DECEMBER 2020

Resilient Regions: **Clyde Rebuilt**

Learning Exchange Report

DEL08

Climate-KIC
Climate-KIC is supported by the EIT, a body of the European Union

Deep Demonstration
Resilient Regions
GLASGOW CITY REGION
Clyde Rebuilt

sniffer
knowledge brokers for a resilient Scotland

creative carbon scotland

ClimateReadyClyde

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Introduction

Resilient Regions: Clyde Rebuilt is a project seeking to catalyse a transformational approach to addressing the impacts of climate change in the Glasgow City Region. It is led by Climate Ready Clyde, a regional climate initiative, with support from Sniffer, Creative Carbon Scotland, Paul Watkiss Associates and EIT Climate-KIC. The project is funded by Climate Ready Clyde's fifteen members and the European Union's climate innovation hub, EIT Climate-KIC. The project is developing Glasgow City Region's Adaptation Strategy and a transformational adaptation portfolio blueprint.

Our vision

Clyde Rebuilt has a vision of 'a Glasgow City Region that flourishes in a future climate'. To achieve this, Clyde Rebuilt is bringing together representatives from across the region to jointly develop interconnected projects for adapting to these climate change challenges by 2030.

Clyde Rebuilt will bring together community groups, local councils, universities, businesses, government agencies and other bodies. They will collaborate to identify a range of joined-up actions that can change the way the region's society, economy and environment operate together, making them stronger as the effects of climate change become ever more apparent.

The new collective is based on the idea that climate change can best be tackled if different groups from one city or region join forces to find solutions to their specific problems. Clyde Rebuilt will capitalise on EIT Climate-KIC's experience of identifying innovations which help regions both slow down climate change and deal with it.

Who we are

Clyde Rebuilt comes with a wealth of expertise through its partners and funders. It is led by Climate Ready Clyde, with technical, cultural, economic and governance expertise from Sniffer. Clyde Rebuilt has cultural expertise and understanding of creative arts in sustainability from charity Creative Carbon Scotland, and specialist climate change and economic expertise from research consultancy Paul Watkiss Associates. Clyde Rebuilt is part of the EIT Climate-KIC "Deep Demonstrations Resilient Regions" programme along with Andalusia in Spain, Nouvelle Aquitaine in France and the Dolomites area in Italy, three European regions that are also at risk from the impact of climate change.

Learning from Clyde Rebuilt

The use of culture to help achieve transformational adaptation

As part of the Clyde Rebuilt project, Creative Carbon Scotland undertook research into various 'cultural' elements of the work. These were a unique facet of the project which spanned the whole process from beginning to end and included working on communications about adaptation to non-specialist audiences (see 'Changing the language'), working with cultural organizations to widen the range of voices and perspectives in the discussions about adaptation (see 'Changing the voices') and the application of cultural practices in business meetings, workshops and events with external partners (see 'Changing our ways of working' and 'Changing our ways of thinking'). Informal and organized learning and reflection took place throughout Clyde Rebuilt and towards the end of the project we undertook more formal research into these cultural elements. At the end of the nine-month period we convened a Learning Exchange event at which we presented the findings of the research to colleagues in the Clyde Rebuilt team and partners from EIT Climate-KIC and the Deep Demonstrations Resilient Region programme partners, Glasgow City Council and others who had attended or participated in workshops or events as part of the project. This report provides a summary of the research and the learning, in more detail than originally intended in order to optimize dissemination of findings within pandemic restrictions.

The pre-COVID-19 project plan was to hold a large, in-person Learning Exchange event, bringing together a wide range of people including representatives from the finance and cultural worlds, local communities, public bodies, businesses and others from the Glasgow City Region as well as the Clyde Rebuilt team and EIT Climate-KIC. The aim was to build connections and develop potential partnerships between these very different groups which nonetheless shared a common aim of bringing about transformational change in the Glasgow City Region. Such a diverse group would be difficult to attract and to work with productively and so we planned to draw on the skills and experience of a widely known and respected theatre director or orchestral conductor whose name would encourage attendance. These are roles which specialize in bringing together into a coherent, rich and complex whole the imagination, experience and opinions of highly skilled and knowledgeable individuals from different fields who may often hold different and quite possibly conflicting ideas about the project in question.

As this plan was not possible, instead, a smaller, digital event took place in December 2020, following the conclusion of the project activity. The Learning Exchange event became more of a presentation to a largely internal group than an exchange, and this document therefore takes the opportunity to provide more detail and depth about the discussion and learning that has taken place throughout Clyde Rebuilt. This useful resource will be made widely available to help achieve the aims of the original pre-COVID-19 plan as much as possible.

‘Cultural’ aspects of Clyde Rebuilt: what we did

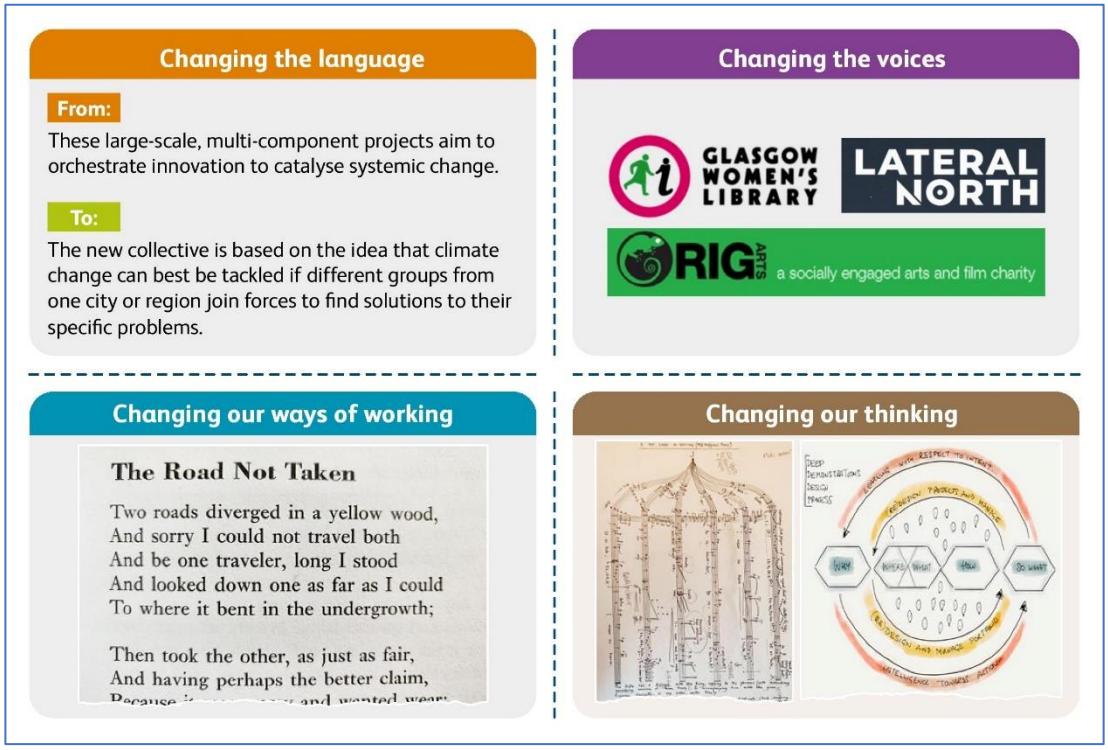

Figure 1. ‘Cultural’ aspects of Clyde Rebuilt.

Creative Carbon Scotland led the work on the cultural aspects of Clyde Rebuilt, as shown in Figure 1[1] and described below. This section outlines the activity while the learning outcomes and results of the research are covered later in the report.

Changing the language

The language used to communicate about climate change adaptation proved to be an important area of work in Clyde Rebuilt, constantly arising in discussions with the Climate Ready Clyde board, attendees at events and participants in workshops, and particularly in discussions with colleagues from EIT Climate-KIC.

In May 2020, the Project Communications Officer worked with the EIT Climate-KIC Communications team to write a press release for the project, but some members of the Climate Ready Clyde board felt the language used was inaccessible. This led to the realization first that the Climate Ready Clyde board needed a better understanding of Clyde Rebuilt and transformational principles, and second that the Clyde Rebuilt team itself needed to ensure that it had a shared understanding of both the project and transformational adaptation, which led to a workshop on transformation and internal debates through which we refined the language we used. It also led to the creation of a

[1] Credits: bottom left quarter – ‘The Road Not Taken’ from *Mountain Interval* by Robert Frost (1916).
bottom right quarter – (left) ‘Birdcage’ page from Sir Peter Maxwell Davies’ score of *Eight Songs for a Mad King* © Copyright 1971 by Boosey & Hawkes Music Publishers Ltd. Reproduced by permission of Boosey & Hawkes Music Publishers Ltd. Solely for the use of Creative Carbon Scotland; and (right) a slide from EIT Climate-KIC, ‘Deep Demonstrations Design Process’ (2020).

project summary, or 'elevator pitch', which was finalized in early July and helped enable the board and the Clyde Rebuilt team to communicate about Clyde Rebuilt. Later in the project a glossary of key terms was developed, once again to ensure that everyone was using words to mean the same thing. [2]

The concern raised by the Climate Ready Clyde board in reference to language and jargon used when discussing climate change and the project was a much larger issue to address. Clear, accessible messaging when communicating about climate change was needed and the accessibility of the language used in the project team's outputs for each of the internal, external specialist and external public audiences had to be considered. The only way the project would achieve its goal of reaching new and unusual voices to partner with was to ensure we had an effective way of communicating about the project with accessible language. This changed the direction of the Communications and Engagement Plan for the whole project and specifically led to the Project Communications Officer convening a workshop with participants from the EIT Climate-KIC Communications team, the Clyde Rebuilt team, members of the Climate Ready Clyde board and a representative of a local cultural organization known to Creative Carbon Scotland.

The workshop enabled the Project Communications Officer to work with the EIT Climate-KIC team to produce a revised press release which was approved by all parties and achieved significant media coverage from some unexpected quarters. As part of the reflection and research process, we held a focus group discussing the work on language and particularly the press release and focus group format. The outputs and learning are discussed in the 'Survey and focus group results' section of the report.

Changing the voices

Because the voices generally heard in discussions about climate adaptation are those of specialists, one aim of Clyde Rebuilt was to bring in new voices, with a particular focus on climate justice and enabling marginalized and less often represented groups to be heard. This was one of the reasons Creative Carbon Scotland was brought into the project, with its wider, non-specialist connections and its experience in working with cultural organizations which could open the doors to different groups. One result of this was an enriched mix of groups and attendees for both the Social Impact Assessment workshops around the draft Adaptation Strategy and the communities-focused systems mapping workshop as part of the portfolio development process. In addition, three events run with cultural organizations were aimed at bringing in a wider range of voices and perspectives and, in two cases at least, did so using artists and artistic practices to both attract different participants and explore adaptation in different and potentially more accessible ways.

Each of these events was co-designed with the cultural partners, harnessing the skills and knowledge that they had whilst Creative Carbon Scotland and Clyde Rebuilt provided more specialist knowledge about climate adaptation. This brought in new knowledge and particularly strong connections with communities of place, interest and practice, from which Clyde Rebuilt would not otherwise have benefitted. All of these events were run online, owing to the pandemic.

RIG Arts describes itself as 'a multi-award winning socially engaged charity that brings artists and the community together in a collaborative, creative way using art and film based in Inverclyde'. Working in all sorts of fields including urban regeneration and climate change mitigation, the charity is very well connected and works with local

[2] See DEL 09: Clyde Rebuilt Communications and Engagement Plan (Glasgow: Clyde Rebuilt, 2020) for more details. Alternatively, the resulting climate change glossary is available on the Climate Ready Clyde website <https://www.climatereadyclyde.org.uk/climate-change-glossary/>

community groups, other third sector organizations, local authorities and the general public. At heart, RIG Arts aims to engage and empower disadvantaged people through cultural activities. The collaboration with Clyde Rebuilt enabled the charity to work on adaptation for the first time.

RIG Arts ran two events, in each case employing a visual artist and a poet who had worked with RIG Arts on previous projects. Participants were asked by the visual artist to use collage techniques to enhance maps of the Inverclyde area with images representing the changes they foresaw, and would like to see, in a changed future climate. In a separate breakout group the poet provided phrases to use to write a poem imagining Inverclyde in the future climate. The first event, working with a known group of regular attendees, was with an existing RIG Arts Fixing Fashion group which works on increasing awareness of the environmental impact of the fashion and textile industry through promoting sustainable shopping choices, repair and upcycling. The second event brought together staff from public bodies and agencies, businesses and voluntary organizations in Inverclyde who were not otherwise involved in climate adaptation. Some were known to RIG Arts; others were new contacts identified because of a potential relevance to adaptation. A nice touch was that each participant received a package in the post containing the maps, scissors, glue and small images of everything from palm trees to lakes, printouts of words and phrases, and other materials to work with – a surprise 'present' which probably encouraged and enhanced participation.

Whilst RIG Arts is very focused on its geographical community of Inverclyde, Glasgow Women's Library has a more community-of-interest focus, seeking (among other things) to empower women, from not only Glasgow but also further afield, through 'increased knowledge and understanding of women's history, lives and achievements; through providing access to the information, resources and services they need to make positive life choices; and through being a catalyst for change by taking a lead role in redressing the neglect of women's historical and cultural contributions to Scottish society'[3].

Glasgow Women's Library chose to add a special event with an adaptation focus to add to their existing events programme and take the opportunity to invite speakers Dania Thomas, from the Ubuntu Women Shelter for women who are forced into destitution, and artist and activist Clem Sandison, to provide their individual perspectives on climate change adaptation. Dania gave a striking talk/performance in which she highlighted the unrepresented voices in climate change discussions and the problem of the western-centric view of the issue and solutions; Clem spoke about urban design, land use and food production in Glasgow, within the context of the Clyde Valley as a bioregion, using her experience as an activist and her own visual representations of the complex nature of soils as a useful metaphor for ways of working and living in the future. Nicole Paterson, a member of the Climate Ready Clyde board and Head of Environmental Assets at North Lanarkshire Council, responded to these strong provocations and contributed to the discussion with the audience.

Lateral North describes itself as a 'design collective with a dynamic team who specialize in exhibition design, brand creation, filmmaking, website design and community driven collaborative projects'. They chose to include a session on climate adaptation in a day-long symposium as part of After the Pandemic, an 'on-going response to the COVID-19 pandemic seeking to rethink our environments, reimagine our cities and redesign our communities to be greener, more vibrant and more resilient'. Chaired by the leaders of Sniffer and Greenspace Scotland, the event had speakers from cultural and heritage organizations, architects and an environmental/social/governance

[3] See <https://www.womenslibrary.org.uk/about-us/our-values/gwl-aims-and-objectives/>

consultancy. Workshops then focused on land ownership, community empowerment and access to greenspace.

Lateral North's event combined a focus on the Glasgow City Region with a community of practice (design and architecture) and a community of interest approach. It attracted a wide range of attendees, some of whom were more aware of and potentially involved in work on adaptation but many of whom were new to the conversation and attended through their interest in the overall topic of the day.

Overall, around 300 people attended the four events with a wide range of backgrounds, locations and interests represented.

Changing our ways of working

One of the roles of a cultural practitioner in a project can be to help change ways of working, jolting people out of their normal routines in a way which is crucial for climate change projects, where we know that the standard ways of working are not doing enough to achieve the change we need. This project required the whole Clyde Rebuilt team to work in different ways, with different sorts of people and to think differently, because it was asking all concerned – Climate Ready Clyde board members, the Clyde Rebuilt team and those partners we worked with – to go beyond where we had gone before. The whole point was experimentation. In Clyde Rebuilt therefore we often began quite formal meetings and events with an intervention that introduced culture in one form or another.

During internal meetings of the Clyde Rebuilt team, most of these interventions were quite simple: reading a poem, watching a short video, listening to music. On one occasion we provided guidance on writing a haiku – a short poem of a Japanese form with three lines of five, seven and five syllables respectively, and ideally an image of nature, with a 'cutting' line or word somewhere in the middle – and then asked all present to write a haiku related to climate adaptation or the Glasgow City Region.

At a Climate Ready Clyde board meeting we used a similar creative writing exercise, this time using iambic pentameters, i.e. blank verse where each line is made up of five 'iambs', each of which is a beat of two syllables with the stress on the second one. One aim of these poetry exercises was to encourage the board members and Clyde Rebuilt team members to think about the language they used to talk about adaptation: writing in blank verse, and ensuring you meet the rules on where the stress lies, asks you to use language clearly and imaginatively, often combining adjectives or nouns to fit the rules and say what you want to say. The haiku form asks you to communicate quickly through images rather than pedestrian explanation or description. Both forms are difficult to do well but present an enjoyable challenge: another aim of the exercise is to do something unexpected together as a group, something that nobody is an expert in – so everyone is starting at the same point, breaking down any hierarchy or established roles.

At the start of another board meeting, one of the systems mapping workshops, and the second RIG Arts event, we ran an 'imagining exercise' in which attendees were asked to imagine the Glasgow City Region in a different climate (we also used this approach for the Learning Exchange event, in possibly the most successful iteration). We introduced the exercise by describing how the Glasgow City Region was experiencing long periods of 'tropical nights' in the future and asked the attendees to introduce themselves and say how they or their organizations were responding to this in their services to their communities or their internal practices. The aim here was partly to start the meetings differently, particularly since digital meetings over Zoom or Microsoft Teams can become very same-y and tiring. Doing something different would set these meetings apart from

other meetings that people were attending. We also wanted to bring out the interconnectedness of different organizations' or individuals' responses, demonstrating the systemic nature of the challenge. The exercise also asked people to engage their imaginations, in a way which they are unlikely to in most meetings, and perhaps don't feel able to: adaptation is often framed in a fairly technical way, yet it deals with situations which are unknown, uncertain and perhaps unknowable, and imagination may be the only way to picture boldly and vividly how things will be in the future. There is a risk that if we simply ask people to extrapolate from the known present, they may never take big enough steps to grasp what the unknown future may actually be like.

These approaches were chosen based on Creative Carbon Scotland's team members' own experience of using cultural practices and techniques to stimulate the imaginations of other cultural practitioners or those participating in cultural activities. This experience is supported by Galafassi (2018) who writes about the 'transformative imagination'.[4] He argues that imaginative processes engage participants' feelings, emotions and intuitions and can help participants in the exercises somehow make the future more 'present'. This may be particularly important for people whose professional roles are more technical, where they are almost required to leave behind imagination (if not creativity) in their work.

Changing our ways of thinking

The final area of application of the skills, knowledge, experience and contacts of cultural practitioners was in the overall management and development of Clyde Rebuilt. During programme board and whole-team project group meetings these different aspects of the cultural practitioner's knowledge brought to the table by the Creative Carbon Scotland staff were utilised to widen and enhance the thinking of the whole group. As well as specific techniques such as the use of poetry and other stimuli for creative thinking described above, less tangible use of the knowledge was brought to bear.

For example, in one meeting the Director of Creative Carbon Scotland used experience from his previous career as a theatre director, which provided him with the skills and experience to 'read' and interpret a complex set of diagrams from EIT Climate-KIC. In explaining how and why he did so he gave the example of the two images shown at the bottom right of the quadrant in Figure 1. To the right is a sketch diagram from EIT Climate-KIC's Deep Demonstrations process, which at first and indeed after many readings meant little; to the left is a page from composer Sir Peter Maxwell Davies' score for his famous music theatre work *Eight Songs for a Mad King*, in which the mad King George III of England at one point tries to teach his caged birds to sing. The Creative Carbon Scotland Director's job as theatre director was to help the musicians and singer to interpret, using their skills and musical prowess, the lines of music, written upright in the shape of a birdcage and bearing little resemblance to most musical scores. In a parallel way, he took on the challenge of interpreting EIT Climate-KIC's difficult process diagrams and complex language, not in a rigid way but to match our own circumstances and achieve our own aims, working with the whole Clyde Rebuilt team to do so. At other times he provided further examples from his theatre directing career of techniques and approaches that could be useful to the project. The aim here was to help the wider Clyde Rebuilt team think differently and offer other ways of seeing the challenges with which they were presented, providing different perspectives and ways of thinking to those usually present in an adaptation project team.

[4] Diego Galafassi, 'The Transformative Imagination: Reimagining the world towards sustainability', PhD thesis (Stockholm University, 2018). See also DEL 10 'What Does Transformational Adaptation Look Like?' (Glasgow: Clyde Rebuilt, 2020), 24ff <https://www.climatereadyclyde.org.uk/literature-review-what-does-transformation-look-like/>

Theory behind the application of cultural practices to climate change[5]

A brief literature review

There is increasing awareness of the role of culture, and to a lesser extent of cultural practices, in addressing climate change. The Scottish Government's *A Culture Strategy for Scotland* (2019) sets out three main 'ambitions' of which Ambition 2 is 'Transforming through culture'. This highlights a key aim of opening up the potential of culture as a transformative opportunity across society and for playing a major role in galvanizing climate action and influencing widespread behaviour change to meet net-zero targets. Although this is a mitigation-focused aim, the strategy also recognizes that culture and heritage projects are often local and place-based, offering an opportunity to engage communities across Scotland in, amongst other things, visualizing and understanding the impacts of climate change and imagining the possibilities of a greener future.

Policy

The Scottish Government's draft *Net Zero Nation Public Engagement Strategy* (2020) notes the value of culture and the arts in providing 'a significant communication tool, with the power to help the public to understand and visualise the potential impacts of climate change, challenge our beliefs, and shift ways of seeing and thinking'.[6] However research into the role that music festivals might play in responding to sustainability challenges, carried out by Creative Carbon Scotland and others at festivals in Scotland in 2015–16, suggests this is more complex than it might seem.[7] Focusing on the arts as a communication tool rather than valuing its inherent complexity and the range of elements it brings to work on climate change adaptation may fail to notice a set of greater opportunities. There is a growing body of research and real-world examples which explore and demonstrate the role of creative and cultural approaches in bringing about societal transformations.[8] The grey and academic literature, in addition to Creative Carbon Scotland's and others' examples of applying cultural practices to climate change work, address both mitigation and adaptation as well as transformations to sustainability.

Practical learning and application of knowledge

Creative Carbon Scotland has been applying cultural practices to work on climate change mitigation and adaptation since 2013, building on the experience of the Creative Carbon Scotland team, including the Director's career as a theatre director and the culture/SHIFT Manager's background in art history and music. Through Creative Carbon Scotland's culture/SHIFT work and projects the team has developed practical knowledge, supported by learning from (among other things) two events with Frances Whitehead (with Duncan of Jordanstone College of Art and the Edinburgh Art Festival); Creative Carbon Scotland's research for case studies in its Library of Creative

[5] Elements of this review are taken from DEL 10 'What Does Transformational Adaptation Look Like?' (Glasgow: Clyde Rebuilt, 2020), 24ff <https://www.climatereadyclyde.org.uk/literature-review-what-does-transformation-look-like/>

[6] 'Net Zero Nation: Draft Public Engagement Strategy for Climate Change', Scottish Government (published online December 2020) <https://www.gov.scot/publications/net-zero-nation-draft-public-engagement-strategy-climate-change/> accessed 30 Dec. 2020.

[7] M. Brennan, J. Scott, A. Connelly, and G. Lawrence, 'Do music festival communities address environmental sustainability and how? A Scottish case study' in Popular Music, 38(2) 2019, 252–275.

[8] See Sacha Kagan's 'Literature list on the arts, culture and sustainability' compiled in 2020 <http://www.sashakagan.wordpress.com> – not all is about climate change but much of it is relevant and it runs to 27 pages.

Sustainability[9]; an on-going evaluation of relevant work for the project Cultural Adaptations[10], an action-research project funded by Creative Europe and led by Creative Carbon Scotland in which four 'embedded artists' work with adaptation projects in the Glasgow City Region, Dublin, Gothenburg and Ghent; and by reading and desk research. This practical knowledge builds on the existing and growing literature on the topic: outputs from Cultural Adaptations include a 'Toolkit and Digital Resource' which will be made freely available and an international conference, all aimed at enabling widespread uptake of these sorts of projects.

More generally, and based very firmly in both artistic and environmental practice, the American artist Frances Whitehead, during a project with the School of the Art Institute of Chicago and the Innovation Program of the City of Chicago[11], produced a document *What do Artists Know?* (see Box 1 below) in which she identified some 'skills, processes and methodologies' that artists are trained to use (and build on that training with their long-term practice). Often these aren't recognized by those in other fields, and sometimes not even by artists themselves – they take them for granted. But these practices can be useful in other fields.

A further example of practice in environmental work is the Red Cross Climate Centre's experimentation with the use of humour to encapsulate complex messages. A key report has been the cartoon summary of the IPCC *Special Report on the Ocean and the Cryosphere* in a changing climate (RCCC 2019).[12] As part of the Resilient Regions project, EIT Climate-KIC has worked with the Red Cross Climate Centre to develop new illustrations showcasing the challenge of adapting regions. Another key approach has been the use of embedded artists as a way of transforming individuals and groups towards more resilient states. Through the Cultural Adaptations project, Creative Carbon Scotland has been funded by Creative Europe to pilot the use of cultural approaches in the Glasgow City Region, Ghent, Dublin and Gothenburg, to support adaptation actions at community to regional scales.

[9] The Library of Creative Sustainability is a database of case studies researched and compiled by Creative Carbon Scotland staff through desk research and interviews with the artists and others involved in the projects. It is aimed at those working in climate change and demonstrates the benefits of collaborating with artists to achieve environmental sustainability outcomes. It provides a practical resource to inform sustainability organizations and campaigns on how to work with 'embedded artists' over extended periods through examples of successful past projects. Each article includes detailed information on partners and stakeholders, sustainability outcomes and funding, as well as tips and links to further resources <https://www.creativecarbonscotland.com/resources/library/>

[10] Cultural Adaptations is an action-research project seeking to find creative, innovative and place-based methods to adapt to climate change. It is co-funded by the Creative Europe programme of the European Union with match funding from the Scottish Government. In four countries in northern Europe, cultural organizations are paired with climate change experts and city governments to explore how culture can adapt to the impacts of climate change, and how creative practices can influence and shape how cities across Europe approach transformative adaptation <http://www.culturaladaptations.com/>

[11] Frances Whitehead, <http://embeddedartistproject.com/>. See also <https://www.creativecarbonscotland.com/project/the-embedded-artist/> and <https://www.creativecarbonscotland.com/library/slow-clean-up-civic-experiments/>

[12] <https://www.google.com/url?client=internal-element-cse&cx=009701304431890758580:gj9ub7krrho&q=https://www.climatecentre.org/news/1114/harnessing-humour-to-address-risk-red-cross-red-crescent-launches-cartoon-caption-competition&sa=U&ved=2ahUKEwiy0Pma2vjtAhVDOhoKHSddDzkQFjAAegQIABAC&usg=AOvVaw0PWwdOsANu1lggi5F9rVw> accessed 31 Dec. 2020.

ARTETAL

WE ARE MAKING NATURE

What do Artists Know?

Beyond a wide range of material practices, histories and techniques, concepts and theoretical frameworks, artists are trained to use a unique set of skills, process, and methodologies. These include:

- **Synthesizing diverse facts, goals, and references – making connections and speaking many "languages". Artists are very "lateral" in their research and operations and have great intellectual and operational agility.**
- **Production of new knowledge as evidenced by the 100+ year history of innovation and originality as a *top criterion***
- **Creative, in-process problem solving and ongoing processes, not all up-front creativity: responsivity.**
- **Artists compose *and* perform, initiate *and* carry-thru, design *and* execute. This creates a relatively tight "feedback loop" in their process.**
- **Pro-active not re-active practice: artists are trained to initiate, re-direct the brief, and consider their intentionality.**
- **Acute cognizance of individual responsibility for the meanings, ramifications and consequences of their work. (The down side of this is that artists are not always team-oriented or willing to compromise due to the high premium placed on individual responsibility and sole authorship.)**
- **Understanding of the language of cultural values and how they are embodied and represented – re-valuation and re-contextualization.**
- **Participation and maneuvering in non-compensation (social) economies, idea economies, and other intangible values (capital).**
- **Proficiency in evaluation and analysis along multiple-criteria -- qualitative lines, qualitative assessment. Many are skilled in pattern and system recognition, especially with asymmetrical data.**
- **Making explicit the implicit -- making visible the invisible.**
- **Artists do not think outside the box-- *there is no box.***

Box 1. What do Artists Know? <http://embeddedartistproject.com/whatdoartistsknow.html>

Academic and grey literature

One aspect of the academic literature focuses on 'transformative imagination' as a concept, which Galafassi (2018)[13] describes as the imaginative capacity to explore the alternative futures and creative visions which are central to transformative processes. Galafassi found that art-based methods opened up spaces that went beyond rational elements and engaged participants' feelings, emotions, intuition and imagination within a visioning process. He also highlights that instead of understanding visions as fully formed images of the future, it was found to be a process of making the future present, so that an 'embodied relation' to different futures could be formed.

Light et al.'s (2018) research of creative practices in transformations to sustainability highlight historic examples such as Augusto Boal's 'Theatre of the Oppressed'[14] where role-play and visual techniques help to connect the audience to the performer and explore complex issues concerning oppression and social change. Audience members play the dual role of 'spec-actors' as they are invited to both observe and perform actions during the performance. In the context of the climate emergency, Galafassi suggests that artistic participatory experiences could lead to enhanced ownership and reflection on the individual's role in contributing to a more sustainable future.

Both Galafassi and Light et al.'s analysis show how creative practices can open up the imagination of participants (whether professional or community) and enable them to envision more boldly different futures and enable those involved to explore those realities. Light's work is continuing in the Horizon 2020 project CreaTures – Creative Practices for Transformational Futures.[15]

The ability to engage communities and the wider public through creative approaches is seen as a key means by which arts-based methods can contribute to mitigation and adaptation efforts. A range of examples, from the HighWaterLine project in New York (2007)[16] to Creative Approaches to Flood Awareness in Aberdeen (2018)[17] highlight the skills and capabilities of artists to co-design and co-produce creative, place-based responses to local climate issues which reflect communities' perspectives and concerns. With the evolution of participatory creative practices there has also been a growing recognition that arts-based methods, if used in the right way, can play a role in breaking down traditional barriers between institutions and communities. This can occur through the creation of alternative spaces and entry points for engagement and involvement of different players, including for those who have been historically marginalized or excluded from decision-making processes (*Municipal-Artist Partnership Guide*[18]). These examples demonstrate the role of creative practices in empowering different voices in new and accessible ways, which social transformations literature recognizes as a key tenet of achieving transformational change.

As well as offering alternative means of engaging communities, creative approaches can play a role in sustainability transformations through the crafting of stories and narratives which help to prepare the ground for new changes that organizations are seeking to catalyse. Milkoreit (2016)[19] describes how stories can play a role in bridging the gap between individual and collective imagination, which can help to create a shared vision of the future. Examples of the adoption of narrative and story-based approaches include the Viable

[13] Diego Galafassi, 'The Transformative Imagination: Reimagining the world towards sustainability', PhD thesis (Stockholm University, 2018).
[14] Augusto Boal, 'Theatre of the Oppressed' (New York: Theatre Communications Group, 1985).
[15] <https://creatures-eu.org/>
[16] <https://www.creativecarbonscotland.com/library/highwaterline/> accessed 30 Dec. 2020.
[17] <https://www.creativecarbonscotland.com/project/cultureshift/creative-approaches-to-flood-awareness/> accessed 30 Dec. 2020.
[18] <https://abladeofgrass.org/municipal-artist-partnerships/> accessed 30 Dec. 2020.
[19] M. Milkoreit, 'The Promise of Climate Fiction: Imagination, Storytelling and the Politics of the Future' in Reimagining Climate Change, ed. P. Wapner and H. Elver (Routledge Publishing, 2016), 171–191.

Cities programme[20], which employed a Chief Storyteller to help move beyond the scientific data and connect citizens on a personal level with the realities of living in a net-zero carbon world. These approaches use narrative to make concepts more accessible – and acceptable – to a wider public whilst using story to think through some of the challenges. Closer to home, Dr Alette Willis in Scotland is a storyteller and academic who argues that we 'live in a soup of stories' which shape our attitudes, behaviours and lives – and so in order to change these we may need to change the soup and tell different stories.[21]

In a lecture published on his blog, Sacha Kagan discusses an approach bringing together culture and sustainability that 'aims to identify the characteristics that are able to evolve and sustain human development in challenging environments…[it] focuses on changes in world views and value systems and…the epistemological quality to cultural change, that is the ways of knowing that are required for transformative learning.'[22] He then quotes Orana Sandri as arguing that 'we need to learn to deal with complexity and uncertainty rather than learning a predetermined "sustainable" set of values and behaviours.'[23] This approach therefore focuses on the need to develop 'sets of richer, more diversified and integrated skills, competencies, capabilities, reflexivity and ways of knowing reality as a basis of a way of reinventing possible futures.'[24]

A range of commentators and projects therefore highlight the use of cultural practices to contribute to (amongst other things):

1. widening genuine engagement and empowerment, perhaps particularly amongst disadvantaged or minority groups in society, with climate change (Boal, Galafassi, Municipal Artist Guide, Creative Carbon Scotland)
2. opening up the imaginations of both professionals and the wider public to different possible futures (Galafassi, Light et al.)
3. using narratives to help understand challenging concepts, to make them acceptable and to help to change them to change society (Mikloreit, Viable Cities Programme, Willis)
4. engaging participants' emotions (Galafassi, Red Cross Climate Centre)
5. developing and increasing competencies and capabilities, perhaps especially to help understand and embrace complexity (Kagan, Sandri, Whitehead).

Creative Carbon Scotland's work within Clyde Rebuilt has sought to make use of these contributions that cultural practices can make to the project, and our evaluation and learning has sought to understand the effectiveness of our approach. More specifically Galafassi's understanding of imaginative capacity to explore the alternative futures and creative visions, and Light's thinking about the ability of creative processes to open individuals to more ambitious imaginings of a different future both relate to the imaginative exercises described above in both 'Changing the voices' through the work of the artists in the RIG Arts events and 'Changing our ways of working' through the use of imagining exercises in meetings and workshops. The 'knowledge' of artists identified by Frances Whitehead was applied in 'Changing our ways of thinking'. Dania Thomas' black, non-western narrative of climate change opened up new avenues of thought for the attendees at Glasgow Women's Library's event.

[20] Viable Cities programme < https://www.citylab.com/environment/2019/11/climate-change-news-solutions-per-grankvist-viable-cities/601597/> accessed 30 Dec. 2020.
[21] <https://www.ads.org.uk/pscf2020_storytelling/> accessed 30 Dec. 2020.
[22] Sacha Kagan, 'Introduction to Sustainability and Culture' [video lecture, 21' 04"] <https://sachakagan.wordpress.com/2020/09/10/video-lecture-introduction-to-sustainability-and-culture/>
[23] Orana Jade Sandri, 'Exploring the role and value of creativity in education for sustainability' in Environmental Education Research, 19:6 2013, 765–778.
[24] See note 14 above.

Research methods

Following all the project activity, two methods were used to collect both quantitative and qualitative data about the impacts of the 'cultural' elements of the project on participants in activities and the Clyde Rebuilt team:

- Surveys were issued using Survey Monkey to participants at meetings of the Climate Ready Clyde board (including Climate Ready Clyde board members and members of the Clyde Rebuilt team) and to participants/attendees at the cultural events organized with RIG Arts and Glasgow Women's Library; and relevant questions were included in a larger survey to participants in the Social Impact Assessment workshops.
- Focus groups were held with members of the group who had attended the workshop on the press release; organizers of the cultural events from RIG Arts and Glasgow Women's Library; and the Clyde Rebuilt team.

The project was also reflexive throughout, including debriefing sessions after major activities (such as board meetings, systems mapping workshops and the Social Impact Assessment workshops) and this report incorporates learning that we developed over the period.

Finally, during the Learning Exchange Event, participants were asked to reflect on the whole process and on the findings of the research to date.

Survey and focus group results

Survey of Climate Ready Clyde board members and Clyde Rebuilt team

The survey of attendees at the board meetings and the Clyde Rebuilt team was sent to 34 recipients of whom 17 responded, a high return rate of 50%, although the actual numbers involved were low. The survey was anonymous, except in five cases where the respondent provided their email address to participate in a further event: four of these were board members and one was a member of the Clyde Rebuilt team; it is not clear who the other respondents were, although it seems likely that around 12 board members responded. This survey consisted of 11 questions, of which two were about further participation.

The results of this survey are encouraging and support the use of creative approaches in this work, although it should be noted that this was a self-selecting group in that those who didn't respond to the survey may be those who were least taken with this aspect of Clyde Rebuilt.

The first question asked which if any creative approaches respondents remembered being used during meetings or workshops (see Figure 2). The most successful method was the 'imagining exercise' as previously described, followed closely by listening to or writing poetry. No respondents failed to recall the use of a creative response. The use of a video or music was only used very occasionally during the project, which is reflected in the smaller numbers recalling these approaches.

Moreover, there was a clear majority of the view that using these approaches changed the nature of the meeting or workshop, and again the imagining exercises were thought to have had the greatest effect, this time by some margin, both on participants' participation in the meeting and their thinking (Figures 3 and 4). Note however that some respondents demurred: this was not a universal view. This is to some extent reassuring, as it suggests the respondent group was not wholly self-selecting for those who found the creative approaches positive, but it also indicates that we must not assume that the use of these approaches will be positive for all concerned.

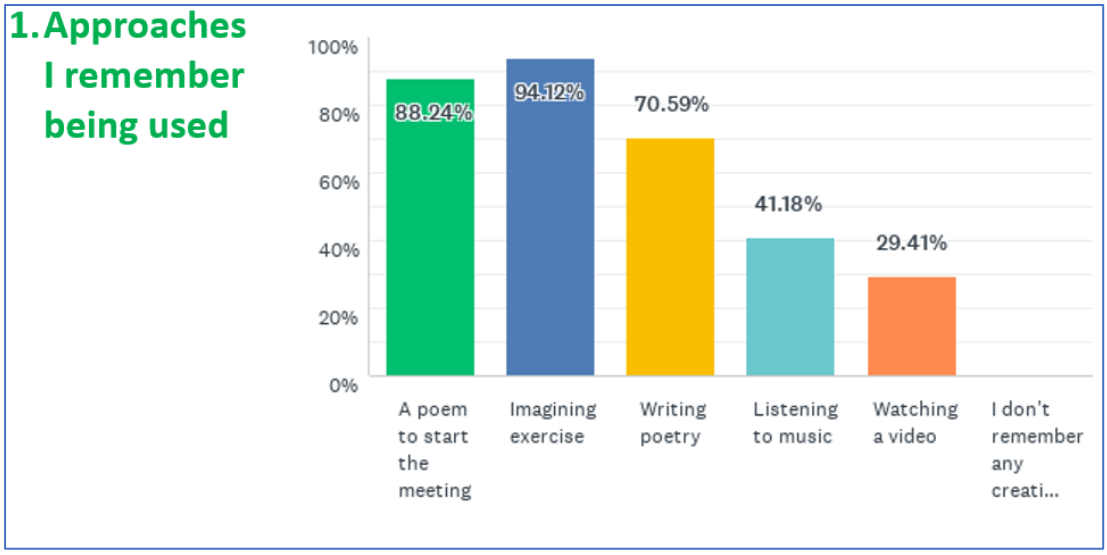

Figure 2. Approaches that respondents remembered being used.

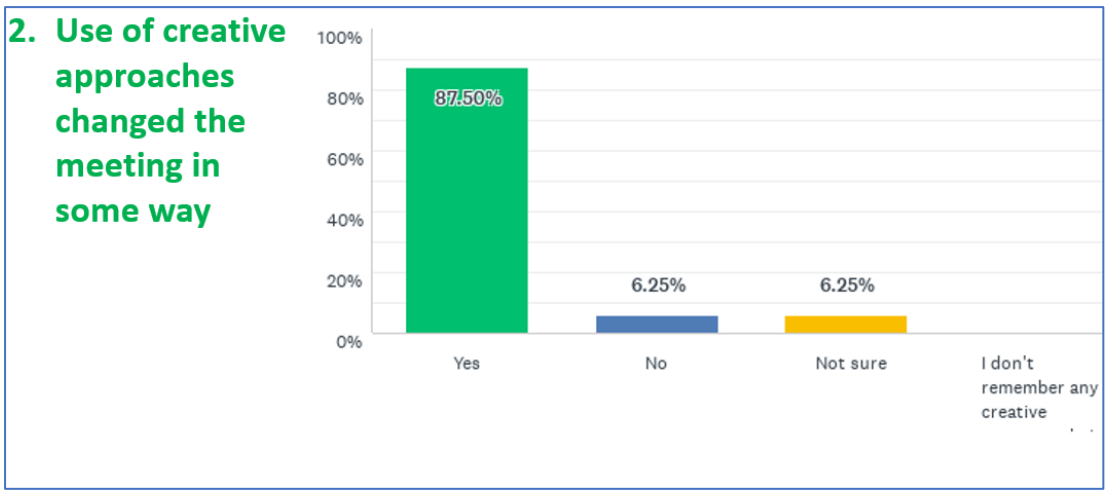

Figure 3. Creative approaches changed the meeting.

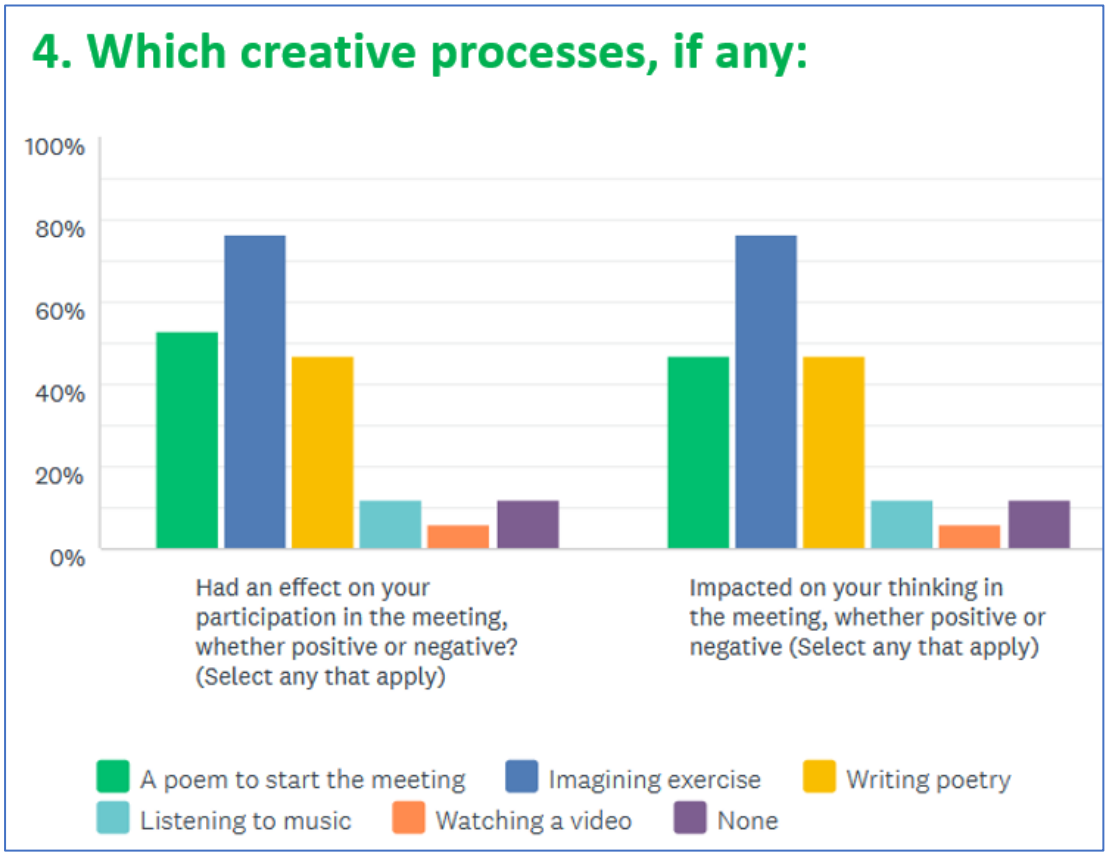

Figure 4. Which creative processes affected the participant.

Overall, there was wide – but not total – agreement that using creative approaches improved the meetings or workshops and that respondents were keen to see their further use. There was slightly less agreement that they changed the nature of the discussion and less still that they changed the *outcome* of the meetings/workshops, although around 65 % of the respondents still thought that they had done so (see Figure 5).

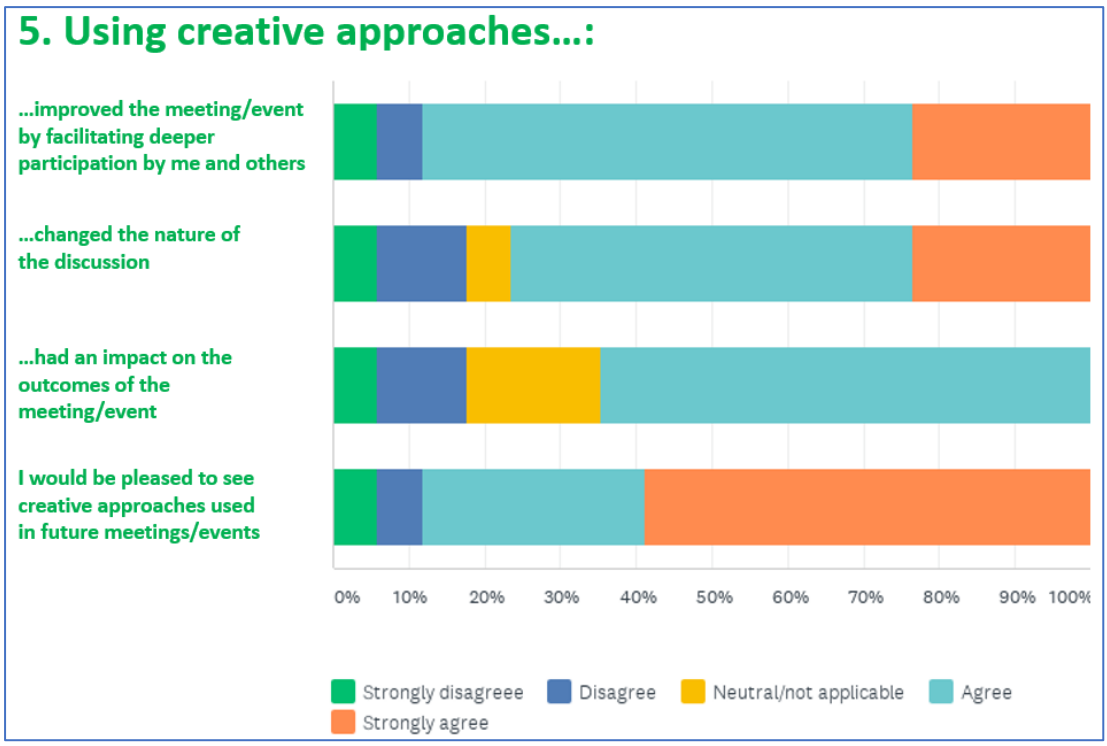

Figure 5. Respondents' views on the use of creative approaches.

One respondent wasn't sure whether the creative approaches had changed the meeting and one thought that they hadn't; both said that none of the approaches had had an effect on their participation or their thinking. We also asked whether respondents had discussed the creative approaches with anyone else, wondering whether this had an impact on their responses. Only one had not, and this was the respondent who wasn't sure whether they had had any effect.

In a further question which asked why respondents had answered as they did, these two provided the following answers: the 'Not sure' person said, 'Not quite "my thing" but I recognise others may appreciate and benefit from it' whilst the 'No' respondent wrote: 'I don't believe an approach such as this is appropriate when discussing climate change and the impacts which is likely to affect the global population.' This is a useful reminder that these sort of approaches can be detrimental as well as beneficial to the wider process and need to be used carefully. The facilitator of the 'writing poetry' exercise (which that respondent remembered) had perhaps been too light-hearted in response to some of the attempts at writing iambic pentameters, which could seem inappropriate when using paid time for a meeting on a subject of some gravity. The approaches had been deliberately introduced without much introduction or explanation, and this might mean that one or more participants at the events didn't think they were relevant: more or clearer explanation about the reason why we were experimenting with these techniques might have changed their opinion.

Question 4 asked respondents to explain using their own words in a free text box why respondents felt the creative approaches had changed the meetings or events, and a word cloud taken from their answers (using Survey Monkey's word cloud facility) shows that 'encouraged', 'creative thinking' and 'different' featured strongly in the 17 responses (Figure 6).

A similar question 6 which asked why respondents had answered as they did to the questions about which approaches had had an effect and what effect they had had was less conclusive (Figure 7).

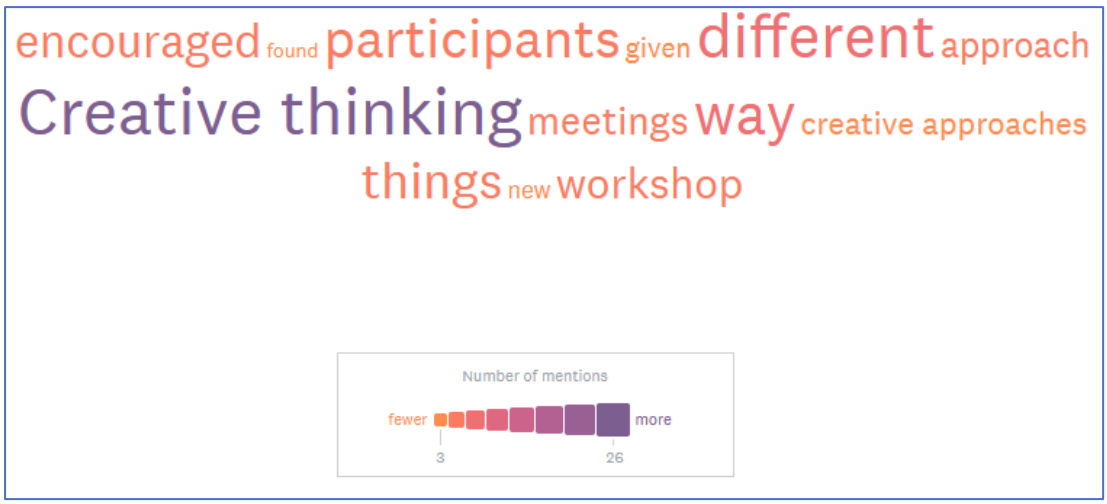

Figure 6. Word cloud derived from answers to Q4 asking why respondents thought creative approaches had changed the meeting/event.

Figure 7. Word cloud derived from answers to Q6 about which approaches had had an effect and what effect they had.

Survey of participants/attendees at the cultural events

The other main survey was sent to participants in the second workshop run with RIG Arts and the event run by Glasgow Women's Library. The invitations to respond were sent by the two cultural organizations, so we had no control over the process (a similar request was sent to Lateral North to survey their attendees, but no response was forthcoming, so it is assumed that the survey was not circulated). Only nine responses were received, four from participants in the RIG Arts workshop and five from attendees at the Glasgow Women's Library event. The combined attendance at these events was around 45 people, giving a healthy response rate of about 20%, but the actual numbers were low. However, the results are again encouraging.

The aim of this survey was to find out whether the events using creative approaches had increased the respondents' understanding of climate change adaptation, of its relevance to them/their communities, and of the role they/their communities could play in adaptation work; whether they had helped the respondents imagine what life in a future climate would be like; and whether the engagement with a cultural organization had attracted different audiences to an 'adaptation event'. Positive responses to these questions would indicate that working in this way with cultural organizations would be a useful approach in future.

The first question in the survey asked which event the respondent had attended. The second asked respondents to use a slider to indicate their overall understanding of adaptation before attending the event, to provide a baseline to compare the later questions to. The mean response was 50 (where 0 was none and 100 was total), with a range from 33 to an outlier of 80 and a median of 49, suggesting overall a low-to-medium level of understanding.

Responses to the third question demonstrated that the events had indeed increased respondents' understanding of adaptation (Figure 8) whilst the

responses to the fourth question indicated that respondents understood more the relevance of adaptation to them and their communities (Figure 9), and responses to the fifth question indicated that the events had increased their understanding of their role in adaptation work (Figure 10). In conjunction with the slider question about their initial understanding, these are encouraging results that suggest that working with cultural organizations provides a useful way of widening both engagement with and empowerment in adaptation work of currently un-engaged/empowered groups.

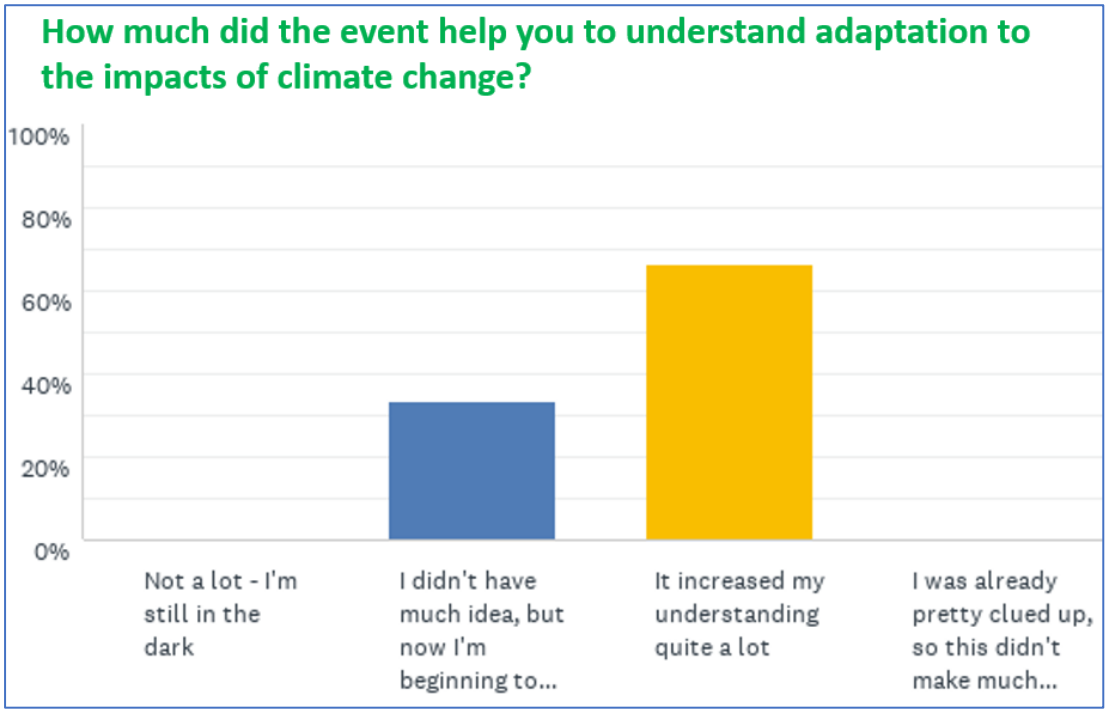

Figure 8. Increase in understanding of adaptation.

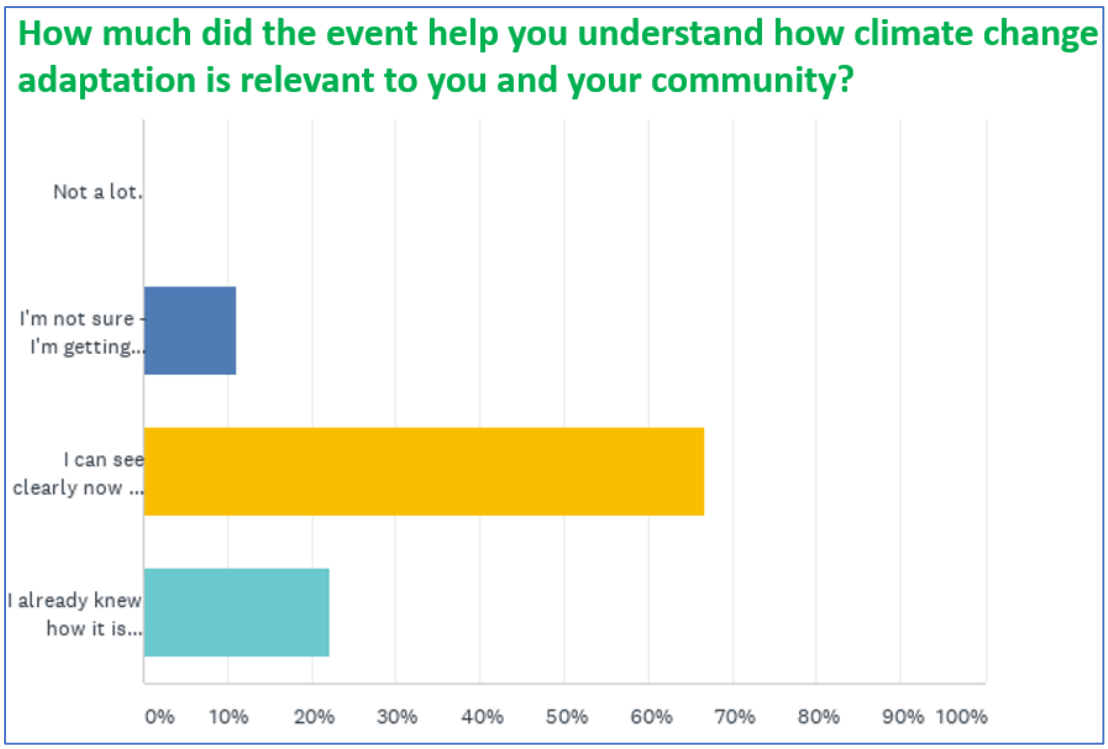

Figure 9. Increase in understanding the relevance of adaptation to respondents and their communities.

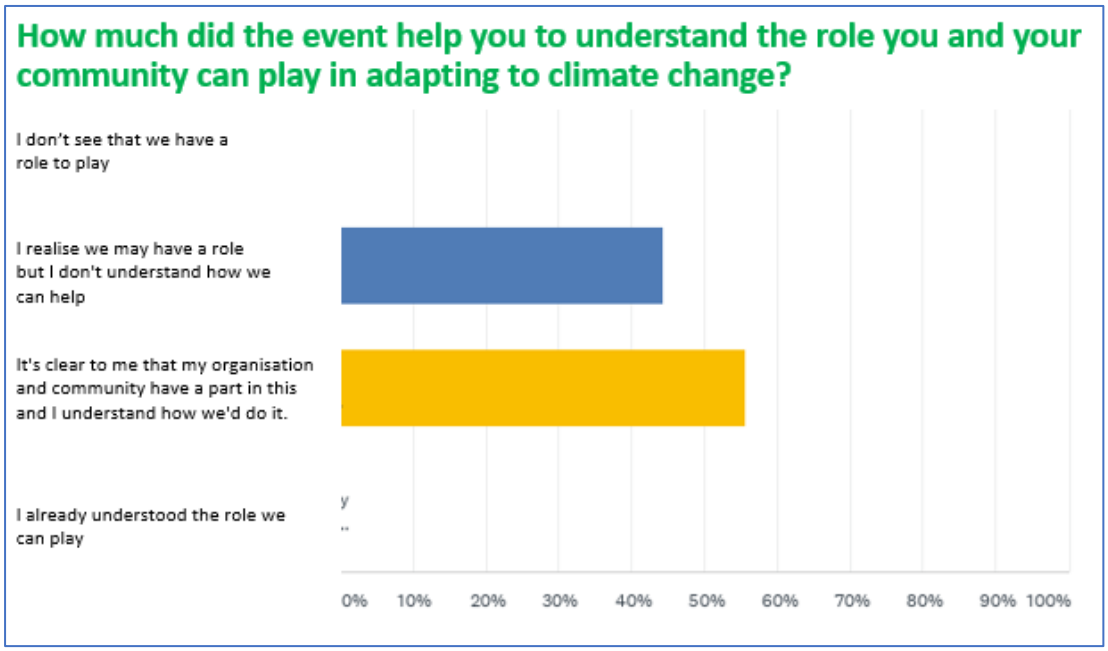

Figure 10. How much the events helped respondents understand their and their communities' role in adaptation.

A free text box asking why respondents had answered as they had to these questions provided a variety of responses, shown in Box 2. These responses have been provided in full as they vary greatly. Responses (d), (e) and (g) suggest that this was a good beginning, but more work of this sort is required. Responses (a), (b) and (f) indicate that the respondents learned about adaptation and their role in adaptation work.

a) I think climate adaptation can feel like quite a remote subject for town planners and engineers but this event made me realise there is a place for activists and that it relates to wider politics around immigration, housing and food. It was great to have a city plan perspective in the room speaking on initiatives I could be involved in but also to hear voices of dissent – to realise the complexity of the issue but also its relevance.

b) I had heard about climate adaptation but had not given much thought to the potential of adaptations to address other challenges faced by our communities and society.

c) I wasn't aware of the variety of groups working in Glasgow, so it was great to hear about upcoming projects!

d) To be honest, I'm not too sure about my answers to question 3–5. I've read a lot about climate change & been to various events, so I know what is meant with 'adaptation' and I can picture various things in my own community that are linked with this. However, what my own role is I'm not too sure. I think I need more events like this, because this has widened my perspective on adaptation in general and climate adaptation specifically. The feminist perspective on 'green jobs' for example, the interconnectedness of migration, security, climate adaptation. The utmost importance of land ownership. How food & soil communicate complexity in a way that language can not, the symbolic way this represents the adaptation to the climate crisis. So theoretically I understand all this, but I think I need more examples to make this relevant to my OWN role and how my community can play a role.

e) Climate change adaptation is necessary, but difficult to equate to my work environment.

f) I come from an organization which is involved in mitigating the effects of climate change through community engagement and education, so I already knew a bit about this topic, however, I was a stranger to some of the themes. This meeting had so many varied actors which gave a diverse input and as such I would say I definitely learned a lot of new things.

g) It was a good opener to the issue but I feel it requires further in-depth follow-up sessions.

Box 2. Free text box explaining why respondents had answered as they had to questions 3, 4 and 5.

As to whether working with cultural organizations attracted a different audience, the responses differed greatly between the two events. Respondents from the RIG Arts workshop all attended because they were invited, and three of the four used the slider in question 2 to say they 'scored' just under 50 in their prior understanding of adaptation (the fourth scored 80, but also responded that the event had increased their understanding quite a lot), suggesting that working with a partner organization can provide access to groups not currently engaged with adaptation. Respondents from the Glasgow Women's Library event were more varied: four identified the speakers (and particularly the connection with the Ubuntu Women Shelter) and one the topic of food as attracting them. (The last one was feeling pessimistic about climate change and hoped the event would help them know how they could contribute – it is not clear from her other responses whether it was successful

in doing so.) Again, therefore it seems as though working with a partner organization, which brings in different perspectives and speakers, can help attract different audiences and engage and empower wider publics with adaptation.

The questions relating to the use of cultural approaches also provided encouraging responses. Question 8 asked whether the creative approaches used helped respondents to imagine what life in a future climate would be like and it seems that they did for more than half (Figure 12). Again, the more detailed responses in a free text box divided between the two events: Glasgow Women's Library attendees focused on the speakers' contributions and perspectives and their explanation of and providing a way into the complexity of the issues; whilst the RIG Arts participants focused on their own participation in the activities and how this had helped them understand the issues. Two of the RIG Arts participants also commented on the rushed nature of the exercises, which is both a valid comment and a useful learning point for future workshops.

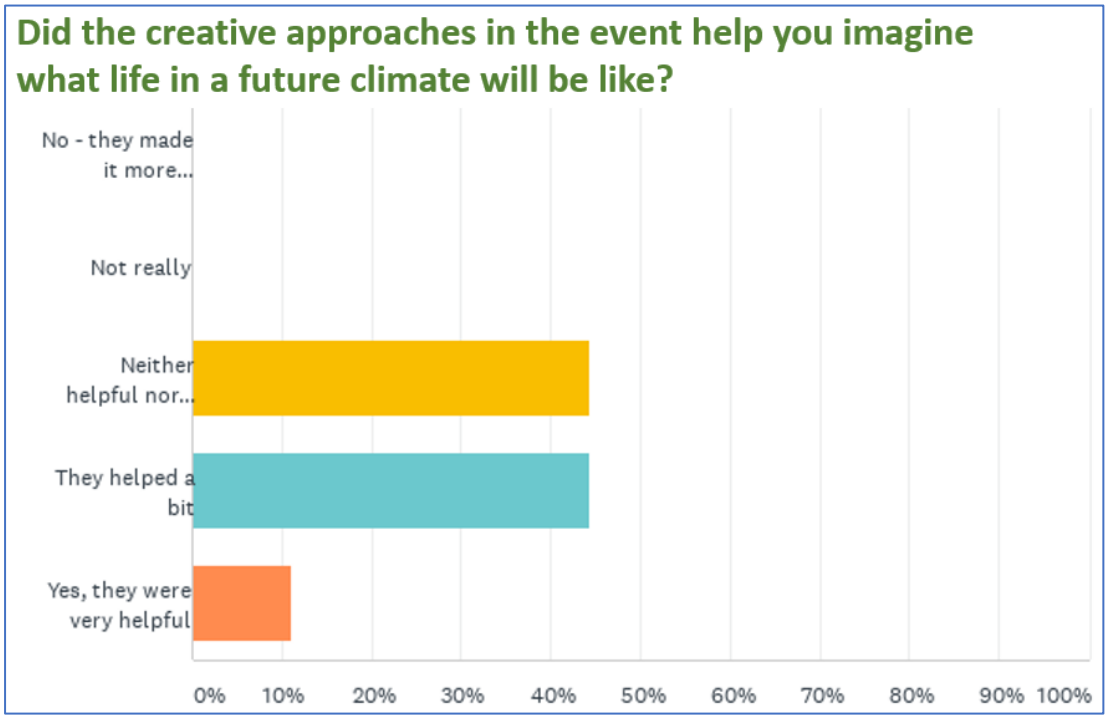

Figure 12. Whether respondents found that creative approaches helped them imagine life in a future climate.

Questions included in the survey sent to participants in the Social Impact Assessment workshops

As part of the wider project, Clyde Rebuilt ran two linked workshops to assess the impact of the draft Adaptation Strategy on disadvantaged and marginalized groups in the city region. The sessions began with the reading of a short poem. In the survey sent to participants two questions were included asking about the use of the poem, and at the time of writing six participants had responded out of a total attendance of 23, i.e. about 26 % of the potential respondents. The results are shown in Figures 13 and 14.

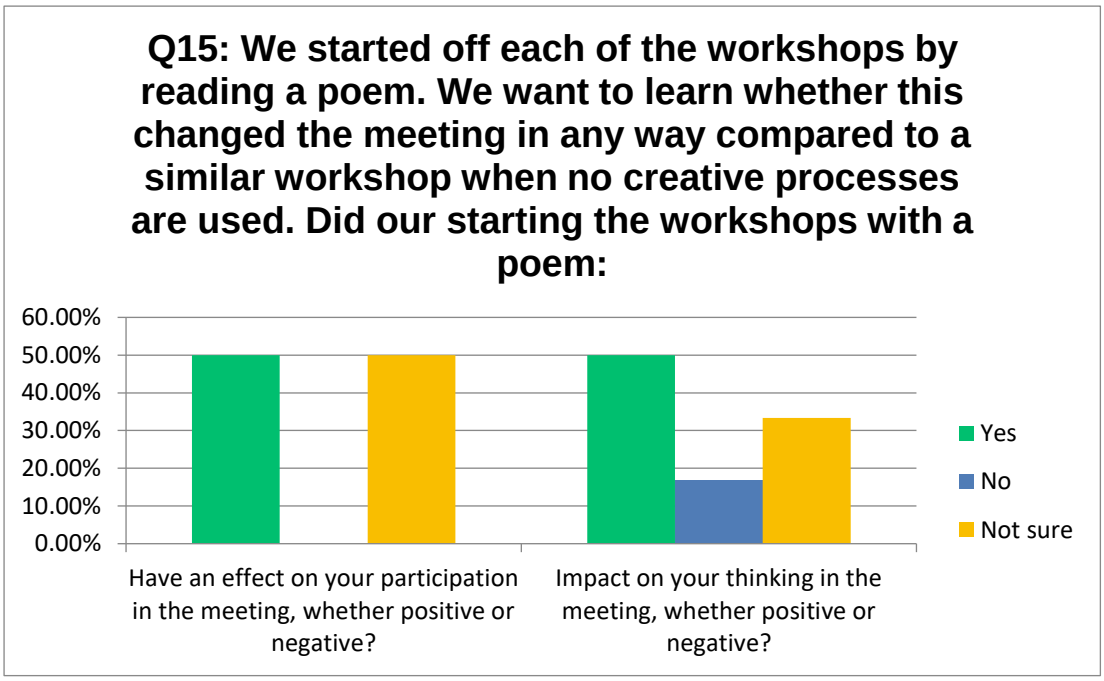

Figure 13. Whether Social Impact Assessment workshop participants thought the use of a poem to start the meeting had an effect on the meeting.

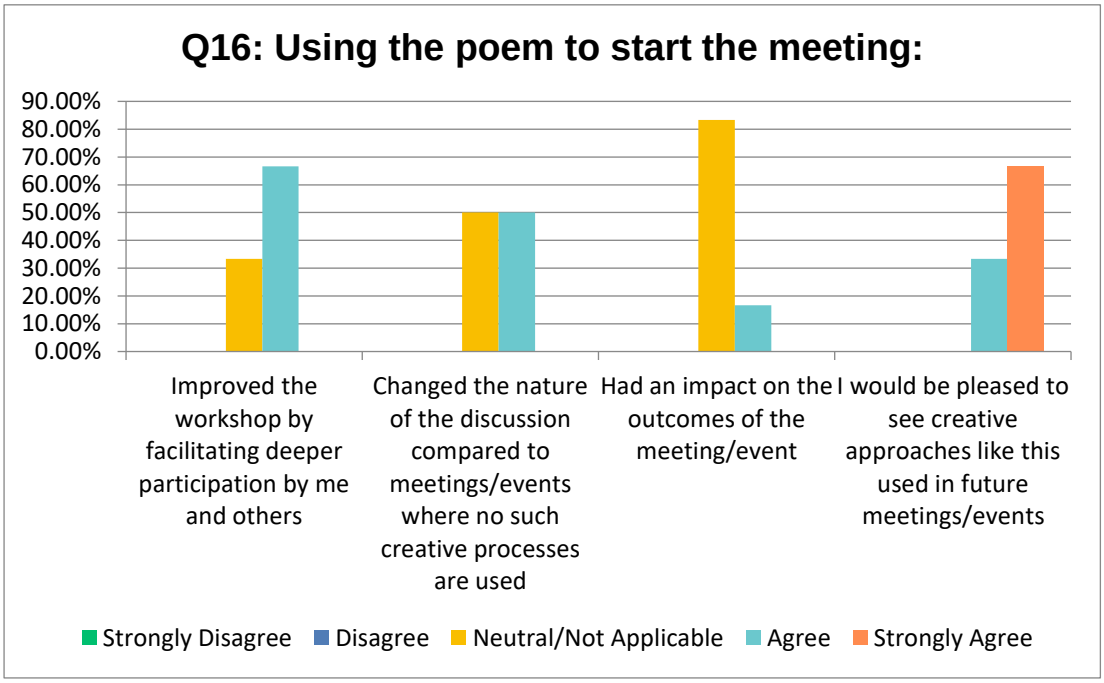

Figure 14. Details of the Social Impact Assessment workshop participants' responses to the use of the poem.

Participants at these workshops were diverse in terms of knowledge of adaptation, ethnicity, roles within their diverse organizations, etc. and were less known to the Clyde Rebuilt team: they had not previously been involved in the project and most of them had not worked with Climate Ready Clyde before. There was one person who thought the poems had no impact on their thinking (question 15), but they did think they helped their participation, suggesting that they found some value in them. The responses to question 16 to some extent mirror the results of the Climate Ready Clyde board meeting survey in that the there is a clear desire to see more creative approaches used and

participants felt that the poems improved participation and changed the nature of the discussion, without being sure whether they had an impact on the outcomes of the meetings.

Focus group with the managers at RIG Arts and Glasgow Women's Library

A focus group held by video link with the organizers of the events at the two cultural organizations backed up the information from the survey of participants/attenders. The session used a loosely structured conversation format focusing on the following topics:

- **Audience**: how had the organizations attracted those who attended; whether they were the usual people who attend that organization's events; how much, and what sort of engagement with the topic had been achieved?
- **The organization itself**: what if any change had occurred to the cultural organization as a result of running this event?
- **The process of working with Clyde Rebuilt**: whether the co-design process was helpful; what worked and what didn't; how we could improve the process; how we could work together in future and what support would be needed to do so?

Two RIG Arts staff members attended and one staff member from Glasgow Women's Library. The conversation was free-flowing and positive with constructive comments and genuine feedback. The overall messages were as follows:

Audience

- The events seemed to attract new people – whether invitees who were clearly interested in the concept (RIG Arts) or members of the public who wouldn't normally attend Glasgow Women's Library but wanted to hear the speakers/discuss the topic.
- However, existing contacts who trusted the organizations also attended, perhaps despite the 'adaptation' tag, highlighting the benefit of working with partner organizations to attract people new to adaptation.
- 'Different' ways of addressing the question – creative practices at RIG Arts (with a package in the post!) and the performatory nature of the speakers' contributions at Glasgow Women's Library – made the events attractive and engaging.
- Both events had increased audience engagement with the topic: the organizers felt that greater understanding, recognition of the relevance to the attendees and their communities and particularly a sense of empowerment had been a result of the events.

Outcomes and next steps

- Both organizations want to continue the work: it had been valuable and opened up new areas of work for them. Both had been working with participants and internally on mitigation but hadn't worked on adaptation previously. This was something they would now develop.
- Both organizations had been quite struck by the value and the potential for them and their audiences of working on adaptation and with Clyde Rebuilt.
- Building dialogue between policymakers and creatives seemed very important. It was clear from both events that there is no shortage of people doing good work who don't normally get to speak to policymakers from local authorities, etc.
- There is a need for a longer series of workshops so that stronger relationships can be built and the topic of adaptation can be

properly explored and developed with audiences and organizations.

Co-design and the working process

- Both organizations valued having Creative Carbon Scotland/Clyde Rebuilt's adaptation knowledge to draw on and work with, as adaptation was a topic they hadn't properly encountered before.
- It took more time than usual to plan the events (especially for Glasgow Women's Library) owing to the co-design process.
- Co-design is probably messier than running equivalent events on their own. Glasgow Women's Library started off thinking they had to deliver something that fitted Clyde Rebuilt, then realized the aim was for them to make it their own, which made it easier. RIG Arts were perhaps more used to taking something on and just doing it in their own way, but at first found the process quite daunting as the topic was new.
- Trust between the cultural organizations and Creative Carbon Scotland (each organization had a prior relationship with Creative Carbon Scotland, although that with Glasgow Women's Library was stronger than that with RIG Arts) was crucial – the realization it was appropriate for the anyone to say, 'We don't understand' or, 'No, this doesn't work for us', was very important and strengthened during the project.

Focus group about language and communications

The focus group about language and communication continued the conversation earlier in the project with the members of the EIT Climate-KIC Communications team, another representative from EIT Climate-KIC, representatives from the Climate Ready Clyde board and a Scottish cultural organization and members of the Clyde Rebuilt team (a total of seven external participants and four from Clyde Rebuilt, some of whom were simply listening in to take notes and provide technological support for the event rather than participate). The digital session was organized as a loosely structured conversation, ensuring that the key issues were discussed whist allowing participants the ability to direct the discussion as they wished. The topics covered were:

- **What are the core challenges around the communication of climate change adaptation within your organization and the wider public?** For this part of the session the group broke into two breakout 'rooms' and used a Miro board. Each room was asked to spend time individually identifying some challenges and then in discussion narrow these down to three or four main ones to bring back to the whole group.
- **The original focus group:**
  - Did it help us address the challenges just identified, and if so how?
  - Was it a useful event in itself?
  - What new understandings did participants get about the language we should use generally, about Clyde Rebuilt?
  - Did it provide new knowledge for you?
  - How did any new understandings or knowledge result in change? What was the result of the group?
- **The press release:**
  - Did it help internally in participants' organizations? How and why?
  - Did it help externally? Had participants noticed any results or received feedback?
  - What were the differences that it made?
  - How did or could participants use it?
  - What barriers do participants experience in supporting projects like Clyde Rebuilt in terms of communication, and how could we help in a future phase of the project?

The main outcomes of the focus group were as follows:

Core challenges around communication of climate change adaptation:

- Adaptation is seen as a technological issue, not a social concept, and it needs to be recognized as both.
- We need to make it personal for a wide range of stakeholders, both public and organizational, so that it is something that relates to them. We need individual stories to help achieve this. Adaptation is also strongly associated with place and is different in every locality, so local stories matter.
- We need to find the balance between internally accepted/technical language and broader non-technical language which will be understood more widely. This was a particular concern that had plagued the writing of the original press release.
- Finding accessible language. There was a particular issue about the use of local references and language that larger and centralized organizations far from the locality might misunderstand: the use of the word 'flourish' in Glasgow City Region has resonances with the Glasgow City motto 'Let Glasgow Flourish' which local people would recognize and understand why it had been used, but external people might not.

Use of a workshop to discuss the press release with users, stakeholders and those responsible for writing it:

- The discussion had highlighted the importance and value of locally targeted communications (see above).
- It had helped make the language used more accessible.
- But it also made all concerned, including the Clyde Rebuilt team, question whether everyone was clear and agreed about the concepts behind the words. These should have been clear from the beginning and it emphasized the importance of taking the time to do this work at the start of a complex project like this.
- The discussion made people go back to their other communication materials to check for accessibility.
- Such a workshop is a useful step to add to the process and should be incorporated into other projects and processes.
- The resulting press release was more useful internally as well as externally – it had made clear the project and the concepts to internal colleagues who had been uncertain about them.

Focus group with members of the Clyde Rebuilt team

A final focus group was held with eight members of the Clyde Rebuilt team and one other person attending as an observer. The aim was to review the contribution of cultural practices over the whole project, partly using the responses from the Climate Ready Clyde board members (and some of the same members of the Clyde Rebuilt team) gleaned from the survey. To this end a Miro board was used to prompt discussion: the comments from the survey had been transferred on to sticky notes and the participants were asked to review them, add any further comments they had and then, during and after discussion, copy any sticky notes across to a set of 'frames' if they felt that the sticky notes demonstrated or commented on how cultural practices contributed to the project.

These frames were:

- cultural practices built/improved participation

- cultural practices contributed to team or group dynamics
- cultural practices increased creative thinking
- cultural practices break us out of silos and established ways of thinking
- cultural practices promote connection to self and emotion
- cultural practices help address the challenge of working in a virtual/digital manner.

Two more frames offered participants the opportunity to comment or provide suggestions about potential future uses of cultural practices in these sort of projects, or what future work should take place; and to identify any problems they had noted.

In their discussion and reviewing of the sticky notes the group was asked to consider two questions. The main outcomes of the session were as follows:

Question 1: Do creative interventions contribute, and if so in what way, to opening up different ways of thinking about adaptation and systems thinking in the project events and board meetings?

- We noted how cultural approaches are seen as 'other' and different to the way people normally work, rather than being an integrated part of the work. This may be due to the way they were introduced or explained (as something deliberately different), or it might be that this is how people felt about them anyway. This poses a challenge – we need to be careful not to reinforce this 'otherness', which might make it harder to mainstream these ways of working; and yet some people or organizations might be put off from joining a project where their use was explicit. (This is in some ways parallel with the question about the events with RIG Arts and Glasgow Women's Library – in that case, was it good to explicitly mention adaptation?) Some people need time to 'warm up' to these approaches. The value of examples and evidence/evaluation is clear here: being able to show, perhaps in more 'scientific' or empirical ways, that these approaches *do* work and offer something that other approaches miss out might help those who feel uncertain about them to accept their use. However, being too specific about the approach may take the energy and surprise away from the activity.
- We agreed that there was no one way to work on this, no one-size-fits-all: explicit or implicit; othered or mainstreamed – it would depend on the project, and that may be the benefit of having a cultural practitioner involved, who can focus on what to do and how, building on their experience and training, using different techniques for different occasions, and perhaps not having some of the other elements of the project to worry about.
- We noted that this project, and all the use of creative approaches, had taken place during the pandemic when all work was done online in video meetings. This made it hard to know how things would have been in a real-world environment: the creative interventions might have made more difference and been easier to run, or people might have felt more exposed, unable to hide behind their screen. They might have made less difference, since in-the-flesh meetings may offer more opportunities for increased participation or creative thinking.
- We noted that creative approaches – which are often thought of as focused on the individual – have an impact on the group involved. Their use starts as something different but becomes commonplace. Members of the Clyde Rebuilt team often requested a poem to start a meeting as the project progressed, as though the meeting would not be part of this project without it. We wondered whether there was a danger here too – would certain new ways of working become as habitual as the old ones,

and people and groups could fall into ways of working which were equally constraining, but in a different way?

- One member of the team, who had started off very sceptical about this element of the project, was completely won over by it to the extent that they had introduced it into other projects they were working on; another announced they had been sceptical but were now convinced. Similarly, one member of the Creative Carbon Scotland team noted that they had got better at developing the right intervention as the project progressed: practice makes perfect.
- There was a strong consensus that creative interventions help to get the brain engaged in a different manner whilst having the same conversations. This may be connected to what might be termed 'creative disruption': starting the meeting in a different way may jog people out of their usual ways of working, which may provide an opportunity to think differently.
- There was also the view that the creative practices had helped people get into a 'systems thinking' frame of mind, one which involves practical and emotional responses and also needs to consider others and their responses to the same situation (the imagining exercises were aimed at this).
- There was a strong view that the interventions facilitated a connection to others and self, sharing experiences between humans, providing opportunities to pause (especially in the online meeting world where one meeting blends into another without the travel between meeting locations to pause and reflect). The interventions which breed a more personal connection or understanding (e.g. visualisations, imaginings) may particularly help to achieve this.
- The cultural practices provided space for emotion. The sticky notes highlighted the difference between the 'sterile' nature of many discussions and meetings, compared with the 'joyful' nature of the imagining exercises or the poetry. The work of the Red Cross Climate Centre on the use of humour was referenced here. This may however be connected to the comments about exercises of this sort not being appropriate for work on such a serious subject, and caution in introducing them is necessary.
- The group noted the danger of response bias: of the Climate Ready Clyde board around half responded via the survey – it may be that those who did not respond were those least accepting of or interested in the creative practices. Members of the Sniffer team had experienced quite hostile responses to previous uses of creative practices. We need to find a way to measure and counter this.

Improvements for the future:

- We need to think about a way of introducing creative interventions – demonstrating their value and making sure people are not fearful of them.
- We need to be more specific about what we are trying to do with individual techniques. Different techniques and forms of creativity may be helpful in addressing people's concerns or developing different ways of thinking – Lego rather than poetry, for example.
- We need to develop a typology to help people bring in the appropriate creative approaches to meetings with particular aims. We should then test this and define the role creative approaches overall and individual interventions have to play in facilitating cultural change.
- We need to think about how people will work in the future, post-pandemic: what is the role of virtual space going forwards? Will we need creative interventions more, or specific ones that are more suited to the virtual meeting? And what do creative practices look like, and what sort of interventions will we need, in a post-COVID-19 world?

Reflections:

- Could we more closely align creative interventions to change dynamics? Would it be helpful to have someone with a psychology background to understand what has changed and why, what impact if any the creative interventions have had? This would be context specific but could the learning help to inform other work?
- There is a need for more robust ways of evaluating the results of an intervention and different types of knowledge to be used.
- It is crucial to create a wider change and to understand how those experiences link through to organizational change.

Question 2: Using your experience of this project, use some sticky notes to say: a) what skills, knowledge and experience cultural practitioners can bring to a project; b) any problems or challenges that they may bring.

- We need to think about the 'facilitator' role that creative practitioners have. Do they go beyond this with an understanding about how culture makes a difference?
- There was discussion about the expectations attached to the role of facilitator: they are usually thought to be impartial. Cultural practitioners might not be impartial and might have a good or a poor understanding of the topic. In the case of Clyde Rebuilt the creative interventions had been introduced by people embedded in the project and with a good knowledge of the territory: this possibly, and maybe probably, will not always be the case. Similarly, a cultural practitioner comes from a particular world and might have a difference of views to those they are working with: should they be impartial to encourage creativity or informed to bring different perspective?
- However, we noted that we should not lump cultural practitioners together as one type. They come with different skillsets and the good ones bring the unexpected (that is one of their skills). We should be sharper about the types of input that they bring and select different practitioners for different tasks.
- Overall, there is a need to change the thinking and increase knowledge around cultural practitioners and what they bring to the project: often cultural practitioners are thought to be good communicators and to work on the individual, but the points made in relation to question 1 above indicate that their contributions (creative interventions) can operate on the group and be as much about different ways of thinking as about communication.
- In relation to all of the above we need to find ways of communicating about this work in clear and accessible language so that a wide range of stakeholders can understand and be involved in it.
- In this project, Creative Carbon Scotland effectively occupied the role of the cultural practitioner (although this was not the original, pre-pandemic, plan). What were the benefits and disadvantages of having a more embedded partner in the project, with a range of different roles, who took the role of cultural practitioner? What would a specific cultural practitioner bring that would be different?
- We need to be clear about the boundaries and mandate for cultural practitioners. Is the mandate of the cultural practitioner to bring culture and identity into the room?

- There is a link to complexity of the project. One of the skills and qualities that some artists can bring is an embracing of, a relishing of, and an ability to handle complexity without simplifying it.
- On a different front there is a role in expanding networks: cultural practitioners know people, organizations and networks not known to others working in adaptation and can bring them in safely. In this respect an organization like Creative Carbon Scotland has a role as a broker.
- There was some discussion about whether cultural practitioners could create opportunities for bridging social capital (i.e. strengthening links *between* rather than *within* groups) but not everyone agreed on this: more discussion is required.
- There is a need for clarity about the roles of all in a project like Clyde Rebuilt. Owing to the circumstances of the project there was a lack of clarity about everyone's roles in the project, and the huge spectrum of roles within it has become clear. This phase has helped define the role of the cultural practitioner, the role that creative approaches can play, and how to build on this in the next phase.

Learning Exchange

As noted in the Introduction, the Learning Exchange was mostly a brief presentation and discussion covering the topics covered earlier in this report, followed by discussion and use of a Miro board to record input from the group. Altogether ten members of the Clyde Rebuilt team, one member of staff from EIT Climate-KIC, one member of a Deep Demonstration cross-cutting partner organization, two Climate Ready Clyde board members and representatives of two external Scottish organizations attended. The Exchange was held by video conference and consisted of an imagining exercise (possibly the most successful of all of them, building on the experience of previous iterations), a presentation of the research thus far and a discussion.

An experiment

In addition, a quick – and not very rigorous – experiment was conducted into whether participating in a collaborative and partly cultural activity increased a sense of community. In the experiment participants in the Exchange were asked to express three times using Slido.com how much they felt part of a 'community' within the meeting: once at the beginning of the meeting, before any introductions and any other activity; once after the imagining exercise and the presentation about the research; and once at the end of the meeting following the discussion in three breakout rooms.

One of the features of cultural activity is that it usually involves thinking together with other people, often with strangers. In the theatre, for example, the audience and the performers on stage laugh and emote together; they hold their breath together as they anticipate a crucial revelation; in effect they think together, and this results in fast thinking, the whole combination of the brains somehow proving greater than the sum of the parts. In that way plays (or music in a concert or equally pictures in a gallery) can help the community as well as the individuals think through difficult and complex ideas. The individuals are also changed by the experience – they are more at one with the strangers because they have shared an experience and, ideally, an important one which leads to learning. This is particularly relevant to adaptation, which requires communities to think through and address challenging ideas and problems together. The aim of this experiment was to understand whether even the simple action of joint participation in a communal and creative activity would increase a sense of community amongst a reasonably diverse group, none of whom knew everybody present (if everyone who had said they

would attend had done so the group would have been usefully more diverse).

The results of the experiment are shown in Figures 16–18. These suggest that there was a significant increase in the sense of community following the imagining exercise and presentation, with a smaller increase following the discussions in the breakout rooms – despite the discussions being more 'communal' an activity than the exercise and presentation. This may reflect the fact that the imagining exercise required and encouraged: (a) a degree of thinking together, listening to and responding to each other's contributions; and (b) a degree of 'exposure' and emotional engagement, as participants were asked not only to speak of their own imagined vision of life in 2060 in Glasgow City Region, but also to respond, if possible, to things that others had mentioned in their own descriptions. However, it may simply be that the greater increase in community feeling had already occurred, and any further increase is likely to be less. More research is needed.

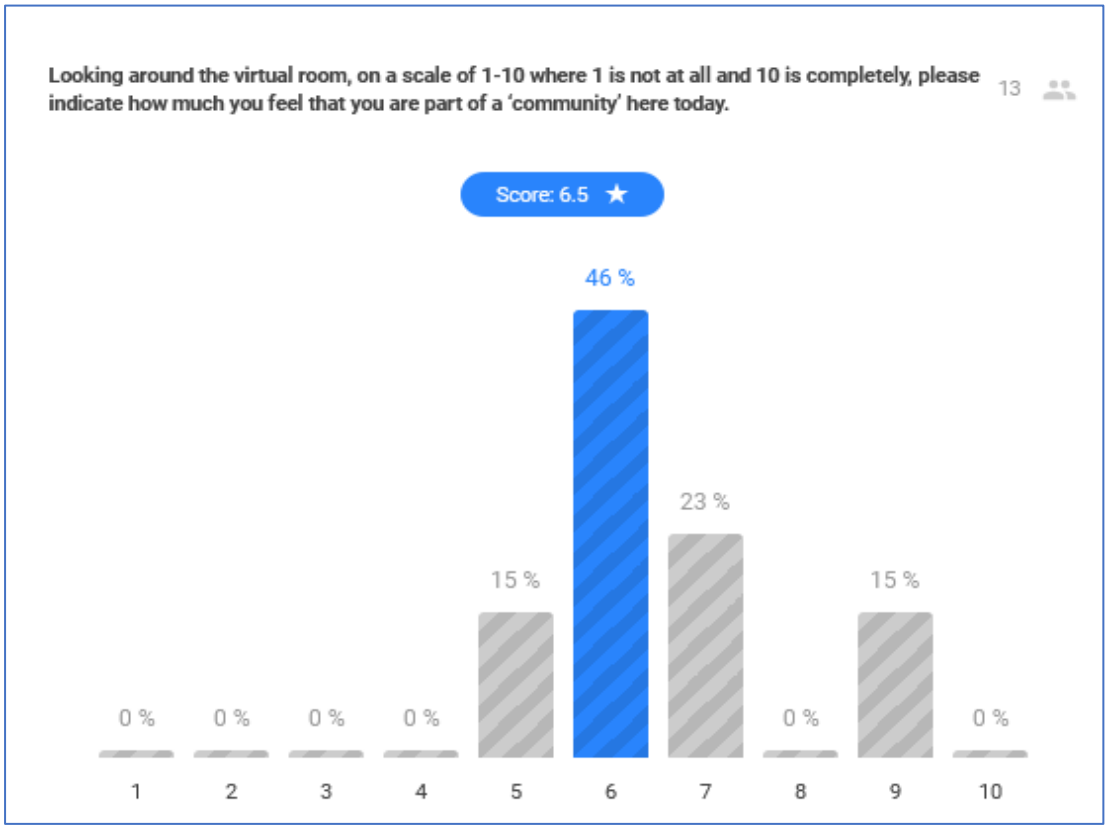

Figure 16. Results of the 'experiment' at the beginning of the Learning Exchange.

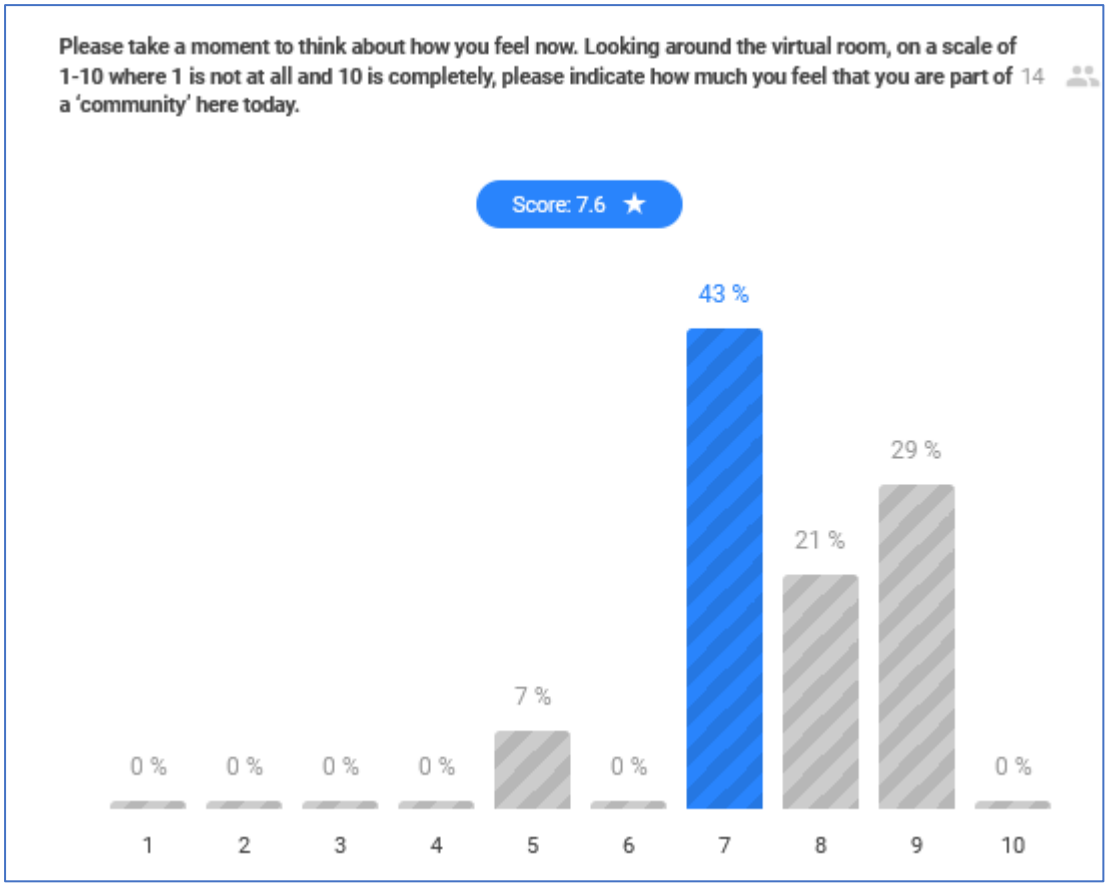

Figure 17. Results of the 'experiment' in the middle of the Learning Exchange.

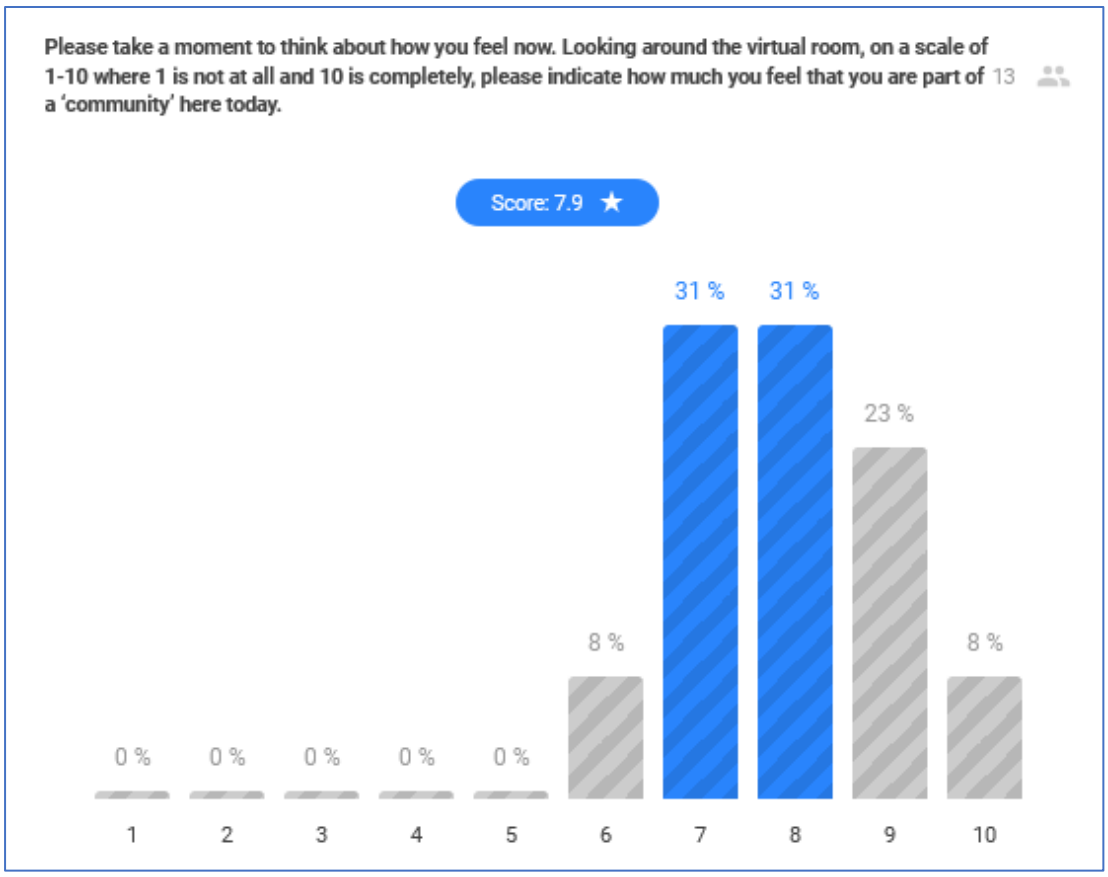

Figure 18. Results of the 'experiment' at the end of the Learning Exchange.

Outputs from the discussion

In the discussion section participants entered three breakout rooms and were asked to discuss, using their own experience of Clyde Rebuilt and other projects and sharing and applying what they had learned during the Learning Exchange so far, how could they use cultural practitioners/practices in their project(s). The key findings were:

- A strong evidence base for using cultural practitioners and creative practices and a methodology for doing so urgently needs to be developed if this work is to continue.
- Adaptation is a very local, place-based topic, and creative practices can aid working on the very local. There may be a role for working with cultural practitioners to help design the processes that others use. Connected to this was a question about whether there is a risk of silo-ing the creative practices in the role of the cultural practitioner, and whether these practices could not be used by other members of the team. It may be that 'non-cultural' practitioners need to be supported and enabled to bring creative practices into their work.
- Similarly, adaptation is a non-ending, very future-focused issue and culture can helpfully bring the future into the present, for example through the imagining exercises. It allows us perhaps to see beyond the things between us now and the future, things which are hindering action. The cultural practitioner can hold that idea of the future whilst others may be responsible for getting us there.
- Building trust between people and organizations involves people being confident that they will be listened to and their thoughts taken into account; and that mistakes may be made, disagreements may occur, but this isn't a worry. The process of working together on creative approaches may facilitate this, as everyone is equal in their non-expertise, failing doesn't matter, and a joint effort brings quick results.
- Creative practices could help in empowering communities to be part of decision-making processes about their place. Cultural practitioners may be more trusted than for example local government officers when it comes to engaging with and empowering communities.
- A number of metaphors and descriptive terms for the process of using creative practices were highlighted:
  - creating a softness in the dialogue
  - jolts to allow new thinking and ideas to emerge
  - training your creative muscle – to bring imagination to the overall process
  - inviting people to leave their comfort zone
  - widening curiosity – artists can maybe help to release the artist's curiosity in others.
- We need to find ways of supporting other organizations and individuals, from outside the climate change/adaptation world, to join these conversations, as they may not have the resources to do so. There may be ways other than funding to do this, through skills and knowledge sharing, but finance will also be important.
- Creative practices need to be built into projects from early on.
- The question of communicating the message in different ways to new audiences was discussed, to achieve new engagement and ownership. There was a view that creative practices help build emotion and connection which has lasting impacts.

Conclusions

Clyde Rebuilt has, in line with its status as an innovation project, provided a unique opportunity to explore the contribution that can be made to an adaptation project by the inclusion of cultural practices and the involvement of cultural organizations and their audiences. Although some elements of the project were hindered by the COVID-19 pandemic, and some aspects of this research need to be followed up with further investigation, the research has provided evidence that these elements of the project have won support from project partners, have facilitated different ways of thinking during project meetings, and have widened awareness of and participation in the project. The communications work has provided useful insight into the value of collaboration between central and local organizations in ensuring the accessibility and relevance of the language used, and highlighted the value of building in at an early stage of a project a co-design workshop for communications teams and the users of any communications materials to be produced.

The main findings of this short and informal review are:

Support for the use of creative approaches in adaptation work

1. There exists in the academic and grey literature a reasonable amount of theoretical support for the introduction of creative approaches into environmental projects, but more practical knowledge needs to be developed and disseminated, including knowledge about what these approaches can do; which approaches and practices work for which challenges or issues; how to actually apply these approaches them; and how to evaluate their impacts. Case studies and practical examples provided by some cultural/environmental organizations provide another source of knowledge.
2. There was broad support for these approaches from project participants, but it was not unanimous, and care needs to be taken about their introduction and justification. We also need to find a way of assessing non-respondents' views.

The impacts of creative approaches

3. Creative approaches in meetings and events are thought by participants to:

   a) improve/increase/deepen participation by attendees

   b) be likely to increase creative thinking/different decisions

   c) help participants imagine life in a future climate more effectively and vividly

   d) change the *nature* of the discussion, however the impact on the *outcomes* of the meetings is less clear.
4. The focus and the change sought is not just on the individuals taking part in a meeting or event, which is often considered the case for the role of 'art' in climate change, but the whole group of attendees, which seems to be affected as much as the individuals.

5. Creative disruption – where individuals are 'jolted' out of their normal ways of thinking – and increased thinking systemically rather than in a linear manner seem to be facilitated by some creative approaches.

6. Creative approaches create a space for emotion and a sense of connectedness to both oneself and the others. This can be important in what can otherwise be highly technical discussions about topics which will impact on people's and communities' lives in ways which are emotive and may be distressing.

How creative approaches should be used

7. There is however a risk of 'othering' creative approaches, so that they remain on the outskirts of climate change adaptation work rather than becoming a core part of the process.
8. There is no one way of applying these approaches and different circumstances will require different approaches and methods; this may be one area where a cultural practitioner is useful, with broad experience to call upon to identify the right approach to use and the knowledge and experience to do so. But there are questions about whether this should remain the domain of the cultural practitioner: could some at least of these techniques be shared and used by non-specialists?
9. We need to understand the difference between the role of facilitator and the cultural practitioner to understand when best to use each set of attributes.

The role of cultural organizations

10. 'Bridging' social capital, i.e. strengthening links *between* communities rather than *within* them, is an important aspect of adaptation work. Cultural practitioners and organizations, with a wide and different range of contacts and networks can help facilitate this.
11. The involvement of cultural organizations can facilitate the introduction of non-specialist voices into the conversation and increase their understanding of adaptation, its relevance to them and how they can become involved.
12. The cultural organizations can attract new voices to the discussion through their own different contacts and networks and because they present adaptation through a different, possibly more accessible or attractive, lens.
13. Working with non-adaptation organizations can be very fruitful for the adaptation field but:

a. Genuine co-design seems likely to provide strong results, owing to the combination of knowledge, contacts, skills, etc. being bought to bear, but it can be messy and takes longer than more traditional partnerships.

b. Trust between the co-design partners is essential but it takes time to develop.

c. Non-adaptation partners need to be supported to participate in these projects as they don't have the resources or mandate to do so from within their usual finances or staffing.

Language and communications

14. Adaptation is seen as a technological issue, not a social concept, and it needs to be recognized as both.
15. We need to make adaptation personal for a wide range of stakeholders, both public and organizational, so that it is something that relates to them. The use of individual stories could help achieve this.

Adaptation is also strongly associated with place and is different in every locality, so local stories matter.

16. We need to find the balance between internally accepted/technical language and broader non-technical language which will be understood more widely.
17. Locally targeted communications are essential, using language that will be locally recognisable and relevant, rather than centrally derived.
18. A joint workshop between the creators of communications materials such as press releases and the users of such materials is a useful step to add to the process and should be incorporated into other projects and processes.

ClimateReadyClyde

Resilient Regions: **Clyde** Re**built**

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