Citizen Engagement and Behaviour Modelling for Clean Air and Net Zero Carbon

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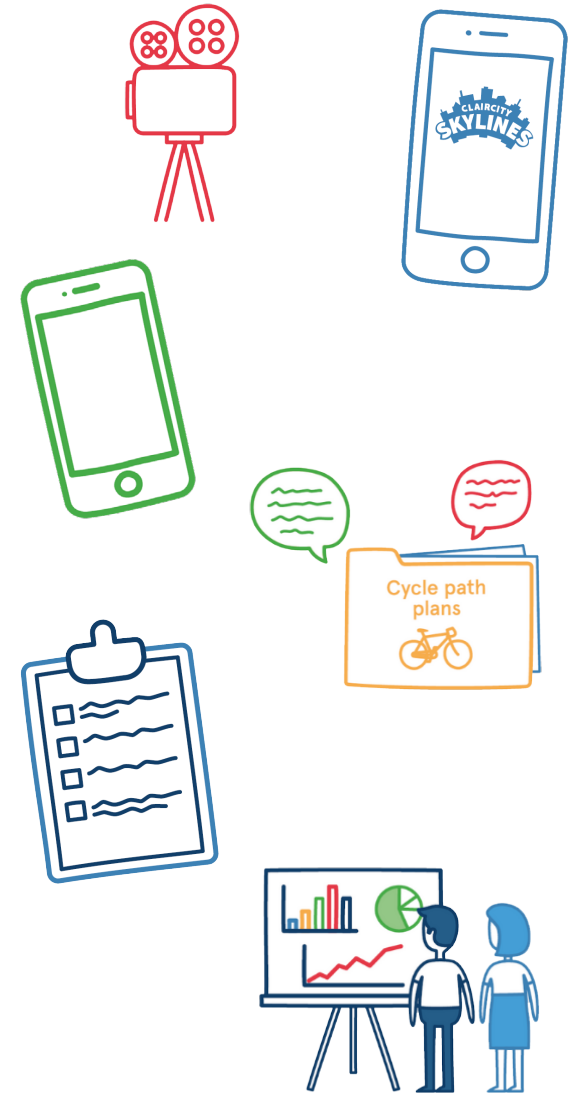
Citizens at
the Centre

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Intro

- The **primary objective** of the session is to introduce the ClairCity project (2016-2020) and discuss ways to model behaviour from a citizen perspective.

- Engagement **tools** and **modelling** were aimed at actively engaging city citizens and stakeholders to understand **air quality, carbon emissions and their health impact** in some European cities and regions.

- These approaches are being taken further in the WeCount project (2019-2021). We will discuss the specific **challenges and opportunities** that citizen inclusive modelling offers.

Climate and Ecological Emergency

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WHAT IS AIR POLLUTION AND HOW DOES IT AFFECT US?

AIR POLLUTION

NOx

SOOT
DUST

$PM_{2.5}$ PM_{10}

WE BREATHE IT IN

AND THIS AFFECTS OUR

LUNGS   BRAIN

HEART   PREMATURE BIRTHS

?

WHO'S AT RISK

ALL OF US!

BUT ESPECIALLY...

THE OLD

THE YOUNG

PEOPLE WITH HEALTH CONDITIONS

IT'S YOUR HEALTH

Breathing polluted air raises the chances of heart attacks, strokes, and lung cancer. It makes respiratory conditions like asthma or bronchitis worse.
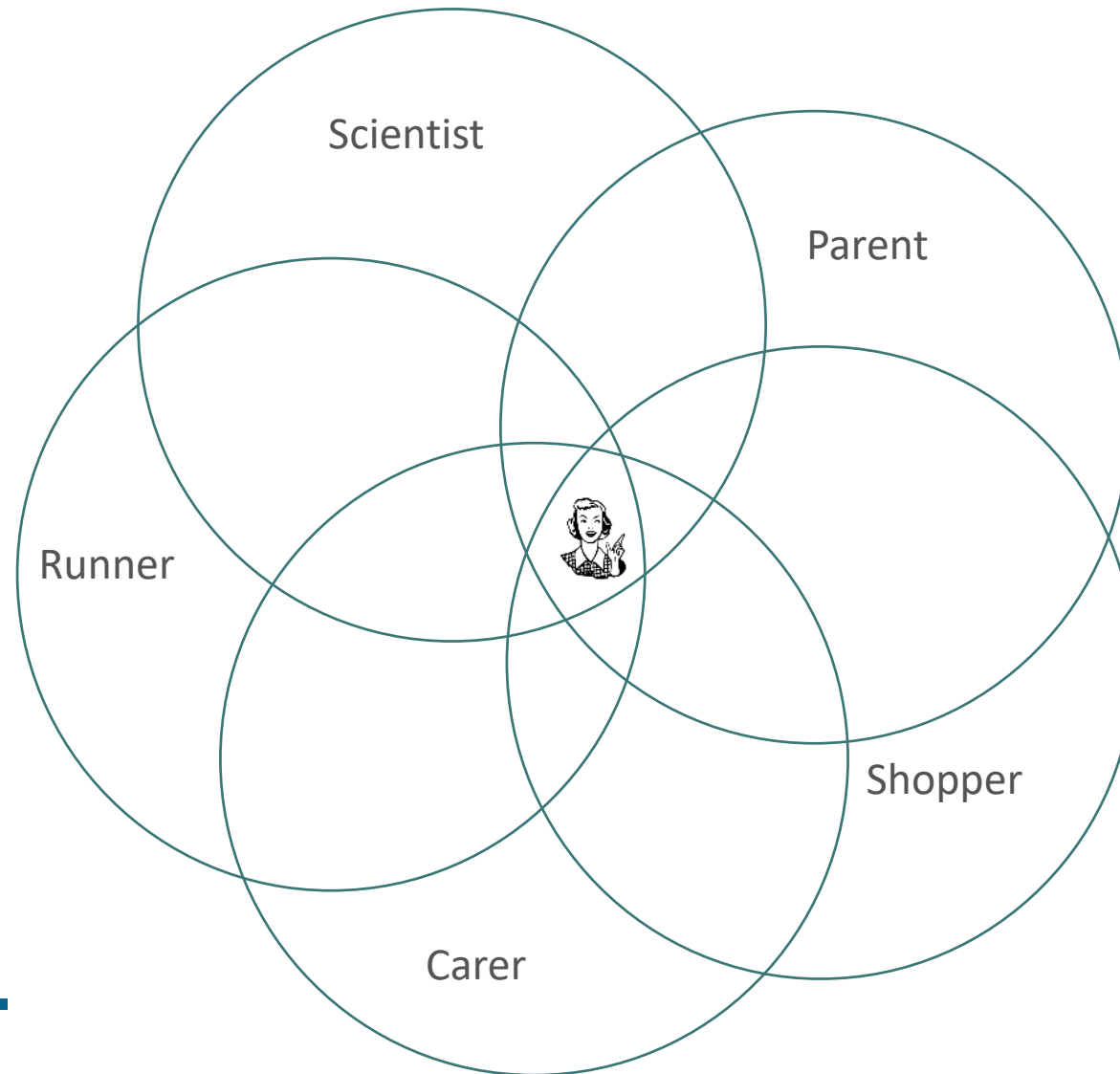
1 IN 8 DEATHS

Air Pollution causes one in every eight premature deaths worldwide.

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Behaviour change usually focuses on individuals…

But we are all part of groups and society too.

Chatterton, T. and Wilson, C. (2014) The 'Four Dimensions of Behaviour' framework: A tool for characterising behaviours to help design better interventions . Transportation Planning and Technology, 37 (1). pp. 38-61. ISSN 0308-1060

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The ClairCity concept…

Where and what? ⇨ **Who and why?** ⇨ **ClairCity**

We need to see
AIR POLLUTION
as a social problem
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PEOPLE CREATE POLLUTION NOT TECHNOLOGY
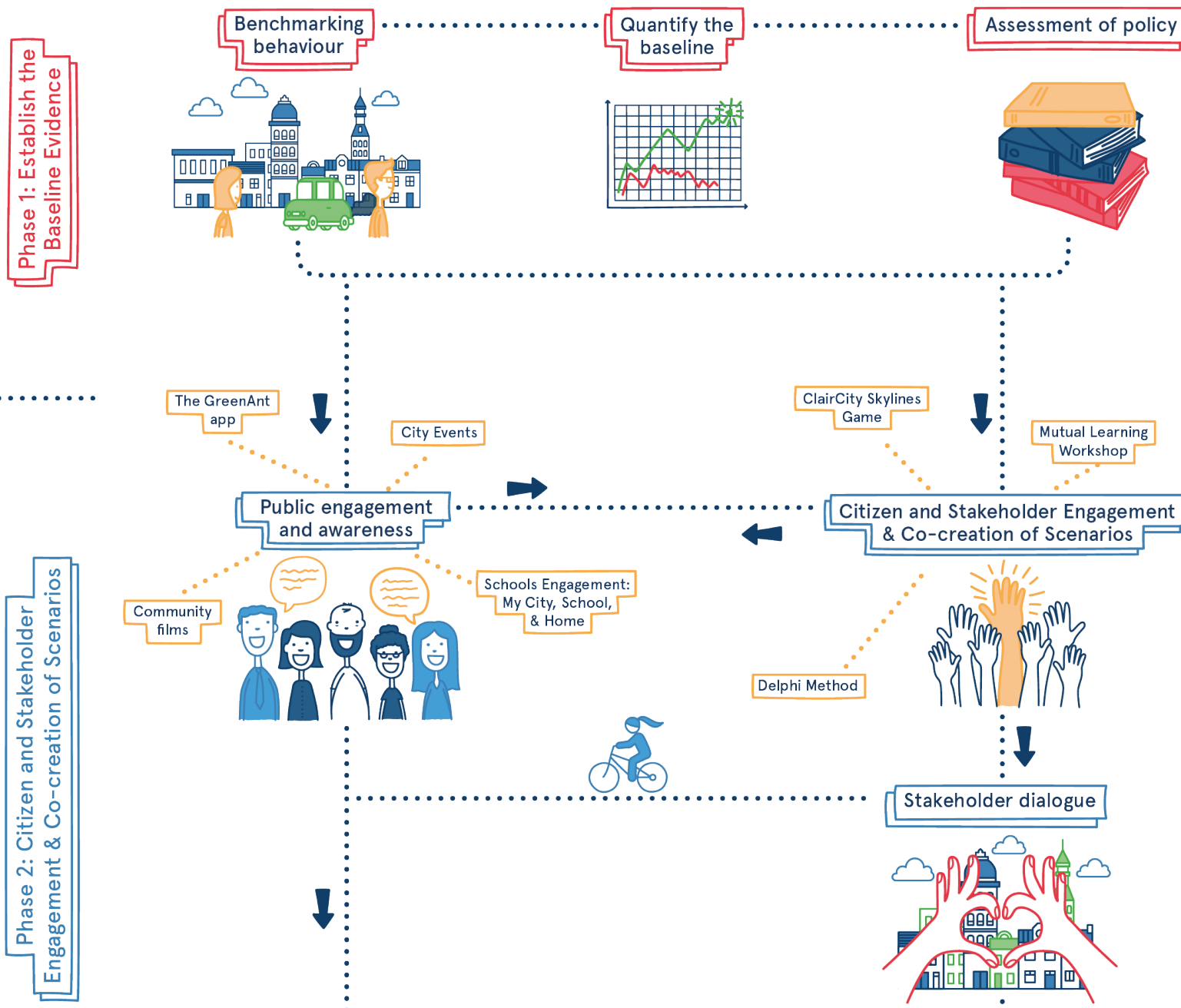
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Citizen-led air pollution reduction in cities

Everyday, air pollution and carbon emissions are produced by our commutes to work, by heating our homes, or through our daily lifestyles.
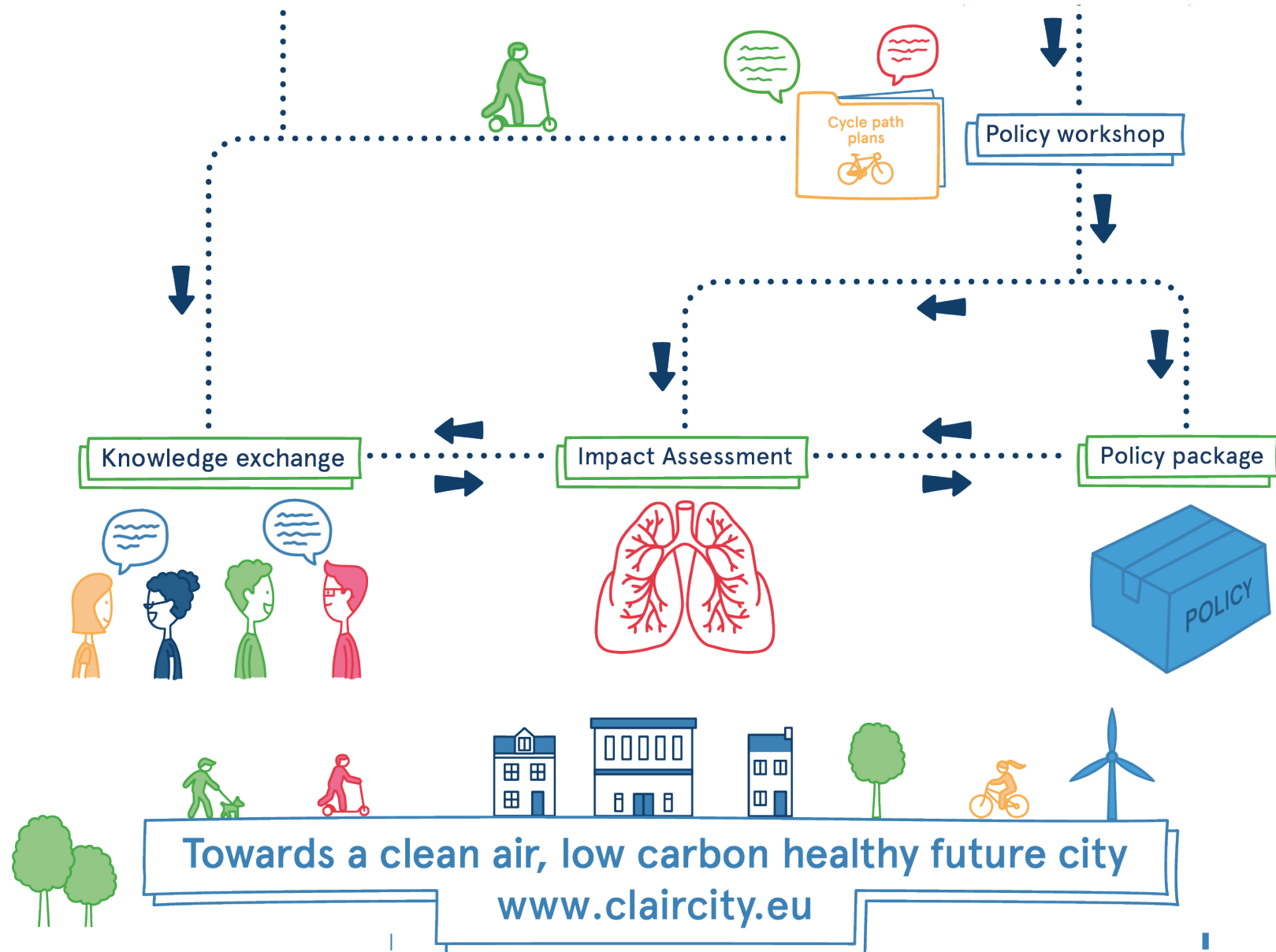
The ClairCity aim was to create a major shift in public understanding towards the causes of poor air quality, inviting citizens to give their opinions on air pollution and carbon reduction to shape the cities of the future.
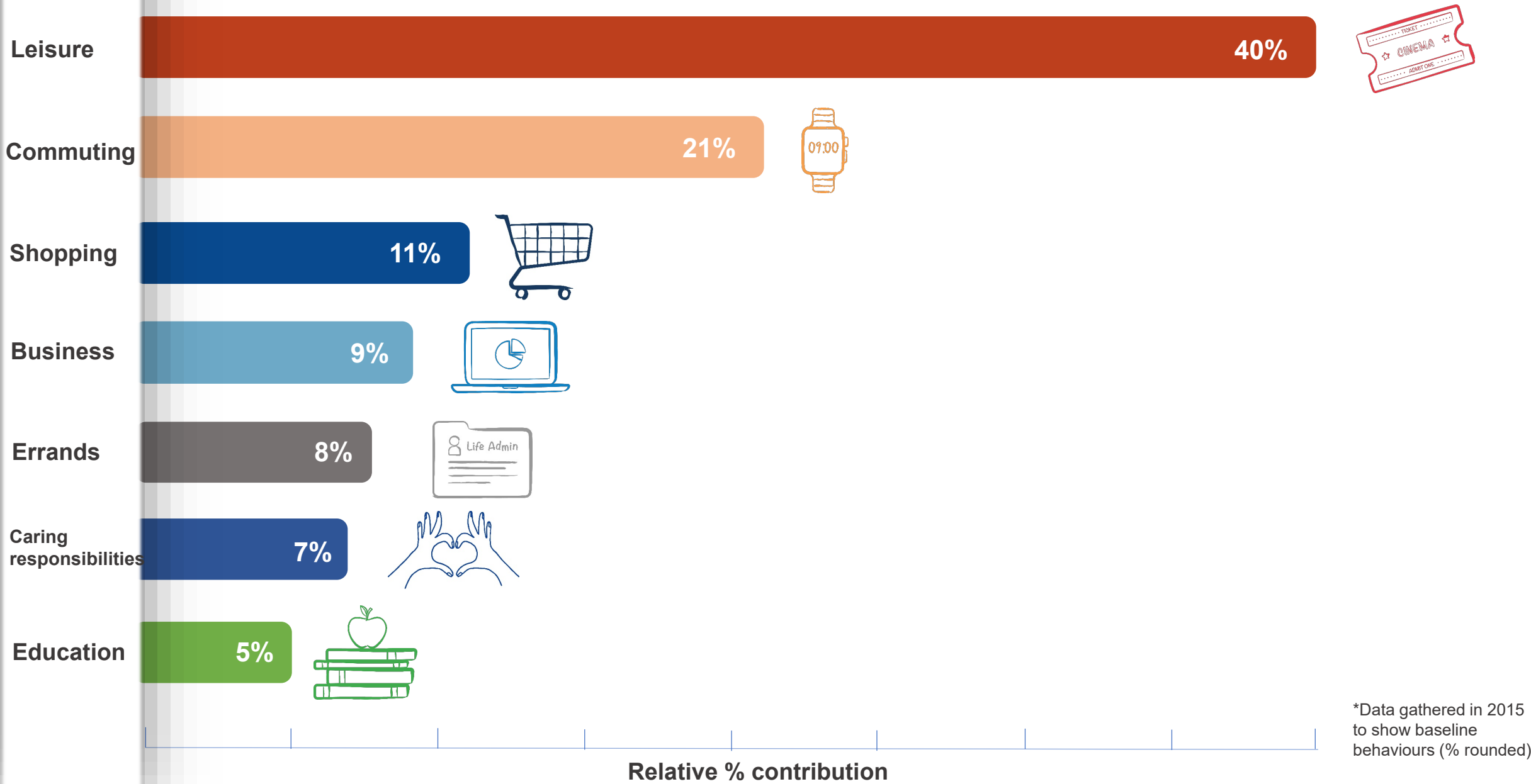
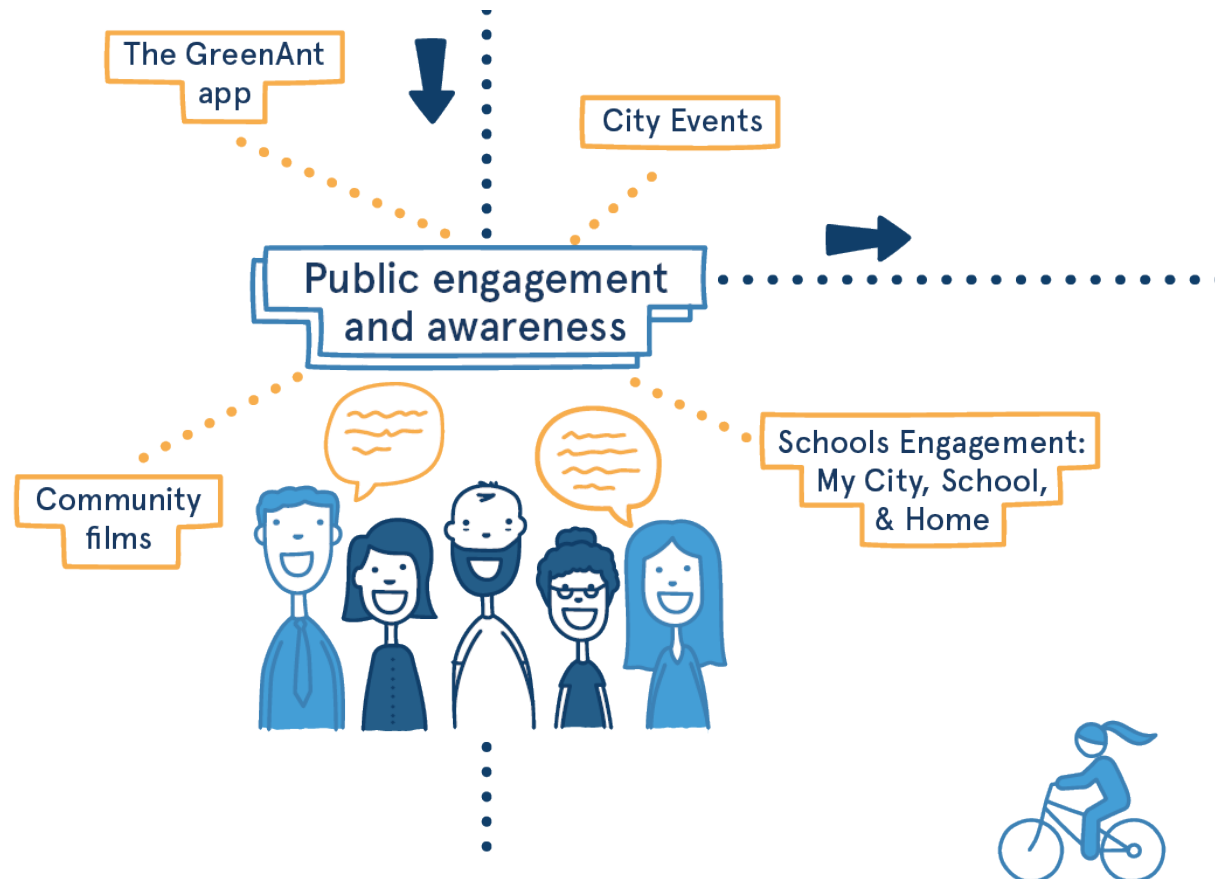# How the ClairCity process engages with a city & its citizens

Benchmarking behaviour

Quantify the baseline

Assessment of policy

The GreenAnt app

City Events

ClairCity Skylines Game

Mutual Learning Workshop

Public engagement and awareness

Citizen and Stakeholder Engagement & Co-creation of Scenarios

Community films

Schools Engagement: My City, School, & Home

Delphi Method

Stakeholder dialogue

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How the ClairCity process engages with a city & its citizens

Phase 3: Quantified Policy Package & Knowledge Exchange

Cycle path plans

Policy workshop

Knowledge exchange

Impact Assessment

Policy package

POLICY

Towards a clean air, low carbon healthy future city
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Baseline reports e.g. why we travel… relative distance contribution of our travel activities in Bristol

Leisure — 40%

Commuting — 21%

Shopping — 11%

Business — 9%

Errands — 8%

Caring responsibilities — 7%

Education — 5%

Relative % contribution

*Data gathered in 2015 to show baseline behaviours (% rounded)

Engagement tools

The GreenAnt app

City Events

Public engagement and awareness

Community films

Schools Engagement: My City, School, & Home

Community films

Sue on why walking helps her diabetes

I'm Sue and I'm Bristolian. I've lived in the city most of m

0:05 / 1:54

Schools Engagement:

City Events

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Engagement tools

ClairCity Skylines
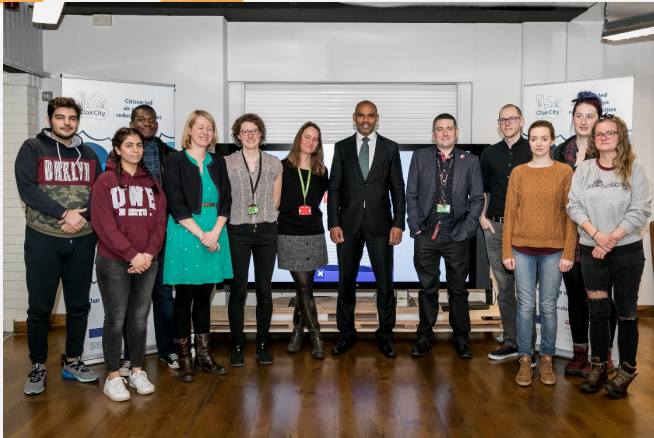
Delphi Method

Mutual Learning Workshop

Delphi Method

ClairCity Skylines Game

Mutual Learning Workshop

Citizen and Stakeholder Engagement & Co-creation of Scenarios
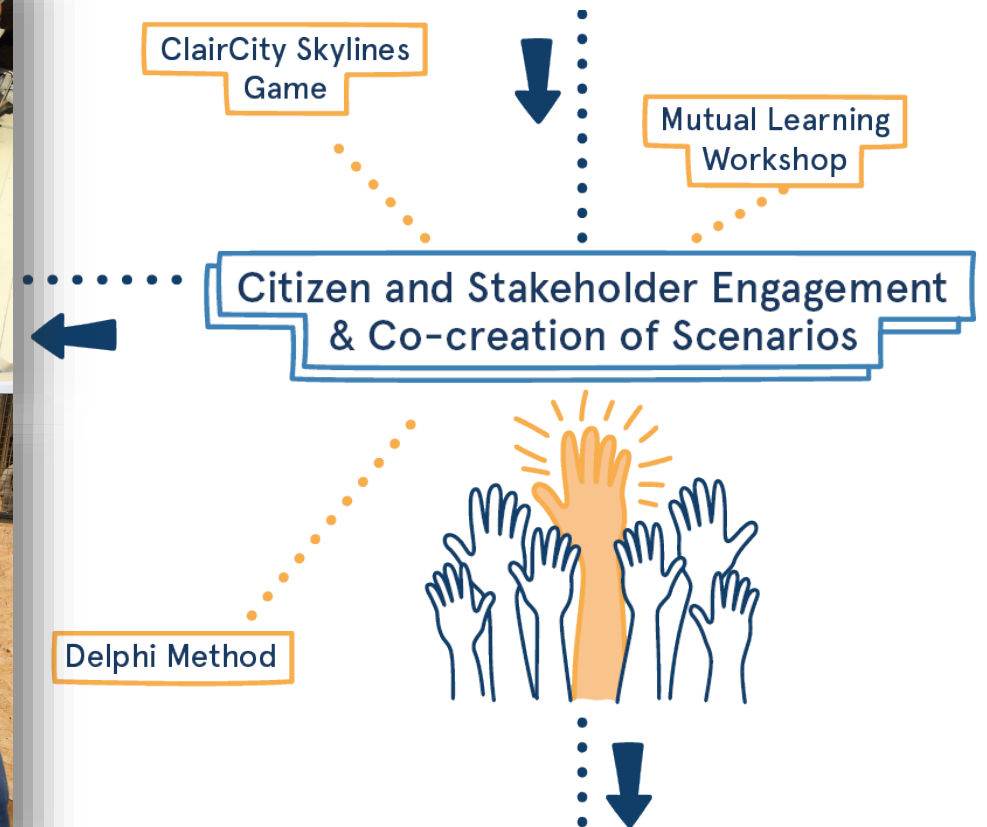
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ClairCity results

770,253 Twitter impressions

5,801 YouTube video views

1,418 Facebook followers

33,678 Website visitors

818,736 citizens involved across 6 cities and regions

82 Policy makers consulted

132 stakeholders involved in Mutual Learning Workshop

4887 citizens involved in Delphi process
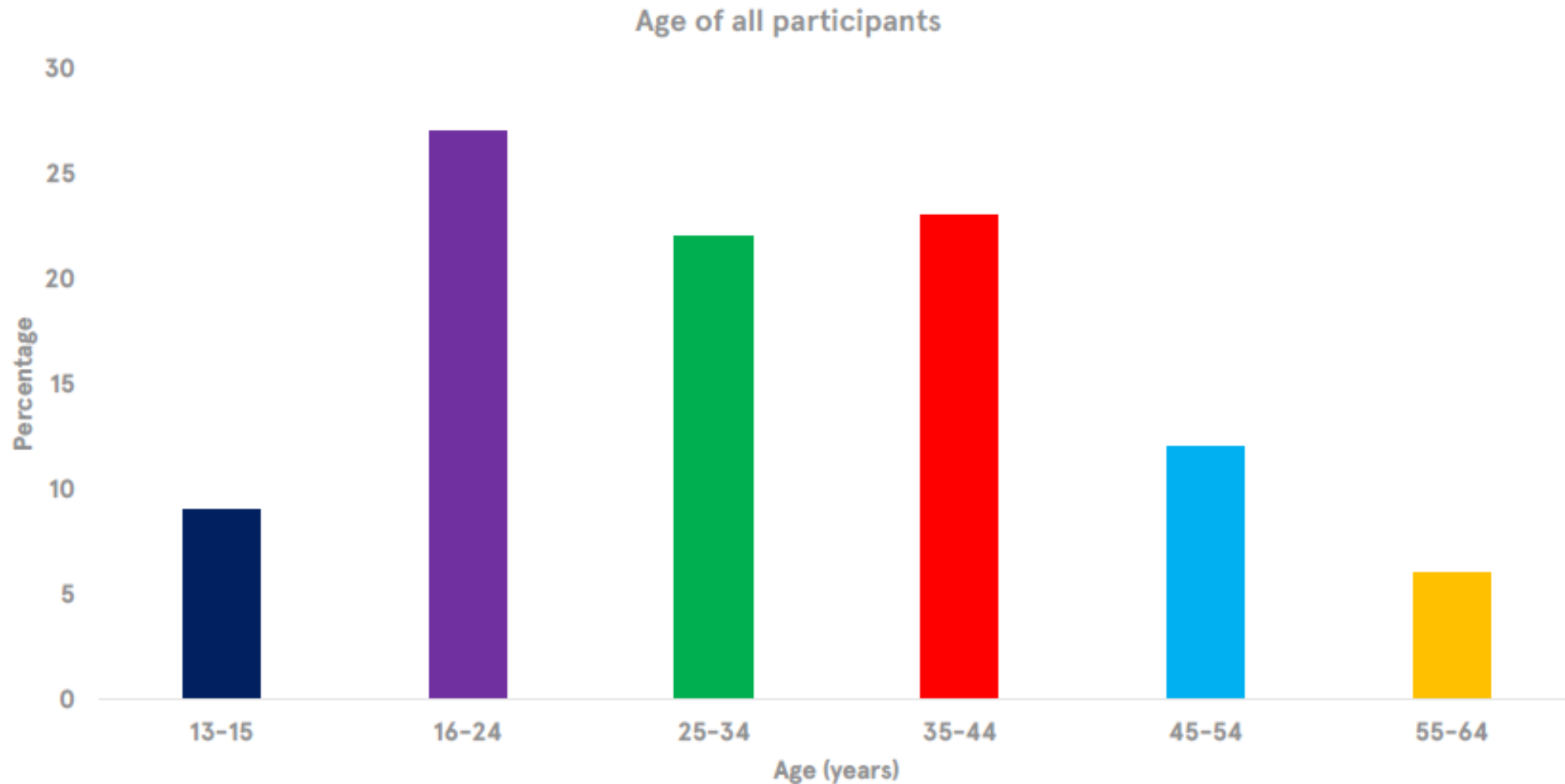
8302 direct engagements

65 Older people filmed

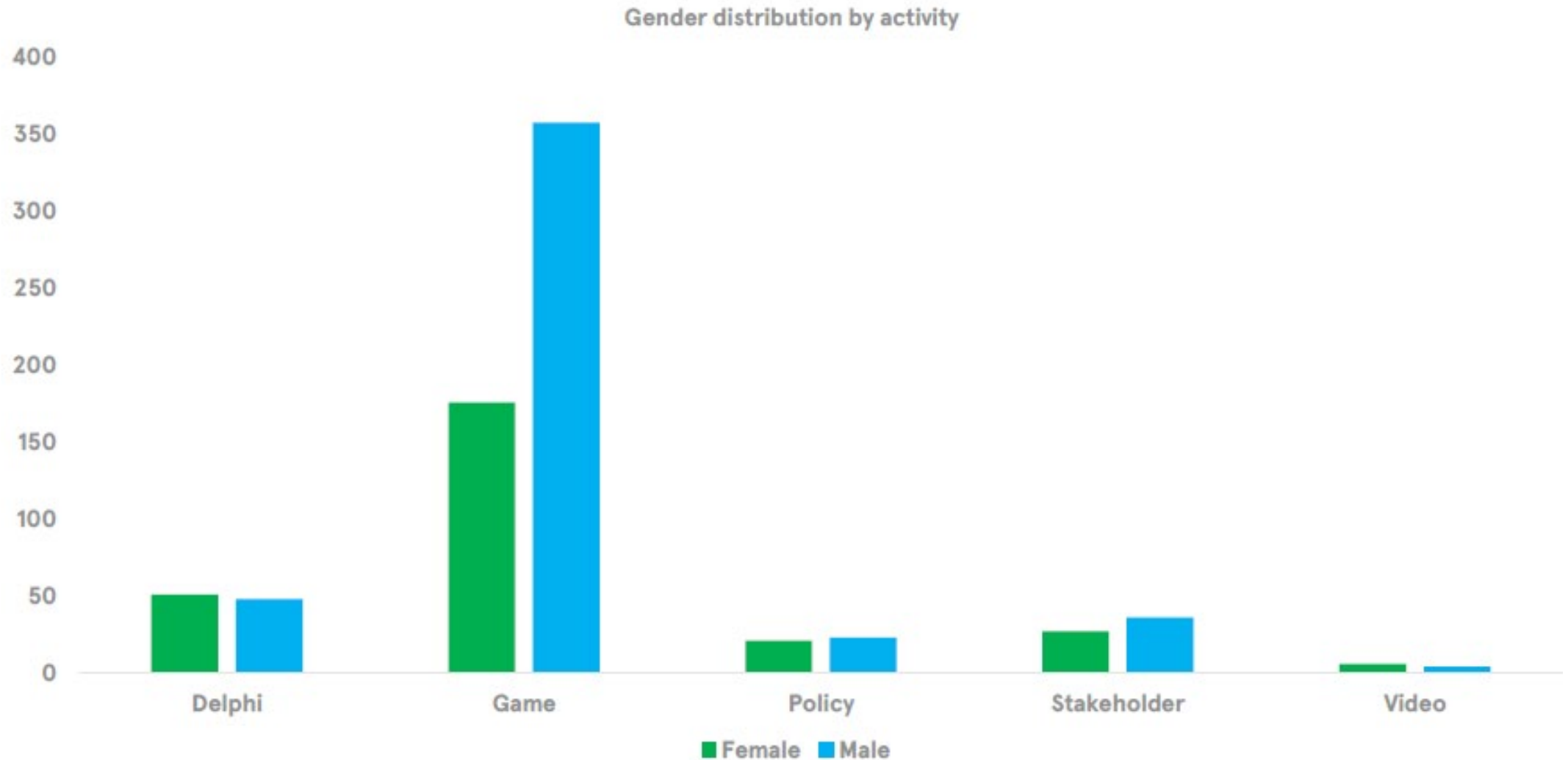**>1000** children engaged in public events and lessons

447 school children engaged in My School, My City, My Home competition

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Different activities needed to appeal to different ages

Age of all participants

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Different activities engage men and women

Gender distribution by activity

Citizen-led policy making

1	Ban/phase out polluting vehicles
2	Make buses greener and cleaner
3	Cheaper public transport
4	Create alternatives to car use – walking and cycling
5	Reduce vehicle road space – increase public transport space
6	Improve walking environment
7	Charge older/more polluting vehicles entering the city
8	Promote electric vehicles
9	Awareness raising to promote active and public transport
10	Organisations to make it easier for employees to work from home
11	Make property developers prioritise air pollution and climate change
12	Build housing close to major employment zones
13	More local shops and facilities in neighbourhoods
14	Organisations to provide flexible working hours for employees
15	Improve energy efficiency for housing (rented/existing/new)
16	Increase generation of solar and wind power
17	Spread economic opportunities across different areas of the city

Example policies suggested (Bristol)

"Not enough public transport (train and bus) in terms of frequency and diversity. Current public transport are too expensive and I am living too far away from work to be able to cycle. I do want to change! Unfortunately it's too challenging at the moment."
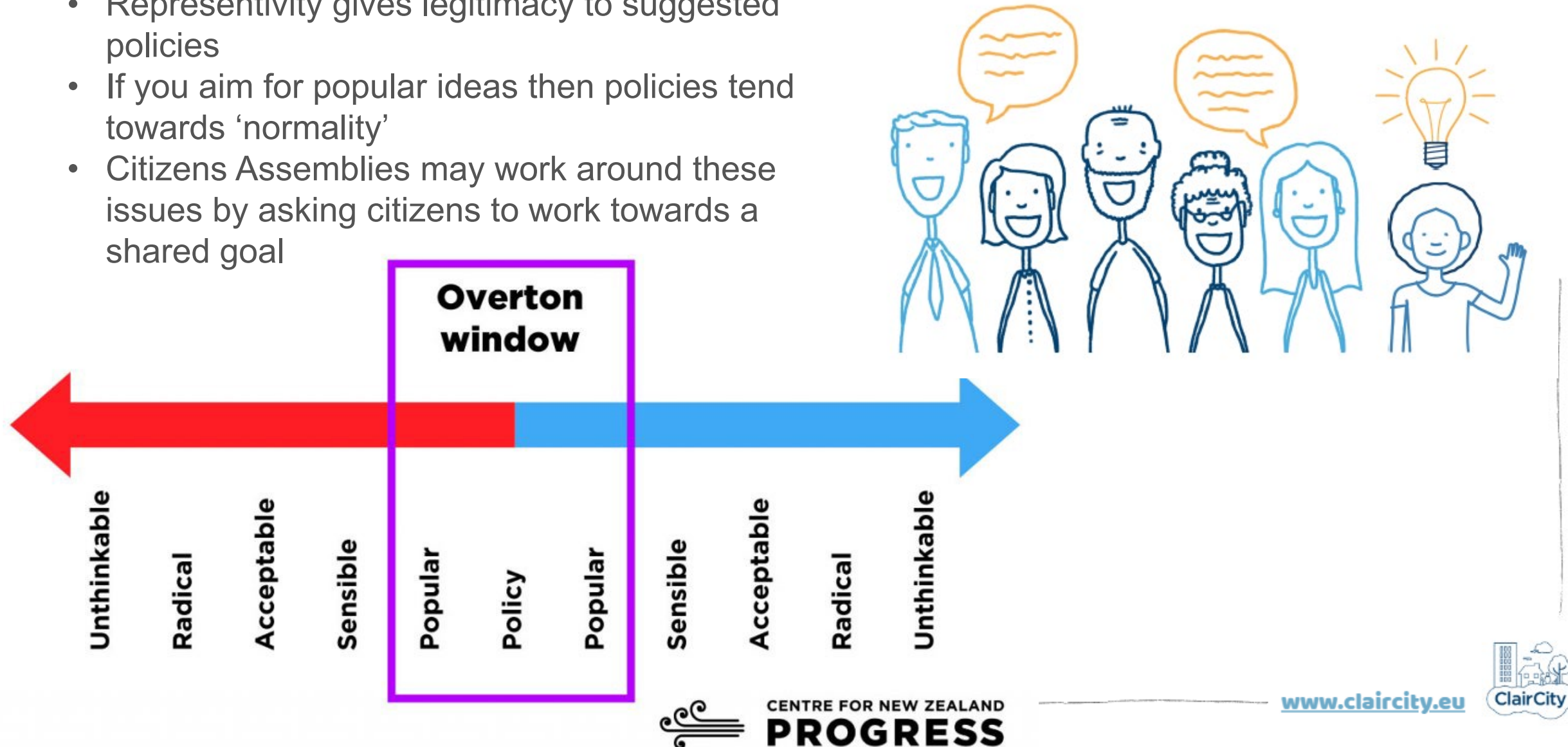
(Female, BME, degree qualification)

"Have you tried going to the countryside with two kids but without a car? No cycle lanes, no acceptable buses at most places."

(Male, white, degree qualification)
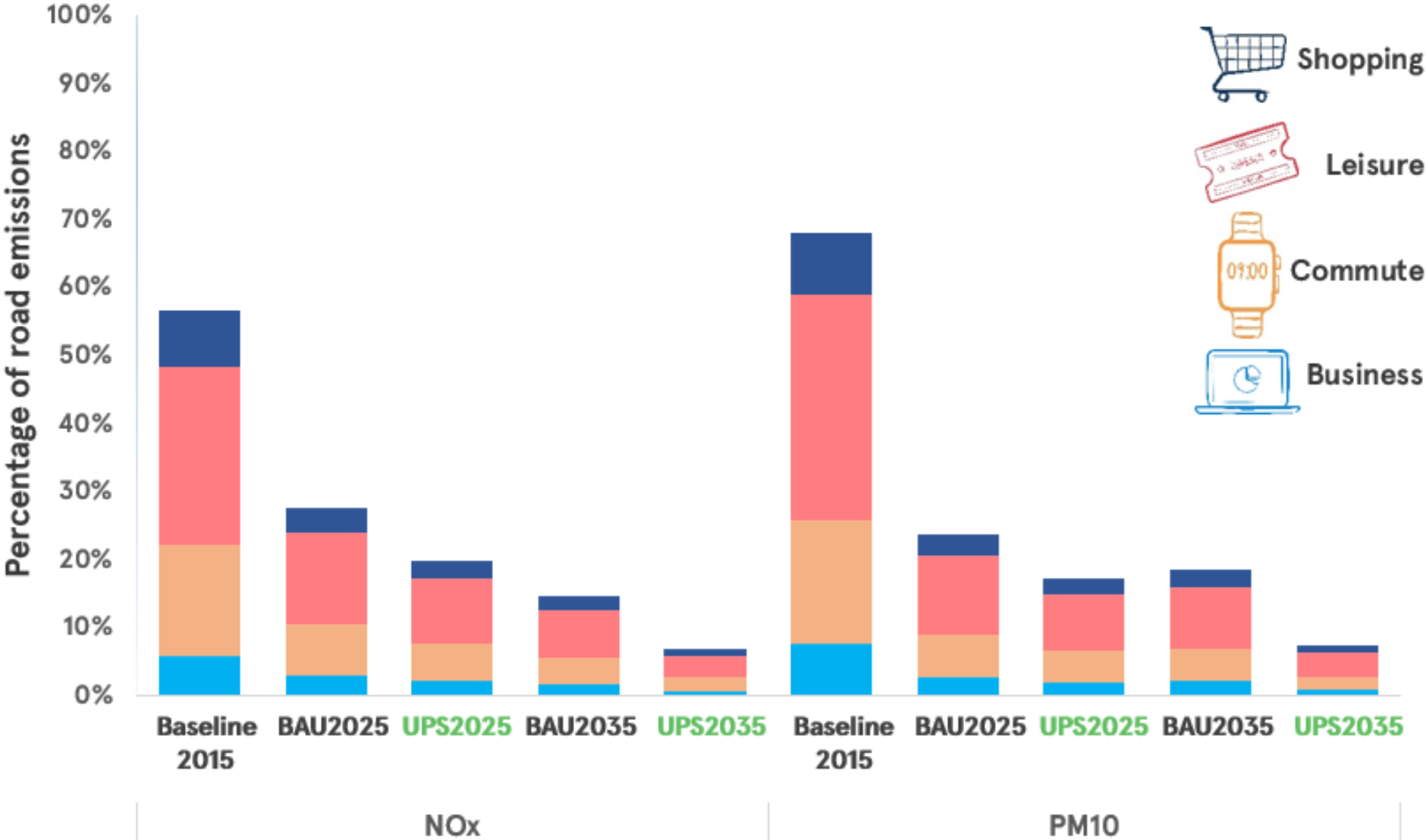
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Challenges of citizen engagement

- Representivity gives legitimacy to suggested policies
- If you aim for popular ideas then policies tend towards 'normality'
- Citizens Assemblies may work around these issues by asking citizens to work towards a shared goal

Overton window

Unthinkable | Radical | Acceptable | Sensible | Popular | Policy | Popular | Sensible | Acceptable | Radical | Unthinkable

CENTRE FOR NEW ZEALAND
PROGRESS

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Road transport NOx and PM10 emissions scenarios by motive

Citizens were more ambitious than Business as Usual

NOx and PM10 emissions by scenario and Motive

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Policy packages

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WECOUNT

we-count.net
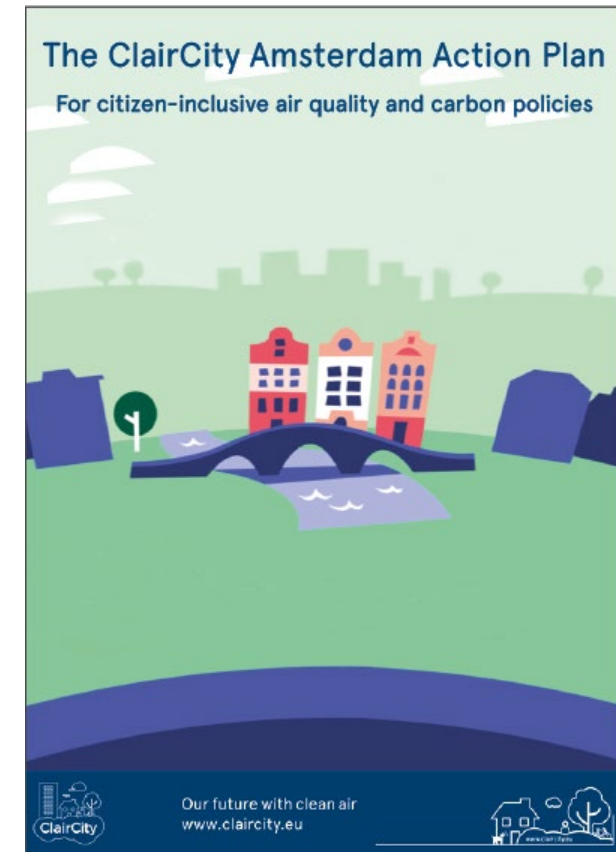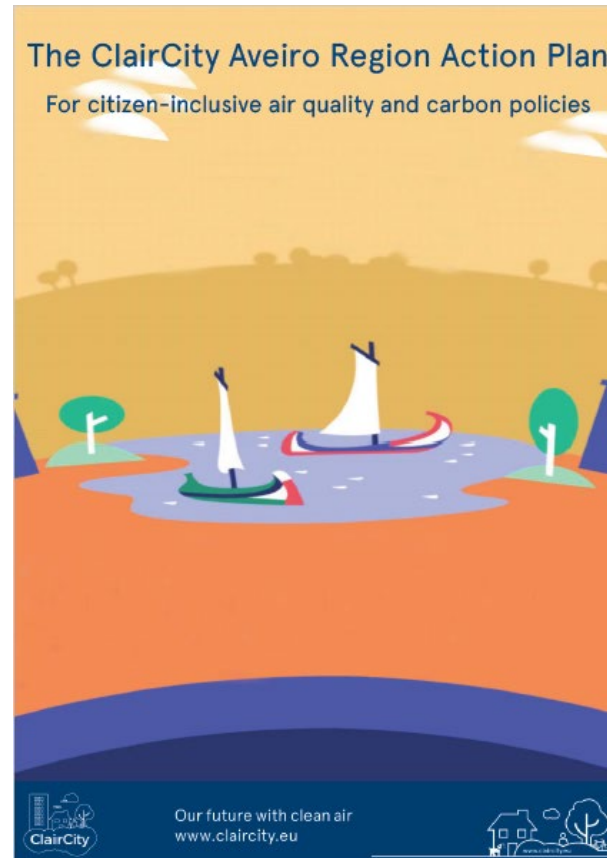
A European project that enables citizens to initiate a policy-making process with fully automated measurement data in the field of mobility and air quality

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ClairCity resources

Community activator pack

To support groups working for a clean air and zero carbon future

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Educator pack

For engagement practitioners, teachers, and young people working for a clean air and net zero carbon future

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www.claircity.eu/take-action/educator

Engaging citizens in clean air decision making

Findings from the evaluation of ClairCity

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www.claircity.eu/take-action/community-activator

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http://www.claircity.eu/take-action/science-communicator/

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