Engaging the Public on Climate Change through the Cultural and Creative Sectors

The Creative Ireland Programme

Clár Eire Ildánach
*Creative Ireland
Programme*
2017–2022

"the climate crisis is moving so much faster than the efforts we are expending or enlisting to address it"

(President Michael D Higgins, 2019)

image credit: Rory O'Byrne, Arts Officer, Fingal County Council.

1. Introduction

This document presents the findings and insights from a two-month period of research into the role of **the cultural and creative sectors** in engaging the public on climate change, involving a high-level literature review, desk based research into projects which have taken place in Ireland, and a number of interviews with key stakeholders.

This report is addressed towards both creative and cultural communities to further develop an understanding of their role in the transition to a climate resilient carbon-neutral society. It is also addressed to those working in climate action, with the aim of raising awareness of the opportunities offered by the creative and cultural sectors.

It is not an exhaustive account of activity in Ireland, but a **high-level snapshot of activity** and an exploratory first step towards appreciating the role culture and creativity in engaging the public in climate change and climate action.

It further explores the opportunities for the Creative Ireland Programme and the Department of Culture, Heritage and the Gaeltacht to promote collaboration between the Cultural, Creative and environmental sectors and encourages further work in this area.

It concludes with a number of recommendations, identifying that there is now a window of opportunity to develop synergies between these sectors.

The Creative Ireland Programme

This research was undertaken by MCO Projects on behalf of the Creative Ireland Programme Office. The Creative Ireland Programme is a five-year interdepartmental all-of-Government initiative, running from 2017 to 2022, which aims to place creativity at the centre of public policy and to promote individual, community and national wellbeing through culture-based programmes.

The vision and intent of the Creative Ireland Programme is to promote **collaboration between different levels of government** and **engagement with the broad cultural sector, creative practitioners, creative industries and the public**.

Disclaimer:
This research was commissioned by the Creative Ireland Programme Office of the Department of Culture, Heritage and the Gaeltacht looking at the interactions between the Cultural and Creative sectors and the issue of climate change. The views set out in the paper do not represent a formal position of the Creative Ireland Programme Office/Department of Culture, Heritage and the Gaeltacht.

"We children are doing this for you to put your differences aside and start acting as you would in a crisis."

(Greta Thunburg, 2019)

2. Context

The evidence that climate change and the interrelated challenge of biodiversity loss are happening now is compelling. In 2018, the Intergovernmental Panel on Climate Change warned of significant environmental, economic and social impacts if carbon emissions are not reduced to a level that prevent even 1.5°C of warming, and, in 2019, the Environmental Protection Agency confirmed that Ireland is set to fall far short of its carbon emissions reduction targets for 2020 and 2030.

Although there is unanimous scientific and general political consensus on the urgency of climate change and the need to bring about a deep decarbonisation of society at scale, there is less agreement on the **specific actions** that need to be taken and the best **approaches for engaging the public in an ongoing dialogue** on these actions.

A key challenge is that climate change is an unprecedented "collective action problem" that requires agreement, collaboration and shared action among people and organisations that may not normally collaborate, ranging from the community and local authority levels to large-scale transnational political agreements. Also, decisions on climate action taken by organisations, communities and individuals will often depend not only on a factual understanding of climate change but the **underlying personal values, social and cultural norm**s, and the ability to adapt.

For this reason, there is a growing recognition that climate change constitutes not only an environmental and scientific challenge but a **cultural challenge**, and that there is a need to make climate change and climate action more meaningful and personally relevant in order for a comprehensive transition to take place. This will require a deeper understanding and appreciation of how people interpret climate change communications, assign value to different aspects of climate action, their ability to adapt to the expected impacts as well as consideration of methods of engagement beyond the presentation of the scientific facts.

Culture is a powerful conduit for public engagement, with artists, cultural and creative practitioners historically playing a crucial role in social and political transitions. Many forms of cultural expression seek to address complexity and confront challenges in ways that are provocative and engaging, often opening up dialogue and engagement with and about new social and political contexts and using creative forms of critical inquiry as opposed to seeking or presenting technical solutions. Similarly, **heritage can be an important channel** through which people can understand, interpret, and engage with many aspects of climate change, including impacts, mitigation and adpatation.

Having said that, the role of **the cultural sector has rarely featured in key climate change reports, strategies and policies**. For example, while the Intergovernmental Panel on Climate Change Fifth Assessment Report synthesis report mentions "lifestyles, behaviour and culture" it makes no reference to the arts, artistic or creative practices or heritage in engaging the public in climate action. The Government of Ireland Climate Action Plan and Report of the Joint Committee on Climate Action also do not make direct references to the culture sector except for a broad commitment to engage the cultural and creative sectors in order to see how they can provide meaning and awaken interest in climate change.

This suggests that there is a need to **encourage dialogue on how the Cultural and Creative sectors** can engage the Irish public on climate change and in undertaking climate action, and to make themselves an essential part of the climate narrative.

Defining Culture

There are many definitions of culture. In its widest use culture describes everything we do as a society and how we behave. However, for the purpose of this research document, culture is considered to include all of the following:

- The arts as defined in the Arts Act 2003, meaning 'any creative or interpretive expression (whether traditional or contemporary) in whatever form, and including, in particular, visual arts, theatre, literature, music, dance, opera, film, circus and architecture and including any medium when used for those purposes'

- Cultural heritage, including:

  - Heritage as considered in the Heritage Act 1995 and the Heritage Ireland 2030;

  - Museums and public cultural institutions;

  - Library services and integrated cultural services delivered by local authorities;

  - Built and natural heritage, including architecture, archaeology, biodiversity and landscapes;

  - Intangible (or 'living') cultural heritage, including the Irish language, sport, customs and traditions;

  - The new cultural diversity and languages which have become part of Irish life in recent years

Defining Creativity

The Creative Ireland Programme defines creativity as a set of innate abilities and learned skills: the capacity of individuals and organisations to transcend accepted ideas and norms and by drawing on imagination to create new ideas that bring additional value to human activity.

The creative industries can be defined as industries and occupations which focus on creativity as a means to deliver commercial success, export growth and resilient employment for Ireland.

Culture and creativity are inextricably linked: artists and designers are central to the evolution of a culture of creativity. The artist is the primary interrogator and narrator of our culture, the designer uses the artist's insights to infuse products, spaces and processes with cultural meaning, distinctiveness and human value.

These definitions are intended as working and inclusive definitions rather than exclusive or fixed ones, recognising that culture and creativity are by their nature fluid and evolving.

Methodology

The overarching goal of this research project was to identify where the Cultural and Creative sectors have engaged the public on the topics of climate change and related environmental issues in Ireland, and to explore the potential offered by creative and artistic practices going forward.

The research process involved three components which took place over a two-month period:

- **A high-level literature review** of relevant Irish policy, and national and international literature on artistic and creative techniques to engage the public on sustainability issues. See annex 2.

- **A scoping exercise** to identify and map creative and cultural projects and initiatives in Ireland and review the approaches that have been deployed. See Annex 1.

- **Interviews with 32** practitioners and experts across the Cultural and Creative sectors who presented broad range of views about their sector or programmes they were delivering down to project specific issues they encountered such as funding and collaborations.

While the opinions were diverse, there were a number of common issues raised. The following section presents a synthesis of these opinions.

3. Background

"We shouldn't underestimate the scale and the transformative nature of the change, which will be needed. We have to go to zero carbon emissions by about 2050 if we are going to stay below 2°C of warming and that means that we have to leave about 2/3 of the known resources of fossil fuels in the ground."

Mary Robinson

3.1 Government of Ireland Climate Action Plan

On June 17 2019, the Government of Ireland launched an "Action Plan to Tackle Climate Breakdown". This broad reaching strategy aims to move Ireland towards the goal of net zero carbon emissions by 2050, and contains 180 actions (each with a number of sub-actions) identifying the changes that are required to address the climate crisis across diverse areas such as electricity, transport, agriculture, heating, resource use and waste.

The Climate Action Plan is situated in the context of the European Union commitments to reduce greenhouse gas emissions by 40% compared to 1990 levels by 2030, and to achieve a 32% share for renewable energy and a 32.5% improvement in energy efficiency.

At a strategic level, some of the headline actions that need to be taken include:

- The economy needs to orientate itself towards investing away from fossil fuels towards lower carbon alternatives.

- Individuals and communities need to both **shape new social practices and behaviours while developing new social and cultural norms** that make the low carbon transition viable and desirable at a societal level.

- There is a need to **create a circular economy** that better manages the flow of materials that can account for significant proportions of greenhouse gas emissions.

- There needs to be **better designed policies, regulatory systems and laws** that facilitate this low carbon transition.

While the action plan addresses a number of structural, economic and technical changes (such as carbon budgeting, carbon taxes, increasing roll out of electric vehicles, home retrofitting, heat pump installations, etc.), it is also aimed at behavioural, social and cultural change.

The Climate Action Plan has a dedicated section that relates to "Citizen Engagement, Community Leadership and Just Transition". Within this there are a number of actions that focus on public engagement, feedback and learning and providing information to existing networks. It also addresses the development of capacity within communities to undertake climate action.

The Irish Government has made further commitments to engage the public around climate change due to a number of additional international agreements such as:

- **Article 12 of Paris Accord on Climate Change**, to which Ireland is a signatory, states that "Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognising the importance of these steps with respect to enhancing actions under this Agreement."

- **Target 16.7 of the UN Sustainable Development Goals** aims to "Ensure responsive, inclusive, participatory and representative decision-making at all levels"

In addition to addressing international commitments, the Climate Action Plan also considers national policies, such as the National Development Plan. This plan indicates that a quarter of new investment by

Government will be targeted at climate action and makes commitments in relation to a **'Just Transition'**.

This transition of livelihoods away from carbon intensive energy production and the development of new sources of employment has practical economic implications but also wider challenges in terms of culture, place and identity.

3.2 Public Engagement on Climate Change and Climate Action

One of the challenges of climate change is that it requires changes or action in almost every aspect of human life. This means that the phrase "climate action" can describe a myriad of activities either in the form of learning, attitude change or behaviour change. The behaviour changes can be a combination of one-off actions (e.g. retrofitting a house) or more long-term habitual changes (e.g. using public transport and cycling instead of a car).

The framing of climate action to-date has also been mostly about changing these individual behaviours and consumption practices with communications and public engagement campaigns tending to focus on the transfer of facts and information. These are often framed around fear or threat appeals with the hope that if people have enough information they will behave differently.

One of the key assumptions that has underpinned climate communications and engagement by government and climate science has been that people are not "behaving optimally" because they do not understand the scope, scale and severity of the problem.

However, while various branches of science are presenting the "scientific facts" of climate change and attitudinal surveys also show that the public already cares about climate change, perceives it to be a significant problem and wants action to be taken, we are not yet seeing the desired and required effects in terms of emission reductions through lifestyle and behaviour change.

Tension in this area can also be seen in how climate change is framed in polarised popular media discussions.

A key challenge is that people are **locked into infrastructure and technologies** that make individual behaviour or lifestyle change difficult, which can partly explain why the overwhelming scientific consensus alone, has been unable to inspire large scale action.

It is clear that public engagement with climate change must include going beyond describing the problem and issuing generic calls for 'action', and that there is a need to clarify what it really means for individuals and communities to 'act' on climate change and to include voices from all communities in fair and inclusive dialogue.

Some sociologists argue that this is because the **social and cultural norms around climate action are not yet strong enough** to change behaviours and that **climate change is not yet a "social fact"** i.e. it is not an integral part of how we design all policies, run our economies, shape our social practices and lifestyles.

Although science underpins our understanding of climate change and its effects on natural and human systems, **individual perspectives on climate change are informed more by personal values, norms and experiences than by scientific data.**

Global climate change and degrees of warming can be perceived as abstract concepts with limited consequences at a local or personal level, making it challenging to motivate individual actions.

It has also been suggested that people tend to undervalue or outright reject ideas that undermine or conflict with their existing social practices (e.g. patterns of behaviour and social interaction), to the point that the risk of climate change is downplayed to justify inaction.

For this reason, making climate change a **relatable social and cultural issue** is a crucial part of the overall transition towards a carbon neutral society, as it is our culture that shapes how we interact with our environment – through our habits of consumption, ideas about nature, what we value as meaningful, and what we think is possible and impossible. It is also fundamental to how individuals and communities will interpret, accept and undertake the risks and responses.

4. Culture and Public Engagement with Climate Change in Ireland

"The word 'Climate' should be understood equally as an idea that takes shape in cultures and can therefore be changed by cultures"

Mike Hulme, climate change professor at Cambridge (Hulme, 2015)

Across the skakeholder interviews, there was a broad consensus that **few sectors are better placed than the culture and creative sectors** to bridge the gaps between what we know and feel about climate change, and to critically examine and provoke a shift in cultural values and norms.

These sectors are unique in their ability to create spaces for learning, dialogue, deliberation and exploration of climate change, allowing people to visualise what a climate-changed world could actually be like. Some of these unique opportunities offered by these sectors which emerged throughout the research included:

Engaging New Audiences
Using creative and cultural approaches to engage the public can reach and expose diverse audiences to climate change issues. This includes **audiences that would have been unlikely to seek out information** or attend events specific to climate change. This was identified as having particular relevance in rural areas where art, cultural and heritage centres and libraries can act as a central hub and key asset for the community.

This can also help to contribute towards building cooperation between people working towards climate action by engaging those who would not normally associate themselves with environmental interest or political groups.

Increasing Awareness and Understanding
The dominant approach over the last decade has been to engage the public with climate change and climate action by enriching scientific communications through visuals and translating complex issues and climate science into accessible narratives. However, making climate change visible and salient to the public and to policy makers can help people navigate the systemic and interdependent nature of climate action.

Creative storytelling, metaphors and narratives can help improve understanding, interest and engagement on the topic of climate change, and can be used to describe possible futures. They can also expose people to the range of possible policies and actions in ways that do not panic or overwhelm, and can help people to **better understand the scope and scale of the challenge and their capacity to act** within their own life.

Exploring Different Values and Beliefs
There has been an emergence of cultural works that are not just communicative. Creative practitioners are often skilled at navigating ambiguity and uncertainty, and can help to **explore the tensions** in existing understandings of climate change by revealing what is happening in social and ecological systems while **highlighting the different value systems and worldviews** that drive climate action.

Moving beyond the presentation of scientific facts and exploring different values and beliefs can help connect with personal and collective drivers of action. For this reason, creative and cultural approaches may be able to mobilise multiple sources of knowledge, skills and value systems to provide a more robust understanding of the complexities of climate change and climate action.

Creating Spaces for Constructive Discussion

Creative practitioners can provoke, encourage and curate necessary and difficult conversations between individuals and groups, and depolarise the debate on climate change by engaging audiences on equal terms as opposed to orchestrated argument and debate.

Hybrid experiences that combine culture and science can enable political engagement and can help develop approaches to collective action that are open to public scrutiny, negotiation and trust. Engagement mediated through culture can also sharpen public demands which in turn can make it easier for politicians and policy makers to know how best to respond to shifts in public mood around climate change.

These interactions can potentially act as 'spaces of possibility' where people can consider and engage with ideas about the future, e.g. new technologies, social and political systems, and policies and behaviours, thereby offering opportunities to engage the public beyond descriptions of the problems and **towards compelling ideas about solutions** and the **relative trade-offs** among these.

Leading by Example

The Cultural and Creative sectors can also demonstrate reciprocal commitment to climate change by considering environment and climate change in the operational aspects of the sector.

Risks and Concerns

A number of risks or concerns were also highlighted throughout the research. It was frequently acknowledged that cultural works are usually concerned with **opening or deepening questions** rather than providing answers and solutions. This presents the risk that awareness-raising works could be met with criticism particularly if they generated a sense of powerlessness among the public in terms of how they personally respond or act on the awareness created.

Conversely, it was also highlighted that if creative practitioners are being directed towards helping the public accepting or thinking only about solutions there may be a perception of **"instrumentalisation"** which could be seen to compromise the creative integrity of practitioners.

The term "instrumentalisation" is used to describe the situation where artistic or creative practices are used to achieve a different goal to what they would normally aim for. The concern is that if art is used for climate action as opposed to an aesthetic experience, it can be a distortion of its essential character as a work of art.

Additionally, while the need for cultural and creative approaches in public engagement on climate change is widely recognised, there have been **very few evaluations** of the impacts of cultural and creative engagement, particularly on climate knowledge or behaviour change.

This may be due to a wide variety of cultural works and the limitations of evaluation methodologies to measure and understand the multifaceted effects of engagement.

4.1 Projects and Initiatives in Ireland

Throughout the research it was found that there is impressive work already happening at the intersection of the Cultural and Creative sectors and the environment, but that there is **substantial potential for greater impact**.

It was highlighted that cultural practitioners have been engaging with climate change and sustainability more generally for a number of decades, with the types of works produced including visual arts, film, theatre performances, poetry, literature and dance to name but a few.

While many of the observations were anecdotal, a number of insights and common issues emerged through the interviews and the review of projects across Ireland:

1. **There is an increase in awareness and interest**
   Anecdotal evidence suggests that there is growing awareness and interest in climate change across the Cultural and Creative sectors. Some of the interviewees indicated an increasing focus on climate in funding applications, significant numbers of submissions to climate related funding calls and commissions and an increasing interest at a student and graduate level.

2. **Climate change can be explored in many ways**
   Projects focus on a number of different frames, outcomes and issues but typically examine climate change impacts on various aspects of human life and physical contexts. Some try to draw connections between the consequences and the lasting footprint everyday decisions have on our surroundings. Projects interrogated environmental and climate topics including rising sea levels and shared coastlines; plastics and pollution; biodiversity, native flora and fauna, habitat loss and fragmentation; as well as themes relating to the balance between nature and human activity and an understanding of place.

3. **There is not much evidence of interdisciplinarity or format hybridisation**
   Various projects are looking at encouraging public participation and engagement through thought-provoking interventions as an alternative to "science communication" approaches to spread awareness and knowledge sharing.

4. **There a small and slow shift towards ecologically literate practice**
   Many of the projects attempted to mediate between science and the public and to create narratives around a climate-changed Ireland in ways that transcend fearful and dystopian views. The focus is often on connections with nature, physical landscapes (green and blue spaces) and the built environment to either engender compassion, awe, nostalgia or some other bond beyond rational or purely scientific knowledge.

5. **Much of the work is politically benign**
   There was limited evidence of work which critically reflected on the underlying drivers of climate change and biodiversity loss. However, it is worth noting that more recently there has been an **overt politicisation** with collaborations between artists, cultural and creative practitioners and climate activism.

6. **Collaboration has many benefits**
   The projects identified have been organised in a variety of ways but include collaboration between artists, scientists, designers, local authority staff, cultural managers, activists, etc. This suggests that climate change projects require or enable the building of bridges, collaboration and communication between different professions and disciplines. It was noted that the involvement of curators or local authority staff was beneficial for making connections and adding authority and credibility for the artists.

7. **Links between behaviour change are unclear**
   The capacity of practitioners to understand, design in and evaluate behaviour change is limited and often beyond the scope of their practise or pieces. As previously noted, there was limited to no evidence of evaluation frameworks or metrics which considered the behaviour change or attitudinal impacts of projects.

"Most people experience a gulf between the familiar preoccupations of everyday life and an abstract, even if apocalyptic, future of climate chaos"

(Giddens, 2009)

Projects and Initiatives

Through the research 41 projects and initiatives were reviewed across multiple disciplines. These projects were identified through desk research and suggestions from interviewees. These were delivered between 2009 and 2019 and included exhibitions of visual art, festivals, performances, public art, conferences, literature and film.

The map opposite provides an indiciative overview of project and initiative locations. See Annex 1 for a full list of projects and initiatives reviewed.

The following pages briefly highlight three examples of projects that address some of the different roles the cultural and creative sectors mentioned at the start of Section 4.

Map Key

- ⬤ Exhibition
- ⬤ Exhibition / Visual Arts
- ⬤ Festival
- ⬤ Film
- ⬤ Film & Exhibition
- ⬤ Performance
- ⬤ Public Art
- ⬤ Residency
- ⬤ Talk
- ⬤ Other

Lovely Weather (Donegal County Council and Leonardo/Olats)

Residencies: Lovely Weather is a ground breaking art & science project which will examine the issues of climate change in County Donegal, Ireland. The 5 residencies were situated in the five Electoral Areas of County Donegal.

Sonic Pollinators (Karen Power, Offaly County Council, Creative Ireland)

Performance: Offaly County Council commissioned composer Karen Power to explore the world of pollinators through sound. Karen has recorded 1000s of pollinators over the spring and summer in Offaly and has then composed music using the recordings

Guth Gafa, Documentarty Film Festival (Broadcasting Authority of Ireland, Meath CC, Arts Council, Irish Film Board, Creative Ireland, Failte Ireland, Soilsiú Films)

Film: An independent documentary film festival. In 2019 climate change was one of the main strands

Writing for a Change: Flash Fiction Competition (National Botanic Gardens, Irish Writers Centre, Five Lamps Arts Festival)

Literature: A competition asking writers to embrace the concept of climate change through short new pieces of contemporary writing.

Crystalline: Hidden Monuments (Siobhán McDonald, Limerick City Gallery of Art, Monaghan CC, Creative Ireland)

Exhibition, Visual Art: A exhibition which explored geology, archaeology, human intervention, time and climate change through a series of interconnected bodies of work.

Haumea, Ecoliteracy for the arts (Cathy Fitzgerald)

Workshops: Ecoliteracy Essentials Workshop for art students and art educators. To help practitioners successfully navigate recent environmental science.

A Question of Degree: Climate Change in Coastal Communities (Zoë Uí Fhaoláin, Siamsa Tíre)

Residency, Visual Arts: This year's visual arts residency is looking at climate change and how this might affect communities living in coastal areas.

What is an Island? (BAVA: Dublin School of Creative Arts, CREATE, Uillinn, West Cork Arts Centre)

Art Research Project: Developed over multiple geographic sites from West Cork to Shetland Islands to the Galapagos Islands in Ecuador, What is an Island? negotiates the shifting relations between locality and Globalism at a time of Planetary transition.

image credit: Catríona Fallon

image credit: Brian Cregan
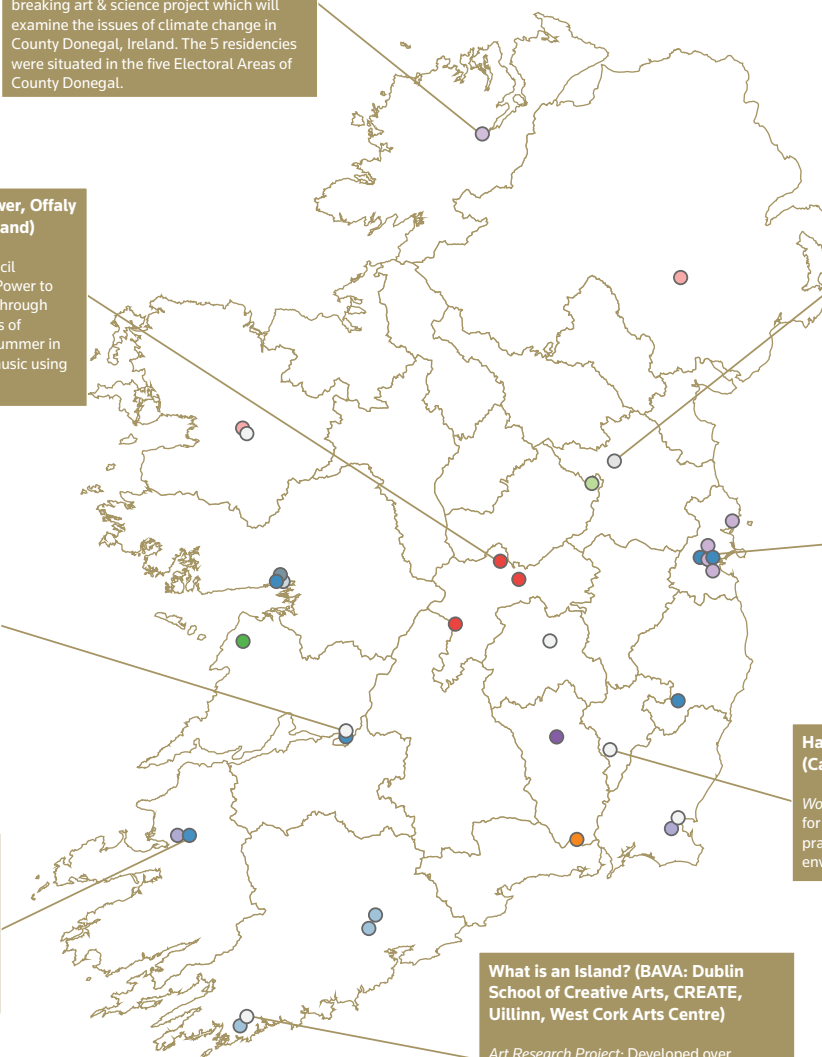
Increasing Awareness and Understaning: Cultural Adaptations – Embedded Artist

axis:Ballymun is leading an "embedded artist" project in a European funded collaboration with Codema, the Dublin City Energy Agency. The overarching aim of this project is to explore the role the arts can play in shaping how our society adapts to the impact of climate change. It is achieving this by placing an artist in Codema to deliver an action-research project that is devised between the artist and Codema.

This action research will highlight how artists can help provide new ways of thinking, fresh perspectives and different approaches to the challenges of adapting to climate change. The project is supported though a new EU-funded project Cultural Adaptations. This project has wider goals, such as developing a methodology for local cultural SMEs to enable them to develop and implement climate change adaptation strategies.

Leading by Example: Siamsa Tíre

Siamsa Tíre in Tralee is a theatre and arts centre in Tralee Co. Kerry that is also home to the National Folk Theatre of Ireland. Siamsa Tíre has been exploring options to improve the environmental performance of the theatre and has now achieved a Creative Green Certification, the only environmental certification scheme designed specifically for the creative and cultural industries established by London based charity, Julie's Bicycle. A key focus of the certification is to recognise and promote environmental best practice across events, venues, museums, galleries, festivals, offices and studios. This can help improve external communications and public engagement around climate and sustainability issues.

Siamsa Tíre have implemented a range of initiatives such as retrofitting their building, installing renewable energy technologies and working with staff to implement sustainability policies across waste and water management, biodiversity, transport, procurement as well as supporting artists-in-residence programmes where climate change is among the topics considered.

Engaging New Audiences: An Urgent Inquiry

An Urgent Enquiry is a residency programme run in collaboration between Wexford County Council, Fingal County Council and Dublin City Council. The project was supported by the Arts Council Invitation to Collaboration Scheme. This scheme initiated a series of "Think Tanks" in each of the local authority areas that convened artists, scientists and biodiversity experts to explore, discuss and debate the relationships between Art, Biodiversity and Climate Change.

Emerging from this initial engagement, three artist residencies were commissioned that allowed the artists to be positioned in either of the counties for three months to explore the biodiversity of each area and the effects of climate change. This involved the artists engaging with environmental specialists, scientists, advisors and local communities. The artists also had support from the local authority Arts & Biodiversity Officers.

4.2 Heritage and Public Engagement with Climate Change

While the previous section focuses on the opportunities offered by the Cultural and Creative sectors, it is important to highlight the linked role of cultural heritage as well as the different opportunities for engagement it presents. These include:

1. **Starting conversations around adaptation**
   Sites and artefacts of cultural heritage such as landscapes, archaeological sites, historical buildings and museums can help to engage people in a dialogue on the historical dangers and risks of climate change, and how societies adapted or failed to adapt to these. Discussions on the protection of these high profile and visible sites and artefacts can engage people in a meaningful dialogue about community resilience and future adaptation strategies. This could include physical adaptations around landscapes or mitigation actions such as sensitive retrofitting of heritage buildings.

2. **Leveraging emotional connections to place**
   Place based approaches such as story-telling and other narrative approaches can help people explore the complexities associated with climate change and social transitions. Using iconic heritage sites to which the public have a strong emotional bond as tools to explain future impacts can develop the sense of ambition and urgency required for climate actions. This can be done through a range of interpretive experiences ranging from guided tours, digital story-telling, festivals and events, virtual reality, gamification and other innovative approaches.

3. **As a focal point for local communities**
   When developing adaptation strategies there is a need for meaningful public participation to ensure the acceptance and legitimacy of adaptation planning and implementation. This may include engagement with the communities most closely associated with the cultural heritage sites as they may have deep historical roots and knowledge about the sites as well as cultural traditions and pastimes that maybe affected by adaptations.

   Heritage sites can also be used as shared spaces for engagement and dialogue around local climate actions, e.g. running community events and festivals at or near sites that may be under threat from climate change. This is recognised in the consultation document for Heritage 2030.

The **Government of Ireland National Adaptation Framework** does account for the impacts of climate change on heritage sites. This has resulted in the development of a specific Sectoral Adaptation Strategy for the Built and Archaeological Heritage sector.

There is a need to invest in the monitoring of sites and the collection of data that can determine the rate and extent of change (vulnerability assessments). This can be supported by interdisciplinary expertise (e.g. archaeology, earth sciences), interpretation by Cultural and Creative practitioners to translate the evidence into knowledge the wider public can engage with.

5. Potential for Local Level Collaborations

One of the original aims of this research included the scoping of potential collaborations between the Department of Culture, Heritage and the Gaeltacht, and stakeholders from the climate and environmental sectors. For this we focused our discussions and research on the Climate Action Regional Offices. However it was also identified that there is also scope to collaborate with other infrastructures at a local authority level to engage the public such as the Public Participation Networks and National Dialogue on Climate Action.

5.1 The Creative Ireland Programme

The underlying values and principles of the Creative Ireland Programme such as the "right to public participation", "individual and community wellbeing", "cultural diversity", "collaboration", and "community empowerment" clearly situate the programme in the broader context of sustainability.

This is strengthened by the **network of Creative Ireland Co-ordinators and Culture Teams** within the **31 Local Authority areas**, each of which has developed a strategy to localise the scope and delivery of the Creative Ireland Programme while mirroring the overarching values and principles. This relationship with Local Authorities is crucial, as there is evidence that the local context plays an important role in shaping awareness and understanding of climate change and determining individual behaviours and social norms around climate action.

This suggests that the Department of Culture, Heritage and the Gaeltacht is well placed to explore and foster the role of arts, culture and heritage in public engagement with climate change and climate action.

The Department and its agencies is also well placed to engage both well-established resources such as Arts Offices, Heritage Offices, Libraries, Local Enterprise Offices among others, as well as initiatives such as the Public Participation Networks, Local Community Development Committees, and the Climate Action Regional Offices.

5.2 The Climate Action Regional Offices

The Climate Action Regional Offices (CAROs) were established to advise on and co-ordinate climate action related activities at a local authority level across Ireland. The initial focus has been on assisting local authorities to develop their climate adaptation strategies, assisting in the implementation of national climate policy at a local level, and supporting the development of Local Plans. They will also be supporting local authorities in developing mitigation strategies.

Another primary function of the CAROs is to deal with cross-boundary challenges by co-ordinating activities between local authorities, for example in planning for and responding to extreme weather events.

Four CAROs were established covering the **Dublin Metropolitan, Eastern & Midlands, Atlantic Seaboard North, Atlantic Seaboard South** areas. The four CARO areas were designed around the exposure of these regions to different types of climate risk. Because of that, local authorities within CARO regions have distinct challenges. For example, individual CAROs may have more priority towards dealing with coastal erosion and flooding or more focused issues such as urban flooding.

Importantly, the CARO structure will support more cohesive local authority planning at a regional level while accounting for the interdependencies that affect Ireland's resilience to extreme weather events and climate change. Alongside collaborating with the Local Authorities in their region, the CAROs are developing relationships with the Department of Communications, Climate Action and Environment, National Local Authority Climate Change Steering Group, Local Government Management Agency, County and City Management Association and the Environmental Protection Agency.

The CAROs also have a remit to undertake public engagement activities. They will work with other initiatives such as the National Dialogue on Climate Action and Public Participation Networks to deliver on this as well as developing their own public engagement activities.

A key issue is that the CAROs have a growing remit, a large population and/or land area to cover but relatively small teams and no programmatic budgets. Because of that, they have to be able to work with existing networks and find good leverage points so that any activity can be delivered at an appropriate scale.

In terms of the Department and the Creative Ireland Programme, it is worth noting that the CAROs can be a source of data, technical expertise and alignment in terms of local and regional decisions.

Through the engagement with the CAROs, it is clear that there is a desire and demand to develop creative approaches to public engagement. The CAROs are already starting to do this so there are good opportunities for collaboration and co-operation on programme delivery.

The key opportunities for collaboration at this stage for the CAROs and the Department include:

1. Utilising the CAROs to connect to the best available **knowledge, data and expertise on Climate Change** in Ireland.

2. Utilising in-house Departmental expertise to connect the CAROs with the **best creative practitioners and existing supports** within the Local Authority System.

3. Ensuring **alignment with national and local climate policy**

4. Creating **wider visibility** for projects across their respective networks

5. Seeking **co-finance** options for collaborative projects.

5.3 The National Dialogue on Climate Action

Another key mechanism for public engagement on climate action in Ireland is The National Dialogue on Climate Action (NDCA). This is a Government of Ireland initiative led by the Department of Communications, Climate Action, and Environment (DCCAE) with secretariat support from the Environmental Protection Agency (EPA).

The vision of the NDCA is to create a long-term process by which the national objective of transitioning to a low carbon, climate resilient society and economy by 2050 is communicated to all in a fair and inclusive manner. The NDCA is designed around three aims.

1. **'To create awareness, understanding and engagement on climate action'**

2. **'To empower citizens to have conversations on climate action and to inform policy responses'**

3. **'To motivate and enable climate action at the level of communities and citizens'**

In the short term, the NDCA is primarily delivered through local events and workshops where communities and community organisations can co-create local actions, deliberate on climate policy options and share experiences on the implementation of actions.

Action 159 of the Climate Action Plan calls for the Enhancement of the *"effectiveness of climate-related communications, network building and deliberative capacity within and through the NDCA"*. Within Action 159 there is a requirement to *"Prepare a plan for the NDCA to connect with and leverage local level youth and community activities"*.

The key opportunities for collaboration between the NDCA and the Department include:

1. Applying lessons from **creative approaches to engagement** in the delivery of local meetings. These local meetings support the co-creation of community climate actions

2. Identifying opportunities for and **provide support to deliberative activities** under Heritage Sector Adaptation strategy and future cultural and heritage policies

3. Connecting cultural and creative sector stakeholders and practitioners to **existing networks and knowledge resources** around climate change

4. Gathering **evidence on best practices across Cultural and Creative sector climate actions** to disseminate these best practices to other communities across Ireland through the NDCA

5. Developing and supporting **medium to large scale projects** and pilots.

6.   Conclusions and Recommendations

Climate change is one of the most pressing social and political challenges of this generation, and it cannot be addressed through policy and technology alone. It is through the medium of culture and creativity that the underlying ethical, cultural, political and economic questions will be deliberated on, and that new sustainable values and ways of living will be disseminated.

This makes it a strong candidate for attention by the Department of Culture, Heritage and the Gaeltacht considering the social benefit measures that underpin public funding and the support provided to the Cultural and Creative sector in general.

There is a window of opportunity now because the public is actively interested in climate change, a smaller but growing number of people are undertaking diverse climate actions, and there is a growing cultural and creative movement internationally and in Ireland acting on climate change. This opportunity is to interrogate everything from funding programmes, creative programming and research initiatives to capital investment.

6.1 Considerations for the Culture and Creative sectors

The research identified four broad but common approaches that the Cultural and Creative sectors should consider into the future. These include:

1. Using **multiple approaches, platforms and channels to engage citizens** in dialogue, learning and action around climate change. This can range from general awareness raising to using Cultural and Creative practices to support participatory policy-making and governance, particularly at a local authority level. This would require working with the existing infrastructures available such as the Climate Action Regional Offices and Public Participation Networks.

2. **Climate proofing the Cultural and Creative sectors.** This includes providing finance, human resources, technical and practical support to reduce carbon emissions,and other environmental impacts. This can relate to capital or current expenditure. The framing around "climate proofing" can shift expectation and priorities within the sectors, particularly when combined with measurable economic and environmental outcomes. It can also support the positioning of the sectors as "leading from the front" with a "legitimate voice".

3. **Shaping and co-creating cultural and creative policy** so that it creates the conditions and frameworks for public engagement around climate change and climate action. This can build upon strategies and plans in development as well as emerging policies. This is not to suggest that these policy domains have sole responsibility for climate but the strategies, programmes and initiatives they create can support action on climate change. This can be through the creation and supporting of networks and partnerships, mobilising resources and finances, legitimising the outputs and amplifying the outcomes

4. **Involving creative professionals in devising new approaches and solutions** towards climate policy design and implementation. This can include the hiring or "embedding" of creative professionals in policy or technical organisations to help shape approaches. It could also include using the sectors to test and develop new policy approaches such as new forms of public dialogue and participatory policy design.

6.2 Opportunities for the Department of Culture, Heritage and the Gaeltacht and its agencies

More specifically, there are a number of potential opportunities for the Department to start engaging with Climate Change and Climate Action. These include:

1. Providing Direct Support
   This may involve finding initiatives that are already engaging the public in awareness, understanding or action around climate change at a community level

and supporting them to scale up or deliver longer term engagement, or developing **dedicated funding opportunities** for arts and cultural organisations to develop climate related artistic practices.

2. **Building Partnerships and Supporting Collaborations**
   This include continuing to **build dialogue** between and among central and local government and between government agencies (i.e. Arts Council and Heritage Council) and local authorities. This dialogue can be used to respectively review policies and programmes from the perspectives of arts, culture and sustainability.

   It also includes supporting the arts, culture, heritage, environment and biodiversity and climate action officers in local government so that they can share their respective work programmes and clarify their capacity to collaborate on projects, as well as exchanging knowledge and skills between counties to share best practice and develop learning.

   The role of art, cultural and heritage centres, hubs, and libraries in public engagement on climate change should also be further explored.

3. **Advocacy at Policy level**
   Actively advocate for and promote the Cultural and Creative sectors as essential to achieving the Government of Ireland Climate Action Plan, Paris Agreement and the Sustainable Development Goals. A first step may be to build a comprehensive dataset of national and international initiatives that make the case for climate action in these sectors and share these as living case studies

   The Department can also work to support the wider sector to embed climate and sustainability policy statements generally, working in partnership with cultural organisations, practitioner and communities.

4. **Develop Capacity of the Cultural and Creative Sectors**
   Develop capacity through training and knowledge exchange for public engagement that is practical and measurable so that practitioners can explore options for accessing new co-funding streams.

   This could include collaboration with other bodies that fund research and interventions in the area of climate change such as the Environmental Protection Agency, Science Foundation Ireland and Department of Communication, Climate Action and Environment as well as EU funding through schemes such as Creative Europe, Interreg, Urbact and Horizon 2020.

   Devise methods for **measuring impacts** of public engagement on climate action. This can be used to evaluate programmes, access co-funding and celebrate achievements.

6.3 Conclusions

There are two key remaining questions about the level of ambition for the Cultural and Creative sectors in public engagement on climate change and climate action.

These are:

· Are the sectors able to move beyond acting as a mediator between climate science and public awareness and understanding towards supporting more 'transformative' changes in society?

· Can the sectors take a lead on the climate debate across society while ensuring that high quality cultural and creative works are made?

To address these questions there is an imperative to explore the recommendations above and demonstrate how Cultural and Creative Sectors can play a lead role in supporting the transition to a low carbon and sustainable Ireland.

Annexes

1. Scoping exercise of projects in Ireland

Project Title	Type	Description	Who is involved	Location
2° C	Exhibition, Visual Art	A group exhibition presenting artists' response to climate change, curated by Olivier Cornet.	Olivier Cornet Gallery, Environmental Protection Agency (EPA) Ireland	Dublin
5 cube Energy Paviliion	Installation	The installation is representative of the volume of oil used in Ireland every five minutes and the requirement to focus on using more renewable forms of energy in the future.	Scullion Architects, Codema, EU funded ACE For Energy project	Dublin
A Numbness in the Mouth	Art Film	A short filrm set in an Ireland of the near-future; a self-sustaining, militarized island where climate change has benefited agricultural production.	Artist & filmmaker Kevin Gaffney, The Arts Council of Ireland, and Fingal Arts Office, Linenhall Arts Centre, Millennium Court Arts Centre, RHA	Mayo, Armagh, Dublin
A Vague Anxiety	Exhibition	A group exhibition of emerging Irish and international artists addressing some of the broader concerns of Generation Y; including climate change and the environment as well as borders, housing, and the environment, mental health, hook-up culture, gender identity and precarity.	IMMA	Dublin
After	Performance	A theatre / dance performance featuring documentary footage, exploring a world following environmental, political and social breakdown.	Choreographer Liv O'Donaghue; Dublin Fringe Festival, Fringe Lab, The Arts Council, Dublin City Council, Project Arts Centre	Dublin
An Urgent Inquiry	Residency	Research residencies located in Dublin City, Fingal and Wexford to explore the biodiversity of each area and the effects of climate change.	Dublin City Council, Fingal County Council, Wexford County Council, Denise Reddy (Curator), Arts Council 'Invitation to Collaborate' Scheme, Artists:Mark Clare, Fiona McDonald, Mary Conroy & Joanna Hopkins	Dublin; Fingal; Wexford
Arctica: The Last Fragments	Exhibition	A response to the artist's experience on The Arctic Circle Residency Program. The collection looks at the way nature is affected by climate change, and how the actions of humans drive that change	Artist Angela Gilmour, Backwater Artists Group,	Cork
Art in the Anthropocene	Exhibition, Conference	A group exhibition showcasing the ecologically-themed work of major artists, as part of the Art in the Anthropocene conference.	Trinity College Dublin, Curator Imelda Healy, Artists Dorothy Cross, Mark Dion, Kathy Fitzgerald, Yvanna Greene, Imelda Healy, Ruth Le Gear, Eoin Mac Lochlainn, Sarah Lundy, Siobhán McDonald, and Helen O'Shea.	Dublin
Art on the Edge	Exhibition	An exhibition of science-inspired artwork from research into earth's climate system.	NUI Galway's Moore Institute; Galway University Foundation; Dr. Gordon Bromley.	Galway
Artist in Residence at UCD College of Science 2018-2019	Residency	During the residency, the artists is engaging with staff and researchers to find common ground in research themes and develop a body of work in response, exploring ideas such as geologic time and the anthropocene, climate change and human impacts	Artist El Harrington, UCD College of Science	Dublin
Collaborative Ways	Participatory Arts Project	A participatory arts project between members of Third Space Arts Collective and local environmental group, Transition Galway, to engage the public with contemporary arts practices	Third Space Galway, Transition Galway	
Communicating Climate Change in North Clare	Film	A film and table top model introducing climate impacts and sea level rise in Clare	Mary Immaculate Secondary School, The Burren Programme, Met Eireann, Filmmaker James Sheppard, ECO-UNESCO	Clare
Crystalline: Hidden Monuments	Exhibition, Visual Art	A exhibition which explored geology, archaeology, human intervention, time and climate change through a series of interconnected bodies of work.	Artist Siobhán McDonald, Limerick City Gallery of Art, Monaghan County Council, Creative Ireland	Limerick

Cultural Adaptations - Embedded Artist	Residency	An action research project for an artist or cultural practitioner to be embedded in a local authority and to explore the role the arts can play in shaping how our society adapts to the impact of climate change	Axis Ballymun, Codema, Creative Carbon Scotland, EU Creative Europe Programme	Dublin
Environment Exhibition: An artistic interrogation of the climate crisis	Photography	A student photography exhibition exploring the climate crisis.	TCD Student Societies	Dublin
Exhibition - Galway Fringe Festival	Exhibition, Visual Art	Grace O'Malley's work aims to convey the urgency of climate change by connecting people to the beauty of remote landscapes.	Galway Fringe Festival; Grace O'Malley (artist)	Galway
For Earth's Sake	Exhibition, Visual Art	A group exhibition with 14 artists whose works deal with a variety of environmental issues: waste, water, plastic, deforestation etc. as well as a variety of mediums: sculpture, photography, video, painting and photography.	Young Friends of the Earth, InSpire Gallery	Dublin
Guth Gafa	Documentary	An independent documentary film festival. In 2019 climate change was one of the main strands.	Broadcasting Authority of Ireland, Meath County Council, The Arts Council, the Irish Film Board, Creative Ireland, Failte Ireland, and Soilsiú Films	Meath
Hecuba	Play	A drama set in the time of climate change and the global refugee crisis.	Playwright Marina Carr, Dublin Theatre Festival, Project Arts Centre	Dublin
Holding True Ground	Exhibition, Visual Art	A solo exhibition exploring the connections between art and farming	Lisa Fingleton, Siamsa Tire, Create, The Arts Council, Kerry County Council Arts Office and Leader	Kerry
IN-SITES/ÓN CHEAPACH	Exhibition, Visual Art	A touring group exhibition which explores the different ways in the artists address our relationship with a constantly changing environment	Curator Denise Reddy, Artists Lisa Fingleton,Monica de Bath, Gareth Kennedy, Arts Council of Ireland, Siamsa Tire, Tralee; The Couthouse, Tinaheely; Birr Arts Centre; Riverbank Arts Centre, Newbridge, Michelle De Forge, Dunamaire Arts Centre	Various locations around Ireland
Lovely Weather	Residency	An art & science project examining the issues of climate change in County Donegal. The 5 projects took an interdisciplinary approach, actively involving local people in their work, to develop artworks that raise questions about climate and its changes on a practical level.	Donegal County Council Leonardo/Olats, Regional Cultural Centre, Per Cent for Art Scheme	Donegal
Micro vs. Macro	Public Art	An artwork presenting the impacts human actions have on the environment, focusing on microplastics.	Subset; RHA Gallery; Friends of the Irish Environment	Dublin
NCAD Graduate Exhibition 2019	Exhibition	Climate Change, Migration, Brexit and the Border, and Ireland's housing crisis are among the contemporary social issues that are explored in depth by students.	NCAD	Dublin
Our Plundered Planet	Exhibition, Visual Art	An exhibition offering commentary on human treatment of the natural environment and the question of human responsibility	Hugh Lane Gallery, Dublin City Council, Artist Mark Dion	Dublin
Our Plundered Planet	Exhibition, Visual Art	A commentary on human treatment of the natural environment at a time when greenhouse gas emissions from human activities are at historically high levels and the polar glaciers are melting	Artist Mark Dion, Hugh Lane Gallery	Dublin
Plastics; the good, the bad and the ugly	Exhibition	A STE(A)M project bringing Science and Art together to create an art installation exploring the use, potential and threats of plastic	Artists Rachel Smith; Senator Grace O'Sullivan Calmast, Waterford Institute of Technology's STEM Outreach Centre, Creative Ireland (Waterford)	Waterford
Quotidian: Art, Climate Change and Citizen-Scientists	Exhibition	A multimedia project exploring linkages between planetary scale systems of climate observation through a local engagement with an off-grid and offline community of voluntary Weather Observers.	Artist Martina O'Brien, Maynooth University, Weather Observation Network	Kildare
Sewcialising / Redress	Talk	A series of workshops investigating our relationship with our clothes and aiming to open up discussions about the clothes we choose to wear, where they come from and where they end up.	Kilkenny Arts Office, Artist Rosie O'Reilly, Open Circle Community Arts Collective	Kilkenny
Siamsa Tíre - A Question of Degree: Climate Change in Coastal Communities	Residency	This year's visual arts residency is looking at climate change and how this might affect communities living in coastal areas		Zoë Uí Fhaoláin Green, Siamsa Tire

Softday	Art-Science Collaboration	Softday have engaged with issues relating to natural cycles in time, climate change and its global effects expressed through sonifications and multimedia artworks and performances.	Softday, frequent collaborators	Limerick, Across Ireland
Sonic Pollinators	Composition, Sound performance	A music/sound piece incorporating recordings of bees, plants and their surrounding habitat	Karen Power (composer); Creative Ireland, Offaly County Council, Quiet Music Ensemble, Offaly BeeKeepers Association	Offaly
Stand Student Festival	Film, Photography	A university student art, film and photogaphy festival. In 2019 it included a competition to highlight the impact of climate change around the world.	STAND, Suas Educational Development	Across Ireland
Strange Weather	Exhibition	An exhibition bringing together works by artists, designers, scientists, meteorologists and engineers to explore weather and climate in a playful, provocative way	Science Gallery, Trinity College Dublin, Met Éireann; Catherine Kramer & Zachary Denfeld (Curators)	Dublin
The Consuming Project	Installation, Performance	A creative community collaboration that explores societies relationship with fashion	Kilkenny Arts Office, Open Circle Community Arts Collective; Old Mill Pictures; Theatre practitioner Ita Morrissey; Artist Dee Harte, creative producer Eadaoin Walsh (Rig Out Productions), Arts Council's Art Participation bursary,	Kilkenny
Threshold	Composition, Performance	A musical piece on the theme of pollinators	Composer Ian Wilson, Laois and Offaly Heritage Offices, the Creative Ireland programme, Thee National Biodiversity Data Centre., Laois Leaves Literary Festival	Laois
Waterford Walls	Public Art	The street art festival explores themes such as climate change mental health, and the digital environment.	Waterford City & County Council, the Arts Council	
We have 11 Years to Save the Planet, But We Only Have Today to Save Ourselves	Performance	A play exploring some of the most important issues faced by young people today – Climate Change, Mental Health and control over our own bodies – decided by the cast members.	Director Grace Dyas, Waterford Youth Arts, Garter Lane Arts Centre, Creative Ireland	Waterford
We Only Want the Earth	Residency Programme	A 12-month programme of awards, exhibitions, and events that seeks to interrogate the sudden and unpredictable societal change caused by interlinked issues of global warming, the collapse of the neoliberal order, a resurgence of violent misogyny and nationalism, growing inequality, housing and homelessness crises, and the growth of ecofascism	A4 Sounds, Create Ireland, Fire Station Artists' Studios, Transgender Equality Network Ireland,Movement of Asylum Seekers Ireland, Dublin Central Housing Action, Migrant and Ethnic Minoritives for Reproductive Justice	Dublin
What if we got it wrong?	Exhibition	A group exhibition presenting fifteen artists whose work explores the impacts on the environment of our society and globalised economy.	Wexford Arts Centre, Centre Cultural Irlandais, Wexford County Council, Curator Nora Hickey	Wexford
What is an Island?	Art Research Project	Developed over multiple geographic sites from West Cork to Shetland Islands to the Galapagos Islands in Ecuador, What is an Island? negotiates the shifting relations between locality and Globalism at a time of Planetary transition.	BAVA: Dublin School of Creative Arts (DIT/GradCAM), CREATE: National Development Agency for Collaborative Arts and Uillinn, West Cork Arts Centre, supported by The Arts Council / An Chomhairle Ealaíon	Cork
Writing for a Change: Flash Fiction Competition	Literature	A competition asking writers to embrace the concept of climate change through short new pieces of contemporary writing which reflect or illustrate this subject in an innovative and relevant manner.	National Botanic Gardens, the Irish Writers Centre and the Five Lamps Arts Festival	Dublin
Haumea, Ecoliteracy for the arts	Visual Arts, training	Ecoliteracy Essentials Workshop for art students and art educators. To help practitioners successfully navigate recent environmental science.	Cathy Fitzgerald	Carlow

4.   International Projects and Organisations

Project	Organisation	Country	URL
ArtCOP21	Coalition for art and sustainable development (COAL), Cape Farewell	New York	
Arts and the Environment Network	Centre for Contemporary Art and the Natural World	UK	https://ccanw.org.uk/
Badgasten	Satellietgroep	The Netherlands	http://www.satellietgroep.nl/badgast_air_sea/1
Beautiful Solutions	Rachel Plattus		https://solutions.thischangeseverything.org/about
Climate as Artefact	Satellietgroep	The Netherlands	http://www.satellietgroep.nl/climate_as_artifact/1
Climavore - Conservation that tastes good!	Morning Boat	UK	http://morningboat.com/
Creative Climate Disclosure	Creative Climate Disclosure	UK	https://www.creativeandclimate.com/
Creative Green certification	Julie's Bicycle	UK	https://www.juliesbicycle.com/reporting
Culturability BSR	The Nordic Council of Ministers office in Latvia, The Ministry of Culture and National Heritage of Poland, The Government of Schleswig Holstein		http://culturability.lv/
Culture and Climate Change	Culture and Climate Change	UK	http://www.cultureandclimatechange.co.uk/
DecarboNet	Waag Society	The Netherlands	https://waag.org/en/project/decarbonet
Dust sculptures	Rueangsak Anuwatwimon	Thailand	https://www.bangkokpost.com/thailand/general/1397354/dust-sculptures-warn-of-danger-from-polluted-air
Facing the Climate	Swedish Institute, the Swedish Embassy in Vienna, the Caricature Museum in Krems and the University for Applied Arts in Vienna	Sweden	https://si.se/en/events-projects/facing-climate-swedish-international-cartoonists-get-thinking/
Foodprint: Symposium	Mediamatic	The Netherlands	https://www.mediamatic.net/
Green Art Lab Alliance	TransArtists.org, DutchCulture, Centre for International Cooperation.	The Netherlands	https://www.transartists.org/activities/gala
Green Art Lab Alliance Asia	Mondriaan Foundation, Stichting DOEN (Artscollaboratory), the Lovely Taiwan Foundation and the Centre for Creative re-use	Taipei	http://www.artcop21.com/events/launch-green-art-lab-alliance-asia/
Green Tease	Creative Carbon Scotland	UK	https://www.creativecarbonscotland.com/project/green-tease/
Invisible Dust	Invisible Dust	UK	http://invisibledust.com/
LABVERDE	Manifesta Art and Culture	Brazil	https://www.labverde.com/
Multiple	Deveron Projects	UK	https://www.deveron-projects.com/home/
Nonhuman Subjectivities/Nonhuman Agents	Art Laboratory Berlin	Germany	http://www.artlaboratory-berlin.org/home_eng.htm
ONCA	ONCA	UK	https://onca.org.uk/about-us/
Orchester des Wandels (Orchestra of Change)	Berlin State Opera	Germany	http://www.orchester-des-wandels.de/
People's Climate Arts	Risë Wilson		
Residency	Yvy Maraey Institute	Brazil	http://www.institutoyvymaraey.org.br/sobre/
Soil City	Open Jar Collective	UK	https://openjarcollective.wordpress.com/
Stories of Change	Culture and Climate Change	UK	https://storiesofchange.ac.uk/
Stroom	Stroom	The Netherlands	https://www.stroom.nl/index_en.php
The 606	ARTetal Studio	Chicago	https://www.the606.org/
The Anthropocene Project	Haus der Kulturen der Welt	Germany	https://hkw.de/en/programm/projekte/2014/anthropozaen/anthropozaen_2013_2014.php
Van Eyck Food Lab	The Van Eyck	The Netherlands	https://www.janvaneyck.nl/en/news/food-lab/
Zone2Source	Zone2Source	The Netherlands	http://zone2source.net/nl/home/
Sea Change (Tionndadh na Mara)	Cape Farewell	UK	https://capefarewell.com/latest/projects/sea-change.html

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