



*BEHAV-I-AIR – Behaviour and Impacts on Air Quality*

*Combining forecasting with co-created, targeted messages to reduce polluting behaviours*

**Clean Air Day Roundtable**

**Thursday 7<sup>th</sup> September 2023**

## **Report of key results and actions**

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## Summary

BEHAV-I-AIR is a project aimed at **involving** the Cork **community** to co-design **communication about air quality**.

Air pollution is a global **health threat**. In Ireland, it is largely determined by **how we travel** and **heat our homes**.

On Clean Air Day (7<sup>th</sup> September 2023) different groups of citizens gathered for a **roundtable** discussion to formulate a **shared vision** for clean air in Cork City and identify **key actions** related to public engagement and communication.

The roundtable discussions highlighted **four key desirable outcomes**:

1. Greater engagement in **sustainable mobility**.
2. **Less** dependence on **solid fuel burning**.
3. Improved **public communication** and **initiatives** on air quality.
4. Higher availability of (and engagement with) **urban green spaces**.

The required actions to reach these outcomes are complex and multi-faceted, and relate not only to what **each of us does** in their daily lives, but also to the **infrastructural, social** and **political systems** in which we live.

The **next steps** of the project with the community will be to:

- **Identify** and prioritise **needs**.
- Hold a series of workshops for the **co-design** of air quality **messaging** and assess the best options for **communication channels**.
- Increase **engagement** and **mobilisation** of citizens, policy makers, air quality practitioners, health care professionals and special interest groups.

The BEHAV-I-AIR project gathers ideas from diverse groups on methods for staying connected. **Everyone is welcome** to be involved in the project and every contribution is valuable.

## Background and Project Aims

BEHAV-I-AIR is a UCC project funded by Science Foundation Ireland which aims to promote public awareness and behavioural change around air pollution issues and solutions by combining technological advances in air quality forecasting with community-engaged design thinking.

**Air pollution** is a **global health threat** and a major contributor to climate emissions. It is estimated that poor air quality is associated with **6.7 million premature deaths annually worldwide** (WHO<sup>1</sup>) and over **1300 premature deaths annual in Ireland** (EPA 2022<sup>2</sup>). This equates to **60 people** on a per capita basis for **Cork City**. In Ireland, key pollutants are associated with transport (Nitrogen Dioxide, NO<sub>2</sub>) and solid fuel heating (Particulate Matter, PM<sub>2.5</sub>, PM<sub>10</sub>). These have a significant negative impact on health (HSE<sup>3</sup>), particularly for vulnerable groups such as children, older people, individuals with respiratory or heart conditions.

Despite the serious impacts of air pollution on health, **the links between behaviour, air quality and health are often invisible to the public**. There are also infrastructural, social, and financial barriers that may make it difficult for individuals to engage in less polluting choices. This poses a challenge for **creating effective communication strategies** to empower citizens to contribute to cleaner air for all.

The **project team** includes Dr. Marica Cassarino (Team Lead, School of Applied Psychology, UCC), Dr. Dean Venables (Co-Lead, School of Chemistry, UCC), Dr. Kevin Ryan (Societal Impact Champion, Environment Section, Cork City Council), Dr. Roberto Cibin (Post Doctoral Researcher, UCC), and Mr. Md Rashidunnabi (Research Assistant, UCC).

Furthermore, we have established an **advisory team** to guide the progress of the project, including Cork Healthy Cities, Cork Public Participation Network, UCC academics with expertise in Psychology, Healthy Behaviours and Human-Computer interaction. We will soon expand the team to involve other relevant stakeholders and shall work closely with existing groups and organisations in Cork.



<sup>1</sup> [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)

<sup>2</sup> <https://indd.adobe.com/view/3ec6ff15-ca56-4ad3-ae9e-8046e32e833d>

<sup>3</sup> <https://www.hse.ie/eng/services/list/5/publichealth/publichealthdepts/env/health-effects-of-air-pollution.html>



## Roundtable Overview

A total of 31 individuals took part in the BEHAV-I-AIR roundtable discussion in Cork City Hall, including residents, local authority representatives, community champions, members of local organisations, health promotion officers as well as academics. We had an almost balanced gender representation (45% women), with representation across the 5 local electoral wards in Cork City as well as participants who lived beyond the City boundary.

Participants were invited to reflect on two **key questions**, and to consider **five potential factors**:

### Questions Posed

1. What would a Cork City look like where everyone can breathe clean air?

2. What is needed to achieve clean air for all and how do we solve current issues?

### Potential Factors



Things that I or other individuals can do

Information and data provision



Infrastructure & Environment

Policy and politics



Tradition and culture



## Key Findings from the Roundtable

The vision and actions that emerged in the roundtable are summarised in a *mind map* (a diagram used to visually organize information and relationships into a hierarchy) linking desirable outcomes with related issues and required actions (see page 9).

The roundtable discussions highlighted **four key desirable outcomes** to achieve clean air for all in Cork City



BEHAV-I-AIR Roundtable - Clean Air Desirable Outcomes

Current issues and required actions related to each outcome that were identified during the roundtable are presented hereafter.

Outcome 1: Higher engagement in sustainable mobility	
Current issues	Required Actions
Lack of <i>alternatives</i> to motor car use (e.g., public transport) and <i>incentives/enforcement</i> to reduce motor-dependence (e.g. reduce parking subsidies and engine idling)	Promote active travel and public transport use through incentives, information, and behavioural nudges
Culture of car dependence	
Lack of integrated sustainable transport infrastructure and policies	Incentivise active and public transport via infrastructure and policy, improved information, and changes in cultural mindset
Limited freedom to use outdoor spaces for walking or cycling during episodes of poor air quality (e.g. winter evenings due to solid fuel burning)	Foster a healthy and safe use of outdoor spaces through risk mitigation information and a move away from solid fuel burning



<b>Outcome 2: Less dependence on solid fuel burning</b>	
<b>Current issues</b>	<b>Required Actions</b>
Lack of information and monitoring of impacts on indoor and outdoor air quality	Improve monitoring and public communication strategy
Lack of incentives to switch to renewable energy and retrofit homes	Develop political vision and learn from good practice developed elsewhere
Unequal socio-economic distribution of housing quality	Make subsidies for home heating upgrades easier to access
“Cozy fire” culture	Use information and public fora to raise awareness of negative impacts of solid fuel burning

<b>Outcome 3: Improved public communication and initiatives on air quality</b>	
<b>Current issues</b>	<b>Required Actions</b>
Limited accessible and inclusive information about air quality	Improve availability and quality of information about air pollution risks and solutions
Lack of local initiatives to promote air quality awareness	Involve the community in the topic through public engagement and outreach

<b>Outcome 4: Higher availability of (and engagement with) urban green spaces</b>	
<b>Current issues</b>	<b>Required Actions</b>
Limited availability of urban green spaces to mitigate air pollution	Prioritise biodiversity and urban green spaces as a nature-based solution to air pollution
Poor information on green spaces and encouragement to engage with them	Improve communication and initiatives to promote wider engagement with nature

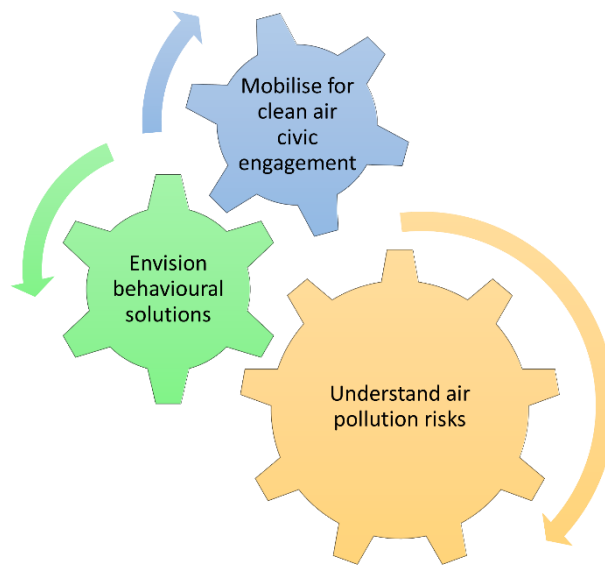


BEHAV-I-AIR Roundtable - Map of desirable outcomes and identified issues and actions. Credit: Roberto Cibin

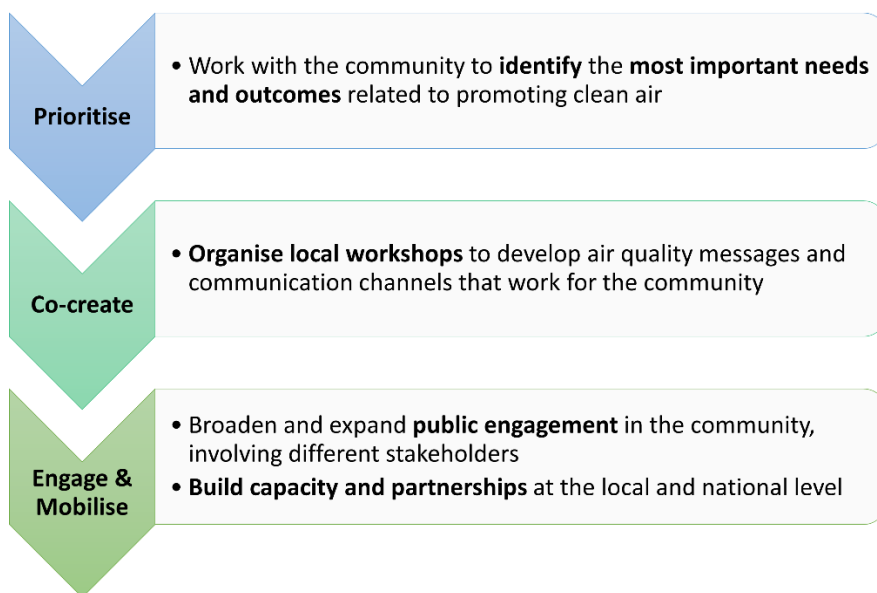
## Implications and Next Steps for BEHAV-I-AIR

As demonstrated from the roundtable findings, the current issues related to air quality in Cork City are complex and multi-faceted, and relate not only to what each of us does in our daily lives, but also to the infrastructural, social and political systems in which we live.

BEHAV-I-AIR aims to contribute to address some of these challenges by improving public communication and dialogue around air pollution issues and solutions. The findings from the roundtable and the individual consultations that we have completed over the past few months indicate that **air quality communication should aim to help individuals and communities in three key areas:**



In order to maximise and optimise how we develop a clean air communication strategy for Cork City, **our next steps** include the following:



## Staying Connected & Helping Each Other

Our project is about learning from each other and working together to achieve clean air for all in Cork City and beyond. We can only make progress thanks to the invaluable input of people in Cork City and beyond who care about living in a place that is healthy and thriving in a sustainable way.

To involve more people in BEHAV-I-AIR, we need to reach out, listen, and engage. Below are some **ways in which you can stay connected with the project and help us reach further in the community:**

### Stay in touch

- Follow our updates via email or on social media
- Take part in future BEHAV-I-AIR activities
- Contact us if you have ideas or questions

### Building bridges

- Let us know if there are any individuals, groups or organisations that we could reach out to
- Flag any community and educational training events in the city that would be important to attend or to promote

### Mobilise

- Consider including issues related to air quality in your next public consultation submission
- Talk to those around you about the importance of clean air
- Talk to your local representative about integrating clean air in their actions

Do not hesitate to **contact** the BEHAV-I-AIR Project Lead for any questions:

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