated for all cities (n=168, don't knows and blanks not shown)

News media

Participants across the workshops had mixed views on the credibility of news outlets. People in London and Dublin identified the use of facts, statistics and the appearance of scientists on news programmes as indicators of "trustworthy" sources of information.

> *"You know when you're watching the news on TV and they get a correspondent in the actual place to talk about something …and that's where scientists normally come in…and when they talk it's like we take it more seriously. If a TV anchor saying something ok, but if he's (the scientist) saying something, it's an expert." (Dublin, workshop)*

Such programmes were felt to be important in communicating the repercussions of climate change and the need for action. Despite this, participants in Berlin, London and Dublin also expressed concern over the credibility of certain news sources, such as Fox News, which they considered biased or guilty of "pushing their own agenda." These participants did not indicate a definite reason for perceiving certain news outlets in this manner. The range of news outlets mentioned by participants

across the workshops and their perceived level of credibility is summarised in the box below:

- Sky news was mentioned by participants in Dublin and to a lesser extent in London as a largely reliable source of information about climate change.

  "From the news I listen to on Sky, they do reference. I obviously don't take note of who they're citing. I trust them to give me reliable sources of information." (London workshop)

- Participants in Dublin also identified Euro news, RTE news and CNN as trustworthy news sources. While one participant in Dublin considered BBC news to be credible, another person in the same group felt the opposite. For this participant, in a similar vein to Fox news, the BBC was considered to have an agenda they were pushing,

  "BBC look at the politics in the UK, they're shutting down stuff it's like watching Fox News in America, these guys have clearly got an agenda, when it comes to certain things." (Dublin workshop)

- In Yerevan, participants mentioned the public channel Armenia 1 as being a

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The role of journalists in raising awareness about climate change was also discussed in contrasting ways across two countries. In Berlin, two participants criticised the perceived stigmatisation of people who don't conform to pro-environmental behaviour in the media and called for journalists to approach information about climate change in a neutral manner.

"As a journalist, one should be more neutral. But journalism is hardly neutral. You always hear the opinion that, for example, car owners want to stand at their window and look at their car parked in front of it. Again, it's about people's well-being, which is different. I have to listen for mine myself. Small filler words show the opinion of the speaker." (Berlin workshop)

Contrastingly, participants in Warsaw responded positively to the concept of a journalist acting as a campaigner against climate change. These opinions were explored as a result of an expert presentation by a journalist who produced several articles raising awareness about the need for changes to their local transport infrastructure. The journalist was favorably described as an "activist" by participants, who considered the role of the journalist as going beyond providing information and calling for action: "I liked the fact that while most journalists just

use information, those journalists also did the effort to do something and were active." (Warsaw, workshop)

Social Media

In addition to traditional news outlets, social media was felt to be an important source for raising awareness about climate change and communicating solutions for it. Participants in Warsaw and Dublin specifically identified social media as a method of engaging young people with climate change, noting that this cohort frequently used the channel as a source of news: "I guess about 70% of young people do not watch TV, so it should not be traditional media, social media would be better here." (Warsaw, workshop)

Instagram, Twitter, Facebook and LinkedIn were all identified as social media outlets utilised by participants but were seen as having varying levels of credibility. Facebook was considered to be a questionable source of dependable information to people in Warsaw, who admitted reading articles on the site they knew may have been manipulated by a sponsor to portray a specific viewpoint or may not display the source of their information.

> "I believe that social media portals get different sources of sponsorship, I do not check the sources though, I do not know who writes it in fact, but I read it." (Warsaw, workshop)

TedTalks and LinkedIn were considered to be trustworthy sources given the considerable amount of academics on the websites. Participants in London and Dublin felt the proliferation of opinions on these websites and social media networks in general was a positive aspect of them, as they provided space for a range of views. For this same reason though, participants in Dublin felt Twitter was not a credible source. It was felt Elon Musk's takeover of the company resulted in the removal of views that created balance on the network and the promotion of sources that endorsed his personal agenda:

> "How can you have credible social media when they had X amount of reporters banned and X amount of news talks banned and because it suited them... and then all of a sudden the other fella buys it for 40 billion. Now he's putting social media on the way wants it to go on. So all these things are there to kind of direct people's way of thinking." (Dublin, workshop)

Instagram, TikTok and Snapchat were also largely considered untrustworthy sources of information by participants in Dublin. However, participants in Dublin acknowledged the presence of credible sources such as scientists on these websites and voiced their support for those using the platform to reach new audiences and raise awareness about issues such as climate change.

"I know there's a lot of disadvantages, but I think in contrast the advantage can be that you can have access to a lot of different opinions and scientists that approach things from a different perspective. I think if you use it carefully you can open your mind to a lot of different standpoints on one topic and try to understand why people think differently about issues. And I think that can be really helpful in bringing people together in talking about issues and finding a solution that works for like everybody instead of just one specific." (Dublin workshop)

Climate scientists

Participants commonly identified climate scientists as trustworthy sources of information on climate change during the workshops, and this opinion was reflected in the findings from the surveys participants completed before and after the workshops. Over a quarter of participants described themselves as completely trusting climate scientists to provide them with advice and accurate information about climate change following the workshop, a small increase on the already significant 23 per cent who chose this response before the session (See Figure 12).

Figure 12: Trust in climate scientists to provide advice and information (survey)
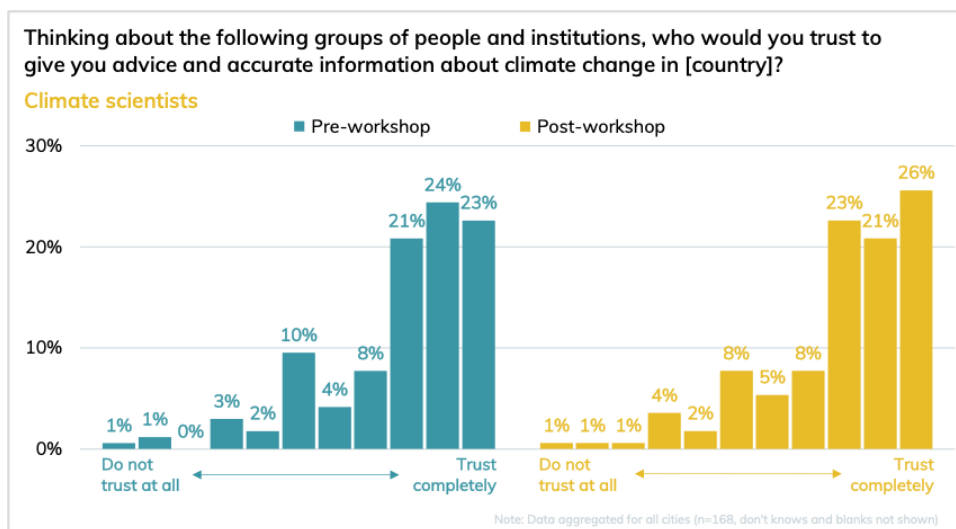
When it came to discussing climate scientists' role in addressing climate change, participants across the workshops tended to consider them to be responsible for coming up with solutions to the issue. In Dublin, a participant reflected on how scientists conducted research that uncovered "what needs to be done" to address this challenge, while another person in Berlin described the scientists as "creating reports that provide solutions" and "communicating the risks of inaction."

Overall, participants in Dublin, Yerevan, Warsaw and London had mixed opinions on whether it was the climate scientists' role to communicate solutions for climate

change to the public. While participants in Warsaw and Yerevan stated that scientists should be provided more opportunities to discuss their research on public platforms such as broadcast television, others in Dublin and London reflected that scientists aren't always the best at communicating ideas to a general audience, who may struggle with technical scientific language. People in London and Dublin reflected that their exposure to and knowledge of scientific research tended to come through the media which simplified the key messages of scientific studies for a general audience.

> *"For me, I feel like when I see things that I guess come from scientists if you see a scientific report for example, I don't find it very engaging to interact, whereas if a journalist is able to summarise it in a report I would find that a lot easier. So, I listen to some podcasts and things like that and people summarising research that's happened."* (London, workshop)

It is important to note that while participants in each city largely considered climate scientists to be trustworthy, they also acknowledged how scientists' credibility can be undermined by their connections to political parties or industries. Indeed, participants in all cities but Berlin highlighted how scientific research can be manipulated to advance a specific agenda and noted the importance of investigating how research is funded. In Dublin, London and Warsaw people shared stories of organisations in industries as diverse as fossil fuels and vegan supplements funding scientific research that looked favourably on their companies.

> *"I'm a little bit wary about trusting scientists 100% because I remember now that there was a case 3 or 4 years ago. There was this CEO of a company in US, EXXON, and he actually paid millions to get data out that the fossil fuels don't create any kind of ... you know... global warming...manipulation."* (Dublin, workshop)

Participants in London were specifically concerned about politicians' manipulating scientific research to gain on public support and thus advance their own political agenda.

> *"The government controls the money. You can guarantee if I find enough money, I will find a scientist that will agree with what I want them to agree with... We can manipulate statistics; we can do whatever we want to do. The scientists are in my pocket...So it's a case of everyone here is working to tell people what to think, and I think that's the issue."* (London workshop)

Given these concerns, people in Warsaw and Dublin emphasised the need to check the source of funding for scientific research. A participant in Yerevan also called for the introduction of legislation that would ensure scientists' research could not be "corrupted."

Harder to detect any longer-term effect participant's levels of trust following the workshops

In follow-up interviews, which took place a month or more after each workshop, interviewees did not display a significant shift in their levels of trust towards actors involved in addressing climate change. Rather, there was a sense that the workshops had instead emphasised the general importance of actors being regarded as trustworthy to the public.

> *"I'm of the opinion that what human nature is geared towards is cooperation...To overcome climate change...of course it has a lot to do with trust. You just have to." (Berlin, follow- up interview)*

Two interviewees noted that the workshops' discussion had led them to be more sceptical about the information they received from external sources and critically assess their credibility before believing the content.

> *"Organisations or individuals or government departments or whatever you want to call them try sometimes and use the situation to their advantage without it necessarily being to everyone's benefit." (London, follow-up interview)*

Overall, interviewees tended to emphasise their distrust of the government. In a similar vein to conversations during the workshop, participants highlighted their government's failure to successfully deal with problems such as COVID-19, the cost-of-living crisis and housing shortages. They saw these issues as proof of their government's inability to take effective steps to address climate change. There was a sense amongst participants in Berlin, London and Dublin specifically that their government had a hidden political agenda impacting their willingness to take action on climate change. This view led participants to display a sense of fatalism. Interviewees described feeling a responsibility to make changes in their personal lives to address climate change, but were also demotivated to commit to any actions as they did not trust the government to deliver change on a national level.

> *"I think we've lost a lot of faith in our government and sometimes it's like it's like, we just kind of think even if we make the changes, they're not*

going to make the changes, what difference is it going to make" (Dublin,
follow-up interview)

Despite the fatalist views evident in follow-up interviews there was also proof that information presented during the workshop led participants to consider a more hopeful future. During the interviews, participants stated they had a greater awareness of actions taking place that played an effective role in fighting climate change. Specifically, case studies discussed in the workshops appeared to resonate with participants, who were able to recall the key details of success stories presented to them at the session. These enabled participants to envision what was possible in their own city and thus fostered a sense of hope and optimism for the future.

"But towards the end, I actually felt a lot more positive. I didn't realise
that there were things in different cities, like the thing in Paris, and that
there was, kind of, a lot of thought going towards what was happening
in big cities like London, and things were already implemented. So I think
I felt like there was maybe hope, slightly, and that changes might
happen." (London, follow-up interview)

4 REFLECTIONS ON IMPLICATIONS FOR POLICY

This work demonstrates that *how* policy makers come to their decisions, and how these are subsequently communicated, matters alongside what the actual policies are. In this, it adds to the growing body of evidence that deliberative processes can enable the discussion of trade-offs in a nuanced and detailed manner and bring together those with opposing views for rational and constructive debate. It also highlights the ability of participants to give up their time to grapple with complexity and work together in the common good. What's more, such processes have positive impacts on the wider citizenry – not just those who attend. To illustrate, work has been done to demonstrate that mini publics can act as trusted information proxies for citizens for the wider public (Warren and Gastil, 2015) and that people would comply with difficult political outcomes more if they were the result of deliberative decision-making processes involving ordinary people (Esaisasson, Gilliam and Persson, 2012). As such, it is not just what policies that are developed but how they are designed that matters with citizens having a key role to play in both.

Finally, it's also important to consider how policies are communicated and discussed. There is a case to be made for any policy communications to be accompanied by a more general programme of awareness raising and knowledge building. This is because, when done well, it can inspire hope among citizens and encourage them to believe in a more hopeful future, and the part that they can play in realising this. This was evident in the DMPs: awareness of action being taken to address climate change rose from 46 per cent before the workshops to 71 per cent after it, and with it came a sense of optimism that change is possible, and there are tangible actions that they as individuals can take.

Of course, in any communications campaign it is important to consider what is communicated and by whom: real-life case studies and examples of innovation were seen as practical, tangible and uplifting examples of what could be achieved. Further, having opportunities to engage with experts was also seen as a helpful way of being able to understand the issues and how they related to their lives. As important though was being able to have a conversation with peers in a respectful and open way. Participants explained that this helped them to consider alternative viewpoints to their own and, accordingly, built empathy.

Such environments are hard to create outside of deliberative settings. Plus, the cost of these processes may prohibit running them at scale or more frequently. However, prior research shows that learning about mini publics can shift the people's policy opinions, bringing them into line with the opinions of those who participated in the

mini public itself (Suiter and Reidy, 2020), and can also strengthen the deliberative capacity of the wider citizenry by making individuals more empathetic and knowledgeable about the issue under discussion (Knobloch, Barthel and Gastil, 2019). Finally, there is also evidence to suggest that simply learning about a mini public can enhance acceptance on contentious issues, including from those on the losing side of the decision (Werner and Marien, 2022).

Taken together, this work therefore highlights the mechanisms for developing policies that matter alongside the policies themselves, and that involving participants in deliberative processes can have benefits that extend far beyond the reach of just those who participate in them.

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