**Round 2 Analysis: Key Themes Summary**

In June 2021, four workshops with groups of stakeholders were carried out during ’Round 2’ of the *Delivering Net Zero* project. This included workshops with the private sector, public sector, third sector and with funders. Using a deliberative process, these workshops guided participants to identify opportunities and barriers to reaching net zero, their common priorities, respond to the outcomes of the Round 1 workshops, and identify their key messages for the research community. Following the workshops, a high-level analysis of common themes was undertaken, of which an overview is provided in this document.

Theme 1, The need to improve public engagement with net zero and widen public participation

Across the workshops, poor communication of net zero and a lack of public engagement were frequently mentioned as barriers to decarbonisation. Some participants commented that there is broadly a *‘public mandate to move at pace and scale’,* yet this is lacking ‘*when it comes down to actually the crunchy measures that we need to do’* *(Public Sector Workshop Participant).* Participants felt that it was important for this to be overcome by widening public participation through citizen involvement in decision making processes. Whilst some felt that policy making should be ‘*interventionist’,* others felt that there is a need for a more bottom-up approach to decision making:

*‘You want people to not just be okay with it, you want people to lead and to have a really active voice in shaping that future otherwise it’s not going to work’ (Third Sector Workshop Participant).*

In the third sector workshops, this was explicitly linked to the need for a just transition:

*‘There’s a need for wide participation in order to sustain public consent and permission for... the way we’re heading on that systems transition. So, that sense of what I’ve been calling meaningful public consent. If you look at a number of different places, but particularly the UK climate assembly,* [they] *very forcefully said that the support for the policies that drive a transition are contingent on them being explicitly and obviously fair and just in terms of both the opportunities to participate, and also the way in which costs and benefits are done’ (Third Sector Workshop Participant).*

The need to improve public engagement was also frequently linked to the need for localised, place based solutions to decarbonisation. Net zero was seen as an opportunity for local governments to better engage with their communities, however it was felt that resources and capacity needed to be built within local government to do this.

Theme 2, The need to overcome political inertia

Participants identified numerous political barriers preventing government from adequately responding to the climate crisis. Short termism in politics was identified as a key barrier; for the private sector, this leads to a lack of confidence in long term investments, impeding the development of sustainable supply chains and retraining of workers. For funders, it creates frequently changing funding priorities, preventing the funding of longer term, more systemic solutions to climate change. A lack of alignment between the priorities and targets of different government departments and devolved regions was also highlighted as an issue. Overall, many participants felt that there was a lack of steer and willingness to take risks in government, amounting to inertia in political institutions to respond effectively to climate change:

*‘Government does need to take a more active role and be brave with the decisions they make’ (Private Sector Workshop Participant).*

In both the private and public sector workshops, participants called for a clear strategy for decarbonisation from central government combined with stronger regulation. Discussions of the need for more policy in the public and private sector workshops largely focused on the need for pricing mechanisms and financial incentives to facilitate the market to drive decarbonisation. This contrasts with some of the discussion of policy in the Round 1 workshops with the research community, where the ability of the market to drive rapid decarbonisation was questioned. Despite some contrasting perspectives regarding the respective roles of central and local government, there was a call for central government to set a strong agenda and provide local government with more power and resources to orchestrate change locally.

While calls for *‘bold’* or *‘brave*’ policy were numerous across the workshops, some participants felt that there was an unanswered political science question of:

*‘Under what conditions would politicians be brave or do some of these things?’* or ‘*what do we do in a world where the politicians aren't as ambitious and brave and decisive as they can?’ (Third Sector Workshop Participant).*

These participants called for a better understanding, both among the research community, but also more broadly, of which conditions foster more rapid and ambitious political action.

Theme 3, The need to focus on rapid deployment of existing solutions and ‘learning by doing’

Stakeholders in all workshops identified a range of *‘low regrets’* solutions which required immediate deployment. This was discussed in relation to improving buildings efficiency, deploying heat pumps and district heating, electrifying transport, expanding public transport, nature-based greenhouse gas removal (GGR) techniques, and expanding the electricity system. The emphasis on immediately deploying solutions that are known to be essential to reaching net zero was highly similar to the Round 1 theme: ‘*The need to rapidly roll out ‘ready to go’ solutions and technologies’.* During the discussion of the Round 1 themes, the Round 2 stakeholders both agreed with and prioritised this theme highest across all workshops.

As well as implementing low risk options, participants felt that more focus should be paid to deployment in general, as the urgency of emissions reductions means that it is necessary to be *‘learning by doing’ (Third Sector Workshop Participant).* It was felt that this should be an iterative process, with a greater acceptance of the risks of deploying solutions at speed and the potential for some projects to fail:

*‘If we want to move forward at pace, you need to try lots of different things at different times and work out which ones work and acknowledge that probably in your first iteration, you’re not going to get anything quite right; you’re going to learn a lot of different things and you’re going to kind of iterate and move forward.’ (Private Sector Workshop Participant).*

While recognising the risks of ‘*unintended consequences*’, participants highlighted that failure to rapidly reduce emissions represents a larger risk:

*‘We need to be really careful that the “oh, it's all very complicated and everything affects everything” doesn't become a barrier in itself because people just think “oh, it’s all so difficult” so that's an excuse for doing nothing, which I think is the risk’ (Private Sector Workshop Participant).*

Some participants felt that the focus in the research community has often been on creating new solutions, and that greater attention is needed to understand where and why projects succeed and fail, to learn from historical mistakes and support more effective deployment at the later stages of innovation.

Theme 4, Upskilling and capacity building in the government and workforce

Building the capacity within government, particularly in local authorities, to more effectively respond to climate change was a key theme during the workshops. Several participants identified *‘a lack of funding at a local level’* and a *‘lack of expertise and knowledge’* within local authorities as a barrier to decarbonisation. Many were enthusiastic about increased collaborations and partnerships between researchers and authorities but emphasised that there was still a need for more resources from central government. Some participants framed this around the idea of a *'local green deal’* providing greater access to longer-term funding, to enable authorities to develop stable local supply chains and deliver programmes of decarbonisation themselves, such as buildings retrofit.

Capacity building in local authorities was also linked to improved communication and public engagement. Participants recognised that local authorities could be highly effective at engaging their local community, but the capacity to do this was not equally shared across different authorities:

*[Larger local authorities such as Greater Manchester have]* *‘put resource in... [to] deliver on that engagement piece and that collaborative discussion to bring the citizen with you. But that doesn’t exist, I would argue, in the smaller local authorities, the capacity to be able to do that, or even the level of ambition to do that.’ (Public Sector Workshop Participant)*

Participants also identified a *‘massive skills gap’ (Third Sector Workshop Participant)* in the workforce acting as a key barrier to the acceleration of change. Upskilling was a common short-term priority, where across the workshops it was recognised that *‘there’s a huge requirement for just labour and skills’ (Public Sector Workshop Participant).*

Theme 5, The need to ensure a just transition

Participants felt that there needed to be greater emphasis on a just transition to net zero, which was largely understood needing to ensure that the pathway of reducing emissions also reduces social inequalities. In creating a just transition, many participants also identified opportunities to produce co-benefits, including the potential to reduce fuel poverty through improved housing, the potential to improve public health and create new jobs.

A just transition was linked to the need for effective public engagement with local communities, particularly in areas where the economy is dependent on the fossil fuel industry. Participants felt that there was a need for ‘*democratic accountability, particularly in communities where climate action might result in jobs or income leaving those communities’ (Third Sector Workshop Participant).* Others noted that justice and co-benefits can be a more effective way of engaging publics on climate change to more distant concepts like ‘energy reduction’.

In the third sector workshops, participants emphasised that there is a need for governments to provide a clearer articulation of the macro-distributional impacts of the transition, including where green jobs are created, who is expected to pay for the transition and whose behaviour will have to change. Overall, they felt that the transition to net zero should look beyond just reducing carbon emissions to creating a more socially and ecologically sustainable society in the long term, and this was described by some participants as ‘Net Zero Plus’:

*‘It has to be Net Zero Plus; it can’t just be a straight decarbonisation story, it has to be a social equity story... one could construct a pathway to net zero which is brilliant from a ‘carbon metrics’ perspective, but absolutely terrible from a social equity and social justice perspective’ (Third Sector Workshop Participant).*

Theme 6, The need for appropriate funding structures and business models

Participants articulated the need for appropriate funding structures and the importance of demonstrable and viable business cases for net zero innovation. They identified a raft of barriers related to the financing of net zero. Investment cycles are rigid, meaning that there is often a small window for projects to receive funding, and funding incentives are structured towards low risk, short term gains, meaning there is a failure to invest in more long term, systemic solutions:

*‘There's this constant challenge of the longevity of our funding, we end up... funding a three year programme - well that's a really piecemeal approach to a much bigger, longer-term problem which does need investment in longer term demonstrator projects... three years is not going to cut the mustard’ (Funding Sector Workshop Participant).*

This is compounded by political short termism, where funding priorities often change with a change in government. Financial incentives are still geared towards fossil fuel industries, which prevents low carbon technologies from becoming financially viable. There is also a notable lack of access to finance for low-income individuals to reduce emissions in their homes, such as installing heat pumps and buildings insulation. Participants felt that both in the private sector and for the public, there is a need for the government to provide access to low-cost finance:

*‘Across the board, there's a need to provide access to low-cost finance... if the government viewed this challenge as a national infrastructure issue and used the Green Bank to help drive the availability of access to capital, that would really help to solve the [problem]’ (Third Sector Workshop Participant).*

In the private sector, participants felt that a focus on innovation is key, and highlighted the potential for economic benefits and the opportunities for the private sector to lead on innovating new business models. However, others noted the challenge of aligning the financial sector with net zero:

*‘The big urgent priority that hasn't come up just yet... how do we rapidly re-direct flows of capital and the economy? So, it's already beginning to happen with divestment of investors from fossil fuels, but is it happening fast enough set against a backdrop of relentless pressure on short-term profit maximisation which then stops the private sector from investing in longer term plans which are aligned with net zero?’ (Third Sector Workshop Participant).*

Theme 7, The need for urgency

The urgency of rapidly reducing emissions was expressed more prominently by participants in the stakeholder workshops than in the workshop with the research community. Particularly in the third sector workshops, participants felt that ‘*the timelines that we have at the moment aren’t aggressive enough’ (Third Sector Workshop Participant),* and there is a need to accelerate the speed of deploying solutions, which was reflected across the workshops in an overwhelming focus on what can be done in the short term.

In the private sector, there was less agreement around the speed and scale of change available and preferable, reflecting the range of different industries participants were representing. Participants representing ‘incumbent’ industries preferred an *‘evolutionary approach*’, citing that: *‘We talk about transformative and radical solutions, but the realities and chances of it being delivered are really low’ (Private Sector Workshop Participant*). On the contrary, participants from ‘disruptor’ industries emphasised that: *'We've tried the evolution and it’s not working, and I think we do need a bit more of a revolution’* *(Private Sector Workshop Participant)*. Some participants also noted that urgent change is in conflict with the interests of many powerful actors, whose lobbying activities are acting as a barrier:

*‘What I see at the moment is quite a lot of activity from people who have got a very strong interest in that faster path not going ahead quite so readily because of their own existential threats, but that’s not being cut off or pushed back to the extent it would be if people really understood that [urgency]’ (Third Sector Workshop Participant).*

Similarly, several participants raised concerns about the discourses around net zero relying on *‘silver bullet’* technologies or solutions. This was reflected in the discussion of the Round 1 Themes: “Current and future technologies can deliver the majority of necessary emissions reductions” and “Systemic social and political change is necessary including urgent changes to social practices”. Some participants emphasised that *‘I just don’t think technology is going to be the answer to everything’ (Private Sector Workshop Participant)*, while some felt that it was unclear what systemic change would entail. Others felt that these themes where not antithetical to one another:

*‘I feel really strongly that it’s socio-technical... trying to trade off the innate social-behavioural-cultural against the technical... I think it’s really important that we bring them together’ (Funding Sector Workshop Participant).*

Theme 8, The need for a shared sense of responsibility and collaborative endeavour

Participants called for a greater sense of shared responsibility and collaborative endeavour. This was expressed at a range of scales, from the local to the national and international levels. In terms of responsibility, in the public and private sector workshops an onus was placed on central government and ministers to lead in taking action. However, in the third sector workshops, participants emphasised that there is no *‘systems architect’*, and instead there is a need to take collective responsibility for the shift towards a net zero society. Overall, there was a call for greater collaboration across scales of government and for policy to be developed at a whole systems level. There was also a call for more collaboration between industry, government, and academia:

*‘Tackling the net zero challenges is one of the few issues that requires a sort of whole place type approach where you need all the different institutions and organisations and entities of a place working with a shared purpose in common’ (Third Sector Workshop Participant).*

In terms of leadership, participants saw an opportunity for local authorities to play a stronger role in the transition. They thought that it was important not to take an overly centralised approach, and felt that if granted more powers and resources, local governments have the *'momentum and ambition'* to drive forward decarbonisation at a faster speed. In developing solutions to climate change, participants noted that there were opportunities for enhanced long-term collaborations across different sectors and geographies. Finally, in the third sector workshops there was an overarching reflection on the historical and colonial legacy of the UK, and a call for the UK to assume a leadership role, to acknowledge its privileges, and to support poorer nations on the path to decarbonisation:

*‘I wonder if there's somewhere that we can also reflect on the kind of international role of the UK and the role of UK policy and research community in kind of taking responsibility as a major emitter, as an industrialised country, as an ex-colonial power... taking all those things into account and the responsibility that the UK has to support particularly global south decarbonisation’ (Third Sector Workshop Participant).*