



FINAL PROJECT REPORT 2026



Comhairle Contae Chill Dara
Kildare County Council



Clár Éire Ildánach
*Creative Ireland
Programme*



**Maynooth
University**
National University
of Ireland Maynooth



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Preamble

Kildare County Council's Climate Action Office & Arts Office along with Maynooth University considered an application under Creative Ireland's Creative Climate Action Fund II – Agents for Change, Ignite programme regarding enacting climate action in the Decarbonising Zone of Maynooth, Co Kildare. The application proved successful however due to secondment of university personnel at the outset of the project, Dr. Amy Fahy, Assistant Professor in School of Business and Deputy Director of IRESI (International Renewables Education and Sustainability Research Centre, Maynooth University took over the Principal Investigator role on behalf of the Maynooth University partner in order for the progress.

The Decarbonising Zone (DZ) is a testbed or laboratory to explore measures to reach the national objectives of 50% reduction in greenhouse gases and 51% increase in energy efficiency by 2030. Various projects are being undertaken within the DZ, and the Climate Design Lab was an opportunity to advance the educational need. The purpose of the Climate Design Lab project was to activate fun theory to nudge behavioural change through design-thinking and behavioural economics to co-create solutions.

The underlying philosophy of the project is fun theory, encouraging climate action without people necessarily being aware. Fun is part of the human condition; by encouraging it and providing joy, participation and buy in grows. The creative intentions and the variety of elements provide a series of artistic response over 20 months (April 2024-December 2025). The benefits of equity and belonging, a common diversity and inclusion synonym, benefits the whole of community including artistic liberty, and the national objectives simultaneously. The funding was awarded in the summer of 2023 however after a delay in transferring of the Principal Investigator role for Maynooth University (April, 2025) in order to be able to commence work on the project, an extension of 6 months was approved to extend the project to December 2025.

This evaluation report's role is to determine how the project proposal has met with the objectives and remit of this Creative Climate Action funding scheme. The report outlines the context of the project, the purpose and outcomes within completed elements. Those in late stages of development (KCC Co-Creative Lab Artist in Residence films) are scheduled for completion by Q2 2026. Elements have evolved due to real world needs, artistic expression and the dynamic nature of a living community as agreed with Creative Ireland.

The evaluation report has been collated and written by Dr. Amy Fahy with the assistance of her Maynooth University team, artistic collaborators and Kildare County Council (project coordinator).



Executive Summary: Co-Creative Lab Report

The Co-Creative Lab was a community-based climate innovation project conducted in Maynooth, County Kildare. Led by Kildare County Council, and Maynooth University, and funded by the Creative Ireland Ignite Fund, the initiative set out to reimagine how local climate action could be made more engaging, inclusive, and enjoyable. Rooted in Fun Theory and participatory design, the project brought together researchers, artists, local stakeholders, and residents to explore how creativity and co-creation can overcome barriers to public participation in environmental action.

Over the course of the project, more than 600 people participated in an online survey, and 12 focus groups were held with diverse community members, including young people, older adults, parents, educators, and civil society representatives. The research also included interactive workshops and creative events with over 30,000 participants, and artistic residencies, with additional input from community festivals, public consultations, and schools-based engagement.

The survey data revealed that 89% of respondents expressed concern about climate change, with the highest concern levels found among those who reported being well-informed. Social media and mainstream news outlets were the most common sources of climate information, especially among younger participants. Key environmental concerns included traffic congestion, waste and recycling confusion, energy use, and the loss of biodiversity, issues that participants overwhelmingly associated with daily life in urban and suburban areas like Maynooth.

In the focus groups, six core themes emerged:

1. **Emotional fatigue** from abstract or overwhelming climate messaging.
2. A desire for **fun, games, and social incentives** to support behaviour change ('fun' in the context of the community's lives, e.g. spending time in nature & with friends and family as prominent themes).
3. The importance of **visible, tangible impacts** through installations or actions.
4. Ongoing frustrations with **infrastructure and transport**, including safety and walkability.
5. A call for **inclusive design** that reflects the diversity of the local population.



6. A strong sense of **agency and ownership**, with participants wanting to contribute to solutions they can see and shape.

These insights informed the co-design and prototyping of eight public-facing climate innovations, each aligned with community priorities and tested through participatory design processes:

1. **Magic Bin** – A musical, interactive recycling bin that rewards correct usage with sound and visual feedback, turning waste sorting into a playful act.
2. **LEGO™ Smart City** – A family-friendly activity using LEGO™ bricks to collaboratively build and imagine a sustainable Maynooth, sparking conversation and learning through hands-on play.
3. **Biodiversity Totem Poles** – 3D-printed, QR-enabled trail markers celebrating local flora and fauna, supporting outdoor environmental education.
4. **3D-Printed Climate Conversation Zones** – Multi-functional seating incorporating recycled plastic, greenery, and signage promoting circular design.
5. **Energy Management Interactive Plug** – To prompt behaviour change and rewards in association with energy management.
6. **Virtual Reality – Game of Choice** – To prompt behaviour change and rewards in association with hypothetical decision making in daily life.
7. **Maynooth Sustainability Story** – To prompt behaviour change through storytelling and imagery.
8. **Composition Lámh agus Lámh** – To analyse and disseminate data via artistic artifact - prompting behaviour change highlighting the importance of small actions building collectively to group action and reduce climate anxiety.

Eco-somatic workshops, creative storytelling, and community walking events helped the community to connect local identity with ecological themes. The project's inclusive approach engaged participants across multiple generations, cultural backgrounds, and access needs. Special attention was given to universal design, neurodiverse-friendly tools, and intergenerational participation, ensuring that ideas and voices from across the Maynooth community shaped the outcomes.

The Co-Creative Lab demonstrates that when climate action is reframed as a shared, creative, and visible process, people are more likely to participate and sustain



long-term change. Participants repeatedly noted that they wanted to feel hopeful, connected, and proud of their contribution, not overwhelmed or disempowered.

Key recommendations include:

- Embed fun and creativity in public climate engagement strategies (relative to each community’s perception/vision of ‘fun’.
- Support visible, low-barrier installations that encourage everyday climate action.
- Improve walkability, recycling infrastructure, and public communication.
- Invest in youth-led, intergenerational, and culturally inclusive projects.
- Scale successful innovations (e.g. Lego™ Smart City, energy management interactive plug etc.) to other communities.

In conclusion, the Co-Creative Lab offers a replicable model for engaging communities in climate action through joy, co-creation and ownership. The innovations created reflect climate goals and most importantly, the lived experiences, values, and creativity of the people of Maynooth, proving that meaningful change begins with listening, imagination, and working together.

Co-Creative Lab Project Timeline

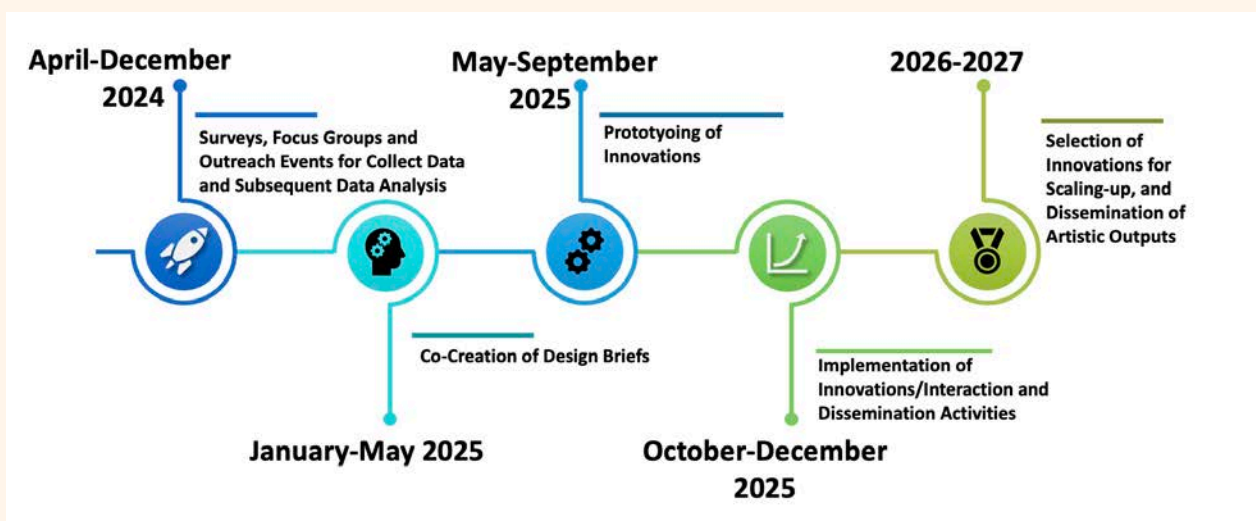


Figure 1 Co-Creative Lab Project Timeline



Key Outputs & Metrics Summary

Table 1 Key Outputs and Metrics Summary

Category	Metric	Achieved Output	Comments
Community Engagement	Total estimated public reach	30,000+ people	Combined reach across schools, festivals, workshops, public events, and outreach
	Community focus groups	8	Explored local climate concerns, barriers, priorities, and values
	Ideation co-creation workshops	5	Supported development and refinement of innovation concepts
	Participatory creative workshops	6	Including Deep Time Walks, Mapping, and Crafting workshops
	School workshops	8	Delivered with primary and post-primary students
	Outreach and dissemination events	30+	Including festivals, pop-ups, and public-facing events
Youth Participation	Youth Committee established	1	Embedded across the full project lifecycle
	Youth involvement	20 Youth committee members 15,000 Youth Reached via events	Youth contributed to data collection, facilitation, ideation, and innovation
Research & Design Outputs	Climate Action Survey responses	600	Large-scale public survey informing design briefs and innovation themes
Innovations Developed	Core innovation strands	8	Magic Bin; Smart Energy Management Plug; LEGO™ Smart Sustainable City; Climate Conversation Zones; Biodiversity/Circular Design interventions; Maynooth Sustainability Story; VR Game and Choral Composition
Creative Outputs – Artists in Residence	Artists / artistic groups in residence	2	Martina O'Brien (KCC); & Team: Dr Michael Dawson with Maynooth



Category	Metric	Achieved Output	Comments
			University Chamber Choir, Dr. Seán Doherty, & Dubhán Ó Longáin (MU)
Creative Outputs: Creative Collaborators	Creative collaborators engaged	4	Rachel Sweeney; Eoin McKeown; Vision Creative Studios: Antoon Knapp & Peter Hamilton team
Creative & Cultural Outputs: Artists in Residence	Participatory arts workshops	10	Eco-somatic, musical, place-based, and co-creative formats
	Public-facing artworks / performances	Multiple	Site-specific, participatory, and performative works
Film & Media Outputs	Documentary film	1 (45 minutes)	Project summary documentary detailing process, learning, and outcomes (Completed & premiere scheduled Summer, 2026)
	Artistic film/physical installation (Artist in Residence)	Pending (Summer, 2026)	Film artwork by Artist in Residence, Martina O'Brien responding research on place, and climate themes
Technology & Prototyping	Sensor-enabled or interactive innovations	3	Use of sound, light, and sensor feedback to support behaviour change
	Sustainable manufacturing approaches tested	2	Including circular and 3D-printed components
Funding & Legacy	Follow-on funding secured	2	Enterprise Ireland; Research Ireland
	Innovations with identified industry scale-up pathways	2–3	Energy and manufacturing-led innovations
Partnerships	Core partner organisations	2	Kildare County Council & Maynooth University
Dissemination	Dissemination approach	Phased	Expanded dissemination aligned with installation and public activation of innovations in 2025



Summary of Agreed vs Achieved Deliverables

Table 2 Agreed Vs. Achieved Deliverables

<u>Agreed</u>	<u>What Was Agreed</u>	<u>What Was Achieved</u>	<u>Commentary / Variance</u>
Design Briefs	5 design briefs to guide student-led & community innovation.	5 design briefs delivered and used across all innovation strands.	Fully achieved.
Student-led Innovations / Prototypes	Ten high-fidelity, user-tested climate products or services.	5 core innovation strands progressed to prototype or pilot stage. Two (Smart Energy Management Plug and circular 3D manufacturing approaches) secured scale-up funding.	Partially achieved. Fewer innovations developed in greater depth, with stronger community testing and clearer scale-up pathways.
Public Exhibition	One central public exhibition with approximately 300 attendees.	Final exhibition delivered. 200 attendees. Engagement distributed across multiple public events, festivals, workshops, and town-based interventions reaching an estimated 15,000+ people.	Format adapted to maximise reach and inclusivity, but diverged from the originally proposed exhibition model.
Behaviour Change Monitoring	Behaviour change monitoring report.	Behavioural insights captured through surveys, focus groups, observation, and prototype testing, integrated across innovation case studies.	Evidence gathered as planned, and reported in an integrated format. Behaviour change pre-and post intervention was not always possible.
Communications and Dissemination	Press, digital content, video outputs, and documentary dissemination	Full communications campaign deferred to align with phased installation of innovations in the community during 2025/2026.	Communications timelines extended to ensure dissemination coincides with visible, in-situ innovations.
Creative Engagement and Youth Committee	Creativity	Creative Collaborators and Artists in Residence; participatory eco-somatic workshops; documentary film; Youth Committee & creative public art installations.	Engagements/activities significantly expanded the scope, cultural depth, youth leadership, and long-term legacy of the project.



Background Information

The Co-Creative Lab is a project between Kildare County Council, and funded by the Creative Ireland Ignite Fund. This initiative is dedicated to bringing people together to design innovations for local challenges in a way that is creative, engaging, and fun. Rooted in the principles of Fun Theory and Co-Creation, the project aims to inspire collaboration and empower communities to take action.

Key Objectives

Foster a sense of ownership and pride in the community

- Use fun and engaging methods to encourage participation.
- Develop innovations that address local needs in creative ways.

Description

Co-creation is about collaboration and collective problem-solving. Here's how it works:

- (i) **Connect:** Community members come together in workshops, events, and creative sessions.
- (ii) **Create:** Ideas are brainstormed, tested, and refined using fun and engaging activities.
- (iii) **Celebrate:** Results are showcased, shared, and celebrated together.



Engagement with Artists

Creative Collaborators and Artists in Residence were engaged both through Kildare County Council as the lead of this project and Maynooth University as a partner on the project. In the Co-Creative Lab project, the role of the Creative Collaborators was to support co-creation with communities through creative engagement, whilst the role of the Artists in Residence was to observe processes involved in the project, interact with key project stakeholders, analyse, interpret and disseminate project data in the form of an artistic output.

Kildare County Council

Kildare County Council (KCC) identified two core artists who were engaged competitively through an open competition process to work on the overall Co-Creative Lab project: Rachel Sweeney was appointed as Creative Collaborator, and Martina O'Brien as Artist in Residence. These roles were central to shaping the creative direction of the project overall, supporting co-creation with communities and stakeholders while embedding artistic practice across engagement, design, and delivery.

Maynooth University

Building on this foundation, Maynooth University developed partnerships with a number of additional contracted Creative Collaborators (Eoin McKeown, Vision Creative Studios and Antoon Knapp), and Artists in Residence (Dr. Michael Dawson with Maynooth University Chamber Choir, Dr. Seán Doherty and Dr. Dubhán Ó Longáin) over the lifetime of the project. These artists were contracted through Maynooth University public sector procurement procedures as the project progressed and new needs emerged, ensuring that creative engagement remained at the forefront of all project activities and dissemination. This flexible, responsive approach to recruiting and working with artists supported the delivery of a complex, multi-faceted programme, embedding artistic practice across research, community engagement, and knowledge exchange.

Each of the Co-Creative Lab artists have an independent section in this report outlining their engagement in this project.



Principles We Follow in the Co-Creative Lab

Fun Theory: We believe climate action doesn't have to feel like an added task in daily life. Through playful activities, creative challenges, and engaging experiences, we make it enjoyable to participate in creating a more sustainable future. From interactive workshops to gamified community events, we show that taking action can be both impactful and fun.

Creativity: Encouraging outside-the-box thinking to solve challenges in imaginative ways.

Community-Led Solutions: Empowering residents to take the lead in driving local change.

Participant Feedback: Co-Creation Community Participant Interview

"I think it's a really rewarding experience to be a part of the Co-Creative Lab Community as a resident here in Maynooth. I think art is a really effective way to communicate climate action because oftentimes artists are people who are working with communities, working with the land a lot as well, and they can often be excluded from these conversations around how to action and get people involved with climate initiatives, so often artists are not used in climate action to their full potential.

So giving the public and the university and the local community the opportunities to work with these artists I think was a really effective way to engage people. Also policy decisions can sometimes feel a bit abstract to local people. So having a sort of in-between link that could communicate those two, and that they could actually have an artistic output to see the potential impact is something inspiring."

(Co-Creation Community Participant)



Project Funder

Creative Ireland

The Creative Ireland Programme (2017-2027) is the Government of Ireland's national cultural policy initiative, overseen by the Department of Tourism, Culture, Arts, Gaeltacht, Sport, and Media. Its ultimate goal is to put creativity at the centre of public policy, recognising it as a strategic resource for community wellbeing, innovation, and sustainability (Creative Ireland, 2017).

Creative Ireland believes that cultural involvement and creative participation can create good social change, improve wellness, and address important societal concerns such as climate change. Creative Ireland promotes place-based, participatory techniques that connect communities to important policy priorities such as sustainability, inclusivity, and resilience by sponsoring creative initiatives in collaboration with local authorities.

In recent years, Creative Ireland has emerged as an effective vehicle for integrating cultural approaches into Ireland's climate action framework. Its Creative Climate Action initiatives fund experimental, community-driven projects that combine narrative, design, and creative practice to encourage public engagement with climate issues.

Funding Stream: Ignite

The Ignite Funding Stream is part of Creative Ireland's Creative Climate Action II: Agents of Change programme, which is implemented in collaboration with the Department of Environment, Climate, and Communications (DECC). This funding stream focuses on novel, experimental, and scalable projects that use innovative approaches to raise climate awareness, community participation, and behaviour change (Creative Ireland, 2022).

Ignite funds programs that go beyond traditional awareness efforts by focusing on solutions-oriented, culturally relevant interventions. It encourages applicants to create projects that make climate action more accessible, engaging, and pleasurable, especially in populations experiencing climate weariness. The financing stream emphasises collaboration among artists, designers, researchers, and communities, reflecting the view that addressing climate change necessitates interdisciplinary, co-creative solutions.



Project Partners and Governance

Kildare County Council

Kildare County Council was a core public partner in the Co-Creative Lab project, providing strategic leadership, local authority insight, and a direct link to county-level climate policy and implementation. Through the Kildare County Council Climate Action Office, the Council played a central role in grounding the project within the practical realities of local government, public service delivery, and community-based climate action. This ensured that the work of the Co-Creative Lab aligned with county climate objectives while remaining responsive to the lived experience of communities within the Maynooth Decarbonisation Zone.

The Climate Action Office acted as a coordinating and enabling body for the project, supporting collaboration between local authority teams, Maynooth University, artists, and community stakeholders. Its involvement helped ensure coherence between creative engagement, research activity, and policy priorities, and supported the translation of community insights into forms that are relevant and meaningful for local government practice. The Office provided guidance on climate action frameworks, shared access to local data and networks, and supported Maynooth University with the practical delivery of engagement activities across public and community settings.

Kildare County Council also coordinated the implementation of some of the physical innovations within Maynooth town. This included supporting site identification, permissions, logistics, and installation processes for project infrastructure placed in public spaces. Through this coordination, the Council enabled the testing and visibility of climate innovations and creative interventions in real-world settings, ensuring they were safely, appropriately, and effectively integrated into the urban environment. In addition, the Council facilitated access to local spaces, events, and audiences for some of the outreach events, enabling the project to reach a broad and diverse cross-section of the community. Through its established relationships with community groups, cultural organisations, and local initiatives, Kildare County Council supported inclusive participation and helped embed the project within the everyday life of the town and county. This local knowledge was essential in shaping engagement approaches that were appropriate, accessible, and reflective of community needs.



The Climate Action Office also contributed to the project's longer-term perspective, ensuring that insights generated through creative and participatory processes could inform future climate action planning, decarbonisation initiatives, and community engagement strategies. By working closely with project stakeholders, the Office supported a model of climate action that values experimentation, learning, and collaboration alongside policy delivery.

Through their combined involvement, Kildare County Council and the Kildare County Council Climate Action Office demonstrated the role of local government as both facilitator and collaborator in creative climate action. Their contribution highlights how local authorities can support innovative, place-based approaches that integrate policy, research, creativity, and community participation to advance sustainable transitions at a local level.

As part of Kildare County Council, Kildare Arts Service brought specialist knowledge of creative process, artist development, and participatory arts practice. The Arts Service contributed to ideation around climate innovations and supported the interpretation of data emerging from Maynooth University partner surveys, focus groups, and community engagement outreach activities. Drawing on their experience in translating complex ideas into accessible cultural artefacts, the Arts Service took part in wider-team co-creation workshops that bridged research findings, creative thinking, and public understanding.

The Arts Service led the open call and selection processes for two of the artists that were involved in the Co-Creative Lab: Creative Collaborator, Rachel Sweeney, and Artist in Residence, Martina O'Brien, ensuring that the call outs prioritised the project's values of inclusion, collaboration, and place-based climate engagement. Kildare Arts Service supported the practical delivery of Rachel and Martina's engagement activities, including identifying and targeting audiences across Maynooth and the wider county. Through these combined roles, Kildare Arts Service strengthened the cultural and creative dimension of the Co-Creative Lab. Their contribution highlights the value of arts infrastructure and expertise in supporting interdisciplinary climate action initiatives, demonstrating how creative practitioners can play a vital role between artists, communities, and researchers to explore climate challenges in inclusive, imaginative, and locally grounded ways.



Maynooth University

Maynooth University, a National University of Ireland, served as the core research and innovation partner within the Co-Creative Lab. Within the university, the IRESI Research Centre, leading the Co-Creative Lab, is located at the heart of the Maynooth Decarbonisation Zone. The university occupies a unique position as both a national research institution and an embedded local stakeholder, with strong connections to the town, county, and wider region. This positioning enabled the University to act as a central convenor of all parties involved in the project, bringing together academic, industry, creative, policy, and community perspectives within a shared climate action framework.

A key contribution of Maynooth University was the coordination of the multiple teams and disciplines working across the project. The University led the integration of design and innovation practitioners, engineering teams, artists, local authority partners, community stakeholders, and research team, ensuring alignment across activities and coherence between creative engagement, and innovation development. One of the most significant aspects of Maynooth University's involvement in the project was leading the organisation and facilitation of 30+ outreach events, workshops and dissemination activities involved in the project. This role maximised engagement, communication, shared learning, and consistency in approach across the diverse strands of the Co-Creative Lab.

Maynooth University also led the development and facilitation of the project's youth committee in response to calls for youth involvement during early data collection. In doing this, they positioned young people as essential contributors to climate action and innovation. The youth committee was established in line with best practice in youth participation and EU engagement principles, and was embedded throughout the project lifecycle. Members of the committee were actively involved in data collection, outreach events, co-creation workshops, prototyping activities, mentoring of peers and dissemination activities. Their involvement informed both the direction and tone of the project, ensuring that youth perspectives were meaningfully integrated in the project.

In addition, Maynooth University led engaged research practices throughout the project, providing an academic context for data collection (development and implementation of surveys, focus groups and other inclusive strategies), data analysis, reflection, and dissemination. University spaces were used for workshops,



pilot testing, exhibitions, and public engagement activities, allowing innovations and creative approaches to be explored in real-world settings. Maynooth University Staff and Student participation through coursework, project-based learning, and co-creation activities further strengthened the link between research, education, and community engagement. Maynooth University led prototyping of innovations and worked closely with Kildare County Council to support the installation of the innovations in the town of Maynooth.

As project needs emerged, through public procurement procedures and local volunteers, Maynooth University recruited several Creative Collaborators and Artists in Residence to support with innovation development, creative engagement with climate concepts, data collection, analysis and data dissemination through artistic outputs. Additionally, they led the development of a film documentary incorporating the perspectives of some of the key stakeholders involved in the project.

Through close collaboration with Kildare County Council, artists, and community partners, Maynooth University delivered a model of place-based climate action that values coordination, creativity, inclusion, reflection and long-term capacity building. Its leadership in convening diverse teams, design and innovation, outreach engagement, dissemination of project activities and supporting youth participation demonstrates the role of higher education institutions in enabling collaborative, community-centred responses to climate challenges.



Research Rationale

This section of the report will explore some of the context around the research rationale for the project.

Climate Change

Climate change refers to long-term changes in temperature, precipitation, and weather patterns caused mostly by human activity, particularly the combustion of fossil fuels and land-use change (IPCC, 2023). The consequences include rising global temperatures, more frequent extreme weather events, biodiversity loss, and serious concerns to human health, food security, and livelihoods (UNFCCC, 2022). The scientific agreement is that immediate reduction and adaptation actions are required to keep warming to 1.5°C over pre-industrial levels, as agreed under the Paris Agreement (2015).

In Ireland, average annual temperatures have risen by 0.9°C since 1900, sea levels have risen along the coast, and rainfall patterns have changed, with more severe winter precipitation (EPA, 2022). These changes put pressure on infrastructure, agriculture, and ecosystems, demonstrating the importance of localised action.

Climate Change Fatigue

While public knowledge of climate change is strong, there is increasing evidence of climate change fatigue, a feeling of depletion, powerlessness, or disengagement caused by continuous exposure to worrisome messages (Wibeck, 2014; Clayton, 2020). When climate communication concentrates on catastrophic outcomes rather than identifying routes for agency, eco-anxiety increases, particularly among young people (Ojala, 2012).

Fatigue is also associated with information overload and perceived policy or infrastructure inconsistencies, such as ambiguous recycling laws (Moser, 2016). Overcoming this demands communication strategies that shift away from fear appeals and toward solutions, hope, and empowerment (Nabi et al., 2018).

Climate Action

Climate action includes both mitigation (lowering emissions) and adaptation (enhancing resistance to impacts). Effective climate action necessitates multi-level governance, which includes international agreements, EU directives, national



policies, and local initiatives (Bulkeley and Betsill, 2013). Individual and community-level behavioural change is increasingly recognised as necessary, as legislation alone cannot produce substantial change without public participation (Stern, 2020).

Positive Climate Action

Research highlights, it is critical to frame climate action in a positive perspective, highlighting co-benefits including community well-being, innovation, and creativity. Hope-based communication has been demonstrated to increase involvement and resilience, particularly among youth (Ojala, 2012). Playful, creative, and community-based interventions can transform climate action into a source of empowerment rather than despair (Leavy, 2017).

Local Policy Context

Maynooth has been identified by Kildare County Council as the county's Decarbonisation Zone within its Climate Action Plan 2024–2029, serving as a pilot area to implement and test localised climate mitigation measures. The strategy defines the zone as a spatial area where coordinated actions across transport, energy, built environment, and community engagement are used to reduce greenhouse gas emissions in line with national targets. Maynooth was selected due to its rapid population growth, existing active travel infrastructure, and the presence of Maynooth University, enabling it to act as a “test bed” for scalable low-carbon solutions that can be replicated across the county (Kildare County Council, 2023).

Irish Policy Context

The Climate Action and Low Carbon Development (Amendment) Act 2021 serves as the foundation for Ireland's climate policy, committing to attaining a 51% reduction in greenhouse gas emissions by 2030 (relative to 2018 levels) and net-zero emissions by 2050. The Act legally demands the creation of carbon budgets and sectoral emission ceilings.

The Climate Action Plan 2023 provides measures for energy, transport, waste, and land use, with a focus on community engagement and just transition (DECC, 2023). The National Climate Change Adaptation Framework (2018) emphasises the need of local resilience and cross-sector collaboration. Creative Ireland plays an important role in integrating culture and sustainability.



EU Policy Context

The European Union provides overarching frameworks that shape Irish policy. The European Green Deal (2019) commits the EU to becoming climate neutral by 2050 and sets intermediate targets of a 55% emissions reduction by 2030. Key legislative instruments include:

- The EU Climate Law (2021), making climate neutrality legally binding.
- The Fit for 55 Package (2021), revising legislation on emissions trading, renewable energy, and transport.
- Circular Economy Action Plan (2020), which aims to reduce waste, improve recycling systems, and stimulate sustainable consumption.

Ireland, as an EU member state, must transpose these frameworks into national law and local practice, making initiatives like the Smart Bin part of a broader EU effort to accelerate behavioural and systemic change.

Solutions-Focused Approach

A solutions-oriented approach to climate involvement was adopted to promote for realistic, hopeful, and participative initiatives. Instead of focusing on sacrifice or guilt, it demonstrates potential for innovation, creativity, and well-being (Nabi et al., 2018). This is consistent with positive reinforcement theories, nudge theory, and gamification (Sunstein, 2014; Hamari, Koivisto, & Sarsa, 2014).

In terms of policy, the IPCC (2023) is increasingly promoting solutions-oriented communication, highlighting the significance of framing climate action in ways that empower communities and highlight co-benefits such as cleaner air, greater health, and stronger communities.

Maynooth Decarbonisation Zone

Maynooth has been named one of Ireland's Decarbonisation Zones (DZs), which are geographically delimited areas chosen by local authorities to pioneer low-carbon and climate-resilient communities (EPA, 2021). Local governments must implement creative mitigation and adaptation measures in DZs, transforming them into test beds for new ideas.



Figure 2- Kildare Climate Action Office, Climate Action Plan, 2024-2029

The project exemplifies this function by incorporating community-driven behavioural innovation into Maynooth's climate transition. The town's status as a university hub with a varied population makes it ideal for experimenting with innovative, participatory methods to sustainability. In terms of policy, the IPCC (2023) is increasingly promoting solutions-oriented communication, highlighting the significance of framing climate action in ways that empower communities and highlight co-benefits such as cleaner air, greater health, and stronger communities.

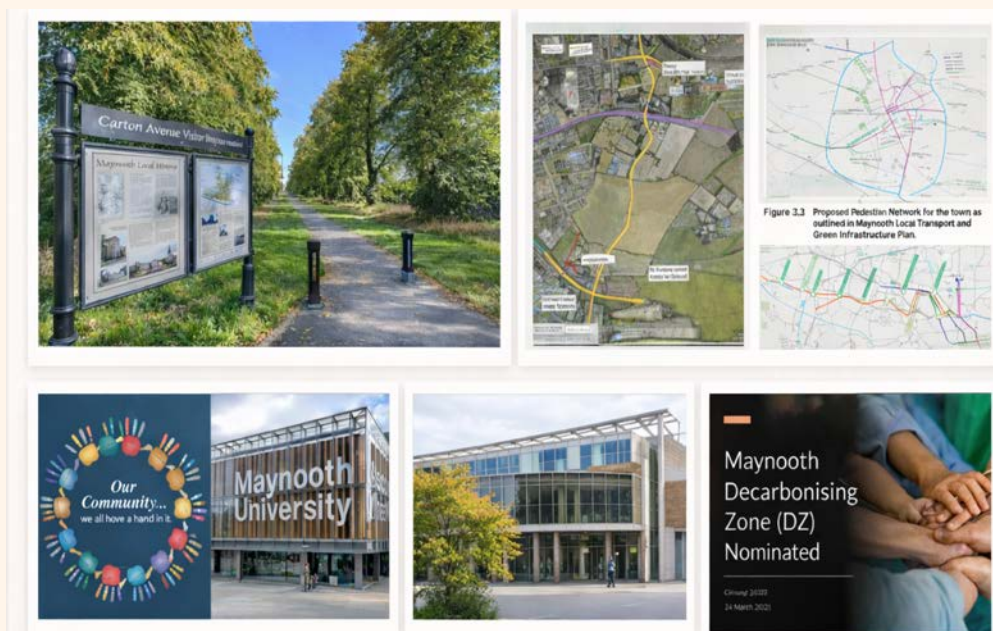


Figure 3, Maynooth Decarbonisation Zone, Kildare Climate Action Office



acknowledging that addressing sustainability issues necessitates not only technical solutions but also cultural imagination and community engagement (Yakman, 2008).

STEAM methods in climate action promote participatory, interdisciplinary problem-solving that integrates scientific data with emotional, cultural, and ethical dimensions (Henriksen et al., 2014). The project exemplifies a STEAM intervention since it combines behavioural science, design innovation, and creative expression to encourage recycling in Maynooth.



Research Objective

- To explore how creative, community-led initiatives can increase public engagement in local climate action.
- To identify barriers and enablers to participation in climate initiatives using fun and inclusive approaches.
- To co-create innovative, tangible, and visible climate solutions with the Maynooth community.



Figure 5 Kildare Climate Action Office Co-Creative Lab Maynooth Decarbonisation Zone Exploration Walk, 2024, Amy Fahy



Research Plan

The research plan involved seven key phases, as documented in the figure below:



Figure 6, Research Plan



Stakeholder Consultation

Introduction

Maynooth University led stakeholder engagement activities to inform innovation design through surveys and focus groups, alongside consultations with key policy and community stakeholders in Maynooth. This process was designed to generate evidence to inform subsequent prototyping and design activities. The aim was to explore challenges motivators, and opportunities for embedding climate action within everyday local practices. Additional interactive data collection strategies were also employed throughout the project (e.g. storytelling, world café, dots, sticky notes, graphic illustration) at outreach events, and feedback was implemented in the design and innovation process on an ongoing basis. These methods are discussed in more detail later in the report.

The consultation process was informed by Fun Theory, the assumption that behaviours that include an element of fun are more likely to be adopted than routine behaviours, and participatory design, the vision of communities not as recipients of innovation but as co-producers of innovation. This approach established a pre-prototyping evidence base by integrating survey analysis, focus group feedback, and stakeholder consultation in a participatory, engaging manner aligned with policy frameworks and local realities.

Survey

600 participants living or working in the town of Maynooth responded to the climate action survey. The survey gathered data on climate change knowledge, degree of concern, most-used sources of climate information, locally perceived environmental priorities, and willingness to engage in climate action. The survey consisted of quantitative and qualitative (open-text) questions. It generated both an overview of community attitudes and applied insights into locally salient issues and readiness to participate.

Survey Sample and Coverage

The survey achieved a near-equal gender balance, 308 female, 290 male, 2 other, strengthening representativeness. Responses were multigenerational. One

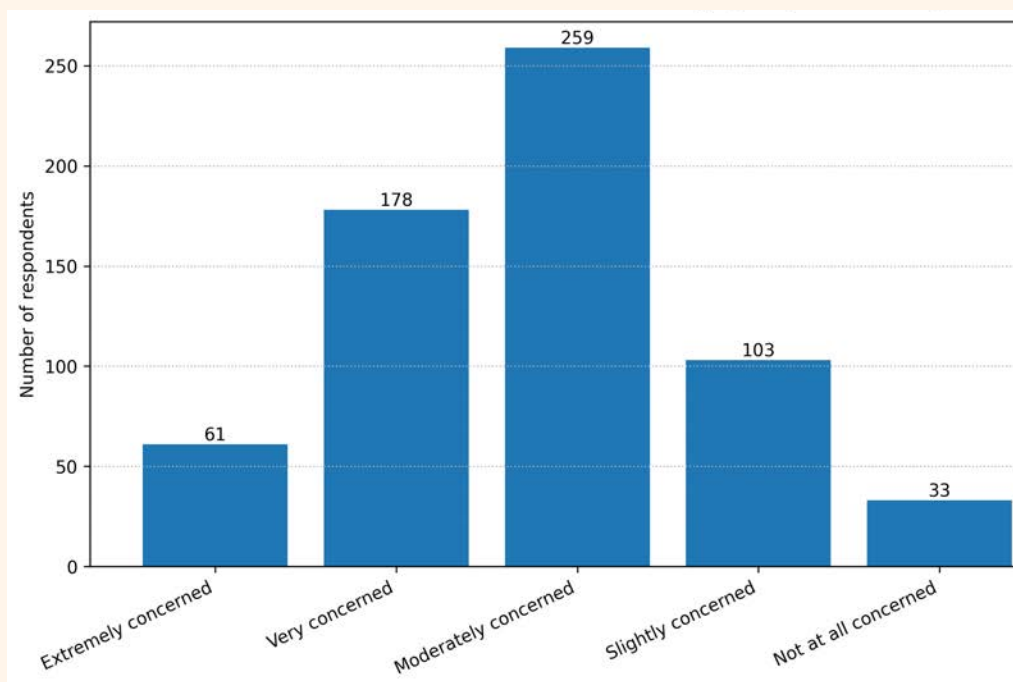


notable pattern was that the youngest cohort, aged 18 to 24 years, expressed the highest concern about climate change while also demonstrating the greatest disconnect between knowledge and behaviour.

Key Survey Findings Summarised

Most respondents expressed concern about climate change, with concern more pronounced among those who were better informed. However, this concern did not consistently translate into behavioural uptake, indicating a clear intention behaviour gap. This suggests that awareness alone is insufficient to drive sustained action. The below bar chart illustrates this:

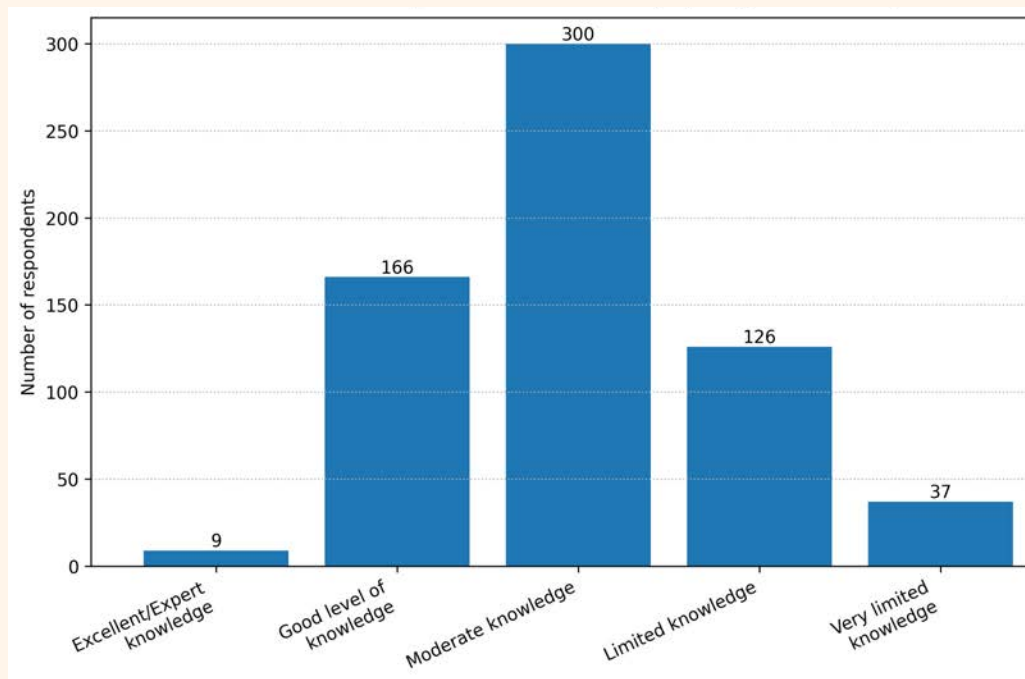
Table Demonstrating Concern About Climate Change (Quantitative Survey Results)



Respondents mostly ranged from limited to good level of knowledge as seen in the table below:



Table Demonstrating Knowledge About Climate Change (Quantitative Survey Results)

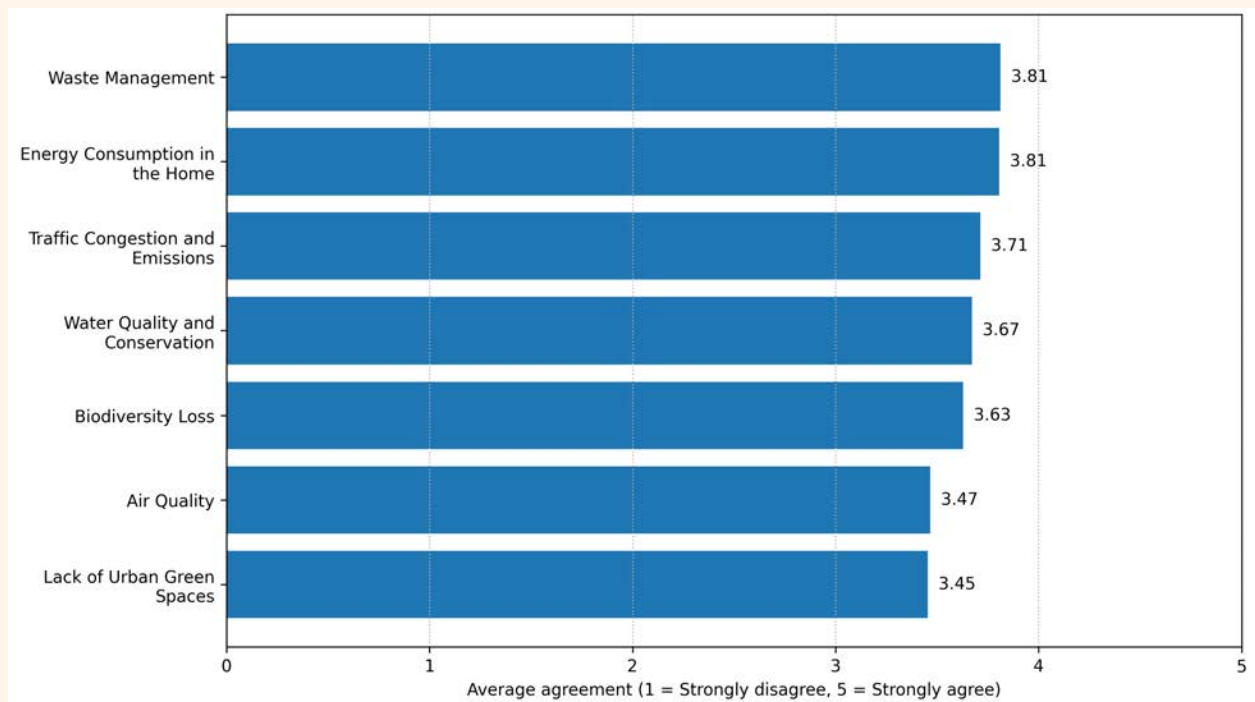


Social media and mainstream media were the most commonly reported sources of climate information. This highlights that climate knowledge is largely shaped through high-volume media environments, which aligns with participants' reported fatigue with negative climate messaging and may contribute to feelings of overwhelm or disengagement.

Local environmental priorities centred on traffic congestion, recycling confusion, and energy use and biodiversity loss. These findings demonstrate that climate concerns are strongly rooted in everyday lived experience and in practical challenges encountered in local systems. The prominence of recycling confusion suggests that willingness to engage is often undermined by lack of clarity around correct actions.



Table Demonstrating Areas for Improvement (Quantitative Survey Results)



Many respondents expressed willingness to join climate action initiatives but also uncertainty regarding which actions have the greatest impact. This reinforces the need for hands-on, real-world engagement formats that provide clarity, build confidence, and demonstrate practical pathways for participation.

Summary Interpretation

Overall, the survey indicates that the Maynooth community is concerned about climate change but experiences fatigue, particularly in response to negative climate messaging, alongside uncertainty regarding effective actions. These findings highlight the importance of interventions that can be physically experienced, easily understood, and appreciated in everyday contexts. Innovations should support small, achievable actions in the first instance, enabling people to build confidence and expand participation over time.



Focus Groups

Survey findings were triangulated through eight semi-structured focus groups which were led by Maynooth University. These focus groups involved diverse community members, including participants from mother and toddler groups, elderly community groups, children and young people, local businesses, Maynooth University, and wider Maynooth community members.



Figure 7 Focus Group in Maynooth Community Library, 2025, Photographer Amy Fahy

Participants represented different ages, family structures, and lived experiences of the town. Focus groups were designed to deepen understanding of survey results and explore community perspectives on climate action. Braun and



Clarke (2006) thematic analysis was applied to the qualitative data, generating six core themes.

Quote from Interview with Stakeholder Engagement Volunteer

“Instead of asking people to come to us, we went out into the community, meeting with groups like parents, young children, and older residents in environments that they were comfortable and familiar in.

It was important that this wasn't just about collecting information, but about genuinely involving people. We wanted community voices heard throughout the project, making sure the innovations were created with them, not just for them.” (Quote from Stakeholder Engagement Volunteer)

Key Focus Group Findings

Emotional Distance and Fatigue

Participants expressed frustration with abstract climate targets and a lack of urgency in long-term goals. Climate anxiety was particularly evident among younger participants:

“people are hearing about climate change, but think that, this is the world, that we are already doomed and so we should not bother taking action”.

Concerns were also raised about affordability and access to sustainable technologies:

“Decarbonisation is something that you can do if you have the money to make big changes in your home like buying an electric car or investing in a heat pump, and are savvy with all these statistics and technology, but most of us are just getting by with what we have currently”.

Global versus local comparisons contributed to emotional distancing:



"It's very hard when you have these conflicting pressures. As a small country, it's disheartening when one big state across the pond is belching out more emissions than we could in a lifetime."

Youth participants described feeling overwhelmed:

"All we hear is doom and gloom. That doesn't make you want to act, you feel hopeless and don't even know what to do."

Fun, Games, Motivation and Social Incentives

Fun and creativity were consistently identified as motivators:

"Gamification is the method of goal achievement but the process of enjoyment due to the creation of the sense of group spirit."

"Gamification is a way to meet objectives while having fun... it creates group spirit."

Interactive learning experiences were viewed as impactful:

"My kids went home after the picnic in the park telling their dad all about wave energy and emissions. That was fun learning, real learning."

Ideas included recycling sculptures and visual games:

"Imagine a butterfly sculpture with coloured holes where you recycle things, and it creates a picture as it fills up."

"Snakes and ladders-style board games at the market about climate action, something the whole family could play."

Fun was framed as relational:

"What's fun for me is being around people in the community, not necessarily doing anything, just being present."

Practicality and Visibility of Impact



Participants emphasised tangible engagement:

“DIY workshops where you can see, touch, and build things like solar cookers, solar fountains or rainwater tanks. That’s where the learning sticks.”

Uncertainty about effective action persisted:

“it is not that I do not care but I simply do not know what kind of actions can be effective anymore.”

“It’s not that I don’t care, I just don’t know what actions are effective anymore. It’s too much information and not enough clarity. It needs to be simple to understand and visually appealing for sure.”

Cost was raised:

“It shouldn’t cost me money to do a good thing for the environment”.

Infrastructure and Transport

Participants highlighted transport, recycling, and public space barriers:

“You can’t safely walk or cycle with a toddler. No one wants to be pushing a buggy on a busy road.”

“The confusion is huge with recycling... Which bin does what? I still don’t know what to do with greasy pizza boxes.”

Congestion and safety issues emerged:

“I live 2km from the university. If I don’t leave by 8:20, I’m stuck in traffic for 40 minutes, yet I don’t feel safe cycling because the cycle path markings are unclear. Maybe if we had colourful murals in the cycle paths it would make them safer to use.”

Shared planning was proposed:



"We should all sit down together and design what we want our town to be like. Different people have different ideas and priorities, especially when it comes to what they think is important for sustainability".

Inclusivity

Participants emphasised genuine inclusion:

"The town has a sign that says it is an autism friendly town but what do we do as a town that demonstrates this in practice?"

Intergenerational design was supported:

"I want something my parents can do too, like workshops where older and younger people build something together."

Inclusivity was positioned as foundational rather than optional.

Agency, Ownership and Local Empowerment

Participants wanted visible contribution and ownership:

"I think it's about feeling you're doing your bit. Even small things add up when everyone does them."

Ideas for celebrating action included:

"Let people submit photos of what they've done, like fixing bikes or growing veg. Display them somewhere. Let us see the change we're making."

Public art suggestions included:

"I'd love a wall mural where every time someone does a positive behaviour change action like take the train for example, a new part of the picture lights up or changes."

"It would be amazing to have a painted wall where kids could add something every time they cycle to school for example, it becomes theirs."



“If there was a big painted mural that tracked how much energy we save or generate as a town, I think more people would get involved.”

Triangulation of Data

Combining survey and focus group findings identified key barriers, emotional fatigue, infrastructural challenges, behavioural uncertainty, and enablers, fun, gamification, visible impact, inclusivity, agency. These insights directly informed prototype priorities.

Summary

Stakeholder consultation revealed strong concern about climate change alongside fatigue, uncertainty, and structural barriers to action. Communities expressed a clear preference for practical, inclusive, creative, and locally grounded interventions. Addressing emotional distance through playful, visible, and participatory approaches emerged as critical for transforming concern into meaningful engagement.



Figure 8 Focus Group, Maynooth, Maxwell Photography, 2025



Figure 9 Focus Groups, Maynooth, Maxwell Photography, 2025



Focus Group Thematic Summary Table

The table below illustrates the key themes that emerged from the focus group data collection and analysis:

Table 3 Focus Group Thematic Summary Table

<u>Theme</u>	<u>Summary</u>	<u>Illustrative Quote</u>
Emotional Distance & Fatigue	Frustration and disconnection from large-scale climate messaging caused by perceived inaction and overwhelming imagery.	“People hear about climate change, but they think, ‘that’s just the world now.’”
Fun, Games, Motivation and Social Incentives	Community members value gamified, low pressure, and social approaches to encourage participation in climate actions.	“Snakes and ladders-style board games at the market about climate action, something the whole family could play.”
Practicality and Visibility of Impact	Strong preference for hands-on, visible results from workshops and installations that clarify effective behaviour.	“DIY workshops where you can see, touch, and build things like solar cookers.”
Infrastructure and Transport	Concerns about safety, walkability, and recycling confusion; need for improved infrastructure and clearer public systems.	“The confusion is huge with recycling... Which bin does what?”
Inclusivity	Emphasis on genuine inclusion across age, culture, and abilities; support for intergenerational, accessible climate actions.	“There’s a sign saying this is an autism-friendly town... but how is that shown in the actual spaces?”
Agency, Ownership, and Local Empowerment	Desire for community-led, visible initiatives that build pride and offer opportunities to contribute meaningfully.	“Let people submit photos of what they’ve done, like fixing bikes or growing veg. Display them somewhere.”



Triangulation of Data and Recommendations

Based on triangulation of the interview and initial focus group data, the following themes are suggested for co-creation of innovations for Maynooth:

Table 4 Triangulation of Data and Recommendations

<u>Innovation Theme</u>	<u>Description</u>
1. Climate Art with Purpose	Public artworks (e.g. mural, physical sound installation) using recycled materials or real-time data.
2. Energy Management Resource	Interactive and can raise awareness about the concept of energy generation, energy use and behaviour change in a simple way.
3. Biodiversity Pop-Ups	Installations in parks or along walkways that highlight native species, include QR codes or sensory elements.
4. Street-Level Games	Interactive public games or challenges (digital or physical) promoting sustainable actions.
5. Climate Conversation Zones	Temporary seating, reading nooks, or creative “pause points” that invite dialogue and learning.
6. Celebrate, Entertain	Locations for sharing, creative reuse, and expression of positive climate messaging in community spaces.

Extensive work was then carried out by Creative Collaborators to support with additional data collection and the co-creation of the design briefs for the various innovations.



Creative Collaborators

Creative Collaborator: Rachel Sweeney

As part of the Co-Creative Lab initiative, artist and eco-somatic practitioner Rachel Sweeney played a significant role in engaging the Maynooth community in reflective and meaningful conversations about climate action through creative, place-based methodologies. Her practice, which is deeply rooted in eco-somatic inquiry, embodied environmental education, and participatory arts, offered a powerful bridge between complex climate challenges and lived community experience. Through sensory engagement, storytelling, movement, and collective making, Rachel's work created space for dialogue that extended beyond technical or behavioural framings of climate action.

Rachel's contribution strongly aligned with the Co-Creative Lab's core values of inclusion, accessibility, and collaboration. By working across intergenerational and multicultural audiences, she brought depth, imagination, and emotional resonance to the project, complementing the Lab's data-driven and innovation-led approaches with embodied and cultural forms of climate literacy.

Integration within the Co-Creative Lab Process

Rachel Sweeney joined the project during the design briefs phase, a formative stage in which early ideas, themes, and innovation directions were being shaped through co-creative group sessions. Her participation in these sessions enabled her to listen directly to community concerns, aspirations, and uncertainties around climate action, and to identify opportunities where creative practice could meaningfully extend the co-design process.

This early integration ensured that Rachel's work was not positioned as a parallel or standalone programme of activities, but rather as an embedded extension of the Co-Creative Lab's participatory ethos. Insights gathered during the design brief discussions directly informed the content, format, and facilitation of her workshops, grounding them in the lived realities and priorities expressed by the Maynooth community.

Methodology and Composite Creative Approach

Rachel's methodology is grounded in eco-somatic practice, a field that explores the interconnectedness of body, environment, memory, and ecological awareness



through creative and sensory engagement. In response to the project brief, she developed a composite approach comprising four interconnected strands of activity:

1. Deep Time Walks
2. Craftivism Workshops
3. Eco-Literacy Talks
4. Community Building Workshops



Figure 10 Deep Time Walk, Photographer: Nicoline Dawkins, 2025

This multi-strand design allowed her to gather both individual insights and collective ideas for change, addressing themes ranging from transportation and housing to biodiversity and public space. Each strand was delivered in distinct venues across Maynooth, including the Royal Canal, Maynooth Public Library, and the Maynooth Demo House, and programmed across evenings, weekends, and daytime sessions. This intentional scheduling and spatial distribution supported engagement from a wide demographic and ensured accessibility for participants with different availability, interests, and levels of prior engagement

Across all strands, Rachel's facilitation emphasised deep listening, critical reflection, and creative expression, creating supportive environments for navigating the emotional, cultural, and ethical dimensions of climate change through co-creation and collaboration.



Key Workshops and Activities

Deep Time Walks

Delivered along the Royal Canal in Maynooth, the Deep Time Walks invited participants to journey through the Earth's 4.6 billion-year history by mapping planetary time onto a shared walking experience. Integrating geological, biological, and astronomical storytelling with local archaeological and ecological features, the walks created an embodied understanding of humanity's place within deep time. Participants were encouraged to reflect on how contemporary carbon footprints are reshaping the local bioregion and to consider concepts of planetary citizenship through a long-term, place-based lens.



Figure 11 Deep Time Walk, Photographer Amy Fahy, 2025

Craftivism Workshops

Hosted in Maynooth Public Library, these workshops explored drawing, crafting, and embodied art-making as responses to nature connection and biodiversity. Participants were introduced to deep mapping as a creative method for co-designing Maynooth's local area based on shared values and lived experience. Through hands-on making, participants engaged with local habitats and ecological concerns in ways that were accessible, reflective, and collaborative.



Figure 12 Place Mapping Workshop, Photographer, Nicolene Dawkins, 2025

Eco-Literacy Talks

Also delivered in the library setting, Rachel's eco-literacy talks examined the role of ecological awareness within contemporary culture and literature. Drawing on sources such as the Book of Kells and the Gaelic writings of Manchán Magan, these talks explored animism, multispecies storytelling, and linguistic connections to landscape. This strand situated climate action within broader cultural and historical narratives, reinforcing the role of heritage and storytelling in shaping ecological consciousness.



Illustrative Quote from Rachel, Creative Collaborator

"So we did some eco-literacy workshops with the public library. Those have been ways to start to think about how climate design and climate initiatives can really kind of percolate into the everyday readership. I think that one of the challenges that we have with climate change and how to get the information across, is often it feels like it's quite academic, or it feels like it's sort of hard data, and so it's really thinking about that lived behaviour of people who come in and out of the library and I have to credit that Maynooth Public Library have the most amazing new scholarship that's coming into the children's section. So there's some brilliant, really accessible eco books that are on the library shelves. So these events allowed us to look at our relationship with language. So we can look at our own lived history and particularly in terms of our relationship between people and plants. And one of the things that I was bringing into these talks was looking at things like Mancán Magan, has opened up the idea of environmental stewardship and has really animated our native Gaelic language. So there was some beautiful work from him that we were looking through and discussing as a way to think about our own relationship with nature and that was a beautiful way of meeting public, of talking about local placenames, the kind of ways that people named their placemaking and sensemaking of Ireland's native Irish language, which of course is having a very large revival. These workshops brough hands and heart into practice and these led nicely into the craftsism workshops that I ran, where people could think of ways to embody some of our ideas about shifting our relationship to movement in the town. Really thinking about how are we going to get towards decarboisation goals and what does that mean in practice and reinventing the ways we think about aspects like transport for instance in the everyday behaviour of Maynooth locals in the town.

(Illustrative Quotation from Creative Collaborator Interview)



Community Building Workshops: “Maynooth Unearthed”

Held at the Maynooth Demo House, these workshops focused on co-designing collective action maps to support behavioural change, particularly around local transportation. Participants contributed to the creation of a geosocial memory map of Maynooth, sharing reflections on how the town has changed over recent decades and identifying opportunities for future action. These sessions surfaced valuable insights into community identity, mobility, and belonging, directly informing wider Co-Creative Lab themes and innovations.

Impact and Integration Across the Project

Rachel Sweeney’s workshops were strategically scheduled across the project timeline, including key public moments such as Culture Night and National Heritage Week, ensuring strong visibility and broad community engagement. Importantly, participants who had previously engaged in surveys, focus groups, and innovation co-creation activities were actively invited to take part in her workshops. This created continuity across engagement formats and provided participants with opportunities to reflect more deeply on themes that had emerged during the design process.

Her work complemented and enriched other strands of the Co-Creative Lab by reconnecting participants with place, heritage, and more-than-human relationships. Insights and values surfaced through her workshops directly influenced emerging innovation themes, including Climate Conversation Zones and Biodiversity Totem Pole Planters, demonstrating how creative engagement can meaningfully inform design and placemaking.

Contribution to Creative Climate Action

As a creative collaborator, Rachel Sweeney’s work served multiple interconnected functions within the Co-Creative Lab. It surfaced community values, emotions, and lived experiences around climate change that could not be captured through data collection alone. It introduced a multisensory, inclusive form of climate literacy that extended engagement beyond formal scientific or policy frameworks. It also inspired imaginative thinking about public space, biodiversity, and collective futures, reinforcing the role of creativity in climate innovation.



Figure 13 Deep Time Walk Participants, Photographer Nicolene Dawkins, 2025

Rachel's sustained presence throughout the project was instrumental in holding space for conversations that were at times difficult, hopeful, joyful, and contradictory, reflecting the full complexity of community life in Maynooth. Her contribution demonstrates the value of embedding artists and creative practitioners within civic climate processes, showing how art can act as a catalyst for community cohesion, ecological awareness, and long-term behavioural change. Through her work, abstract climate challenges were transformed into participatory stories of place, memory, and shared responsibility, reminding participants that meaningful climate action begins not only with knowledge, but with feeling, imagination, and collective care.



Figure 14 Exploring Biodiversity and Pollution in Maynooth, Photographer, Amy Fahy, 2025



Illustrative Quote from Rachel, Creative Collaborator

"I am a dancer and an ecologist and the work that I do is really based on people and place. And I work on linking people through what I would call as a sensory ecology approach. So very much a hands-on understanding of what we are in relation to the planet, in relation to our immediate environment and in relation to ourselves. So for this project, I was given quite a free reign, and supported by the Kildare Climate Office and also through the Creative Lab at Maynooth University. So I sort of feel that my role was a bit of a cross-pollinator. So I decided to create a composite structure for the project. So I ended up doing quite a few different series of events. We started seasonally, so I started the project at the end of spring, and the natural kind of inclination for me was to use the outdoors to connect people to their everyday behaviour. Whether it was walking along the canal, whether it was the back street up to the castle, taking in the surroundings of the town while we talked about this wider issue of decarbonisation.

So we did some eco-literacy workshops with the public library. Those have been ways to start to think about how climate design and climate initiatives can really kind of percolate into the everyday readership. I think that one of the challenges that we have with climate change and how to get the information across, is often it feels like it's quite academic, or it feels like it's sort of hard data, and so it's really thinking about that lived behaviour of people who come in and out of the library.

We also did a series of Deep Time Walks, and these are a practical, playful, creative way to engage people with the notion of planets and time. I had all sorts of age demographics from very diverse backgrounds.

We did 2.5km around Maynooth, taking in some of the history and the stories that lie beneath the town. So one of the incentives to use this approach is because we have to start to think about not just where we are going next, but also how we have evolved as human beings and through the age of the Anthropocene. And time that is given over the deep time walk is an opportunity for people to reflect on their own place in this lived history and also to reflect on how that town might change. So by travelling back in time, we're also starting to think about what that future timelines could be and starting to create and re-imagine a future version of Maynooth, particularly in relation to the movement and mobility in the town.

(Illustrative Quotation from Creative Collaborator Interview)



Creative Collaborator: Eoin McKeown



Figure 15 Graphic Illustration Events., Photographer, Amy Fahy, 2024 & 2025

As part of the Co-Creative Lab initiative, artist and illustrator Eoin McKeown played a central role as a Creative Collaborator in supporting community engagement, data collection, and the development of climate innovation concepts through collaborative graphic illustration and creative reuse practices. From the outset of the project, his work provided an accessible and inclusive way for diverse audiences in Maynooth to engage with climate priorities, articulate their perspectives, and contribute ideas for local innovation.

Eoin's contribution aligned strongly with the Co-Creative Lab's emphasis on participation, inclusion, and making climate action practical and visible. His practice helped translate abstract policy goals and sustainability targets into visual, conversational, and material forms that could be easily understood and meaningfully discussed by people of different ages, backgrounds, and levels of climate literacy.

A Visual and Participatory Data Collection Approach

Eoin supported the Co-Creative Lab from the early stages of community engagement by facilitating collaborative graphic illustration at public events and workshops. Using the Maynooth Decarbonisation Zone Kildare County Council key



target areas as prompts, he worked with a wide range of community members to explore perceptions, concerns, and aspirations related to local climate action. These visual prompts provided a structured yet open framework that enabled participants to reflect on themes such as energy, waste, transport, and public space, while also proposing ideas for innovation rooted in lived experience.

The use of live illustration as a data collection method proved particularly effective in lowering barriers to participation. Participants were able to contribute verbally, visually, or through informal conversation, making the process accessible to those who might not typically engage in surveys or formal consultations. The resulting graphic outputs captured community insights in real time, creating shared artefacts that supported discussion, reflection, and collective sense-making.

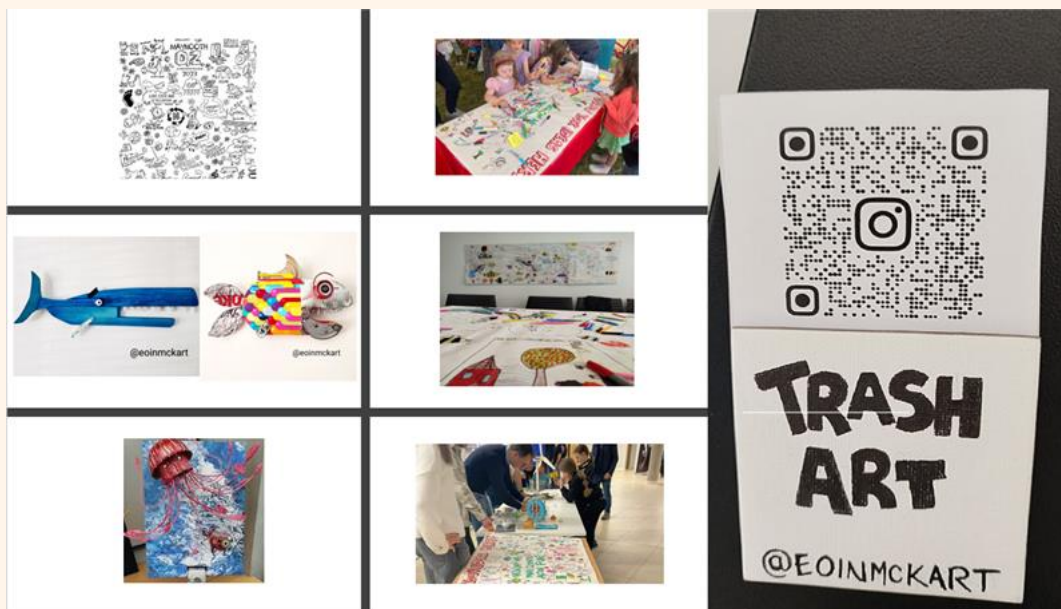


Figure 16 Showcase of Graphic Illustration and resulting Crafts, Eoin McKeown, 2025

Creative Reuse and Material Dialogue

Later in the project, Eoin showcased his own artwork created from discarded and reclaimed materials. These showcases acted as informal exhibition spaces and conversation starters, prompting dialogue about waste, value, and the potential for reuse. By transforming rubbish into something artistic, Eoin encouraged participants to reconsider assumptions about waste and to explore how discarded materials might be reimagined as resources rather than problems.



Contribution to Co-Design and Innovation Development

Eoin McKeown's work bridged research, creativity, and design within the Co-Creative Lab. His visual data collection methods enriched the evidence base of the project, while his artistic practice supported deeper reflection on material use and sustainability. By combining collaborative illustration with creative reuse, his contribution helped ensure that community voices were not only heard but visibly embedded in the innovation process.



Creative Collaborator Group: Antoon Knapp and Peter Hamilton

Antoon Knapp: Visual Artist

Antoon Knapp is a visual artist originally from Amsterdam who has lived and worked in Ireland for over twenty-five years, bringing deep experience in illustration and visual communication to community-centred projects. His practice emphasises accessible, engaging imagery informed by observation, narrative and place, skills he applied directly within the Co-Creative Lab to support the translation of research insights and community data into visual storytelling. Knapp developed a set of modular illustrated panels for the *Maynooth Sustainability Story* that visualise local sustainability themes, such as transport, energy, biodiversity and everyday decision-making, in a way that resonates with diverse audiences. His work has been shared across community spaces, events and digital platforms, making complex ideas tangible and visually inviting. Knapp's contribution demonstrates how culturally grounded visual design can bridge research evidence and lived experience, helping residents to see themselves and their priorities reflected in project outcomes.

Peter Hamilton: Storyteller

Peter Hamilton is a long-standing community and sustainability leader in Maynooth, best known as the founder and chair of the Maynooth Sustainable Energy Community and the Kildare County Sustainable Energy Network, organisations dedicated to grassroots climate action and local energy transitions. With over 35 years' experience in business and enterprise, Hamilton has mobilised local citizens, schools, community groups and organisations around sustainability initiatives and climate awareness, helping embed green energy priorities within the town's civic life. His work spans leadership in community councils, climate activism and collaboration with researchers, making him a key connector between local experience and evidence-based innovation. Within the Co-Creative Lab, Hamilton drew on his deep understanding of community priorities to shape narrative content for the *Maynooth Sustainability Story*, translating survey and focus group findings into clear, action-oriented storytelling rooted in lived experience and collective agency. His contribution reinforces the role of community energy groups in sustaining momentum for climate action and ensuring that research insights are embedded in ongoing local practice.



Contracted Creative Collaborator: Vision Creative Studios (Design and Innovation)

Vision Creative Studios acted as a key design and innovation Creative Collaborator within the Co-Creative Lab project, contributing expertise across creative ideation, innovation development, manufacturing, and implementation. Their role supported the translation of research insights, community data, and creative exploration into deliverable climate innovations that could be tested and experienced in public settings.

As design and innovation specialists, Vision Creative Studios facilitated structured creative ideation and design thinking processes with the project's core co-creation group. These sessions brought together researchers, youth representatives, artists, local authority partners, and community stakeholders to explore emerging themes, interpret data, and develop innovation concepts. Their facilitation supported the synthesis of complex qualitative and quantitative insights into clear design directions, helping to move ideas from concept to prototype in a collaborative and inclusive way.

In addition to ideation, Vision supported project partners to reflect in creative ways on survey findings, focus group insights, and observations from community engagement. Their design-led approach supported sense-making across diverse data sources, ensuring that innovations remained grounded in lived experience while responding to strategic climate action goals.

Vision Creative Studios also played a central role in the manufacturing and implementation of several project innovations, supporting the development of physical prototypes and installations using sustainable and experimental manufacturing approaches. This included securing additional funding of 15,000 euro from Enterprise Ireland to explore new, more sustainable forms of manufacturing, aligning production methods with the project's wider environmental values. Their involvement ensured that innovations were not only creatively and socially informed, but also practically deliverable and environmentally considered.

In parallel, Vision Creative Studios led the development of the project's visual identity, including the logo and branding. This work supported coherent communication across the project and helped ensure that the Co-Creative Lab's public-facing materials reflected its values of creativity, inclusion, and climate action.



Through their combined contributions across design, innovation, manufacturing, and visual communication, Vision Creative Studios played a critical role as a Creative Collaborator by supporting the Co-Creative Lab to move from research and engagement into visible outcomes. Their involvement demonstrates the value of embedding creative design and innovation expertise within interdisciplinary climate action projects, supporting the co-creation of solutions that are imaginative and grounded in community insight.



Rite View Technology: Contracted Collaborator (Technology)

Rite View Technology supported the Co-Creative Lab project through the provision of specialist technical expertise, particularly in relation to the implementation of sensor-based systems and sound technology within selected innovations. Their involvement strengthened the project's ability to translate behavioural insights into functional technological features that could support engagement, feedback, and behaviour change in real-world settings.

Working collaboratively with the wider project team, Rite View Technology provided guidance and technical support on the integration of sensors used to monitor interaction, usage, and environmental conditions. This expertise was particularly relevant to innovations designed to make everyday actions more visible and responsive, where real-time feedback played a key role in encouraging reflection and positive behavioural shifts.

In addition, Rite View Technology supported the use of sound as an engagement and feedback mechanism, contributing to the development and implementation of audio features that enhanced accessibility and user experience. Sound cues were used creatively to signal correct actions, prompt awareness, and reinforce learning in a non-intrusive way, supporting inclusive engagement across different age groups and abilities.

Rite View Technology's contribution complemented the creative and design-led elements of the project by ensuring that technological components were reliable, appropriate, and aligned with the intended behavioural outcomes. Their involvement demonstrates the value of integrating applied technology expertise within interdisciplinary climate action projects, supporting the development of innovations that combine creative engagement with practical, user-focused technological solutions.



Co-Creation of Design Briefs

The Co-Creative Lab's approach to developing design briefs was grounded in core government design principles, including user-centred design, inclusive participation, sustainability, evidence-informed decision-making, and transparency. From the outset, the project prioritised community engagement, accessibility, and climate justice, recognising that meaningful climate action must reflect the diversity of lived experiences across Maynooth.



Figure 17 Designing our Public Services, Design Principles for Government in Ireland (2022)

Through a phased process of community listening, interactive workshops, and collaborative ideation, the project team produced a suite of high-quality design briefs for public-facing climate interventions. These briefs are intended to catalyse local climate action in ways that are visible, engaging, and inclusive, ensuring that all residents can see themselves reflected in Maynooth's sustainable future.



Figure 18 Co-Creation Workshop, Photographer, Nicolene Dawkins, 2025

Evidence and Participation: Laying the Foundation

The process began with a large-scale community survey, completed by 600 respondents, which explored local attitudes to climate change and asked residents to describe what they associate with “fun” and with “climate action”. The findings revealed a strong sense of climate concern, paired with confusion and emotional distance. People wanted to do more but often didn’t know how, and traditional climate messaging felt overwhelming or disconnected from their everyday lives. This insight became the foundation for the Co-Creative Lab’s design challenge: **How can we make climate action feel personal, positive, and possible?**

To answer this, the team hosted a series of *practical, interactive, and enjoyable workshops* that explored sustainability through creative, hands-on experiences. These events aimed to:

- Create accessible entry points into climate discussion.
- Build social connection through shared learning.
- Encourage low-barrier behaviour change using games, storytelling, and playful design.



- Co-create design concepts in collaboration with the people who will use and encounter them.

Commitment to Inclusion

Inclusion was central to every stage of the project. The team actively worked to ensure that a diverse cross-section of the Maynooth population was represented across all phases of engagement. This included:

- Extending invitations and outreach to individuals and groups from across the socio-economic spectrum, including those in social housing, lone-parent households, individuals with physical and other additional needs.
- Engaging with ethnic minority communities through local networks and organisations to ensure culturally diverse perspectives on climate action were reflected.
- Welcoming neurodiverse participants, older adults, and individuals with physical, sensory, or intellectual disabilities by ensuring that events were accessible, supported, and held in inclusive environments.
- Providing child- and family-friendly formats to promote intergenerational dialogue and increase overall participation.
- Considering language, literacy, and digital access when designing surveys, invitations, and activity materials.



Figure 19 Co-Creation Workshops, Photographer, Swarit Gaur, 2025

Workshops and events were held in physically accessible venues, with appropriate signage, sensory considerations, and space for rest. The team also ensured that facilitation styles were supportive and adaptable, allowing for a range of communication and learning preferences.

This inclusive approach not only ensured equitable participation but also enriched the creative process, surfacing a wider variety of ideas and perspectives than would have been possible through traditional consultation alone.



Co-Creation Group: From Insights to Innovation: The Ideation Framework

Co-Creation Workshop Objective

The Climate-Positive Behaviour Workshop was designed to collaboratively ideate design- and art-based solutions that incentivised climate-positive behaviour in Maynooth. Led by Vision Creative Studios, the workshop brought together artists, designers, and key stakeholders to co-create concepts rooted in direct user pain points and insights identified through prior research and focus groups. This approach ensured that the resulting ideas were both context-specific and grounded in lived community experience.

Pre-Workshop Preparation

Synthesising Research Findings: In advance of the workshop, data from community events, focus groups and stakeholder interviews were reviewed and consolidated. This process identified recurring themes, challenges, and behavioural barriers related to climate action in Maynooth. The outcome was a structured set of user insights that directly informed the design brief and workshop activities.

Creating an Affinity Map

The synthesised insights were organised into clusters based on similarity and relevance. This affinity mapping process provided a visual representation of relationships between behaviours, attitudes, and barriers, highlighting key opportunity areas for intervention. The affinity map acted as a central visual and analytical tool throughout the workshop.

Workshop Introduction and Context Setting

Participants were welcomed and introduced to the workshop objectives, structure, and innovation approach. The synthesised research findings and affinity map were presented to establish a shared understanding of user needs and challenges. This ensured that all participants were aligned before moving into the ideation phase.



Design Brief and “How Might We” Method



Figure 20 How Might We Prompt

The design brief process was structured around an innovation method based on “How Might We” (HMW) questions. These open-ended prompts were used to translate user insights into creative and actionable design opportunities.

Thematic areas:

- Games
- Biodiversity
- Climate Art
- Energy Installation
- Repair, Share, Celebrate and Entertain
- Climate Conversation Zone

Collaborative Ideation and Prototyping

Participants were divided into small working groups, each focusing on selected HMW questions. Through collaborative brainstorming and facilitated prototyping, groups generated a wide range of concepts. Emphasis was placed on inclusivity, engagement, and long-term behavioural change.

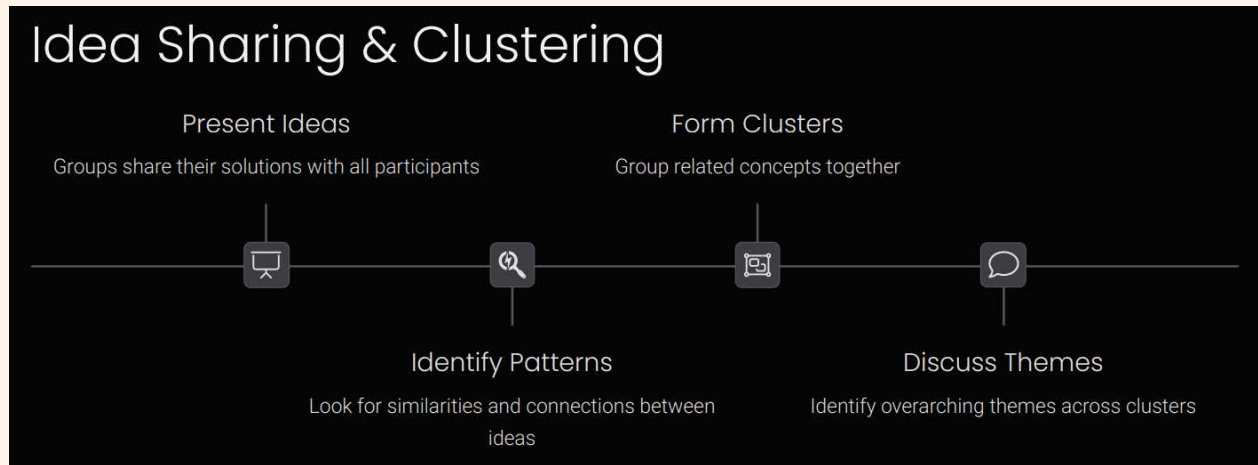


Figure 21 Ideating and Clustering Workshop, Vision Creative Studios, 2025

Idea Sharing, Evaluation, and Selection

Ideas were shared, clustered, and evaluated against feasibility, sustainability, impact, and alignment with community values. Priority was given to inclusive, engaging ideas with long-term potential.

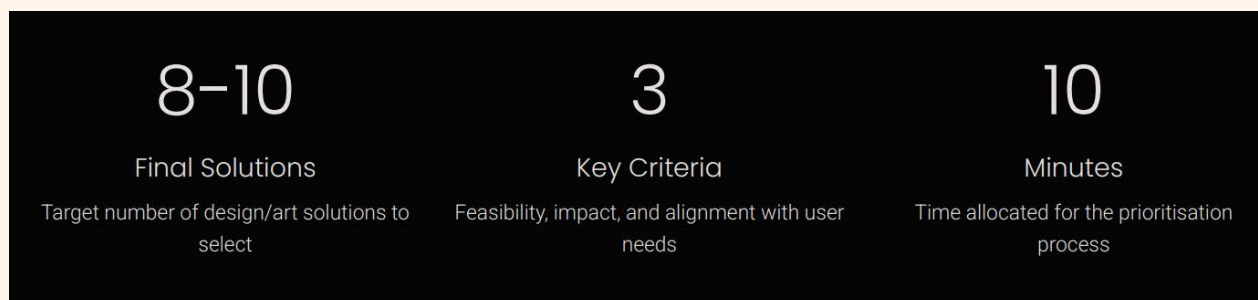


Figure 22 Prioritisation and Selection Workshop, Vision Creative Studios, 2025

Workshop Flow and Visual Tools

The workshop followed a structured, visually led process supported by affinity maps, HMW templates, prototyping materials, and dot voting.



Figure 23 Workshop Flow and Visual Tools, Vision Creative Studios, Photographer Amy Fahy, 2025

Working in groups of three, participants generated three How Might We (HMW) questions for each insight, resulting in 36 potential questions. Each group then selected their strongest HMW question for each insight. Following the completion of this process, we proceeded to the ideation phase. Participants wrote their final "How Might We" (HMW) questions on sticky notes, which were then displayed around the room. Subsequently, participants formed groups of three and brainstormed potential design solutions based on their HMW questions. Each group spent approximately 10 minutes on two different HMW questions before rotating to another group's questions for further ideation. Ideating in this way encourages diverse thinking and collaboration by allowing participants to engage with multiple "How Might We" questions and build on each other's ideas.

Rotating between groups introduces fresh perspectives and prevents creative stagnation, while the use of sticky notes ensures that everyone's contributions are visible and valued. The time-limited sessions keep energy levels high and promote rapid idea generation, helping teams to explore a wide range of solutions in a short period. This method fosters a dynamic, inclusive, and iterative ideation process that leads to more innovative and well-rounded design concepts. Upon the completion of the ideation session the following solutions/ ideas were developed and can be categorised as follows:



Figure 24 Participant Ideation Outcomes, Vision Creative Studios, 2025

Participant Feedback: Co-Creation Community Participant Interview

"I got involved in the Co-Creative Lab project because I saw a leaflet in the town and I thought it was a really interesting opportunity to be involved in climate action, and especially the creative part of it I was really drawn to. Um, it's a very collaborative project. It involves loads of people from the town, from lots of different backgrounds, so it was a great experience to be a part of. I was really interested in the arts part of that, that involve Vision Creative Studios, where they made installations for the town. I thought that was really interesting and I've seen in the town people interacting and really enjoying those pieces that we now have like the climate conversation zones for example. I think climate action is something that needs to happen at a systematic level and also at a regional level. The Co-Creative Lab covers those levels and people from different backgrounds in those levels. Climate action is a sort of word that maybe people aren't familiar with or shy away from. So this project tackled it from an arts perspective, which I think is a really good way to engage people because it's a positive experience that people have. It's important to involve the community 'cause they're the people who are directly impacted by climate. And when you involve people from the community, it's a much more effective way to bring in policies around climate change. I also think it's a really rewarding experience because when you're in the community and you see the effects of policy being introduced, having a positive impact in the area where you live, particularly people who are working with the land and the water like fishermen and people swimming in the lakes when they actually see the changes in their environment.

(Co-Creation Community Participant)



Youth Engagement and Iterative Development

Youth engagement became a central pillar of the Co-Creative Lab. In line with EU participation guidelines, a youth committee was established comprising participants aged 10–30. These young people were involved at every stage of the project, from data collection and outreach to prototyping, mentoring, dissemination and evaluation. Their involvement significantly shaped the project's tone and priorities, particularly in relation to energy, technology, and future-oriented thinking. Energy emerged as an area associated with uncertainty and anxiety, prompting targeted workshops where young participants gathered further data from their families and communities while engaging in hands-on design and making activities.



Figure 25 Youth Committee Members Facilitating Data Collection at Outreach Event, 2025, Maxwell Photography



Figure 26 Youth Committee, Facilitating Graphic Illustration Data Collection, Powering the Future Event, Maxwell Photography, 2025



Final Design Briefs

As innovations evolved, an interdisciplinary core co-creation group, including youth representatives, university staff across engineering, business and design, Green Campus members, and community stakeholders, continued to test ideas in public, collect feedback, and iterate designs. This iterative loop ensured that innovations remained grounded in lived experience and responsive to community input, rather than being finalised in isolation.

Each brief outlines the purpose, design rationale, intended impact, material specification, and next steps for implementation. The selected innovations include:

1. Magic Bin



Figure 27 Magic Bin Final vs. Prototyping Showcase, 2025, Photographer Amy Fahy

Purpose and Overview

The Magic Bin is a smart, musical waste bin designed to gamify recycling and encourage correct waste disposal through positive, interactive feedback. Its primary purpose is to address persistent challenges identified within Maynooth's Decarbonisation Zone, including bin overflow, low recycling rates, contamination of recyclable waste, and the disconnect between climate awareness and everyday behaviour. By transforming disposal into an engaging and rewarding experience, the Magic Bin reframes recycling as a visible, enjoyable, and socially meaningful action rather than a routine obligation.



Figure 28 Magic Bin Design Prototyping Team, 2025, Photographer, Muhammad Waseem

Conceptualisation and Design Rationale

The development of the Magic Bin followed an iterative design and innovation process that combined engineering prototyping, behavioural science, and creative experimentation. The process was structured using the Double Diamond design model (Design Council, 2019), progressing through the stages of Discover, Define, Develop, and Deliver.

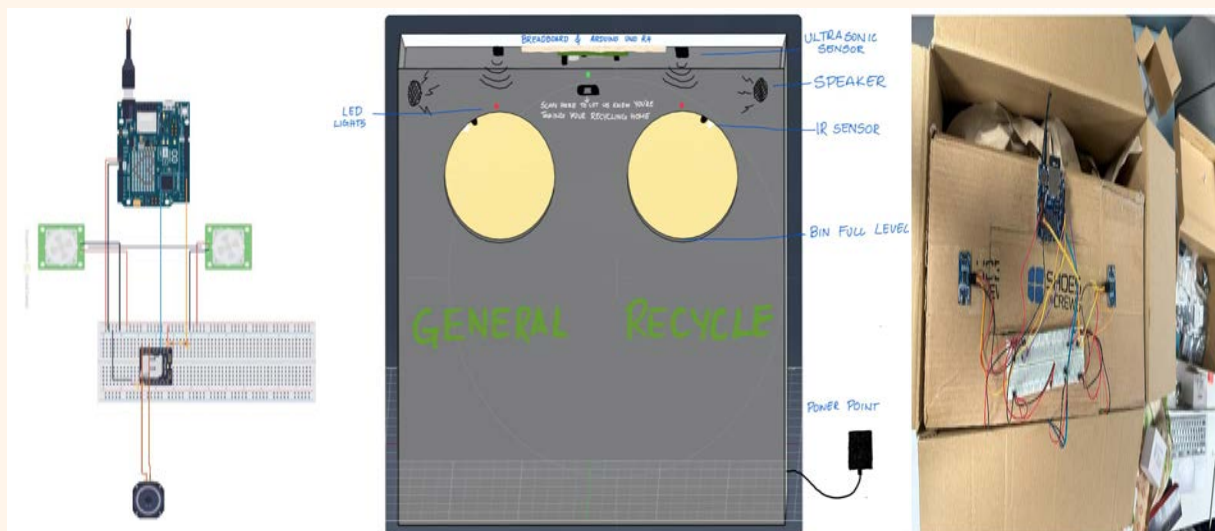


Figure 29 Prototyping of Magic Bin, Julia Hilliard



While survey and focus group results demonstrated concern about climate change was high, correct and consistent recycling behaviour was uneven. Participants cited confusion around waste categories, limited feedback, and low perceived reward as key barriers. In response, the Magic Bin was conceived as a playful intervention that positions recycling infrastructure as an active participant in behaviour change. Drawing on Fun Theory, the design integrates sound, light, and interactive responses to reward correct disposal and gently guide users when mistakes occur.

Behavioural Change Objective

The Magic Bin is designed to encourage correct waste segregation by reinforcing positive recycling behaviours through immediate, interactive feedback. By introducing sound, light, and playful responses, the bin shifts recycling from a passive routine to an engaging activity. This approach aims to reduce contamination, increase recycling accuracy, and normalise responsible disposal habits within everyday public behaviour.

Design Principles Applied

The Magic Bin reflects several Irish Government Design Principles (Department of Public Expenditure and Reform, 2020). Accessibility was addressed through ergonomic proportions and clear interaction cues suitable for children, older adults, and people with mobility challenges. Innovation was embedded through the creative application of low-cost sensing technology and interactive feedback mechanisms. Sustainability was prioritised through modular design, repairability, and the use of circular materials strategies. The project also demonstrates a whole-of-government and community collaboration approach, aligning technical development with Creative Ireland's emphasis on cultural engagement and inclusive climate action.



Digital Modelling, Simulation, and Physical Prototyping

The design process combined digital modelling with physical prototyping. Early-stage 3D models were developed using Tinkercad, enabling virtual testing of dimensions, component placement, and interaction design. These simulations informed refinements to bin height, lid mechanisms, and internal layouts before fabrication.

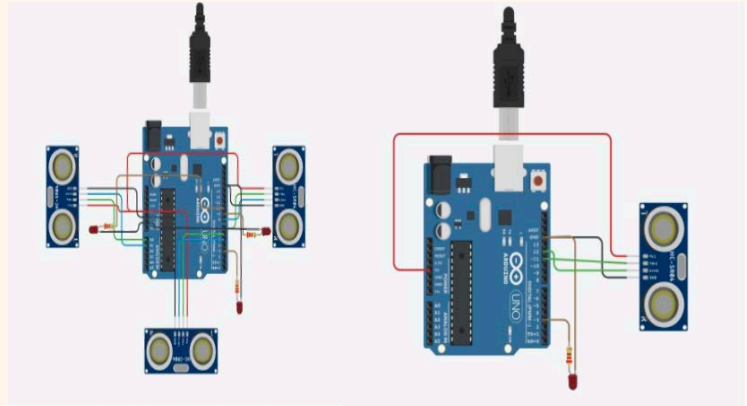


Figure 30 Figure 29 Digital Modelling and Simulation, Julia Hilliard, 2025

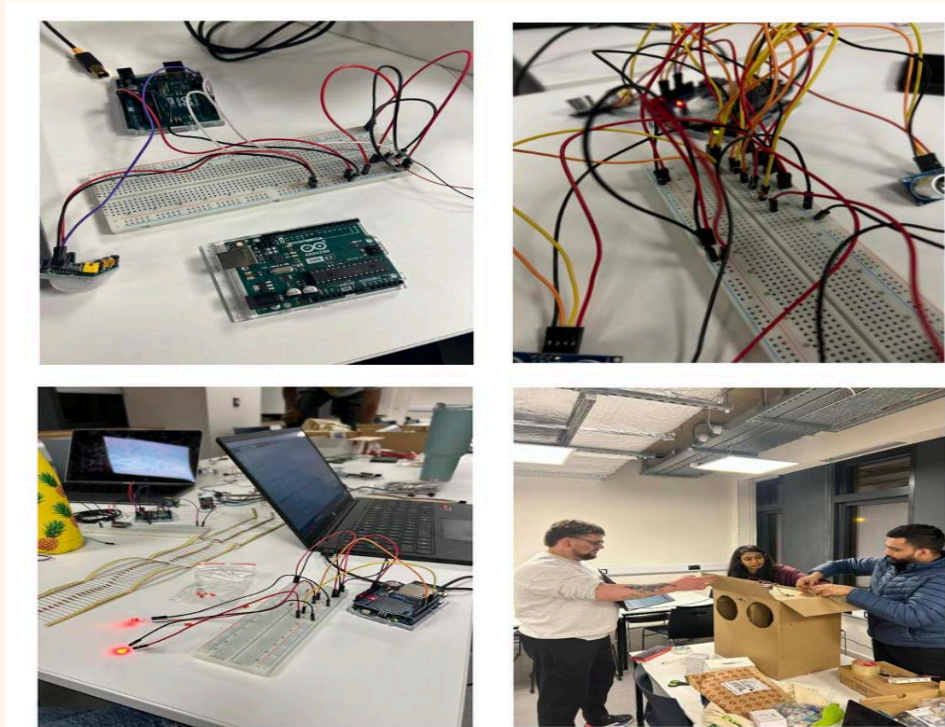


Figure 31 Physical Prototyping, Julia Hilliard, 2025



Testing, Iteration, Implementation and User Feedback

Following iterative testing in controlled environments, the Magic Bin was trialled in live public settings. User interactions were observed, and qualitative feedback was gathered on usability, accessibility, and emotional response. These observations informed refinements to physical form, feedback timing, and interaction clarity.

As part of implementation, durable and weather-resistant casings were developed to support outdoor use. Power independence was addressed through the integration of solar and battery systems, reducing reliance on grid electricity and supporting deployment in a range of public locations. The Magic Bin was also tested beyond the university campus, including in contexts where waste collection remains largely manual, enabling assessment of performance across different infrastructural settings.

To support operational integration, a data dashboard was developed to provide real-time information on fill levels and usage patterns. This enables more efficient waste collection planning, reducing unnecessary collection trips and associated emissions. A retrofit approach was also explored, demonstrating how the Magic Bin system could be adapted to existing bins to minimise upfront costs and support wider rollout.

Artwork for the Bin was developed in relation to Creative Collaborator Rachel's workshops on biodiversity and Creative Collaborator Eoin's graphic illustration workshops at Co-Creative lab outreach events. The graphics were designed by graphic illustrators on the Vision Creative Studios Creative Collaborator team.

RiteView Technology were contracted to scale-up the technology that the Maynooth University team prototyped, and three bins in the town of Maynooth were turned into "Magic Bins".

Data was collected in relation to pre-magic and post magic features and artwork being installed in these bins. The data demonstrated that the bins were used more frequently post innovation installation.



User Feedback

"We stumbled on the magic bin on our way to the dentist. It was a great novelty for the girls. They asked me why the bins had new pictures on them so we went to see and we were very surprised to hear the music playing when we threw rubbish in. What other things will there be in the town as part of the Co-Creative Lab".
(Illustrative Quote from Magic Bin-User)

Replication, Scaling, and Future Development

Building on the successful implementation and testing phase, the Magic Bin offers strong potential for replication across other Decarbonisation Zones and community settings. Its modular design allows for adaptation to different bin types, locations, and user groups, while the use of open-source hardware and software supports cost effective scaling. Partnerships with local authorities, schools, and community organisations present clear pathways for wider adoption.

Future development will focus on enhanced waste-sorting functionality, including the integration of additional sensors and logic to support clearer differentiation between recycling streams, general waste, and food waste. Further refinements may include adaptive feedback tailored to specific locations or user groups, multilingual or symbol-based cues to support inclusion, and enhanced data analytics to support behavioural insights at a community level.



2. LEGO™ Smart Sustainable City



Figure 32 Lego™ City Prototyping and Testing. Photographer Swarit Gaur, 2025

Purpose and Overview

The LEGO™ Smart Sustainable City is a participatory community engagement innovation that invites residents to collaboratively build a physical model of a sustainable future for Maynooth using LEGO™. Delivered through public events, outreach activities, and workshops, the innovation creates a shared, hands-on space where people of all ages can explore ideas related to sustainable planning, climate action, and local decarbonisation in an accessible and creative way. Rather than presenting a fixed or expert-led vision, the LEGO™ city evolves continuously through community contribution, reflecting local knowledge, priorities, and imagination.

Evidence Base and Design Rationale

Insights from the Climate Action Survey and associated focus groups highlighted the importance of intergenerational learning, visible action, and practical engagement when addressing climate change and sustainability. Participants consistently expressed a preference for activities that moved beyond abstract or technical explanations and instead enabled conversation, play, and shared problem-solving. The data indicated that people were more comfortable



discussing complex topics such as transport, energy, and biodiversity when these could be explored through tangible, creative means rather than formal consultation processes.

LEGO™ emerged as an effective medium in this context due to its familiarity across age groups, tactile nature, and open-ended design possibilities. The act of building together supported dialogue, negotiation, and imagination, allowing participants to externalise ideas, explore trade-offs, and collectively envision how a sustainable Maynooth might function in practice.

Behavioural Change Objective

The LEGO™ Smart Sustainable City encourages behavioural change by enabling participants to actively explore and reflect on sustainable choices through hands-on, collaborative play. By making abstract concepts such as energy use, transport, and biodiversity tangible, the innovation promotes increased awareness, shared understanding, and more informed decision-making. It supports a shift from passive awareness to active engagement in sustainability discussions and actions.

Co-Creation and Youth-Led Development

The development and delivery of the LEGO™ Smart Sustainable City was led by the project's youth committee, whose members played a central role in shaping the concept, facilitating activities, and guiding discussions with participants. Drawing on insights gathered through live data collection at outreach events, the youth committee identified recurring themes of interest and concern, including sustainable transport, renewable energy, green infrastructure, and biodiversity protection. These themes informed the design of modular kits and prompts used during engagement sessions.

At each event, community members were invited to contribute directly to the evolving city model. Contributions were informed by conversations, questions, and reflections emerging from surveys, focus groups, and informal discussion, ensuring that the city functioned as a co-created representation of community thinking rather than a predefined model. Children, parents, older residents, students, and visitors worked side by side, often negotiating ideas across generations and experiences. In this way, the LEGO™ city operated simultaneously as a creative output, a data collection tool, and a space for dialogue.

Creative, Technical, and Interdisciplinary Development



As the LEGO™ Smart Sustainable City grew in scale and complexity, the project expanded to incorporate technical and digital elements that enhanced its interactive and educational potential. At a later stage of development, members of the IT and engineering teams became involved, working collaboratively with the youth committee to introduce sound and moving-part functionality into selected areas of the model.

These features were designed to bring sustainability concepts to life, using motion and audio cues to represent systems such as renewable energy generation, transport flows, and infrastructure interactions. The addition of sound and movement transformed parts of the city from static representations into dynamic, responsive elements, increasing engagement and curiosity across age groups. This interdisciplinary collaboration enabled creative ideas generated through community conversation to be technically realised, demonstrating how engineering, IT, and creative practice can intersect within participatory climate engagement.

Creative and Educational Approach

The LEGO™ Smart Sustainable City operates as a creative and educational intervention that uses play as a serious tool for engagement. Modular design kits representing renewable energy technologies, green transport systems, and biodiversity corridors allowed participants to experiment with different configurations and scenarios. QR-enabled display boards provided additional context, linking physical elements of the city to sustainability concepts, local data, and ongoing climate initiatives in Maynooth.

This layered approach supported multiple modes of participation and learning. Individuals who might not typically engage with written surveys or formal workshops were able to contribute meaningfully through building, discussion, and observation. The evolving city also acted as a visual prompt for deeper conversations about priorities, constraints, and opportunities within the town's decarbonisation journey.



Illustrative Quote from Youth Committee Team Member

"This is our innovation using Lego and technology. We worked as a community to design what we think the future city of Maynooth should look like."

"I am a member of the Maynooth Lego society, and I worked as one of the facilitators for this innovation. So there's several improvements we have made. For instance, we are always collecting information from other people about what they think should be included in the city. One of the suggestions for example was in terms of accessibility, and inclusion, to use red tiles as footpaths, as a symbol of making it easier for people to see the difference between the road and the footpath."

"I am a researcher pursuing my PhD in engineering. And in terms of the data collected, we worked with surveys and focus groups and event interactions like drawing illustration or people writing their ideas on sticky notes to help us to understand what kind of features were important to people, and what they would like to learn more about in terms of sustainability. Then of course the fun theory, what do people enjoy."

"So we chose Lego as the material simply because it can be re-constructed, as people change their perspectives and have new ideas. Also it is a good bridge, because people from all kinds of ages and backgrounds can use it."

(Illustrative Quotations from Selection of Co-Creative Lab
Youth Committee Interviews)

Intended Impact

The LEGO™ Smart Sustainable City aims to raise awareness of sustainable planning by making future-focused discussions accessible, creative, and locally grounded. By bringing together children, parents, and older residents in a shared activity, it promotes intergenerational communication and mutual learning. The process supports a sense of ownership and agency, reinforcing the idea that the



decarbonising future of Maynooth is something to be shaped collectively rather than imposed externally.

Implementation and Outcomes

The LEGO™ city was deployed across multiple community events and outreach activities, consistently attracting high levels of engagement. Its open, inviting format encouraged participants to stop, observe, and contribute, often leading to extended conversations and repeat participation. As the city evolved, it became a cumulative physical record of community input, with each addition reflecting ideas generated through dialogue and shared reflection. Youth committee members acted as facilitators and mentors throughout the process, supporting younger children, engaging adults in discussion, and linking individual contributions to broader climate action themes.

User Feedback

"In the sustainable energy space, you need to have a very cohesive, strong Community group to go after and to administer and to implement government grants and people forget that it goes back then to the strengthening the Community using co-design or using common interests. This Lego city is a nice way for people to share their interests and what is important to them for their community. Everyone can get involved, and it was great to see three generations of people, grandparents with their kids and grandchildren all building the city together and talking about the future of their town."

(Illustrative Quote from Lego™ City Event Participant)

Replication and Future Development

Building on its success, the LEGO™ Smart Sustainable City demonstrates strong potential for replication and scaling. Planned developments include structured workshops in schools and libraries to support deeper engagement with specific sustainability themes. The model is also intended to evolve into a travelling installation, enabling communities across Kildare to contribute their own perspectives and expand the city collaboratively.

Future development will include the creation of digital documentation and online platforms to share and archive ideas generated through the LEGO city. This "Smart Maynooth" resource will allow community-generated visions to inform future research, policy discussion, and creative engagement, ensuring that the



collective imagination captured through the project continues to shape the town's ongoing decarbonisation journey.

Innovations 3 & 4: Large Format Additive Manufacturing

One of the key innovations of the Co-Creative Lab was the integration of sustainable and circular manufacturing into the project's physical outputs. This approach was strongly informed by the creative collaborator workshops with Rachel and Eoin, and design expertise Vision Creative Studios (Creative Collaborators). Through these workshops, ideas around making sustainability visible, tactile, and embedded in everyday public spaces were explored and developed. In particular, the design briefs for two installations, 3D Printed Street Furniture and Biodiversity Totem Poles, highlighted new approaches to low-carbon design and local production that emerged through this collaborative process.

Recycled Materials and Additive Manufacturing

The plastic components for these installations were made using recycled polymer feedstocks, such as PET-G sourced from local recycling schemes (e.g., Re-turn bottles). These materials were processed using large-scale 3D printing, which allowed for minimal material waste, design flexibility, and energy efficiency. Advantages included:

- Elimination of offcuts and scrap material.
- Use of digital design files that could be easily replicated or adjusted.
- Creation of parts that could be repaired, reused, or disassembled.
- Opportunities to incorporate QR codes, textures, or braille directly into the design.

This approach not only made sustainability visible, but also embedded circular thinking into the fabric of public space, turning infrastructure into both function and message, an idea that was repeatedly reinforced through the Artists in Residence process and the collaborator workshops.

Local Production and Skills Development

The project also supported a distributed circular economy model by working with local fabricators, community makerspaces, and social enterprises, reflecting themes of local capacity-building discussed during the workshops. This reduced the



carbon footprint of production, supported local jobs, and helped build long-term capacity in sustainable design.

Where possible, community members were involved in fabrication or installation processes through workshops or participatory build days, ensuring that people felt ownership over the public spaces and stories they helped to create.

Creative-Collaborator Interview: Design & Innovation Graduate (Maynooth University) Designer at Vision Creative Studios

“We use large format additive manufacturing, which is essentially large-scale 3D printing. This technology is inherently sustainable because it’s a zero-waste process — unlike traditional subtractive manufacturing, where material is cut away and discarded. With this process, we only use what’s needed.

For this project in Maynooth, we created sustainable seating and public infrastructure made entirely from recycled plastics. Because of the technology we use, we’re able to produce highly intricate forms and designs that wouldn’t be possible through conventional manufacturing. We also produced totem poles from recycled plastics, which act as landmarks and climate conversation zones around the town.

One of the highlights of the Co-Creative Lab project was being able to use an entirely new manufacturing process that’s both sustainable and circular. Not only are the products made from recycled materials, but at the end of their lifecycle they can be taken back, ground down, and turned into something new.

All of the innovations directly support climate action. In total, we used roughly 450 kilograms of recycled material (excluding prototyping), resulting in approximately 1.17 tonnes of carbon savings.

Maynooth University invited us to partner on this project to develop sustainable infrastructure, with the goal of encouraging behavioural change among the public around climate action.” (Creative Collaborator Interview Segment)

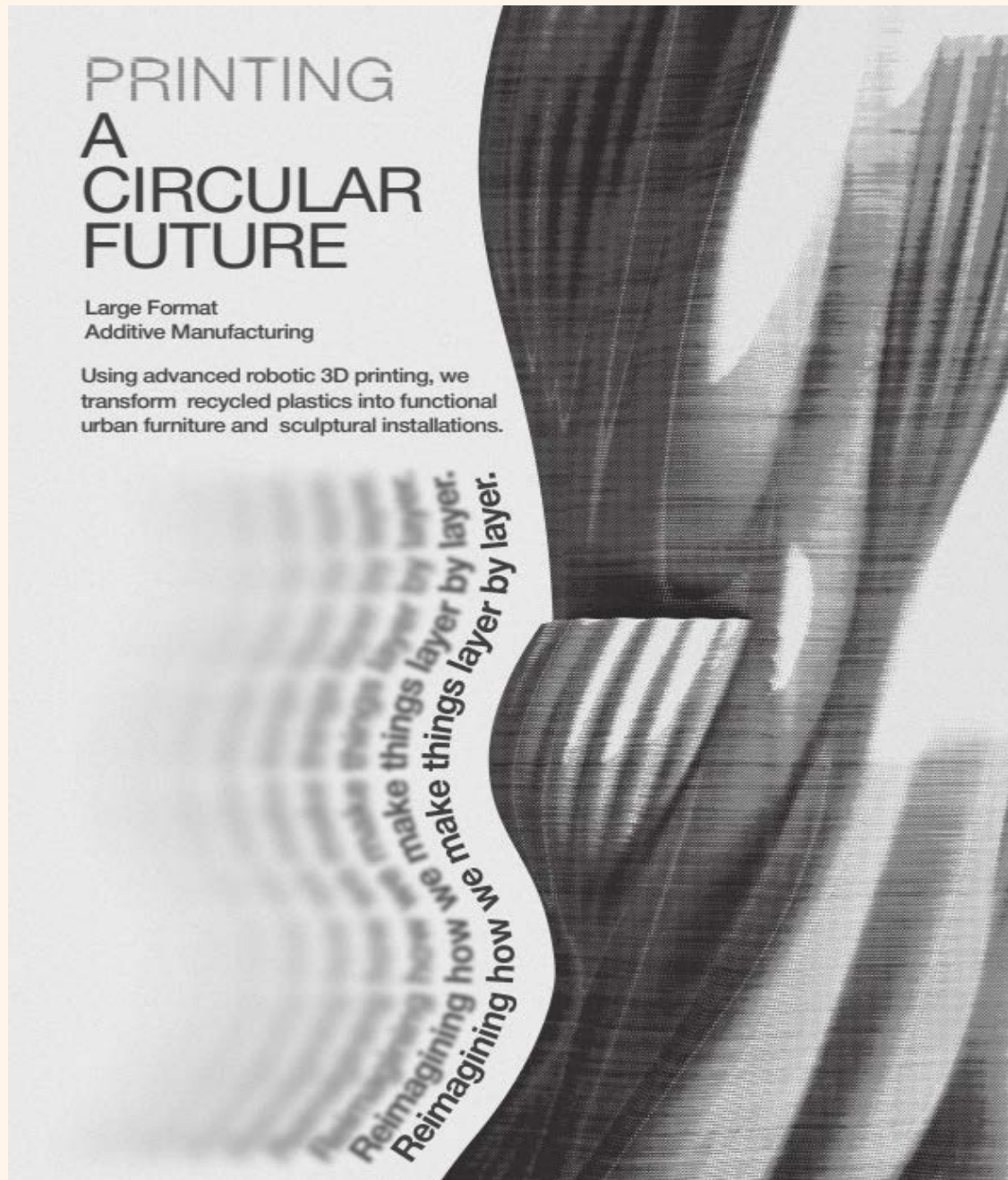


Figure 33 Innovations 3 & 4 Large Format Additive Manufacturing Dissemination Poster, Vision Creative Studios, 2025



PRINTING A CIRCULAR FUTURE

The Future of Sustainable Production LFAM Benefits

Additive manufacturing is inherently sustainable — it builds up material, rather than cutting it away.

Most of the world's products are still made using subtractive methods, where raw materials are carved, milled, or molded — wasting vast amounts of resources in the process.

It redefines how we design, make, and reuse the materials around us.

What we've achieved?

500 kg of waste plastics given new life
≈ 1.3 tonnes of CO₂ emissions avoided

Each printed element is proof that waste can become infrastructure.

(Estimate based on lifecycle data for mechanically recycled polypropylene, The New Raw, 2023)

No Moulds. No Waste.

Most of the world's products are still made using subtractive methods, where raw materials are carved, milled, or molded — wasting vast amounts of resources in the process.

Made from Recycled Plastics.

Every element in this project is printed using 100% recycled polymer waste, turning discarded material into long-lasting public infrastructure.

Locally Produced. Digitally Distributed.

Because production is driven by a digital model, it can happen anywhere — empowering local manufacturing that reduces shipping emissions and supports regional economies.

Unlimited Design Freedom.

Complex geometries, organic forms, and custom details can be printed as easily as simple shapes — allowing designers to rethink how public spaces are made.

Built for a Circular Economy.

When a print reaches the end of its life, it doesn't become waste. It's ground back down, reprocessed, and reprinted — the same material reborn again and again.





Figure 34 Figure 24 Innovations 3 & 4 Large Format Additive Manufacturing Dissemination Poster, Vision Creative Studios, 2025

3. Biodiversity Totem Poles

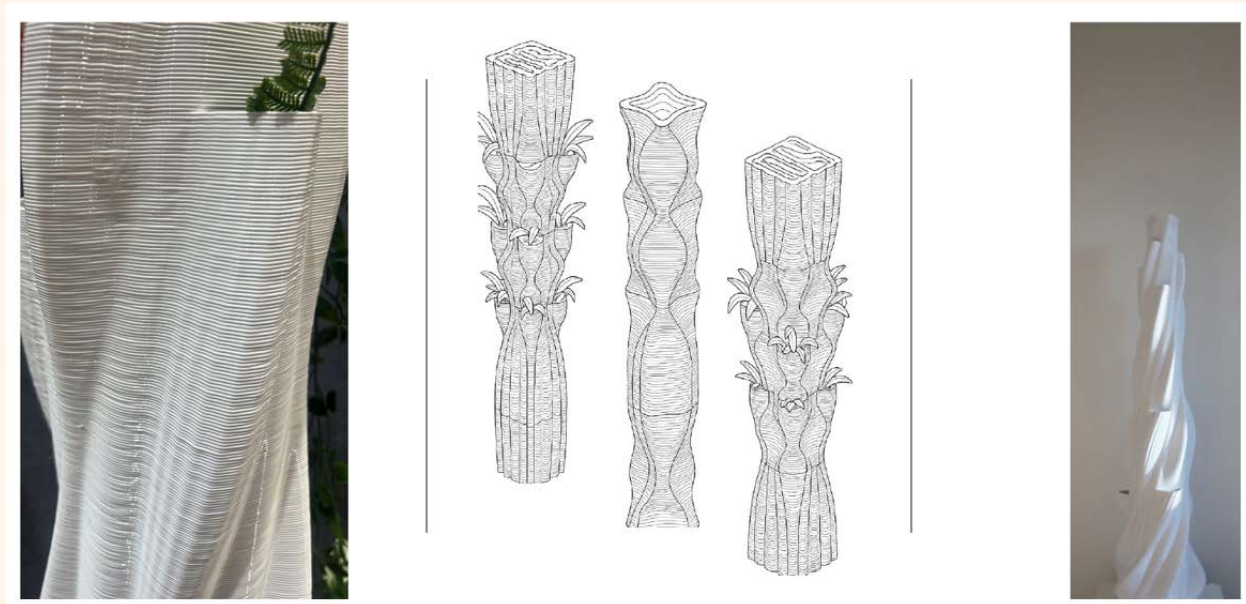


Figure 35 Biodiversity Totem Poles Prototyping, Eoin Conlon, 2025

Purpose:

3D-printed trail markers that point out local species and ecosystems and were designed as both navigation tools and educational stations.

Design Rationale:

Community workshops were very interested in visible biodiversity and outdoor learning. Totem poles interrelate art, technology and ecology, and align with biodiversity strategies in Ireland.

Behavioural Change Objective

The Biodiversity Totem Poles are designed to influence behaviour by increasing awareness of local ecosystems and encouraging greater interaction with natural environments. Through visual, tactile, and digital engagement (e.g. QR codes), the installation promotes curiosity, outdoor learning, and environmentally responsible behaviours. It aims to foster a stronger connection between people and place, supporting more conscious engagement with biodiversity in everyday life.

Intended Impact:



- Make people more aware of local flora and fauna.
- Encourage outdoor, sensory-oriented learning (particularly of children and neurodiverse individuals).
- Increase place identity and pride in natural heritage.

Material Specification:

- Recycled plastics 3D printed.
- QR codes embedded in the information on climate and biodiversity.
- Tactile, textured design to improve accessibility.

Implementation:

- Collaborate with local schools and artists co-design poles.
- Install in the parks, greenways and riverwalks in Maynooth.
- Create an online biodiversity map that is associated with poles.



Figure 36 Installation of Innovations Ideation Workshops, 2025, Photographer, Amy Fahy



4. 3D Printed Street Furniture



Figure 37 Climate Conversation Zones Prototyping, Eoin Conlon, 2025

Purpose:

Install multifunctional benches in busy places that can be used as teaching structures.

Design Rationale:

Focus group members emphasised that there should be more resting areas and intergenerational and inclusive infrastructure. Furniture constructed using recycled plastic is both a circular design and one in the process of embedding learning contents.

Behavioural Change Objective

The 3D Printed Street Furniture encourages behavioural change by embedding sustainability messaging and functionality into everyday public infrastructure. By integrating seating, biodiversity features, and educational prompts, the innovation



promotes longer engagement with public spaces, supports inclusive social interaction, and raises awareness of circular economy principles. It aims to make sustainable thinking visible and actionable within routine daily activities.

Intended Impact:

- Make the spaces that people use and share more accessible and inclusive.
- Educate people about circular economy activities.
- Make climate infrastructure visible and tangible in day-to-day life.

Material Specification:

- Recycled plastic 3D printing filament.
- Built in planters to support pollinators and greenery.
- Sustainability tips laser-engraved signage.

Implementation:

- In Maynooth town centre, Pilot.
- Collaborate with local makers and waste recycling facilities.
- Use municipal procurement to explore scaling.

User Feedback

"The chairs look different. I'm going to sit here on it and drink my cup of coffee now. Isn't it crazy what they can do with technology these days. I saw that they are 3D-printing houses nowadays too. You should try and install them near some of the plastic bottle recycling machines so people can see that recycled plastic could be used to make new things that people can use."

(Illustrative Quote from Climate Conversation Zone User)



5. Smart Energy Management Plug

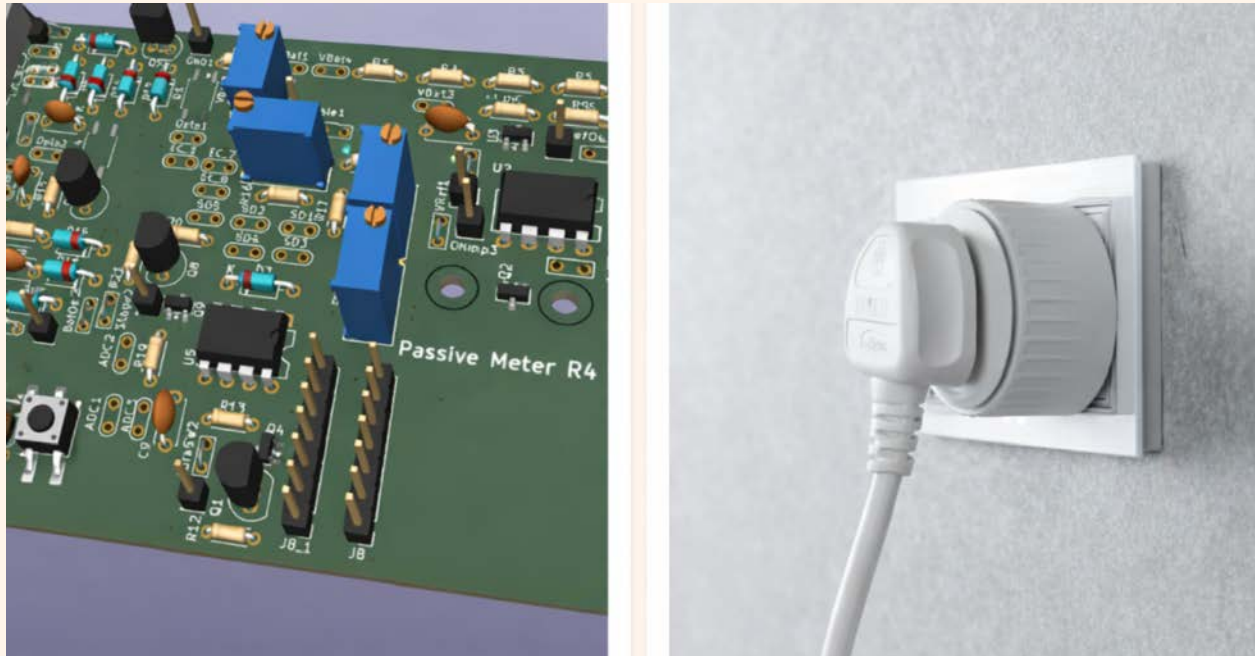


Figure 38 Interactive Energy Management Plug Prototyping, Axel Penzo, 2025

Purpose and Overview

The Smart Energy Management Plug is a visible, interactive device designed to support household and community decarbonisation by making energy consumption and electricity pricing immediately understandable in everyday settings. Developed as a plug-based receiver, the device provides real-time feedback on electricity usage and tariff conditions through a carefully designed combination of light intensity, colour, and optional sound. These sensory features are intentionally employed as creative tools, transforming abstract energy data into an engaging, intuitive, and emotionally legible experience. The plug translates complex energy system information, such as dynamic pricing, peak demand, and renewable energy generation, into clear, actionable signals that support informed behaviour change without requiring technical expertise, apps, or numerical interpretation.

Evidence Base and Design Rationale

Survey, focus group and other data collected through the Co-Creative Lab consistently highlighted that engagement with the sustainable energy transition was experienced as challenging, particularly due to the perceived complexity and cost of energy-related technologies. Participants frequently expressed anxiety about



rising energy prices and uncertainty about how smart meters, tariffs, and renewable energy systems operate in practice. While concern about climate change and energy use was high, many participants reported feeling excluded from energy decision-making because they lacked clear, accessible information about how everyday behaviours could meaningfully reduce costs or emissions.

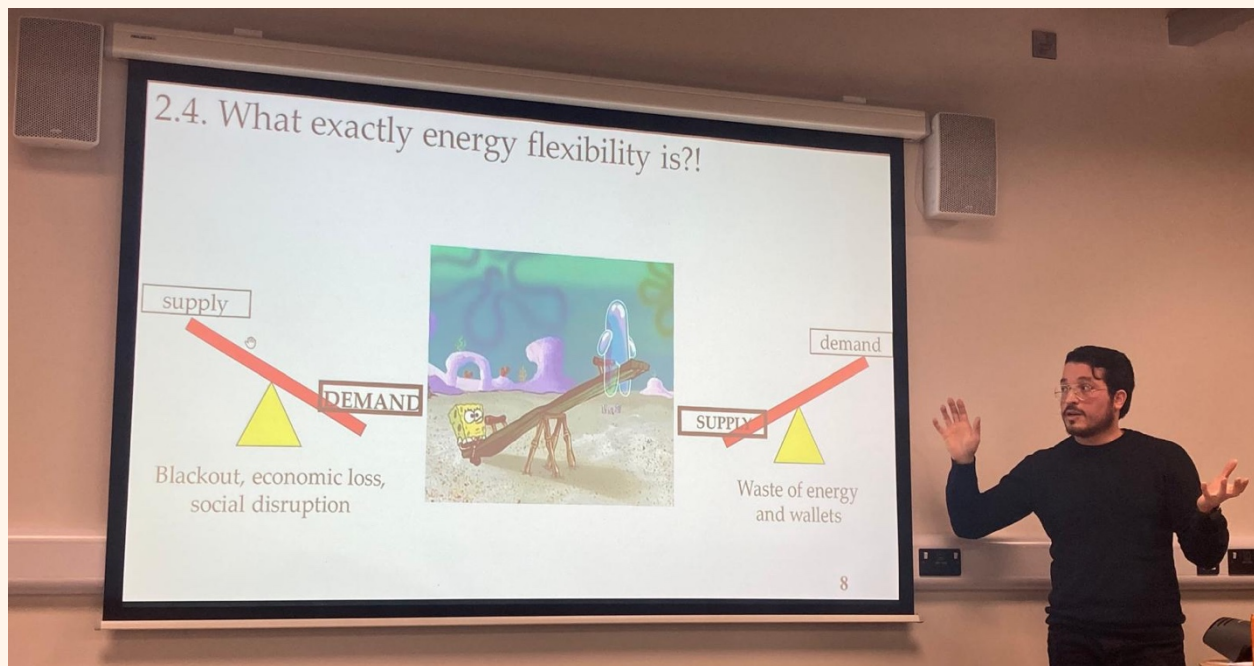


Figure 39 Energy Usage Co-Creation Workshop, 2025, Photographer, Amy Fahy

This uncertainty was often compounded by the perception that effective action required expensive technologies or specialist knowledge, placing decarbonisation beyond reach for many households. Participants repeatedly emphasised a desire to better understand when and how behaviour changes could be made in relation to energy use, particularly in ways that were financially beneficial, low-effort, and easy to implement. These findings reinforced the need for an intervention that reduced cognitive and financial barriers, addressed energy-related anxiety, and embedded learning directly into everyday life.

Creative and Artistic Approach

In response, the Smart Energy Management Plug was conceptualised as a creative, sensory intervention as much as a technical one. Rather than relying on numerical displays, dashboards, or mobile applications, the device communicates



energy conditions through light and sound, drawing on artistic principles of colour, visibility, rhythm, and ambient presence.

Light intensity represents current power draw, while light colour communicates tariff conditions. Green signals low-cost energy during periods of excess production, blue represents standard pricing, and red indicates peak or high-cost periods. This colour language operates as a form of visual storytelling, enabling users to interpret and respond to energy conditions instinctively, without cognitive overload. Optional sound cues add a further layer of accessibility and engagement, supporting users with visual impairments and reinforcing learning through multisensory feedback. In this way, the plug functions as a small but expressive creative artefact that makes invisible energy systems visible, tangible, and discussable within households and community spaces.

Design Process and Technical Configuration

The design was co-created with a group of 30-pilotees (residents in Maynooth) and the Co-Creative Lab team. The goal was to create a standalone, zero-friction device that could be installed without professional intervention and remain continuously visible in everyday environments. During development, a range of existing smart plugs and energy-monitoring devices were reviewed. Compact plug designs using LED and sound feedback informed the final form factor, while the limitations of app-based systems shaped the decision to prioritise immediacy, legibility, and embodied feedback.

The device is housed within a standard electrical smart plug casing incorporating integrated energy monitoring sensors. The external shell is manufactured from insulating plastics such as ABS or polycarbonate, selected for electrical safety, heat resistance, durability, and effective diffusion of LED light. Internally, the plug uses copper wiring and contacts for reliable conductivity, alongside a low-power microcontroller, high-efficiency RGB LEDs, and a wireless communication module. This configuration enables real-time system signals to be translated directly into expressive light and sound responses that can easily be interpreted by a wide-range of audiences.

Implementation

The first iteration of the plug was implemented in the Kildare County Council Sustainable Demo House, located in Maynooth town. This location is a space where the public can visit to explore and learn about sustainable energy



transition activities that could be implemented in their own homes/community buildings. As part of this first phase of implementation, a series of cookery workshops were held with community members, to allow them to interact with the innovation, and gather their perspectives for further iterations.



Figure 40 Smart Energy Management Plug Lead, Axel Penzo with KCC Climate Action Coordinator at Sustainable Demo House, 2025, Amy Fahy

Following this, pilot deployment of the Smart Energy Management Plug took place across 30 homes, community buildings, and educational settings in Maynooth. Installation required no technical training, demonstrating the device's accessibility and suitability for broad public use. Collaboration with local energy practitioners, accessibility advocates, and technology partners supported refinement of the light and sound language, ensuring that the creative cues were legible, inclusive, and meaningful across different user groups.



The plug was designed to operate as a physical interface between households and wider energy systems, supporting emerging models of dynamic electricity tariffs and demand-response. Through integration with research and innovation initiatives focused on energy flexibility, the device highlights optimal times for energy use and moments when consumption should be reduced. By translating system-level signals into visible and audible cues, the plug enables people to engage with energy transition in a tangible, everyday way, encouraging conversation, reflection, and shared learning within households and communities.



Figure 41 Exploring Plug Data Collection through Community Cooking Workshop, 2025, Nicolene Dawkins

User Feedback

"That pilot plug that you gave me to put in my house is really handy. I wouldn't really know how to use much technology, but just having the little light go green is when I know that it's a good time to put the wash on or do other bits that I know will use up more energy. I am happy to be able to help the environment if I know that it isn't going to cost me a fortune."

(Illustrative Quote from Interactive Energy Management Plug User)



Replication, Scaling, and Future Development

Building on successful pilot implementation, the Smart Energy Management Plug demonstrates strong potential for replication across other Decarbonisation Zones, energy communities, and public buildings. Its compact form, low installation barrier, and intuitive, expressive feedback system support deployment at scale through energy utilities, community energy groups, demand-response programmes, and public procurement pathways.



Figure 42 Smart Energy Management Plug Piloting Focus Group, 2025, Photographer Amy Fahy

Future development will focus on extending both functional and creative capabilities. Planned enhancements include refined feedback logic for different appliance types, clearer signalling for renewable self-consumption, adaptive light and sound patterns based on user behaviour, and expanded compatibility with community energy projects. Further exploration may include symbolic or icon-based light sequences, multilingual or culturally responsive cues, and integration with other creative climate infrastructure.



The development of this innovation was used to support the securing of 2 million euro as part of the RENEW, National Energy Challenge Research Ireland Fund in November, 2025. The securing of these funds will enable this innovation to be scaled up from prototype stage and rolled out at community level in national and international home and business settings.

5. Virtual Reality: Game of Choice



Figure 43 Virtual Reality Game of Choice Prototyping, Paula O'Rourke, 2025

Purpose:

Deploy *Game of Choice* as an interactive, narrative-based tool to raise awareness about everyday energy consumption, generation, and sustainable lifestyle decisions. The game is designed to help players understand the consequences of their choices for decarbonisation and community wellbeing, making climate action tangible and relatable.

Design Rationale:

Focus group and outreach event participants emphasised that climate information can often feel abstract and disconnected from daily life. Participants



wanted engaging, inclusive ways to understand how everyday decisions — from travel to food choices — affect energy use and environmental outcomes. *Game of Choice* responds to this need by placing players in a simulated future Maynooth where they explore real-life energy and sustainability scenarios through role-play and decision-making. The use of lights and sound supports sensory inclusion, helping players of varied learning styles and abilities to participate fully and accessibly.

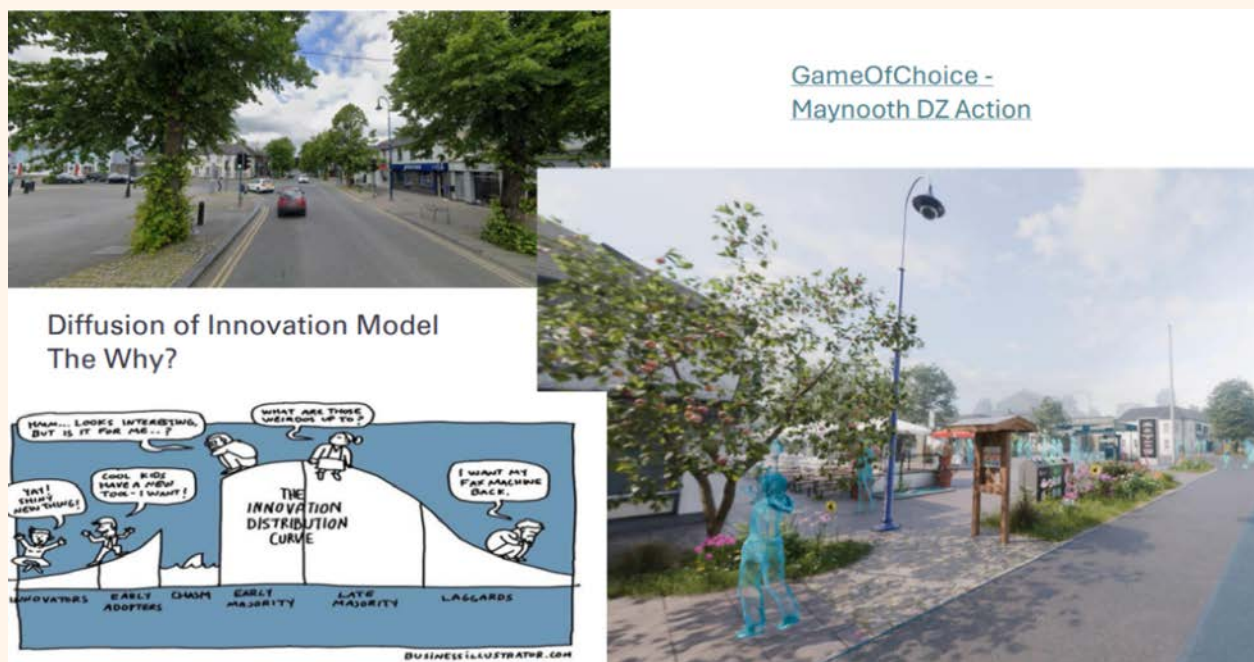


Figure 44 *Game of Choice* Prototyping, Paula O'Rourke, 2025

Intended Impact:

- Increase awareness of how personal and collective choices shape energy consumption and generation.
- Support behaviour change towards lower-carbon lifestyles through experiential learning.
- Make climate and energy infrastructure concepts visible and engaging in everyday contexts.
- Foster inclusive engagement by using multimodal feedback and accessible gameplay.

Material Specification:

- Web-based game interface featuring persona selection (e.g., student, worker, family member, retiree) to explore diverse daily energy interactions.



- Interactive scenarios and quizzes that reveal impacts of decisions on sustainability outcomes.
- Integrated visual cues and sound feedback to support inclusive, multi-sensory engagement.
- Optional facilitator guide for community or educational group sessions.

Implementation:

- Pilot the game in community hubs, schools and public events in Maynooth.
- Collaborate with local educators, energy agencies and accessibility advocates to refine gameplay and feedback features.
- Integrate game outcomes with community energy dashboards to reinforce real-world action and monitoring.
- Explore municipal and regional partnerships to scale use in wider Decarbonisation Zones.

User Feedback

"There are a lot of things to do with being sustainable that I just wouldn't think about usually. I liked that there wasn't just one correct answer. I was surprised at some of the different options I could choose from. The way that they made it into Maynooth was nice"

(Illustrative Quote from Game of Choice User)



Figure 45maynooth Sustainability Story Icons, Antoon Knapp, 2025

6. Maynooth Sustainability Story

Purpose:

Present a community-centred sustainability story and artwork by artist Antoon Knapp and storywriter Peter Hamilton (Maynooth Sustainable Energy Community Representative) as a core dissemination tool for sharing findings from the Co-Creative Lab project. The work translates research insights and community-generated data into clear, accessible messaging and imagery that support understanding, engagement, and uptake of climate action.



Figure 46 Project Team Members at Picnic in the Park, Photographer Nicolene Dawkins, 2025

Design Rationale:

Findings from the Co-Creative Lab demonstrated that traditional reporting formats can limit engagement with climate research beyond academic or policy audiences. Community feedback consistently highlighted the need for simple, relatable messaging and visual storytelling that reflects everyday experiences. In response, Knapp and Hamilton, drawing on Hamilton's role within the Maynooth Sustainable Energy Community, developed a sustainability narrative and imagery grounded in local knowledge, lived experience, and project data. The emphasis on small, achievable actions reflects a core project finding: that meaningful community-level impact is built through incremental change supported by trusted local actors and networks.

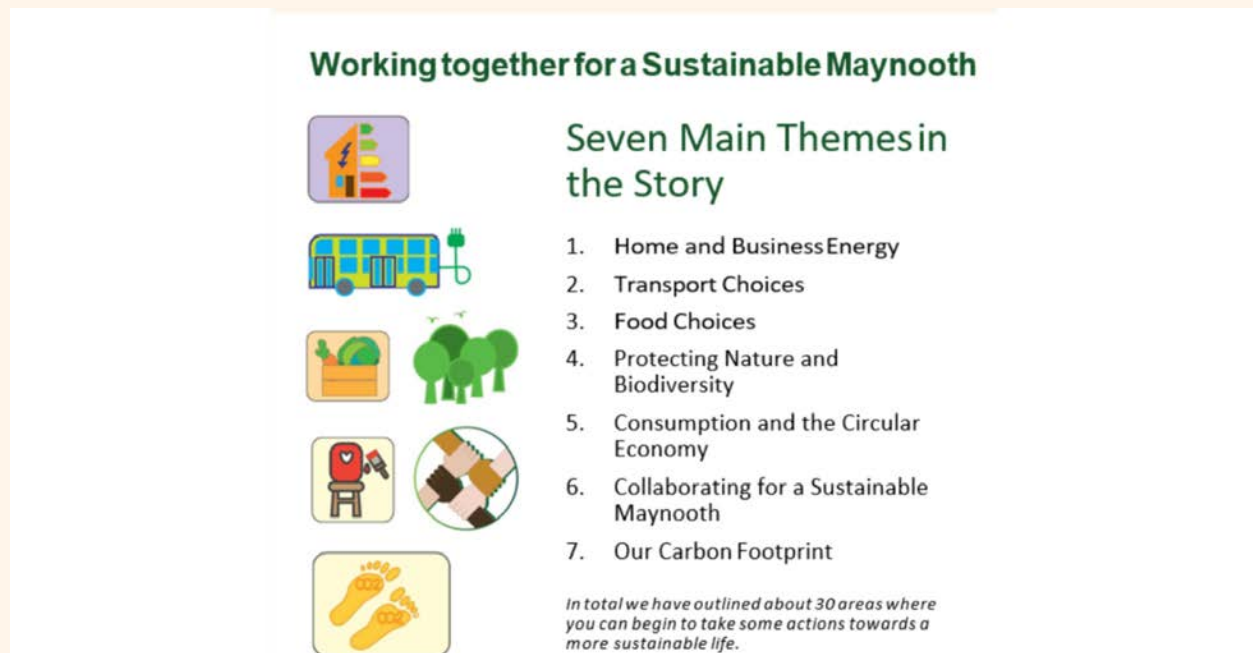


Figure 47 Maynooth Sustainability Story Themes, Peter Hamilton, 2025

Illustrative Quote from Interview with Creative Collaborator, and Maynooth Sustainable Energy Community Founder, Peter Hamilton

"Addressing climate action is challenging and we need to bring as many people along with us as possible. We need to present a positive vision for this, not one where everything is being taken away. Our story and the visual representation of this was co-created to show this positive future vision. Local artist Antoon Knapp worked with us to create this strong image. We talk about choices, showing people that there are small actions that they can take in their everyday lives, and also collaborate with local organisations. On a group level in the community we are exploring collaborative projects like solar, pedestrian and bike paths, collective retrofitting, native tree planting etc. Creativity in communications remains essential to involve people in this journey with us.

(Illustrative Quote from Creative Collaborator, Peter Hamilton)

Intended Impact:

- Support dissemination of Co-Creative Lab findings to diverse audiences beyond formal reports.
- Translate research evidence into clear, visually engaging messages rooted in local



sustainability practice.

- Reinforce the role of community energy groups in driving and sustaining climate action.
- Enable residents to see their own priorities, actions, and contributions reflected in project outcomes.



Figure 48 Community Engagement with Maynooth Sustainability Story, Photographer Amy Fahy, 2025

Material Specification:

- Illustrated sustainability story artwork by Antoon Knapp, visualising key themes emerging from the Co-Creative Lab research.
- Narrative content by Peter Hamilton, Maynooth SEC Representative, translating survey and focus-group findings into clear, action-oriented storytelling.
- Modular visual panels and graphics suitable for use across reports, presentations, exhibitions, and digital platforms.
- Print-ready and digital formats to support flexible dissemination and reuse.



Figure 49 Maynooth Sustainability Story Graphics, Antoon Knapp, 2025

Implementation:

- Integrate the story and imagery into Co-Creative Lab & Maynooth DZ communications.
- Use the artwork in community feedback and SEC-led events to share findings and close the loop with participants.
- Incorporate visuals into workshops, school resources, exhibitions, and online dissemination.
- Use the narrative as a bridge between research findings and ongoing Maynooth SEC initiatives to support long-term action.

User Feedback

"I think that the little pictures could be used all around the town. That would help to get the word spread. It isn't easy to know what to do to when you see all the complicated policy and bad news about climate change but this story is good.

When you have the small things that you can do in your daily life that takes a bit of the pressure off. You want to engage with people and not turn them off with the bad news. We should make it about what people can do instead of the damage that has been done"

(Illustrative Quote from Maynooth Sustainable Story User)



7. Commission – Lámh agus Lámh (Hand in Hand)

Purpose:

Present an original music composition and poem by poet, Dr. Dubhán Ó Longáin and composer, Dr. Seán Doherty as an artistic response to the data gathered throughout the course of the project, translating community insights on climate change into an emotionally resonant and accessible form. The work aims to encourage climate action by communicating that simple messages and small, achievable actions can accumulate into meaningful community-level change.

NÓTAÍ CLÁIR

Agus mé ag léamh fríd an tuairisc a spreag an dán seo, an rud is mó a rith liom ná an tuairimíocht go raibh na spriocanna a bhain leis an athrú aeráide agus an dóigh chun gabháil i ngleic leis ró-mhór agus na spriocdhátaí fada ar shiúl. An rud níos fearr, is cosúil, ná rudaí beaga, rudaí atá indéanta go measartha furasta agus gasta, a dhéanamh láithreach agus iad a charnadh ar dhroim a chéile chun na mórspriocanna a bhaint amach.

Níl mé féin chomh buartha faoin tsaol anois ó rugadh mac liom. Creidim go dtig leis, agus lena ghlúin, rudaí nach n-éireoidh le mo ghlúin féin a dhéanamh a chur i gcrích. Shocraigh mé go scríobhfainn dán a dhéanann ceiliúradh ar an chéad ghlúin eile agus an dóigh a spreagfaidh muidinne iad chun a bheith cúramach faoin chomhshaol.

PROGRAMME NOTE

Reading the report that inspired this poem, the most significant finding (in my opinion) was that people felt the goals around climate change and undoing damage were too big and the deadlines too far off. What would be better, it seems, are smaller goals that are easier and quicker in comparison which could be piled on top of each other to reach the same greater goal.

I, personally, am not as worried about life since my son was born. I believe that he, and others of his generation, can achieve what people of my generation fail to accomplish. I decided to write a poem that celebrates that next generation and ways that we can inspire them to be careful with the environment.

Dubhán Ó Longáin

Figure 50 Programme Notes, Dr. Dubhán Ó Longáin, 2025



Design Rational

The composition and poem were directly informed by the full body of data collected during the project, including survey responses, focus group discussions, and community engagement activities. A consistent finding across this data was that climate action is often perceived as overwhelming, abstract, or unattainable when framed through large targets and distant deadlines.

In response, Ó Longáin and Doherty intentionally focused on clarity, simplicity, and hope, highlighting small actions that can be built upon collectively over time. Music and poetry were chosen as mediums capable of conveying emotional meaning, reinforcing care for future generations, and making complex climate narratives more approachable. The bilingual presentation further supports cultural inclusion and accessibility.

TEXT		
Gaeilge	English Translation	Phonetic Transliteration
Lámh agus Lámh	<i>Hand and Hand</i>	Lau ¹ a-gus Lau
Máthair 's mac ag siúl sa pháirc le chéile	<i>Mother and son walking in the park together</i>	Ma-her a-gus mack egg shool sa farc lay chey-la ²
Grá dá páiste ar a haghaidh, sin croí na féile	<i>Love for her child on her face, that's the heart of gold</i>	Gra da pash-ti air a hi, shin cree na fail-ya
Ar chríochnú an lóin	<i>After lunch</i>	air chreak-nu an loain
Achan rud ar shiúl	<i>Cleaning up</i>	ah-han rud air hule
Isteach sa bhosca bruscair	<i>Into the bin</i>	is-chac sa wos-ka brus-car
Iad anois i dtreo na sleamhnán	<i>Now they're heading for the slide</i>	ade an-ish i droo na shlau-nan
Séideann cumhdach ar shiúl	<i>A wrapper blows away</i>	shej-an coo-dack air hule
Agus ritheann sé	<i>And he runs</i>	a-gus ree-hin shay
Cosa beaga ag bailiú	<i>Little feet gathering up</i>	kos-a bug-a egg bahl-lou ³
"Maith thú, a stór"	<i>"Good boy, my dear"</i>	Mi ⁴ hoo, a store
De shéimhghlór	<i>In a soft voice</i>	day hwev-glor
"Anois gabh bí ag súgradh"	<i>"Now go play"</i>	a-nish go bee egg sug-rue ⁵
Tá glúnta romhainn, is leo ár ndomhan	<i>Generations ahead of us, our world is theirs</i>	Ta gloon-ta row-in, is law are no-in
Céim ar chéim	<i>Step by step</i>	Came air chame
Taispeán an bealach, léirigh ár dtreo	<i>Show the way, reveal our path</i>	Tash-pan ⁶ an bah-lack, lare-ee ⁷ are droo
Lámh agus lámh	<i>Hand and hand</i>	Lau a-gus Lau

Dubhán Ó Longáin

Figure 51 Poem Text and Translation, Dr. Dubhán Ó Longáin, 2025



Illustrative Quote from Interview with Poet, Dr. Dubhán Ó Longáin

"The poem development was informed by the quote attributed to Chief Seap, Leader of the Suquamish people. Seat is Anglicised to Seattle, and that was his tribal land. His quote attributed to him is that is we don't inherit the earth, but rather borrow it from our grandchildren. So much of Lámh agus Lámh is based on a mother and child and the mother trying to teach her child simple, easy ways to approach being more involved with the environment. One of the important things that came through from the data collected was that people wanted more simple messages, for instance like reductions of 25% carbon by 2050. The numbers are too big, and it feels too out of reach. People would rather maybe work towards reducing by 1% each year, a more digestible, bite-sized piece of information. I thought well a mother giving her toddler child giving her toddler child simple clear instructions to action on could reflect that data point. Other datapoints that I illustrated in this work were more outdoor infrastructure and more fun ways I suppose to protect the environment. And so I set the poem in a playground for example around nature and outdoor activities that don't involve the use of electricity and so forth.

Humans have a desire to be creative, but in a lot of ways we are very disconnected from the natural world. It's very easy to spend a lot of time inside or on computers or so forth and so I think the idea of returning to a more original idea of humanity overall is very important that that creative message is a more digestible way to approach data and to encourage change. Like for me, when I look at blocks of numbers, it's very hard for me to understand that, but when I have the words or the music, it's easier to take the message away and experience the emotion associated with it, when you have something creative."

(Illustrative Quote from Lámh agus Lámh Poet)

**Intended Impact:**

- Translate community-generated climate data into an accessible and emotionally engaging artistic form.
- Reinforce the idea that small, everyday actions can combine to create meaningful community impact.
- Support behaviour change by framing climate responsibility as achievable rather than overwhelming.
- Foster intergenerational and community dialogue grounded in hope, care, and shared responsibility.

Material Specification:

- Original poetic text by Dr. Dubhán Ó Longáin, informed by project data and community insights.
- Musical composition by Dr. Seán Doherty, designed to support reflection, emotional engagement, and collective meaning-making.
- Live or recorded performance format suitable for community, educational, and cultural settings.
- Printed or digital programme notes to support interpretation and inclusive access.



Illustrative Quote from Interview with Composer, Dr. Seán Doherty

"I am the composer on this Co-Creative Lab project and I had the privilege of working with the poet Dubhann O'Longain to compose this piece. So analysing the data from the focus groups, what jumped out at us was the survey and focus groups and events was that people were tired of the way that climate change data was being communicated to the public at large, and perhaps if there was a way of making the findings more immediate, more accessible and more relevant to their lives, that they would be more open to engaging with it.

So that stayed with us, to create a simple, accessible, piece that would provide meaning to lots of different people.

So this project was very important. I found that music, in particular singing, group singing is really important to communicate messages. It provides something that we can all engage with. We can take that melody home with us day after day and year after year. And as it says in the poem, we can carry that message with us through different generations, hand in hand, Lamh agus Lamh.

It is a simple, innocent, exquisite poem and I wanted to portray that simplicity in my music, and I also wanted to work with Irish traditional instruments, to align with the data point that people connect strongly with culture. I took 3 traditional Irish instruments that you could use in a session, outside of a formal setting, and then on top of that we hear the melody with the poem.

The little melody, the mother and child, hand in hand, you'll hear that simple melody in one voice and then someone else takes, it and it is as if the mother has reached out to hold the child's hand, Lamh agus Lamh.

(Illustrative Quote from Lámh agus Lámh Composer)

**Implementation:**

- Present the work at community events, exhibitions, schools, and public cultural spaces in Maynooth.
- Pair performances with facilitated discussions linking the artistic themes back to local climate actions.
- Integrate the piece into Co-Creative Lab and Creative Climate Action programming.
- Explore digital dissemination and recordings to support wider reach and long-term engagement.

Audience Member Feedback

"What a joy to see this tonight. At the beginning of the song I noticed that it kind of sounded like it was looping with the same content and then when I learned more from the programme notes that made so much sense about how the repeated actions that we make every day can have a big impact. I thought the lyrics were really important to show the community working together. The composer did a really good job of showing this in the singing, the way that the singers and the instruments were added in bit by bit to make a full community and it sounded happy with some unexpected changes."

(Illustrative Quote from Lámh agus Lámh Performance Attendee)



Interpretation of Data and Research Processes to Produce Artistic Artifacts: Artists in Residence

As part of the Co-Creative Lab's commitment to embedding creativity at the heart of climate innovation, two Artists in Residence were commissioned to collaborate with the community and enrich the public engagement process through artistic practice. The first residency, led by Kildare County Council is visual artist, Martina O'Brien. The second residency, incorporated of a composition/performance team, led by Dr. Michael Dawson from Maynooth University.

These residencies supported the project's core principles of visibility, inclusion, and cultural relevance, translating community insights into powerful sensory and emotional experiences.

Illustrative Quote from Interview with Dr. Michael Dawson, Co-Creative Lab Artist in Residence

"When we first got the data, we went through it together, we explored the key quotes from the focus groups, and outreach events, and the graphic illustration. We broke down the data points and divided them up into a matrix table, to really be able to visualise the thematic areas that were emerging overall.

It was through this process of exploring the data from the various communities involved that the main thing coming through was complexity and overwhelm across all of the areas of climate action.

We wanted to respond to this concern expressed by our community, conveying a simple message, showing we can achieve.

Look, not everyone can engage with data, it's not something universal, it's actually something that many people would find hard. And to be honest, sometimes when you load people with data, we struggle to actually understand it, and that in itself is overwhelming.

So we took that data and did what the community asked for. They wanted that simple message, no overwhelm, something that they can action on to be effective.

So from the musical side, being able to distil that and turn it into a message is something that people from every background can get behind."

(Illustrative Quote from Interview with MU Residence Lead, Dr. Michael Dawson)



Martina O'Brien – Kildare County Council Co-Creative Lab Artist in Residence

While the core research activities of the Co-Creative Lab centred on capturing community attitudes, behaviours, and emotional responses to climate action through structured surveys, focus groups, workshops, and large-scale public engagement events to inform the innovation and designing of a series of innovations, Martina O'Brien's residency operated largely in parallel to these processes, exploring Maynooth through the lens of formal researchers.

Rather than engaging directly in civic-facing research activities, O'Brien focused on sustained engagement with researchers from Maynooth University and Kildare County Council, developing an in-depth understanding of the scientific, technical, and methodological frameworks underpinning local climate and ecological research. This approach focused on the inclusion of researcher perspectives within the Co-Creative Lab O'Brien's residency therefore contributed a distinct research strand, foregrounding the experiences, labour, and expertise of those producing climate knowledge through formal scientific practice.

A central aspect of the residency involved prolonged observation of research-led fieldwork taking place in and around Maynooth. This included engagement with ecological monitoring, biodiversity surveying, mapping, wildlife trapping, camera deployment, and remote sensing activities. These forms of fieldwork were designed, implemented, and led by researchers and subject-matter experts, including Dr Jim Carolan (native Irish bee research), Prof. Heather Sander (Urban Wildlife Information Network), Prof. Helen Shaw (Biogeography), Prof. John Devaney (Forest Ecology), and Dr Conor Cahalane (Remote Sensing), alongside external collaborators such as the North Kildare Beekeepers Association and Irish bee conservationist Michiel Verspuij.

O'Brien's participation in these activities was observational and dialogic, allowing her to witness how data is generated, how research protocols shape interactions with landscape, and how scientific knowledge emerges through long-term and often invisible processes. By situating her artistic practice alongside these research environments, she developed a nuanced understanding of climate and ecological inquiry, acknowledging the distinctions between artistic and scientific methods while exploring the productive space between them.



Her work responds to the conditions under which data is gathered: the rhythms of fieldwork, the material infrastructures of research, and the relationships between researchers, place, and policy. This positioning enabled a creative response that respects scientific rigour while opening space for emotional, cultural, and ecological reflection. This parallel mode of working strengthened the interdisciplinary foundation of the Co-Creative Lab, translating academic research perspectives into artistic outcomes and complementing the Lab's community-facing innovation activities.

Film Trilogy: *head(Y) b(La)ck stone*

O'Brien's residency has culminated in the development of a trilogy of films, *metallic(Y)*, *ou(Tb)ou(Nd)*, and *(Er)a*, collectively titled *head(Y) b(La)ck stone*. These works are currently in the final stages of production, with public presentation anticipated in Summer 2026. The trilogy explores the hidden infrastructures that support the green transition through the lens of rare earth minerals, reflecting on how decarbonisation is embedded within complex ecological and geopolitical networks. Drawing parallels with historic commodities that shaped empires, economies, and cultural exchange—such as tea, nutmeg, coal, and saltpetre—the films examine how rare earth elements now underpin renewable energy systems, electric mobility, and digital connectivity.

Often described as the “vitamins,” “MSG,” or “spice” of industry, rare earth elements function as trace ingredients: required in small quantities yet essential to contemporary high-tech applications. By tracing the material and symbolic presence of yttrium, lanthanum, and other rare earths, the work highlights the global interdependencies that make decarbonisation possible.

Developed in dialogue with Maynooth's Decarbonisation Zone initiatives, *head(Y) b(La)ck stone* invites reflection on the broader material landscapes that support local climate action. Rather than questioning the necessity of a low-carbon future, the project seeks to deepen understanding of the infrastructures, responsibilities, and shared challenges involved in building more sustainable systems.

The films are being created through extended observation of ecological and climate-related research practices in and around Maynooth, with particular



attention to how data is gathered, interpreted, and embedded within place. Visual material draws on landscape footage, research infrastructures, and environmental monitoring contexts, alongside ambient soundscapes designed to reflect the temporal rhythms of scientific observation. The works do not present scientific findings in a didactic manner; instead, they offer immersive, reflective experiences that make visible the processes through which climate and ecological knowledge is produced. The trilogy is intended for presentation within three individually powered shipping containers, installed at selected locations around Maynooth town. Each container will operate as a self-sustaining exhibition space supported by renewable energy systems, reinforcing the project's thematic focus through its material and operational design. The installation will form a central component of the Co-Creative Lab's Summer 2026 public showcase and is intended to function as a focal point for engagement, discussion, and reflection.

Individual Film Descriptions

metallic(Y) explores yttrium (Y), a critical rare earth mineral central to modern technologies including precision electronics, LEDs, superconductors, electric vehicle batteries, wind turbines, solar panels, and hydrogen electrolyzers. The film juxtaposes archival records of precious gemstones—historically emblematic of wealth and power—with yttrium's contemporary role as a discreet yet indispensable material. Through this dialogue, the work reflects on shifting notions of value, drawing attention to the often unseen elements sustaining technological innovation and the transition to low-carbon systems.



Figure 53 Photographic still taken from the short film titled metallic(Y), created, produced and edited by Martina O'Brien

ou(Tb)ou(Nd) examines terbium (Tb) and neodymium (Nd), minerals essential to high-performance permanent magnets and advanced electronics. These materials carry significant geopolitical importance and are increasingly linked to emerging frontiers such as deep-sea mining and extraterrestrial resource extraction. Referencing the Law of the Sea and the Outer Space Treaty, the film considers how sustainability is being shaped within evolving frameworks of governance, exploration, and responsibility.

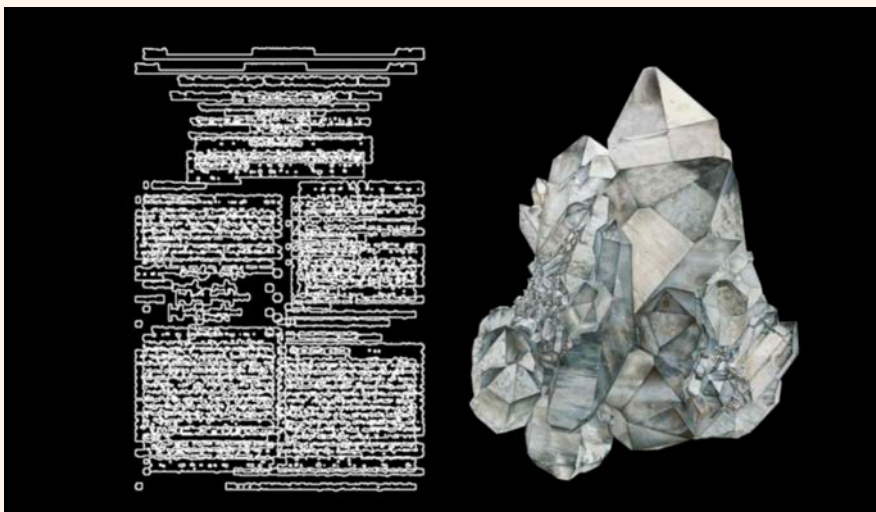


Figure 54 image - Photographic still taken from the short film titled ou(Tb)ou(Nd), created, produced and edited by Martina O'Brien



(Er)a focuses on erbium (Er), a key material in fibre-optic networks and energy-efficient lighting. Using 1939 as a point of departure—a year marked by the development of early digital computing and the acceleration of scientific research—the film traces interwoven histories of technology, material dependency, and speculative futures. The work reflects on how past innovations continue to shape contemporary infrastructures and imaginaries of sustainability.



Figure 55 Photographic still taken from the short film titled (Er)a, created, produced and edited by Martina O'Brien

Additional Works and Curatorial Focus

During the residency, O'Brien also developed exploratory works including *(La)nd* and *(La)ir*. While these projects contributed to the research process, they were ultimately excluded from the final selection, allowing focus to remain on the trilogy that most clearly embodies the conceptual direction of the residency.

Implementation Plan

A prototype shipping container is currently in production, enabling testing and refinement of spatial layout, projection, sound, and accessibility. Each container will be fitted with solar panels and wind vanes, supporting their operation as self-sustaining exhibition units. The next phase will involve confirming installation sites across Maynooth town and developing a visitor map to guide audiences between locations. **The delivery of the final artistic outputs remains in progress, with public screening of the completed films anticipated in Summer 2026.**



Maynooth Chamber Choir Composition Group – Maynooth University Artist In Residence Group

The Maynooth Chamber Choir, in partnership with a commissioned composer (Dr. Seán Doherty and poet (Dr. Dubhán Ó Longáin) forms the second artist-in-residence team. Their residency invited the community to experience climate engagement through the artistic form of music. Drawing from the themes surfaced in surveys, focus groups and community workshops, the composer and poet developed a new choral piece with lyrics and instrumentation for local voices.

Conductor & Researcher: Dr. Michael Dawson

Dr Michael Dawson is the conductor of Maynooth Chamber Choir and an experienced choral director, academic, and practitioner whose work spans performance, music education, and collaborative artistic practice. His leadership of the choir is characterised by an emphasis on inclusivity, musical excellence, and meaningful engagement with contemporary themes. Within the context of the Co-Creative Lab, Dr Dawson's role has been central to supporting the choir's contribution as a collective artistic voice, guiding performers through a process that foregrounds interpretation, reflection, and emotional connection rather than purely technical execution.

Dr Dawson's involvement strengthens the project's interdisciplinary approach by bridging musical practice with research-led and community-based climate initiatives. His experience in working with commissioned material and participatory performance contexts supports the translation of complex ideas, such as climate responsibility, care, and collective action into accessible and resonant musical expression. Through his direction, the choir's contribution aligns with the wider aims of the Co-Creative Lab, demonstrating how skilled artistic leadership can support collaboration between researchers, artists, and community participants while maintaining a strong sense of shared purpose and artistic integrity.



Poet: Dr. Dubhán Ó Longáin

Dr. Dubhán Ó Longáin is a poet, writer, and researcher whose work brings together literary scholarship, folklore, and contemporary creative practice. With a background in narrative research and Irish cultural traditions, his work often explores themes of place, identity, and collective memory. Within the Co-Creative Lab, Dr. Ó Longáin contributed a strong combination of literary research and creative analysis, focusing on interpreting qualitative data from surveys and focus groups alongside observing and reflecting on the wider co-creative process.

Through this analytical lens, he supported the identification of recurring themes relating to participation, sustainability, and community experience, helping shape the conceptual foundations of *Lámh agus Lámh*. His involvement foregrounded culture as a method of inquiry, demonstrating how poetic practice can function as both an interpretive tool and an artistic output, strengthening connections between community experience, design-led innovation, and creative expression within the project.

Composer: Dr. Seán Doherty

Dr. Seán Doherty is an Irish composer and academic whose work spans music composition, choral practice, and musicology. Alongside his creative career, he has extensive experience in research-led practice, particularly in translating complex ideas and collective narratives into structured artistic forms. Within the Co-Creative Lab, Dr. Doherty brought a research-informed creative approach, supporting analysis of the co-creative process for innovation and design alongside interpretation of survey and focus group data. Drawing on his academic background and compositional expertise, he worked with the project team to synthesise qualitative insights emerging from community engagement and translate these into structured creative responses.

His contribution extended beyond composition to include critical reflection on participant experiences, thematic patterns, and collective narratives, ensuring that the resulting musical output was grounded in evidence as well as artistic practice. This process culminated in the original composition *Lámh agus Lámh*, which acted as a cultural expression of community voice and sustainability themes,



demonstrating how research-informed artistic practice can support inclusive innovation and deepen public engagement.

Singers: Maynooth Chamber Choir

Maynooth Chamber Choir is a long-established, Maynooth-community embedded choir bringing together singers from a wide range of ages, backgrounds, and levels of musical experience. The choir has a strong tradition of engaging with contemporary themes through choral performance and has previously collaborated with composers, artists, and cultural organisations to explore social and environmental issues through music. Within the context of the Co-Creative Lab, the choir represents an important cultural and civic voice, demonstrating how collective artistic practice can support reflection, dialogue, and emotional engagement with complex topics such as climate change.

This team's involvement in the project highlights the role of music and collective performance as tools for translating research insights and community perspectives into artistic forms that are emotionally resonant and publicly accessible. Through its contribution, Maynooth Chamber Choir strengthens the interdisciplinary nature of the Co-Creative Lab by connecting scientific research, creative practice, and community expression within a shared cultural framework.

Performances and Recording

The Maynooth Chamber choir's performances of this work (4th and 5th December, 2025; Maynooth Oratory). The performances were advertised publicly as part of the choir's winter gala via social media and posters, and all tickets were sold out. The composer (Dr. Seán Doherty and poet, Dr. Dubhán Ó Longáin) attended the premiere performance and were interviewed about their creative processes and perceptions of the choir's interpretation and performance the composition (artistic output). This collaboration adds an auditory dimension to the Co-Creative Lab's outputs, expanding the ways in which climate narratives are shared, felt, and remembered.



Figure 56 Co-Creative Team with Composition Artists, Photographer, Andrea Hickey, 2025

Frame It, a local Kildare videographer was contracted to capture both rehearsal footage and the full premiere performance of the work (4th December, 2025, St. Joseph's Oratory, Maynooth University), and this footage will be used in project dissemination activities on the Co-Creative Lab social media channels and website, Maynooth University website, Maynooth Community Facebook page, Maynooth Tidy Towns Committee, Maynooth Sustainable Energy Community, local schools in Maynooth and shared with other community choirs around Ireland and internationally who wish to learn and perform the piece.



Figure 57 Premiere of Choral Piece, Maynooth University, 2025



Communications and Dissemination

Key Deliverables Summarised

(specific dissemination events highlighted below table)

Num	Deliverable	Of What	Where / When	Status / Commentary
30	Family/Community Events	Family-focused public engagement (Play Days & Picnic in the Park)	Kildare & local community parks: Play Day (Sept 2024 & 2025; Picnic in the Park (June 2024 & 2025)	12,000 participants (over 4 days)
1	Science Blast (Education Event)	Informal science education engagement	National 5-day event: 2 nd -6 th March 2025 , RDS, Dublin	15,000 participants (over 5 days)
1	Maynooth Sustainable Energy Community Event (SEC)	Targeted local energy workshop	Maynooth Glenroyal Hotel, September, 2025	150 participants
2	Choir Performances – <i>Lámh agus Lámh</i> Composition	Public performance of original co-created musical composition	Maynooth University – 4th & 5th December	300 Attendees. Performances showcased creative outputs with the public.
10	Academic, Government and Industry Conferences	Poster presentations, panels and international workshops	Ireland & International (2025)	2000+ academic , government and industry professionals
1	Youth Worker Training (Bosnia)	Standalone international youth worker facilitation workshop focused on innovation and co-creation	Bosnia, October (2025)	30 EU youth worker facilitators
1	Visual exhibition of prototypes	Display of physical and	Technological Science & Innovation Building,	100 attendees. Exhibition delivered



Num	<u>Deliverable</u>	<u>Of What</u>	<u>Where / When</u>	<u>Status / Commentary</u>
		visual project outputs	Maynooth University, November, 2025	with photographic documentation. 3D printed seats and biodiversity pole installed publicly in Maynooth Dec–Jan
50	Short-form videos/posts	Videos of public engagement with prototypes; videos capturing designer and student experiences	LinkedIn, (Co-Creative Lab), Instagram (@cocreativelab2025) and Co-Creative Lab website (www.co-creativelab.eu)	70+ posts across platforms (video, text, photos). 250 followers
3	Press releases	Project launch; Scoping Review launch; Exhibition / prototype launch	Local media outlets; national media where appropriate	Partially achieved (2/3). Kildare County Council Artist in Residence announcement; Maynooth University Magic Bin feature. Smart Energy Plug release planned
1	Documentary film	45-minute documentary summarising project process, learning and outcomes	Public presentation and digital dissemination	Partially achieved. Filming completed Dec 2025. Hybrid screening, Summer 2026; public screening at Maynooth University. Further screenings planned April 2026 in local schools and Maynooth Library. Shared with local/national media and used at government and academic events

Figure 58 Dissemination and Outreach



Documentary Film

A 40-minute documentary was produced to capture the scope and impact of the Co-Creative Lab project. Filming and editing were undertaken by Frame It Productions, with filming completed in **December 2025** across key project locations including **Maynooth University, Kildare community festivals, and local workshop settings**.

The documentary documents project activities across family engagement events, prototype workshops, school engagement, and academic dissemination. It foregrounds participant voices, showcasing lived experiences of engagement with sustainable innovation and community-led design. Stakeholder perspectives—including educators, youth participants, community members, designers, and project partners—highlight the value of collaborative approaches in supporting inclusion, creativity, and systems thinking around sustainability.

The primary audiences include:

- Local community members (public screening at **Maynooth University, Summer 2026**)
- Schools and youth groups (additional screenings planned 2026)
- Academic and policy audiences (conference and event excerpts)
- Local and national media

The film will serve as a dissemination tool and a reflective resource for future co-creation initiatives.



Website

The project website, www.co-creativelab.eu, was active throughout **2024–2025** and operates as a central hub for project information.

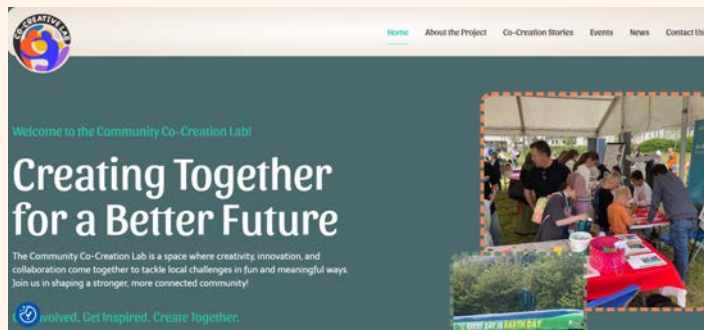


Location: Online (public access)

Audience: Open public; educators; researchers; policymakers; community stakeholders

The website documents project activities, prototypes, news updates, and the Co-Creative Lab methodology. It ensures transparency and provides open access to outputs beyond live events, supporting continued engagement after project completion.

<https://www.co-creativelab.eu/>



Social Media and Community Communications

Active dissemination was maintained across Instagram (@cocreativelab2025) and LinkedIn (Co-Creative Lab) during **2024–2025**, reaching approximately **250 followers** and generating over **70 posts** (video, photography, and text-based content).

Instagram supported engagement with families, children, and community audiences through visual storytelling of family events, Science Blast participation, prototype exhibitions, choir performances, and the installation of innovations. LinkedIn supported professional dissemination to academics, policymakers, and sustainability practitioners, highlighting conference participation, research outputs, press coverage, and key project milestones.

In addition to the Co-Creative Lab digital channels, established local community communication networks were actively used to promote workshops and events, supporting broader and more inclusive participation. These included



Maynooth Library, the Maynooth Community Facebook page, local schools, running clubs, mother and toddler groups, elderly community networks, and church-based community channels. Leveraging these trusted platforms significantly extended reach beyond social media followers alone and supported engagement with diverse age groups and community stakeholders.

Instagram: cocreativelab2025

<https://www.instagram.com/cocreativelab2025/>



Figure 59 Instagram Posts, 2025

Linkedin:Co-Creative

Lab

<https://www.linkedin.com/company/106267863/admin/page-posts/published/>





CoCreative Lab
Enhance your Page
214 followers
[+ Create](#)
[View as member](#)

- Dashboard
- Page posts**
- Analytics
- Feed
- Activity 3

Page posts

Manage your page's organic and paid content

Published Page ads Employee ads



 Video  Photo  Write article

Get up to 1,608 more video views by boosting this post. [?](#) [Boost](#)

By Nicky Dawkins • 9/25/2025



CoCreative Lab
214 followers
4mo • 

  Tiny City, Big Message: Learning Sustainability with LEGO  
We're proud to share the LEGO Smart City – part of the [CoCreative Lab](#) project

Figure 60, Co-Creative Lab linkedin Page



Outreach Workshops and Public Engagement

Family Events (Play Days, Picnic in the Park and Energy and AI Workshop)

Number of Events: 9

- Play Days (x2): September 2024 & September 2025
- Picnic in the Park (x2): June 2024 & June 2025
- Energy and AI Workshops (x 3), November, 2024
- Science Night (x 2), Maynooth University (2024 & 2025)

Location: Kildare

Audience: Families, children, local residents

Attendance: 15,000 attendees overall

Play Days, Kildare County Council – September 2024 & 2025. A public event geared towards families.



Figure 61 Play day, Kildare, 2025



Figure 62 Picnic in the Park, Maynooth, 2025

These large-scale public events enabled hands-on interaction with prototypes and co-design activities. They encouraged intergenerational dialogue and playful exploration of sustainability themes, providing opportunities to test ideas, gather feedback, and build community visibility.

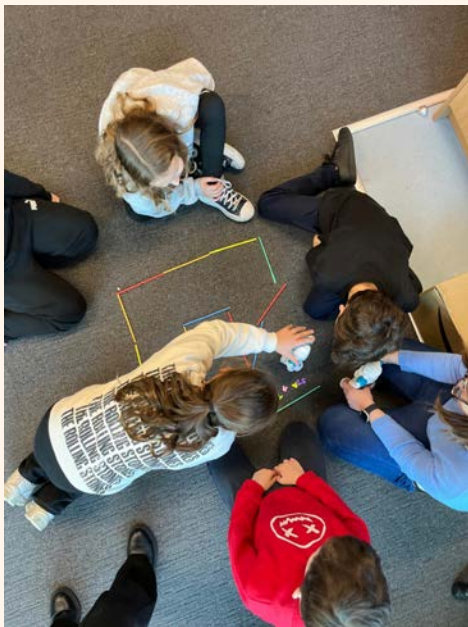


Figure 63 Energy and AI Workshop, Amy Fahy, 2025



Figure 64 Data Collection at Maynooth University Science Night, 2025, Amy Fahy

Science Blast – National STEM Education Exhibition

Number of Events: 1 (4-day national event)

Date: March 2025

Location: Ireland (national informal science education event)

Audience: 12,000 Children aged 8-13, 500 teachers, families

Attendance: Approx. 15,000 participants overall over four days

The Co-Creative Lab engagement was divided into two components for this event:

- (i) Interactive stand for sustainable energy transition: the team introduced sustainability themes through interactive activities and curiosity-driven learning formats, significantly broadening youth reach.



Figure 65 Co-Creative Lab Supporting Science Blast Facilitation, 2025, Photographer Fabiano Pallonetto

(ii) The Co-Creative Lab team worked with 3 school groups over the course of 4 months ahead of the exhibition to support them with the development of projects in the area of Sustainable Energy Transition. These projects involved collecting data from the local community, and illustrating/disseminating the results in fun, creative ways.

Science Blast: - Informal Science Education event Mach 2025 15,000 participants



Figure 66 Science Blast Projects, RDS, 2025

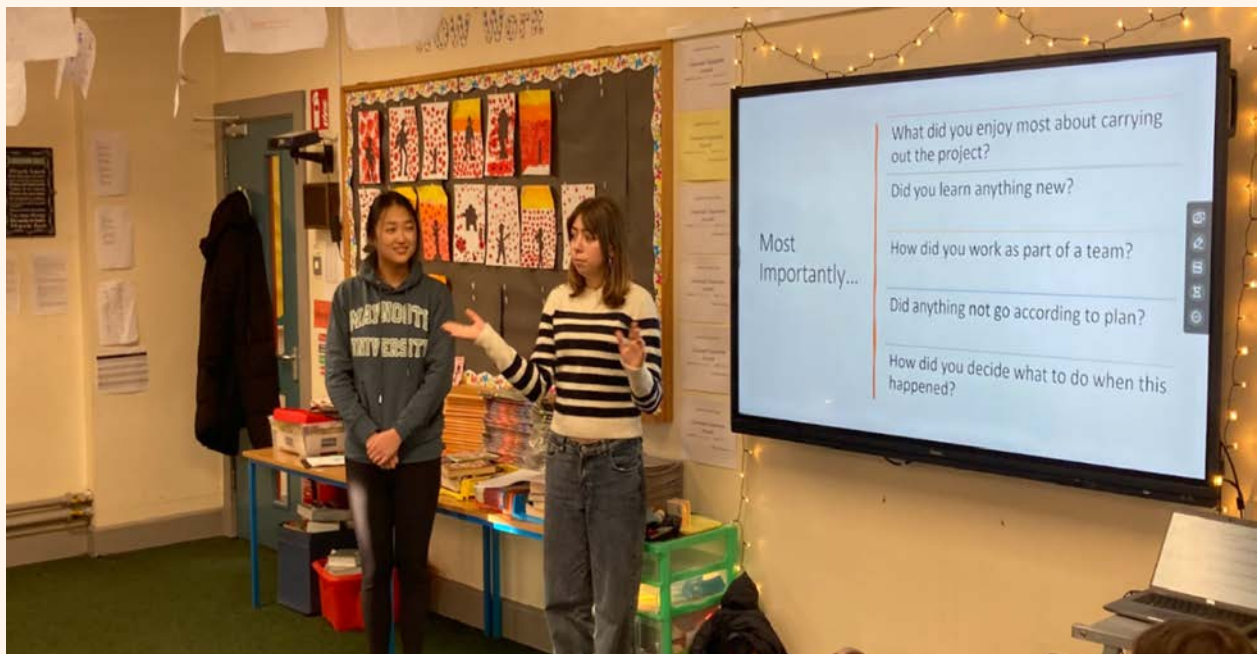


Figure 67 Youth Workshops, Photographer, Amy Fahy



Figure 68 Youth Workshops,, 2025, Photographer, Amy Fahy

Maynooth Sustainable Energy Community Event (SEC)

Number of Events: 1

Date: 2025

Location: Maynooth

Audience: Local residents, community energy stakeholders

Attendance: Approx. 150 participants

This focused event supported deeper dialogue around local energy innovation and pathways for sustainable community action.

Maynooth Sustainable Energy Community Event (2025) (100 participants)



Figure 69 Maynooth SEC Event, 2025, Photographer, Amy Fahy

Academic Conferences and Professional Dissemination

Project learning was shared nationally and internationally through conferences, panels, and workshops:

- **Maynooth University Green Week, 2025**, showcase stand for Data Collection, and Youth Committee Design and Innovation Presentation (April, 2025) 3000 participants
- **Adaptation Futures 2025**, Christchurch, New Zealand (2025): Poster presentation by Fahy & Crean, *Collaboration and co-creation in the sustainable energy transition: Community voice in innovation*.
- **EU Sherlock Reskilling and Upskilling Conference**, Seville, Spain (September 2025): Methodology presentation to approximately 100 participants.
- **RDS Finding Common Ground Panel**, Ireland (2025): Panel discussion on preparing young people for future challenges (150 participants).
- **Youth Worker Training**, Bosnia (2025): Standalone interactive workshop delivered for EU youth worker facilitators.



- **Education for Sustainable Development National Stakeholder Forum, Ireland (2025):** Co-Creative Lab stand engaging approximately 200 national stakeholders.

Collectively, these engagements reached over **5000 academic, practitioner, agreement and youth-sector stakeholders**, supporting international knowledge exchange and positioning Co-Creative Lab as a practical model for inclusive innovation in sustainability education.



Figure 70 Figure 62 Maynooth University Green Week Poster, 2024



Figure 71 Maynooth University Green Week Youth Committee Design Principles Presentation, 2024, Amy Fahy

Choir Performances – *Lámh agus Lámh*

Number of Performances: 2

Dates: 4th & 5th December 2025



Location: Maynooth

Audience: 300 Community members & local government stakeholders

The public performance of the original co-created composition *Lámh agus Lámh* represented the project's creative arts dimension, strengthening community cohesion and broadening engagement beyond traditional sustainability formats.

Academic Conferences/ Workshops

Number of Events: 1

Date: 2025

Location: Maynooth

Audience: Local residents, community energy stakeholders

Attendance: Approx. 150 participants

Poster Presentation at Adaption Futures 2025: Acceleration Adaption Action, Christchurch, New Zealand

Fahy A. & Crean, S., (2025) Collaboration and co-creation in the sustainable energy transition: Community voice in innovation

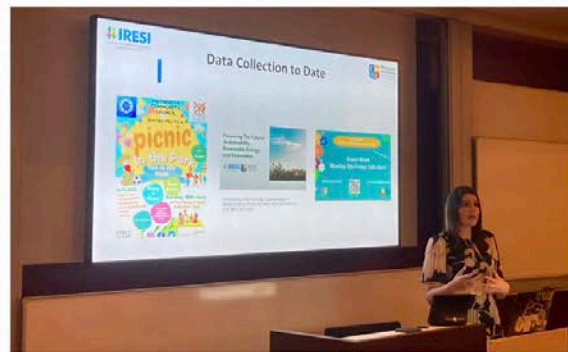


Figure 72 Conference Presentation, Sadhbh Crean, 2025

Co-Creative Lab Methodology Paper Presentation and Interactive Workshop (300 participants) at 4S Making and Doing Transformations Conference, Amsterdam (July, 2024)



Fahy A. & Crean, S., (2025) Co-Creative Lab Engaged Research Methodology



EU Sherlock Reskilling and Upskilling Conference Presentation (1500 participants) Co-Creative Lab Methodology Presentation (Seville, September, 2025)



Figure 73 Reskilling and Upskilling Event in Seville, 2025, Photographer, Mattia DeRossi

RDS Finding Common Ground Panel: Preparing the Next Generation for the Future (150 participants)



Figure 74 RDS Finding Common Ground Festival, 2025, Photographer, Fabiano Pallonetto

PWC Women in Sustainability Co-Creative Lab Lego™ City Showcase (150 participants) PWC, 2025



Figure 75 Women in Sustainability Event Lego™ City Showcase, 2025, Maxwell Photography

Co-Creative Lab Engaged Research Methodology Presentation at UAE Seminar for government and Industry (200 participants) (November, 2024)



Figure 76 UAEU Co-Creative Lab Methodology Presentation, November 2024, Photographer, Na Fu



Co-Creative Lab Presentation at Powering the Future (Industry event) (150 participants) Methodology Presentation Maynooth University (June, 2024)



Figure 77 Powering the Future Event Presentation, 2024, Maxwell Photography

Co-Creative Lab International Workshop on Youth Empowerment (30 participants) through Innovation for EU Youth worker facilitators: Kirsheir, Turkey (September, 2025)



Figure 78 International Youth Work Train the Trainer Workshop, Turkey, 2025



Education for Sustainable Development National Stakeholder Forum, 2025 (200 participants). Co-Creative Stand supported by Youth Committee and MU team members.



Figure 79 National Education for Sustainable Development (ESD) Strategy Conference. Maynooth University, 2025

Communications Capacity and Project Complexity

Some delays in communications outputs reflected the complex, multifaceted nature of the project, which combined community engagement, creative practice, prototype development, and academic dissemination. Timelines were also affected by delays in outsourcing the scaling up of prototypes and the subsequent installation and public showcasing of innovations, which meant that certain communications activities needed to align with the availability of physical outputs. Communications responsibility primarily sat with the Maynooth University Principal Investigator, supported by a Kildare County Council staff member.

Now that the innovations have been installed, a significant communications effort is underway to disseminate news of these developments and actively invite public participation in engaging with the prototypes. Over the six months following project culmination, communications activity will focus on celebrating the project's achievements, highlighting the creative processes underpinning the work, and sustaining public engagement with the installed innovations



Evaluation Strategy

The evaluation of the Co-Creative Lab adopted a mixed-methods, participatory, and predominantly formative evaluation approach, aligned with the project's co-creative ethos and principles of engaged research. Evaluation was embedded throughout the project lifecycle to ensure that learning informed design iteration, decision-making, and delivery in real time.

A strong emphasis was placed on formative evaluation, allowing participant feedback to shape innovation development, creative interventions, and engagement formats as the project progressed. This approach was particularly important given the experimental, interdisciplinary nature of the project and the number of parallel innovation strands involved.

Inclusive and Participatory Evaluation Methods

To ensure accessibility and inclusiveness across age groups, abilities, and cultural backgrounds, a range of creative, low-barrier evaluation strategies were employed throughout workshops, public events, school sessions, and co-creation activities. These methods enabled participants to share feedback in ways that were intuitive, engaging, and appropriate to different communication styles.

Evaluation Tools

- World café-style discussions, facilitated at community and ideation events, involving an estimated 150+ participants. These sessions supported small-group dialogue and collective sense-making, with key themes captured through table notes and visual prompts.
- Graphic illustration and visual mapping, used during workshops and events with approximately 500+ participants, enabling ideas and reflections to be captured visually in real time.
- Post-it note feedback (1000+ post-its), widely used across events and workshops, generating several hundred qualitative responses. These comments provided rich insight into participant understanding, emotional response, and priorities.
- Thumbs up / thumbs middle / thumbs down activities, used primarily in workshop settings with approximately 200+ participants, providing



immediate visual feedback on understanding, relevance, and engagement, but not drawing attention to individual participants.

- Marble jar feedback, implemented at multiple public-facing events, with approximately 500+ participants contributing. The majority of responses clustered in the “Learned something” and “Want to learn more” categories.
- KWL charts (Know – Want to know – Learned), particularly within school and youth workshops, supporting reflection on learning progression over the course of sessions.
- Storytelling and reflective sharing, where participants articulated experiences and insights through narrative discussion rather than formal questionnaires.
- Formal interviews with members from the co-creative team.

The evaluation was inclusive, creative, and participant-centred, allowing feedback to be gathered from individuals who might not otherwise engage with traditional evaluation methods.

Table 5 Evaluation Illustrative Quotes from Participants

Data Source / Activity	Theme	Sample Participant Quotation
Climate Action Survey	Complexity & confidence	“I do care, but I don’t know what the right things to do are.”
Climate Action Survey	Cost & access	“I’m not going to choose climate action if it will cost me more money. It needs to be affordable.”
Climate Action Survey	Intention–behaviour gap	“People need some guidance and encouragement when they do good.”
Community Focus Groups	Local relevance	“I liked that we talked about things that we enjoy and how they could be used to make innovations”.
Community Focus Groups	Inclusion	“Thank you for asking. Specific needs are sometimes not thought about until after something is installed and some people can’t use it”.
Ideation Co-Creation Workshops	Ownership	“When activities are led by groups that lots of people attend like Mother and Toddler, or the Running Club then the community will get on board.”
Ideation Co-Creation Workshops	Collaboration	“It was surprising to hear the difference in ideas between the younger generation and me (retired). I am sad to see that there is the need for climate action, and want to do everything I can to make that happen.”



Data Source / Activity	Theme	Sample Participant Quotation
		“Different groups have different priorities about what is fun and innovative to them.”
Participatory Creative Workshops (Deep Time Walks)	Perspective	“The Deep Time Walk is something that I chose because sometimes life is so fast and I wanted to experience just observing what is beautiful in the present moment in this town”.
Participatory Creative Workshops (Mapping / Crafting)	Connection to place	“It wasn’t what I was expecting. It was much more interactive than I thought it would be with a lot of reflecting on places and objects to get us thinking about connections.”
Participatory Creative Workshops	Emotional engagement	“I like to come to events like this to meet interesting people and have interesting conversations especially in the outdoors.”
Science Blast Workshops	Engagement	“In the house there was a lot of energy being wasted where things were left on like the TV plugged in and nobody realised this before”.
Science Blast Workshops	Confidence	“Presenting the project for the judges was actually good, they were actually really nice and I thought it would be scary.”
Youth Committee	Development	“I really appreciate having the opportunity to get to attend events where there are people working on sustainability. It is preparing me for my future already”.
Public Events & Outreach	Accessibility	“Everyone loves Lego™, all ages. I stopped because I saw it and it reminded me of my childhood”.
Public Events & Outreach	Tone	“It isn’t the surveys that get people enthusiastic, it’s the stuff that you can pick up and try out.”
Prototype Testing (Magic Bin)	Behaviour awareness	“I watched lots of people pick up rubbish just so that they could throw it in the magic bin and hear the sound that it made.”
Prototype Testing (Energy Plug)	Ease of use	“The pilot project makes it easier to see when things are good or bad, it’s handy”.
Creative & Cultural Engagement (Commissioned Piece of Music)	Cultural connection	“It was a bit slow to get going (the song) but then when all the different parts came in together it was powerful”
Creative & Cultural Engagement (Maynooth Story)	Reflection	“Cute icons are easy to remember and it helps to create branding for the Maynooth SEC



Outcomes

Across participatory evaluation activities, there was consistently positive sentiment relating to engagement, learning, and interest in further involvement. Analysis of post-it note feedback and facilitated discussions indicated:

- strong appreciation for hands-on, creative, and social learning formats,
- positive responses to climate engagement that felt non-judgemental and locally relevant,
- and a high level of expressed curiosity and motivation to learn more about climate action.

Feedback frequently highlighted enjoyment of workshops and events, alongside comments noting increased confidence in discussing climate issues and a desire for continued opportunities to engage.

Behaviour Change

For technology-enabled innovations, such as the Smart Energy Management Plug and the Magic Bin, behaviour change was more readily observable and measurable. Evaluation drew on sensor data, usage monitoring, and participant feedback, demonstrating:

- increased engagement and correct usage of waste bins, alongside reduced overflow in trial locations, and
- reduced electricity consumption and heightened awareness of energy use among participants using the Smart Energy Management Plug, particularly during peak usage periods.

For other innovations, including Climate Conversation Zones, Biodiversity Totem Poles, and creative public space interventions, behaviour change was more challenging to quantify. These interventions were designed to support dialogue, reflection, and cultural shifts rather than immediate behavioural outcomes. Evaluation therefore focused on qualitative indicators such as depth of conversation, time spent engaging, and expressed intention to act.



Formative and Summative Evaluation

Formative evaluation was a key strength of the project, supporting responsive and adaptive delivery. Summative evaluation, particularly in relation to longer-term behaviour change, will be strengthened as innovations remain in place and residents have time to engage with them more fully. Extended interaction will enable more robust assessment of sustained impact through follow-up feedback and usage data.

Co-Creation Student Team Participant Quote:

“At the beginning of the project, we didn’t know how to code hardware, so there was a big learning curve involving lots of research, YouTube tutorials, and building up basic coding skills just to be able to give instructions to the system. We knew what outcome we wanted, but figuring out how to get there was one of the main challenges. The process was very iterative, with a lot of back and forth as we learned new skills along the way.

I got involved through my master’s in Business Analytics at Maynooth, via a module called Analytics Live, which introduced me to the Co-Creative Lab and the Magic Bin project. Coming from an economics and finance background, moving into such a creative process was outside my comfort zone, but it was also really rewarding. I was exposed to completely new areas I’d never worked in before, and that made the whole experience both challenging and creative.” (Co-Creation Team Participant Quote)

Evaluation Limitations

The project recognises that measuring of long-term behaviour change within the current timeframe remains indicative rather than causal. Variability across innovation types, settings, and participant groups influenced the nature of evaluation data collected. These limitations are acknowledged as inherent to community-led, experimental climate action projects.



Challenges and Learning

Delivering the Co-Creative Lab provided valuable insight into the opportunities and complexities of large-scale, interdisciplinary climate action projects. Many of the challenges encountered were inherent to the project's ambition, its co-creative methodology, and its commitment to inclusive, multi-stakeholder engagement. Addressing these challenges generated important learning that can inform future initiatives.

Integrating Multiple Innovation Strands and Teams

One of the core challenges was coordinating a project that comprised multiple parallel innovation strands, each operating at different stages of development and involving distinct mixes of partners. Research, youth-led innovation, creative practice, engineering, design and innovation, enterprise engagement, and local authority delivery all progressed simultaneously. Ensuring coherence across these strands required continuous coordination, clear communication, and flexibility in planning. This complexity also reinforced the importance of dedicated coordination roles and shared governance structures in future projects of similar scale.

Navigating Quintuple Helix Collaboration

The project was intentionally structured around a quintuple helix model, bringing together academia, local government, industry, civil society, and the creative sector. While this diversity enriched the project, it also surfaced differences in priorities, language, and expectations. Tensions occasionally arose around interpretations of "innovation" and "fun", with community participants often associating fun with connection, accessibility, and shared experience, while institutional or technical partners sometimes prioritised novelty, efficiency, or technological advancement. Working through these differences required ongoing dialogue and helped clarify the value of broad, inclusive definitions of innovation.

Integrating Creative Roles Midway Through the Project

The Artist in Residence and Creative Collaborator, supported by Kildare Arts Service, joined the project after several innovation strands were already underway. While their contributions ultimately added significant depth and value, integrating creative practice into an already complex project ecosystem presented challenges. Artists needed time to understand the project's structure, build relationships with multiple partners, and identify where their practice could most effectively



contribute. This experience highlighted the importance of early creative integration, clear onboarding processes, and shared orientation for future interdisciplinary projects.

Balancing Community Aspirations and Local Government Requirements

Another key challenge involved aligning community-led ideas with the practical realities of local government delivery. Survey and focus group data revealed strong public enthusiasm for playful, imaginative, and visible climate interventions. At the same time, local authorities were required to consider feasibility, safety, maintenance, regulatory compliance, and long-term sustainability. Negotiating this balance required careful facilitation and mutual understanding, ensuring that community voice remained central while innovations could be responsibly delivered within public space.

Budgetary Constraints and Scaling Technological Innovations

Budgetary limitations, particularly in relation to technology-led innovations, presented a further challenge. While several concepts progressed successfully to prototype stage, scaling these innovations required specialist technical expertise, manufacturing capability, and additional resources beyond the original project scope. This constrained the speed at which certain innovations could move toward wider deployment. However, this challenge also led to positive outcomes, as the project successfully secured additional funding through Enterprise Ireland and Research Ireland to further develop key innovations, including sustainable 3D printing approaches and the Smart Energy Management Plug. This experience underscored the importance of viewing prototyping projects as gateways to further investment rather than end points.

Managing Project Continuity and Administrative Processes

The project experienced changes in academic leadership over its lifetime, with responsibility passing through three lead researchers. The final lead researcher was not the original grant author, which introduced challenges in terms of budget setup, administrative processes, and institutional onboarding. These delays had knock-on effects on timelines and delivery of certain activities. While these issues were ultimately resolved, they highlight the need for continuity planning, early administrative alignment, and robust handover processes in multi-year, collaborative projects.



Maintaining Momentum and Avoiding Engagement Fatigue

Sustaining engagement across a long project timeline also required careful attention. Participants were involved through surveys, focus groups, workshops, events, and co-creation activities, and maintaining enthusiasm without overburdening contributors was an ongoing consideration. Creative approaches, youth facilitation, and varied engagement formats helped mitigate this challenge, reinforcing the value of diversity in participation methods.

Learning Summary

Despite these challenges, the Co-Creative Lab demonstrated that complex, interdisciplinary, and community-centred climate action is both achievable and impactful. The project benefited from adaptability, strong partnerships, and a shared commitment to learning. The challenges encountered were not obstacles to success, but catalysts for reflection and improvement, providing valuable insight for future initiatives seeking to integrate research, creativity, policy, and community action at scale.



Recommendations for Future Policy and Practice

The Co-Creative Lab demonstrates that climate action initiatives are most effective when they move beyond awareness-raising and instead focus on enabling people to act with confidence, clarity, and a sense of shared purpose. Across engagement activities, participants consistently expressed motivation to act but also highlighted barriers including complexity, cost, information overload, and negative climate messaging. The recommendations below respond directly to these insights.

1. Translate Climate Policy into Small, Locally Relevant Actions

Future climate programmes should prioritise micro-actions that are clearly linked to local context and everyday life. Rather than asking communities to engage with abstract emissions targets or distant timelines, initiatives should focus on concrete actions such as when to use electricity, how to sort waste correctly, how to move through town sustainably, or how to support biodiversity at street level.

These actions should be framed as achievable first steps, explicitly showing how individual and collective actions contribute to wider decarbonisation goals. The success of innovations such as the Smart Energy Management Plug and Magic Bin demonstrates that people respond positively when they can see, hear, or experience the impact of their actions immediately.

2. Shift Public Climate Messaging Toward Positive, Enabling Narratives

Participants repeatedly indicated that long-term “doomsday” messaging and high-level targets can feel overwhelming and disengaging. Future policy and practice should therefore emphasise positive, present-focused narratives that highlight progress, shared effort, and local benefit.

This does not replace long-term climate targets, but reframes how they are communicated publicly. Messaging should focus on questions such as: *What can we do this week? What is already working locally? How can climate action improve everyday life?* Creative and cultural approaches should be supported as legitimate tools for delivering this shift in tone.

3. Formalise Pathways from Prototype to Deployment

Many of the most effective innovations emerging from the Co-Creative Lab were developed through university- and youth-led prototyping, grounded in



community insight. However, scaling these innovations requires additional technical expertise, manufacturing capability, certification, and governance support.

Future programmes should include explicit scale-up pathways, with staged funding and support mechanisms that allow innovations to move from prototype to pilot to wider deployment. This includes early identification of delivery partners, access to enterprise and research funding, and clarity on ownership and maintenance responsibilities.

4. Embed Youth Leadership Beyond Consultation

The youth committee model proved highly effective in shaping innovation themes, facilitating engagement, and sustaining momentum.

Future initiatives should embed youth participation not only as contributors, but as co-designers and decision-shapers, with clear roles, resourcing, and feedback loops.

This includes supporting peer-to-peer engagement, skills development, and opportunities for youth to see their ideas move into implementation, reinforcing trust and long-term civic engagement.

In particular, members of the youth committee were invited to present at project dissemination activities including industry and academic conferences, and outreach events.



Figure 80 Youth Committee Representatives Presenting Co-Creative Lab Project at STEM Careers Event at Maynooth University, 2024



Figure 81 Youth Committee Co-Creative Lab Dissemination Showcase, 2025

5. Support Integrated, Cross-Sector Coordination

The project highlighted the value of coordinated action across academia, local government, creative sectors, industry, and communities. Future policy should support dedicated coordination capacity within complex projects, recognising that interdisciplinary and co-creative approaches require time, facilitation, and shared governance structures to succeed.



Table 6 Recommendations

Stakeholder Group	Targeted Recommendations
Local Authorities & Climate Action Offices	Develop public-facing initiatives that focus on specific, everyday behaviours; support creative pilots in public space; streamline processes for testing new interventions; embed positive, localised climate messaging into communications strategies.
Decarbonisation Zone Leads	Break DZ targets into short-term, visible actions; use DZs as testbeds for behaviour-focused innovations; support iterative learning rather than fixed outputs; resource coordination across multiple innovation strands.
Sustainable Energy Communities (SECs)	Focus engagement on simple, collective energy actions (e.g. timing of use, shared learning); use creative tools to demystify energy systems; integrate behaviour-change tools alongside retrofit and generation projects; support peer learning and visible feedback mechanisms.
Higher Education Institutions	Create clearer routes for student- and research-led innovations to progress beyond prototype; support interdisciplinary supervision and continuity; embed community-facing innovation within curricula and research agendas.
Funding Bodies (Creative Ireland, Enterprise Ireland, Research Ireland)	Support staged funding models; recognise creative and behavioural innovation as valid climate action; fund transition phases between prototype and deployment; encourage cross-agency collaboration.
Creative & Cultural Agencies	Advocate for positive, participatory climate narratives; embed artists early in project design; support longer-term creative engagement rather than one-off interventions.
Industry & Technology Partners	Collaborate on scaling affordable, low-complexity solutions; support manufacturing and technical refinement; align innovation with real-world user needs and behaviour.
Youth & Community Organisations	Promote collective, achievable action; support peer-led facilitation; contribute lived experience to shaping what feels realistic, motivating, and inclusive.



Specific Recommendations for Sustainable Energy Communities (SECs)

The Co-Creative Lab highlights a significant opportunity for Sustainable Energy Communities to expand their role beyond infrastructure delivery into behavioural and cultural engagement.

SECs should consider integrating creative and sensory tools that make energy use visible and understandable in everyday settings, helping households move from awareness to action. Engagement should focus on confidence-building, reducing anxiety around energy costs and complexity, and supporting collective learning rather than individual responsibility alone.

There is also strong potential for SECs to act as bridges between policy, technology, and community experience, piloting tools that support demand flexibility, shared energy literacy, and peer-to-peer learning. Aligning SEC activity with youth engagement, local schools, and community events can further strengthen trust and participation.

By combining technical delivery with creative engagement and simple, actionable messaging, SECs can play a key role in ensuring that the energy transition is not only technically successful, but socially inclusive and locally owned.



Project Legacy and Next Phase

The Co-Creative Lab has established a foundation for continued climate action in Maynooth that extends beyond the formal project period. Its legacy is primarily methodological and relational, alongside selected outputs that will continue to be active in the community.

Continued Engagement and Evaluation

Several project elements will remain accessible within the community, allowing for repeat interaction and deeper engagement over time. This extended presence supports more robust summative evaluation, particularly in relation to learning, engagement, and longer-term behavioural change. The participatory evaluation tools developed during the project will continue to be used to gather feedback in inclusive and accessible ways.

Progression and Scale-Up

While not all innovations were intended to progress beyond prototyping, clear pathways have been identified for further development where appropriate. Follow-on funding secured through **Enterprise Ireland and Research Ireland** is supporting the continued development of selected technology and manufacturing-focused concepts. In parallel, non-technological engagement formats and workshop models developed through the project are readily transferable to Sustainable Energy Communities, schools, libraries, and community settings.



Alignment with Climate Action Structures

The approaches developed through the Co-Creative Lab align with the objectives of Decarbonisation Zones, Sustainable Energy Communities, and local authority climate action programmes, particularly in their emphasis on participation, behaviour change, and public engagement. The project provides practical examples of how creative and cultural approaches can complement statutory climate action.

Partnerships and Capacity

The project has strengthened cross-sector partnerships between academia, local government, the creative sector, industry, and community groups. These relationships, alongside the establishment of a Youth Committee, provide a platform for continued collaboration and youth involvement in future climate initiatives.

Dissemination and Knowledge Sharing

Dissemination will continue beyond the project period through public screenings of the documentary film, targeted press activity, and sharing of learning through professional and policy networks. This phased approach ensures dissemination is grounded in tangible project outcomes.



Conclusion

The Co-Creative Lab demonstrates the powerful role that creativity, collaboration, and community ownership can play in accelerating local climate action. Rooted in the principles of Fun Theory, inclusive design, and participatory innovation, the project engaged over 600 survey respondents, 12 diverse focus groups & workshops, and over 15,000 additional participants through workshops, events, and artistic residencies. What emerged was a compelling picture of a community that cares deeply about climate issues, but often feels overwhelmed, fatigued, or disconnected from traditional forms of climate messaging.

Through its mixed-methods approach, the project uncovered both the barriers and opportunities facing local climate engagement. Emotional distance, infrastructure challenges, and a lack of visibility were among the key obstacles identified. At the same time, participants expressed strong enthusiasm for creative, accessible, and joyful approaches that make action feel not only possible, but enjoyable and meaningful.

This insight led directly to the design and prototyping of eight public-facing innovations: the Magic Bin, LEGO™ Smart Sustainable City, Biodiversity Totem Poles, 3D-Printed Street Furniture, Sustainable Energy Management Interactive Plugs, VR Game of Choice, Maynooth Sustainability Story and Commissioned Piece (Lámh agus Lámh - Hand in Hand). Each was co-created with residents, artists, and local partners, and reflects the values of visibility, accessibility, circularity, and collective pride.

The process revealed that when communities are treated not as passive recipients of climate policy but as active co-creators of local solutions, engagement deepens, and outcomes become more inclusive, relevant, and sustainable. Participants repeatedly voiced a desire to shift the climate narrative away from guilt and towards empowerment, away from abstract policies and towards grounded, place-based action.

This project has shown that people want to act, but they want to do so in ways that reflect their lived realities, cultural identities, and local knowledge. They want climate action to be visible in their streets, shared with their neighbours, and celebrated through creativity and connection. As one participant put it, “I want to be a better citizen, and I want it not to feel like a chore.”



The Co-Creative Lab offers a roadmap for other towns and regions seeking to engage their communities in climate innovation. It proves that when design is participatory, when the process is inclusive, and when the outcomes are both playful and practical, real change is not only possible, it's already underway.



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