CORA Cork Open Research Archive
Cartlann Taighde Oscailte Chorcaí

Title	Guidance on Risk Communication and Community Engagement: Experiences from Cork, Ireland and Malmö, Sweden
Authors	Cubie, Dug;Aronsson-Storrier, Marie;Cumiskey, Lydia;Medway, Peter;O'Riordan, Helena;Guiry, Niamh;Reid, Catriona;Cuadra, Carin;Wallengren-Lynch, Michael;Toft, Emanuel;Nordqvist, Joakim
Publication date	2024-08
Original Citation	Cubie, D, Aronsson-Storrier, M, Cumiskey, L, Medway, P, O'Riordan, H, Guiry, N, Reid, C, Cuadra, C, Wallengren-Lynch, M, Toft, E & Nordqvist, J 2024, Guidance on Risk Communication and Community Engagement : Experiences from Cork, Ireland and Malmö, Sweden. University College Cork.
Type of publication	Report
Rights	© 2024, the Authors. This document is made available under the CC BY-NC-ND license. - https://creativecommons.org/licenses/by-nc-nd/4.0/
Download date	2026-10-30 20:53:48
Item downloaded from	https://hdl.handle.net/10468/18619



UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Guidance on Risk Communication & Community Engagement Practices

Experiences from Cork, Ireland and Malmö, Sweden

Promoting Resilient Cities through Community Participation and Communication of Climate and Disaster Risks (PROCOMMS)

August 2024

UNIC | Malmö University | UCC School of Law Scoil an Dlí | MaREI Energy · Climate · Marine | Cork City Council Comhairle Cathrach Chorcaí | City of Malmö | Co-funded by the European Union

Table of Contents

Background 4

Risk Communication and Community Engagement 5

Key Challenges for Risk Communication and Engagement 7

- Challenges for Local Authorities 7
- Challenges for Communities and Civil Society 7

Guiding Principles for Effective Climate and Disaster Risk Communication and Community Engagement 8

Examples of Risk Communication and Community Engagement Practices in Cork and Malmö 9

- Public Alert Systems 9
- Collaborative Governance 10
- Community Social Networks 11
- Storytelling 12
- Art-based Engagement 13
- Knowledge Co-Creation 14
- Public Consultation 14

Annex I 16

Other useful resources and toolkits 16

Additional examples of risk communication and engagement practices 17

Annex II 20

Cork Workshop Summary – 26th October 2023 20

Malmö Workshop Summary – 31st January & 1st February 2024 22

This document should be cited as: UNIC, Guidance on Risk Communication & Community Engagement Practices: Experiences from Cork, Ireland and Malmö, Sweden (August 2024), UNIC: The European University of Cities in Post-Industrial Transition.

Cork : Dr Dug Cubie (UCC), Dr Marie Aronsson-Storrier (UCC), Dr Lydia Cumiskey (UCC MaREI Centre), Peter Medway (Cork City Council), Helena O'Riordan (Cork City Council), Niamh Guiry (UCC), Catriona Reid (UCC MaREI Centre)

Malmö : Dr Carin Cuadra (Malmö University), Dr Michael Wallengren-Lynch (Malmö University), Emanuel Toft (City of Malmö), Dr Joakim Nordqvist (City of Malmö)

Background

This guidance document was developed within the Promoting Resilient Cities through Community Participation and Communication of Climate and Disaster Risks (PROCOMMS) project, with seed funding from the EU-funded **UNIC initiative** (The European University of Cities in Post-Industrial Transition). The PROCOMMS project aimed to strengthen connections between Cork and Malmö municipalities in tackling the impacts of climate change and disaster risk at the city level. As UNIC partners the cities of Cork and Malmo have many similarities, for example an equivalent population size, and face common challenges and goals as coastal cities regarding urban development, climate adaptation and sustainable growth.

The purpose of this guidance is to:

- Share specific insights, lessons learned and recommendations to enhance good practices for climate and disaster risk communication and community engagement.
- Share examples and case studies from Cork and Malmö, as well as links to additional resources, learning materials, methods and tools developed in other projects.
- Inspire future collaborations and funding opportunities which can further expand, test and apply risk communication and community engagement practices for continued learning.

The findings are based on two workshops, one in Cork on 26th October 2023 with representatives from local government, civil society, academia and business, and a follow-up workshop in Malmö on 31st January 2024 with representatives from local government and academia[1]. See Annex II for the reports of these two workshops[2].

This guidance was co-developed through two-way engagement with university partners, local authorities and civil society representatives. Building on the input from the participants in the Cork workshop, a draft guidance document was developed following the Malmö workshop. The draft text was circulated to all workshop participants in Cork and Malmö for comment, before finalisation in August 2024.

The guidance addresses short-term risk communication (e.g. forecast and early warnings for immediate threats) and longer-term risk communication (e.g. adaptation planning, awareness raising when there is no immediate threat), which are enhanced through community participation and engagement processes to ensure meaningful and trustworthy communication and feedback loops.

The guidance aims to be used primarily by other municipalities/local authorities, but also civil society organisations, business groups and educational institutions, to reflect on and inspire new ways of approaching climate and disaster risk communication and communication engagement for enhancing resilience in cities.

[1] The workshop methodology was also applied with postgraduate students undertaking a Masters in Disaster Risk Reduction at the University of Canterbury, New Zealand in March 2024.

[2] The methodology used in the workshops drew on learning and experiences from the Horizon Europe DIRECTED project.

Risk Communication and Community Engagement

As sea levels continue to rise, flood and storm events intensify and extreme heat and cold spells become more frequent, there is a growing need to explore and capture good practices and learning for strengthening climate and disaster risk communications and approaches towards community engagement. This is particularly important as climate-related risks are often disproportionately experienced by marginalised and vulnerable groups. Therefore, it is important that individuals and communities are provided with meaningful opportunities to engage with policy-making processes and exercise their environmental rights, as formulated under the Aarhus Convention.

The **UN Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (1998)**, also known as the **Aarhus Convention**, is the leading international agreement on environmental democracy and protects every person's right to live in a healthy environment. It guarantees the public three key rights on environmental issues: access to information, public participation in decision-making, and access to justice in environmental matters.

Short-term or event-based risk communication takes place just before or during a hazard event, including communicating forecast and early warning information to inform actions such as evacuation orders, erection of temporary flood barriers, fire awareness, checking on neighbours or not driving through flooded roads. **Long-term risk communication** takes place where there is no immediate hazard threat and so prevention, preparedness and adaptation measures are being selected, planned or implemented, such as property level protection, flood protection infrastructure, accessible "cool" facilities (including cool islands such as parks or artificially cooled public spaces such as shopping malls), fire prevention strategies, or emergency kits and emergency alerts sign-up. Whether short-term or long-term, both communication and engagement approaches aim to change or improve knowledge, skills, attitudes, practices and actions related to managing climate and disaster risk.

Good risk communication requires relationships between governmental authorities (local, regional, national), communities, civil society (including organisations, businesses and individuals) and other knowledge partners (science, academia, research, industry) to develop understandable, meaningful and actionable messaging.

Risk communication and community engagement require a thorough understanding of different target groups, their needs, preferences and concerns, and the anticipated changes in their attitudes or practices around risk. The effectiveness of communication depends on understanding and responding to the affected audience's characteristics, e.g. attitudes, values, gender, language, education, age, cultural norms, internet access, social support networks, knowledge and perception of risk, and self-efficacy, as well as migration status, socioeconomic situation, level of health and bodily and cognitive functions. Such characteristics are to be understood as dynamic as well as intersecting and play out in vulnerabilities to differing degrees depending on the risk at hand.

Existing risk knowledge, for example from hazard mapping, model predictions or projections of future hazards, exposure and vulnerability, should be extrapolated to determine the resulting impacts on different target groups. A variety of communication channels and engagement methods can be used to facilitate climate and disaster risk communication practices – see Figure 1 on the next page.



Figure 1: Climate and disaster risk communication practices (developed by Lydia Cumiskey)

Key Challenges for Risk Communication and Engagement

The following challenges were identified during the workshop discussions, with specific issues raised for local authorities/municipalities and communities around risk communication and engagement.

Challenges for Local Authorities

1. Climate and disaster risks affect all sectors of society and so need to be communicated to and **integrated within sectoral policies, plans and interventions** that local governmental authorities implement, e.g. housing, employment, social protection, emergency management, and wider public bodies. This requires multi-stakeholder coordination.
2. Need to **build trust** between all stakeholders to manage public expectations versus the mandates of local authorities/municipalities and their available resources and capacities.
3. Clarifying the **roles and responsibilities of private actors** (property owners, developers, businesses, insurance industry and others) and **public sector bodies** for managing risk.
4. Difficulty to **disseminate and translate** 'weighty' and jargon-laden risk information and reports (e.g. risk assessments, scientific projections, flood return periods) into meaningful information for the public.
5. **Resource and staff constraints** for systematically engaging with and continuously mobilising community groups, and especially vulnerable groups, regarding disaster and climate risks which can limit local authorities' ability to communicate with such groups before, during and after an event.
6. **Communicating mistakes and learning**, e.g. lack of integrated urban planning, poor construction practices and/or poor inclusion of certain communities.
7. Dependency on the **accuracy of the data, models and forecasts** and resulting warnings from national bodies, such as national meteorological and hydrological services. There can be a perceived disconnect between local systems/knowledge and national information.
8. **Liability issues** for communities and volunteers engaging in emergency/disaster preparedness and response, e.g. determining responsibility for clearing drains after receiving a flood warning.

Challenges for Communities and Civil Society

1. **Fragmented roles and responsibilities** across local authorities/municipalities, regional and national agencies that are hard for the public to navigate. There is often confusion among the public as to who to engage with (e.g. water/utility company, national body, local authority) and who is responsible if they are impacted by a climate-related hazard event[3].
2. Difficulty in accessing **targeted risk/climate information that meets specific needs**, especially for those groups most at risk (e.g. due to accessibility barriers around technology, language, web-literacy).
3. **Limited opportunities to engage and connect with local authorities** to explore the varying and intersecting needs, vulnerabilities and exposure of specific groups, e.g. members of the Traveller community, minority communities, elderly, immigrants, persons with disabilities, or businesses, which may contribute to further marginalisation and exclusion (if not addressed).
4. Necessity to prioritise **daily immediate needs** – food, housing, safety, infrastructure – over long-term disaster/climate risk planning and adaptation.

[3] For example, in Sweden individual property owners are responsible for their own protection measures against climate-related hazards, but not many know about their responsibilities. Since the Swedish social security payments are very high, most people expect the public authorities to fix issues, e.g. relating to flooding.

Guiding Principles for Effective Climate and Disaster Risk Communication and Community Engagement

1. Utilise **existing community and business networks** to engage in conversations around preparedness, risk and climate adaptation and to act as communication channels for warnings and immediate threats.

2 **Build trust** between authorities and citizens by supporting open, participatory, **creative spaces for engagement** with individuals, community organisations and businesses around expectations, constraints and ideas for managing risk and adapting to climate change.

3 Establish **long-term partnerships, networks and forums** for inter-professional and multi-stakeholder communication to support public communication decisions.

4 Recognise **differing and intersecting needs** within identified groups to prepare, respond, recover and adapt to climate and disaster risks.

5. Put **participation and rights** at the centre of any solution to marginalisation and vulnerability of particular groups.

6 **Empower the public and civil society** to enhance community climate resilience through training, assist in overcoming barriers for their involvement (e.g. public liability insurance) and support **emerging champions** within different community groups or networks.

7. Build and facilitate local authority **contact points and responsibilities** for liaising with different community and business groups on a long-term basis to integrate risk, resilience and adaptation into their processes and practices and encourage understanding and shared responsibility.

8 Utilise **multiple supporting and reinforcing short- and long-term risk communication** strategies with actionable guidance to reach diverse groups in society impacted by disasters and climate change.

9 Ensure **accessibility of climate and disaster risk information** and messaging to all (i.e. consideration given to the format, language, channels, and guidance information), including those who might be excluded socially or physically, e.g. persons with disabilities, the elderly, those living in asylum reception centres or Traveller halting sites.

10 Provide **clarity on responsibilities** for implementing individual and property-level resilience measures and insurance.

11 Provide **mechanisms for collecting feedback** from civil society during and after hazardous events such as floods or heatwaves to reflect, learn and improve warning and risk communication processes.

12 Engage in and support **transdisciplinary research** to understand public perceptions, motivations, and behaviours and decision-making around climate and disaster risk.

13 **Funding** support from national and regional institutions/government agencies for local risk communication.

Examples of Risk Communication and Community Engagement Practices in Cork and Malmö

The following examples of practices for risk communication and community engagement were identified and explored with participants in the workshops in Cork and Malmö. These practices are a mix of those being implemented and those discussed for further exploration. Drawing on these discussions and subsequent correspondence with workshop participants, some broad reflections are provided regarding lessons learnt and potential areas for development. Other resources and examples of good practices are listed in Annex I.

Public Alert Systems

Cork City Alert System

Short-term risk comms (RC) | Cork, Ireland

www.corkcity.ie/en/council-services/news-room/cork-city-alerts/

DESCRIPTION:

This is a free email and/or text alert system for residents, businesses, and communities in Cork City, including alerts on severe weather, flooding and emergency events as well as road closures and traffic diversions. It is an opt-in system where residents can register to receive alerts at multiple locations, e.g. home, workplace, school, college, or where elderly parents live. The flood alerts are designed based on flood forecasting models for tides, surge, river, rainfall and wind direction predictions from Met Éireann (Ireland's National Meteorological Service). The flood alerts are reinforced through other mediums including social media, local radio, and mailing lists (e.g. schools, community networks) depending on the alert level. Users are encouraged to check Met Éireann for up-to-date weather warnings and Cork City Council's social media accounts for up-to-date details on local severe weather and flooding risk.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

Further outreach and awareness raising of the system is required to ensure and maximise opt-in. The system is one-way communication, and no feedback loop exists for users to share real-time information about event impacts or share information on the effectiveness and accuracy of the alerts. The system is not sufficient on its own and needs to be complimented with interpersonal communication channels where possible.

SMHI Alert System

Short-term & long-term RC | Malmö, Sweden

www.smhi.se/vader/varningar-och-meddelanden/varningar-och-meddelanden/varningar

DESCRIPTION:

This is a free opt-in text alert system. The Swedish Meteorological and Hydrological Institute (SMHI) is the owner of the alert system. Municipalities have no role in the operation of the alert system but there is a crisis preparedness organisation for managing local preparedness in case of serious weather warnings. In case there is a risk of seriously disruptive events, all affected inhabitants in the area will receive text messages with an "important notice for the public".

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

There is the potential to use a cell broadcast – automatic system to communicate directly to people where they live (although there can be challenges with this technology also). Separately, an ongoing project in Malmö is looking into the possibility of collecting real-time indoor temperature data from the flats owned by the municipal housing company. This data could help the City's health services to coordinate resources during, for instance, a heatwave or serious cold spell. (See below for an example of "Communication via social care system"). Recent interview studies, however, show that Swedes have a low cultural understanding of the risks associated with heat, and that many perceive a heatwave as something positive. Thus, weather warnings such as the ones from the SMHI Alert System may need to be complimented with instructions or educational information to enable people to react appropriately to warnings.

Collaborative Governance



Cork City Council partnership with infrastructure operators

Short-term & long-term RC | Cork, Ireland

https://www.met.ie/ https://esb.ie/
https://www.water.ie/

DESCRIPTION:

After learning from the 2009 Cork City flood, the Cork City Council Drainage team and the Electricity Supply Board (ESB – who operate dams in the Lee Valley upstream of Cork City) partnered to jointly manage water flows to the city. ESB have since revised their dam operating procedures, e.g. during high tide they must release less water and during lower tides flow can increase. Cork City Council now meets regularly with ESB, especially when increased rainfall is forecasted and a joint decision is needed on the operation of the dams and water flow into the city which will influence the expected impacts and flood warning communication to the public. For example, ahead of Storm Babet (October 2023) the ESB, Cork City Council and Met Éireann met twice per day. ESB also informed the Cork City Council Inter-agency flood emergency response plan and act as a key agency in its implementation. More recently Uisce Éireann (the national regulated water utility), which is responsible for managing stormwater and wastewater out the city, have been more actively engaged in managing flooding in the city.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

Continued engagement with Uisce Éireann is needed around pluvial flooding and drought warnings. Plus, the local authority is currently not mobilised around heatwave warnings (since this happens at the national level) so preparation and response to the expected increase in frequency of heatwave events will require further cross-sectoral partnership, in particular with the health sector.



Stormwater and Cloudburst Coordinator, City of Malmö

Short-term & long-term RC | Malmö, Sweden

https://malmo.se/Teknisk-handbok/Vatten/Skyfall.html

DESCRIPTION:

The Stormwater and Cloudburst Coordinator is a specific role within the Department of Streets, Parks and Property Management of the City of Malmö. The Coordinator takes part in detailed planning processes and makes sure heavy rains are taken into account. They also participate in the city road planning processes and make sure that retention projects are initiated whenever possible. This is an engineering role, but also plays a coordination role between different departments in the local authority. The Coordinator must have engineering skills, legal skills and project management skills. They support long-term communication/relationship building by participating in, and often leading, all internal organisational development processes that involve water management.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

The Stormwater and Cloudburst Coordinator can act as a bridge for conversations with the private sector, individual homeowners and developers to support their actions. However, this type of community engagement is often facilitated by other departments, such as the Environment Department, so while they take part in conversations with outside stakeholders, the Coordinator is not often the one to initiate these discussions.



Residents' engagement in raingardens/SuDS planning and operation

Short-term & long-term RC | Malmö, Sweden

https://malmo.se/Miljo-och-klimat/Goda-exempel-pa-miljo--och-klimatsatsningar/Ett-gronare-Mollan.html

DESCRIPTION:

While some Sustainable Drainage Systems (SuDS) projects have been initiated due to public outcry after heavy rains, the general public have not been involved in the planning or implementation phases in any structured way. Property owners are an exception, for instance in the project "Grönare Möllan" (A Greener Möllan). Möllan is a neighbourhood in Malmö. In this project, private property owners had to be involved when the city set a goal to raise the tree canopy cover in an existing area by one percent (the target was eventually surpassed). Parking spaces were decommissioned to make space for combined rain gardens and tree planting pits, which receive their water from the private property owners' downpipes, which could then be disconnected from the piping system to alleviate pressure during heavy rains. Getting rid of parking spaces was in this case not very controversial as only one in about 6 people in the neighbourhood actually owns a car.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

It is of utmost importance to write clear contracts when it comes to public/private collaboration in operations/services. In this case the Department of Streets, Parks and Property Management had to take over various responsibilities that legally belong to the utility company in order for the systemic approach of the project to work in practice.

Community Social Networks



Public Participation Networks (PPN)

Short-term & long-term RC | Cork, Ireland

www.corkcityppn.ie/
https://corkcountyppn.ie/

DESCRIPTION:

Public Participation Networks (PPN) offer an opportunity to foster engagement with community groups on climate risk and resilience. Established through the Local Government Reform Act 2014, each city and county in Ireland has a PPN that facilitates ongoing collaboration between Local Authorities and community/volunteer groups. The PPNs have active communication channels (including websites, social media accounts, and electronic newsletters). These channels can be used to communicate reliable information, existing risks, and foster greater public engagement with climate action. Local representatives are also elected to PPN positions and sit on relevant City and County Council committees alongside locally elected representatives and Council staff. These positions can be a platform to advocate for effective mitigation and adaptation measures and facilitate community input into ongoing and emerging risk strategies. In 2020, a dedicated Covid-19 Response Group was established to help people meet their basic needs during the pandemic. A wide range of community groups were mobilised to participate in the Response Group, which provides a practical example of good practice on how collaborative and proactive networks can work during unprecedented situations.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

The PPN communication channels do not reach all community groups. For example, the electronic newsletters are circulated to those who are members of PPN organisations and those who actively sign up to the mailing list. Active efforts need to be made to reach those outside PPN networks and bridge the gap between community groups and public sector organisations. Issues of burnout and ongoing national crises (cost of living crisis, housing crisis) also inhibit people's capacity to engage with existing local and national networks.



Communication via Social Care System

Short-term & long-term RC | Malmö, Sweden

Proposed practice (Autumn 2024)

DESCRIPTION:

Working within the social care system to reach elderly and people with physical and cognitive disabilities in need of supported communication, the City of Malmö hopes to open up for sharing of data between the municipal housing company, which has indoor temperature sensors in all their apartments, with the municipal home care services. This will allow the Health and Social Care Department to obtain real-time data on heat-related issues and to facilitate the allocation of resources when and where needed and to adjust its routines during a heatwave. The project aiming to enable this new set-up has received funding and will commence in the autumn of 2024.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

The digitalisation of the health care sector needs to be given time. Obstructive changes can have real consequences for health and social care workers' day-to-day work. For example, the general data protection regulation poses hurdles as indoor temperature data could be perceived as personal information. These hurdles need to be managed in a structured way and information may need to be anonymised and aggregated before being published. Plus, it might not be possible to gather such information without the personal consent from all tenants.

Storytelling



Voices of Experience: Climate Stories from Cork County

Long-term risk comms | Cork, Ireland

www.corkcoco.ie/en/news/voices-of-experience-share-climate-change-stories

DESCRIPTION:

The Voices of Experience: Climate Change Stories initiative invited older citizens of Cork County to share their stories of what the climate crisis means to them in their locality, how they have been affected and what they would like to say to future generations. This project recognises that older people have unique knowledge, insights and wisdom to share and offers them a platform to voice their experiences of climate through storytelling. The project gathered a series of stories, poems and photographs, as well as a podcast. The inter-generational climate action initiative was a collaboration between Cork County Age-Friendly Programme and Cork County Older People's Council, and is part of actions taken under the *Cork County Council Climate Adaptation Strategy*.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

This storytelling approach could be applied in Cork City in collaboration with existing organisations that work with the elderly, such as *ALONE*, through their volunteer programme. Such conversations could further unravel how the elderly experience, communicate about and prepare for "the weather," and well as providing a historical record of the changing climate.



Exchange with migrants on Heatwave Preparedness

Short-term & long-term RC | Malmö, Sweden

https://adaptationagora.eu/kicking-off-the-first-agora-pilot-study-in-malmo-sweden-startskottet-for-agora-pilotstudien-i-malmo-sverige/

DESCRIPTION:

The City of Malmö is developing a systematic exploration of the experiences of migrants' who previously lived in hot climates regarding heatwave preparedness and the sharing of those experiences in Malmö with local residents to strengthen local heatwave preparedness. The exploration should cover the extent to which strategies could be applied (in and by the city) as well as hurdles for their applicability for the time being. It is intended to use arts and the creative sector to acknowledge and capture these stories and for their use as part of a heatwaves communications campaign.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

This is a proposed project which will commence in the summer of 2024.

Art-based Engagement



KinShip Project

Long-term risk comms | Cork, Ireland

www.lennontaylor.ie/kinship

DESCRIPTION:

The KinShip Project is a durational public artwork at Tramore Valley Park by Cork City Council in partnership with artists *Lennon Taylor* (Marilyn Lennon and Sean Taylor), supported by the Creative Climate Action Fund. The project has developed a long-term programme of artistic residencies. Activities of the KinShip Project include the design and building of a sustainable EcoLab, free interactive workshops, and a series of creative and knowledge exchanges. The initiative has engaged with people of all ages and works to foster (re)connection with the local environment and natural and cultural heritage. Local project partners include *Cork Nature Network*, *Cork Healthy Cities*, *Cork's UNESCO Learning City, Green Spaces for Health*, *MTU Clean Technology Lab* and *UCC Environmental Research Institute*.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

In 2023, *detailed analysis* of five Creative Ireland-funded projects, including the KinShip project, was undertaken by the UCC MaREI Centre and the Future Sustainability Research Group. The analysis concluded that Creative Climate Action events had a significant impact on audience members and participants in terms of increased awareness, positive engagement and motivation to act in relation to climate change, as well as providing new ways of engaging and new spaces for connecting and communicating in relation to the environment and climate change. The report highlighted that the arts and creative communities can play an extremely valuable role in enabling dialogue and engaging audiences in new perspectives and action on climate change. However, the need for ongoing resources for such projects was flagged, including the need to secure continued

Knowledge Co-Creation



Co-exploring Risk Communication Target Groups and Solutions

Short-term & long-term RC | Cork, Ireland

https://doi.org/10.5194/egusphere-egu24-19048

DESCRIPTION:

A creative play-based approach was used during the Cork workshop to co-explore risk communication solutions with civil society representatives. Firstly, participants are grouped into representative target groups who are affected by climate risks, e.g. elderly, local residents, business, members of the Traveller community. Within these groups, participants are invited to further refine the at-risk groups through audience profiles identifying who is the most (or least) vulnerable, expected impacts, supports required and existing capacities, and communication channel preferences. Secondly, participants are invited to use playful materials (e.g. Play-Doh, pipe cleaners and lollypop sticks) to co-develop risk communication solutions for the identified target groups. Each group then presents their co-created solutions. A similar creative approach has also been used as part of knowledge co-production training for Real World Lab hosts in the Directed project, and with postgraduate students as a teaching tool.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

The method proved very beneficial for stimulating discussion around the specific needs and capacities of different target groups. It also allowed for a more hands-on practical and non-hierarchical approach to start exploring tailored solutions both for short-term and longer-term risk communication strategies.

Public Consultation



Climate Action Plan Consultations

Long-term risk comms | Cork, Ireland

www.gov.ie/en/publication/67104-climate-action-plan

DESCRIPTION:

As required under Ireland's Climate Action and Low Carbon Development (Amendment) Act (2021), Local Authorities must develop respective Local Authority Climate Action Plans (CAPs) to allow national emission reduction targets to be met and enhance local climate resilience. Beginning in 2022, the development of the Cork County CAP consisted of a 3-stage process (1. Build Baseline Evidence, 2. Draft Climate Action Plan, and 3. Climate Action Plan Finalised). Activities included building baseline evidence, pre-draft and draft public consultations, and stakeholder engagement and reports. The *Cork County Climate Action Plan* was adopted in February 2024. The process of developing the *Cork City Climate Action Plan* included two baseline studies, residential surveys, workshops with children and young people and public consultations. The Plan consists of 129 evidence-based actions shaped by stakeholder engagement to allow Cork to achieve carbon neutrality and was enacted in March 2024.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

While over 1,000 people were engaged in the various consultations, the Council remains conscious of the need to achieve participation from a wider cross-section of the public. Many of the participants in the 2023 consultations were already climate-engaged through their work, civil society engagement, and activism. New and more novel forms of consultation are needed in future to complement and extend the approaches already in use.

Urban Planning – Public Engagement in Hyllie and in Sege Park

Long-term risk comms | Malmö, Sweden

https://malmo.se/Stadsutveckling/Stadsutvecklingsomraden/Hyllie/Klimatarbetet-i-Hyllie.html

https://malmo.se/Stadsutveckling/Stadsutvecklingsomraden/Sege-Park.html

DESCRIPTION:

As part of the City of Malmö's urban planning consultations, school children from neighbouring areas were driven in buses to the neighbourhood of Hyllie to give their vision of its future. Originally, the area was undeveloped farmland which made citizen involvement tricky. The area was planned and built in tabula rasa style quite recently (developments gained momentum with the opening of a new train station in 2010). Climate adaptation became an integral part of the planning process and space was made for multi-functional sustainable drainage systems (SuDS) in parks, court yards, squares and streets. The neighbourhood is becoming a popular residential area.

LESSONS LEARNT / POTENTIAL AREAS FOR DEVELOPMENT:

A follow-up system should have been in place to make sure that development criteria, for example those concerning urban greening on private properties (the so-called 'green space factor') were met and that green infrastructure on private properties was properly kept up. A couple years after the construction was completed in one of Hyllie's development stages, many of the plants had died and not been replaced. However, it is challenging for the municipality to locally maintain communication and engagement after the completion of development projects, since monetary interests then go elsewhere. In the neighbourhood of Sege Park, Malmö's Environment Department is hosting a collaborative arena, set-up as a form of living lab, in order to address this dilemma by trying out and evaluating means of spanning the gap between the early phases of neighbourhood development, when planning and construction for sustainable living takes place, and later phases, when actual upkeep and living practices take shape.

Annex I

Other Useful Resources and Toolkits

1. Kelli Rose Pearson et al (2018), **Arts-Based Methods for Transformative Engagement: A Toolkit**. Wageningen: SUSPLACE (EU)

2. Marguerite Nyhan et al (2023), **Creative C-Change – Analysing the Impact of the Creative Climate Action Initiative on Climate Change Awareness, Engagement & Action in Ireland** (Ireland)

3. Alexandra Revez et al (2021), **Futures-thinking Deliberations Toolkit: Toward a future-oriented process of deliberative dialogue to address climate change.** MaREI, University College Cork, Cork (Ireland)

4. Lydia Cumiskey et al (2019), **'Interdisciplinary Pressure Cooker: Environmental Risk Communication Skills for the Next Generation'** 2 Geoscience Communication 173-186

5. Societal Resilience Cluster (2023), **Policy Brief Strengthening Societal Resilience to Disasters: Improving Engagement and Communication among Citizens and Authorities** (Policy Brief) SRC Societal Resilience Cluster (EU)

6. Sandra C. Valencia et al. (2021), **'Urban Climate Resilience and Its Link to Global Sustainability Agendas'** In: The Palgrave Handbook of Climate Resilient Societies (Palgrave Macmillan, 2021)

7. Monika Månsson & Bengt Persson (eds.) (2021), **The Eco-city Augustenborg – Experiences and Lessons Learned** (Arcus Publication 79)

8. **TalX Climate Adaptation Partnership Framework** (Ireland)

9. Links Community Center, **The Including Citizens Handbook**

10. **Action Catalogue** designed to as an online decision support tool to enable researchers, policy-makers and others to conduct inclusive research (EU)

11. Irish resources:
    a. Government of Ireland, **Framework for Major Emergency Management**
    b. Office of Public Works, **Flooding public awareness website**
    c. **National Directorate for Fire and Emergency Management**
    d. Environmental Protection Agency, **Climate Ireland public awareness website**
    e. Department of Rural and Community Development, **Public Participation Networks Handbook** (Nov 2020)

12. Swedish resources:
    a. MSB, **Swedish Civil Contingencies Agency website**
    b. Krisinformation.se, **Emergency information public awareness website**

Additional Examples of Risk Communication and Engagement Practices

REWAISE: This is an EU-funded project which proposes a paradigm shift towards a carbon-neutral water cycle, addressing the technological, financial, legal and social issues so we can harness the full value of water, considering three key components of economic and social value generated by comprehensive water cycles. The City of Malmö is one of nine Living Labs across Europe to demonstrate innovative technologies, processes and governance models.

Together, we make place for water: This campaign by VA Syd (the entity responsible in the City of Malmö and neighbouring municipalities for the administration of water, waste water and household waste) connects to general efforts to inform and educate the public about risks and responsibilities related to flooding events. It was launched in the aftermath of a cloudburst that hit Malmö in 2014, an event that poignantly highlighted weaknesses in local preparedness and ability to withstand these kinds of occurrences.

Coastal Communities Adapting Together (CCAT): CCAT was a pilot project part-funded by the European Regional Development Fund through the Ireland Wales Programme and ran from 2019 to 2021. The project used digital tools alongside in-person/online sessions to help build the capacity of local communities to understand and adapt to the climate crisis. The project was conducted by University College Dublin with Fingal County Council and University College Cork in Ireland and Cardiff University, Pembrokeshire Coastal Forum and the Port of Milford Haven in Wales.

TEST SITE: A collaborative, urban research project based on Kyrl's Quay, Cork City. The project works at the intersection of art, architecture and ecology. Engaging with natural and built heritage, the project uses site-specific architectural interventions, film/performance work, discursive talks and live events to respond to a vacant 'island' site in Cork City centre.

Climate Crisis Rap: As part of rapper Garry McCarthy's music workshop, the primary school students from Cappabue National School (Ireland) wrote a song to raise awareness about how fellow kids can make a difference with 'one small change'.

Drowned Galway: Guided tours within Hope It Rains project. The tour addresses the impact of sea-level rise in Galway, and gives an insight into the artists' processes, with the Drowned Galway photomontages, and featuring designs by Irish and Palestinian artists. Hanging on building facades, in shop windows and carparks, they transform Galway into an outdoor art gallery.

BluePrint: This Creative Climate Action Fund project (2023-24) engages flood-affected communities in the Derry City and Strabane District Council area, from villages Eglinton and Newtownstewart, in an artistic co-creation process to share and exchange their lived-experiences around flooding and climate adaptation. The project is co-developing artistic risk communication materials and a Creative Co-creation Toolkit to support engagement with communities adapting to climate change across the island of Ireland.

Línte na Farraige: Supported by the Creative Climate Action Fund, Línte na Farraige is a collaborative project by artists Timo Aho and Pekka Niittyvirta, Trinity College Dublin, Maynooth University, the Climate Action Regional Offices (CAROs) and Local Authorities, and designers from Algorithm and Native Events. The project involved setting up visual installations (powered by renewable energy) at varying coastal locations that indicate the projected rise in sea levels from future storm surges.

Ripple Project: (Creative Ireland funded). A multi-disciplinary co-design project with Ballina residents in Greenhills Estate to record their experience, perspectives and knowledge about their neighbourhood green spaces and capture their aspirations for their neighbourhood, voting for their favourite design which was then implemented.

KinShip EcoLab: (KinShip project). A competition inviting professional architects, artists, designers, eco-builders or craftspeople to design and build an innovative temporary structure, an EcoLab, for public meetings and workshops at Tramore Valley Park, Cork.

Real World Labs: (Directed project). A Horizon Europe project (2022-26) aiming to enhance disaster resilience for extreme climate events across Europe. The project brings together four Real World Labs in different EU countries to create a collaborative environment for learning and innovation promoting knowledge co-production, risk governance and interoperability across municipalities, civil protection, utilities, first responders and others.

AlertHub: Warning Communication Knowledge Network. This EU COST Action project aims to: (1) develop an open-access knowledge platform focused on warning systems, relevant legal and political frameworks, challenges in effective warning communication, (2) identify best practices and governance recommendations for effective warning communication, and (3) create new formats for knowledge exchange and networking between key stakeholders in Europe.

Flood Stories: (ESRC Flood Memories project). Digital stories on preparedness and resilience to flood risk were created to highlight the experiences and conversations from residents and businesses in three communities on the lower River Severn, in England, that were severely affected by floods in 2007.

Climate Stories: (REACHOUT project). Climate stories are a form of structured communication designed to share information, experiences, and targeted messages about climate change/adaptation. Stories should ideally be compelling and entertaining and may combine text with supporting media or scientific data. The target audience can be the general public or specific group(s). The story can be used to convey all kinds of publicly important messages around climate change. Defining the audience and the core message are essential components in the process so that the story appeals to the audience and the core message can be communicated clearly. See City Hub Climate Stories here.

FloodAdapt Tool: (REACHOUT project). Developed by REACHOUT (a European Commission funded research and innovation project), the FloodAdapt tool acts as a 'decision support tool' and allows local and regional bodies to understand their existing, emerging, and future flood risks.

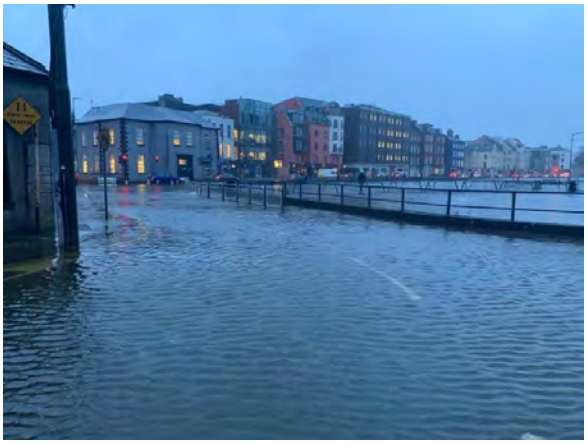
GreenInCities: This EU-funded project aims to build a new co-creative, integrated, and collaborative approach for planning urban climate regeneration in deprived and dysfunctional areas through the development and testing of innovative co-analysis, co-designing, and co-monitoring tools and methodologies for people, technicians, and decision-makers. Cork City is one of 11 cities participating in this European Cities Mission. For more details, see here.

Cork Workshop Summary – 26th October 2023

As part of the broader **UNIC project** – The European University of Cities in Post-Industrial Transition – PROCOMMS is a small-scale pilot project which aims to promote networks and connections between urban stakeholders in Cork, Ireland and Malmö, Sweden, and to identify good practices for community participation and communication of climate and disaster risks within municipalities. The key activities of the project are two workshops – one in Cork and one in Malmö with representatives from the local authorities, academic institutions, and civil society stakeholders. The first workshop took place in Cork on 26th October 2023, with 17 participants in the morning session and 30 in the afternoon session.

The morning session was a familiarisation and information sharing session between representatives from Cork City Council and the City of Malmö, which was facilitated by the project team from University College Cork. Colleagues from the City of Malmö and Malmö University took part online. The session started with presentations from Cork City Council on storm and flood protection, and on communicating climate change-related risks. In particular, the recently published *Climate Change Risk Assessment* and *Cork City Climate Action Plan 2024-2029* were highlighted. Twenty-nine flood events in Cork City between 2020-2023 were flagged, including the devastation caused by Storm Babet across Cork County the week previously. The mechanisms for the Inter-Agency Flood Emergency Response Plan were elaborated, along with a critique of the colour coded weather warning system. Recent actions taken by the City Council, including a series of stakeholder consultations with the public, private and community sectors, were noted. There was also discussion of how best to harness the experience of all stakeholders, with the example of the COVID-19 community networks and public response to Ukrainian refugees given as examples of good practice.

Colleagues from the City of Malmö then presented on the increasing risks associated with climate change, with scientific predictions of increased heatwaves/drought and cloudburst rainfall in the coming years. Discussion proceeded on specific groups in society who may be most affected, including the elderly. Particular communication issues arise for members of new migrant and refugee communities whose first language may not be English or Swedish, as well as internal communications within organisations. Key urban challenges which have been identified include reductions in greenspaces and farming land around Malmö, combined with increased urbanisation.



Cork City flooding, Oct 2020. Photo: Cork Civil Defence



Malmö City. Photo: Matti Blume (Creative

The afternoon session brought together a range of civil society stakeholders from Cork, along with representatives from Cork City Council and the City of Malmö who joined the discussions online. The aim of the stakeholder session was to explore interactive methods of identifying at-risk and vulnerable groups, and effective communication strategies.

After networking over lunch, the session commenced with presentations from the local authorities in Cork and Malmö setting out the key hazards and risks faced by each city, and the progress and gaps in communication strategies to highlight these risks to the local community.

Examples of risk communication and public engagement techniques were then discussed, before the participants divided into facilitated small groups to consider the specific needs of different groups in society: the elderly; members of the Traveller Community; local residents; and the business community.

The small groups were provided with a range of materials to use to develop creative visualisations of two-way communication tools and strategies at the municipal level. Each group identified a target group in society and discussed what the impact on that group might be from the changing climate and disaster risk profile of Cork City, and how they could be supported to become more resilient. The groups then brainstormed on specific two-way communication strategies that should be in place between at-risk/vulnerable groups and the City Council.



Plenary session. Photo: Lydia Cumiskey



Interactive materials. Photo: Lydia Cumiskey

KEY FINDINGS FROM THE WORKSHOP

- Participation and rights has to be the centre point of any solution to marginalisation and vulnerability of particular groups.
- Differing levels of needs even within identified groups – there cannot be a homogenous approach.
- The need to provide clear messages in an accessible format/channel and enable learning e.g. oral histories, fridge magnets with guidance, more positive case studies, engagement with local clubs.
- Ensuring access to people who might be excluded socially or physically, e.g. persons with disabilities, those living in Direct Provision centres.

NEXT STEPS: The second workshop will take place in Malmö at the end of January 2024, and will include representatives of the City of Malmö and local civil society stakeholders.

Malmö Workshop Summary – 31st January & 1st February 2024

As part of **UNIC** – the European University of Cities in Post-Industrial Transition – PROCOMMS is a small-scale pilot project which aims to promote networks and connections between urban stakeholders in Cork, Ireland and Malmö, Sweden, and to identify good practices for community participation and communication of climate and disaster risks within municipalities. The key activities of the project are two workshops – one in Cork and one in Malmö with representatives from the local authorities, academic institutions, and civil society stakeholders. Following the first workshop, which took place in Cork on 26th October 2023, the second workshop in Malmö occurred across two days on 31st January and 1st February 2024.



Photo: City of Malmo

The first session provided an opportunity for staff from different divisions within Malmö Municipality and Cork City Council, and academic colleagues from Malmö University and University College Cork, to discuss the specific challenges of heatwaves, social vulnerabilities and communication. Participants were asked to consider how can Malmö become more resilient in a heatwave?

Discussions covered how to understand and address the complex question of vulnerability, and how best to communicate risks to people with different and intersecting vulnerabilities in the long, medium, and short term. There was also a discussion of more practical solutions such as increased engagement with members of society with existing experience of dealing with heatwaves and the mapping of places to cool down during a heatwave.



Workshop discussions. Photo: Lydia Cumiskey

The second day of the workshop commenced with a guided tour of Hyllie for a hands-on learning experience of Malmö's climate adaptation measures. This was followed by a coordination session between the four partners of the PROCOMMS project to consider potential funding sources, such as Erasmus+ funding, and how the ideas and outputs from the PROCOMMS project could be integrated into other aspects of the UNIC project.

Dr Jean van Sinderen-Law, the UCC Director of UNIC, provided an overview of the different components of UNIC, including the seven different thematic lines which underpin the project, such as superdiversity, health and well-being, and arts, culture and creativity. In particular, the thematic line of Sustainability and Green Cities was discussed, since this is being jointly led by Cork and Malmö, within the 10 city UNIC consortium. Likewise, the fact that six of the UNIC cities are also members of the *EU's Mission Cities* initiative for carbon-neutral and smart cities was also highlighted.





Field visit to Hyllie green-blue-grey infrastructure (L) & coordination workshop (R). Photos: Lydia Cumiskey

KEY FINDINGS FROM THE WORKSHOP

- There is an increased need to work with estate owners to ensure that they understand heat risks and take appropriate measures.
- Nature-based solutions such as enhanced tree cover, parks, and rooftop gardens can have multiple benefits in relation to both heat and flooding.
- More care needs to be taken to understand how people make decisions and to communicate risks accordingly. For example, tailored communication to citizens who may not realise their vulnerability to heatwaves, e.g. runners.
- The potential for some marginalised groups to proactively support in communicating risk and adaptive behaviour is underutilised, e.g. migrant communities more accustomed to heat.

NEXT STEPS: Based on the discussions held in Cork and Malmö, two key outputs will be finalised in the coming months: i) a good practices guide as a means of collating the learning from the two workshops; and ii) building on the collaboration and contacts developed over the course of this UNIC seed funding project, the project partners will explore avenues for other funding opportunities and an action plan for future joint activities, both under the auspices of the UNIC project and more broadly.


UNIC


Co-funded by
the European Union


MALMÖ
UNIVERSITY


UCC
Coláiste na hOllscoile Corcaigh
University College Cork, Ireland
School of Law
Scoil an Dlí


MaREI
Energy · Climate · Marine


Cork
City Council
Comhairle Cathrach Chorcaí


City of Malmö