

Engaging citizens for a future with clean air and lower carbon emission-ClairCity

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HEALTH FORUM
GASTEIN

ClairCity Consortium



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3. PBL Netherlands Environmental Assessment Agency (NL)
4. Statistics Netherlands CBS (Netherlands)
5. Technical University of Denmark (Denmark)
6. Norwegian Institute for Air Research (Norway)
7. REC Regional Environmental Centre (Hungary)
8. TECHNE Consulting (Italy)
9. Transport & Mobility Leuven (Belgium)
10. University of Aveiro (Portugal)
11. Municipality of Amsterdam (Netherlands)
12. Bristol City Council (UK)
13. Intermunicipal Community of Aveiro Region (Portugal)
14. Liguria Region (Italy)
15. Municipality of Ljubljana (Slovenia)
16. Sosnowiec City Council (Poland)

ClairCity – Our future with clean air

ClairCity is aimed at creating a major shift in public understanding towards the causes of poor air quality, inviting citizens to give their opinions on air pollution and carbon emission reduction to shape the cities of the future towards 2050.



ClairCity Objectives

ClairCity will integrate and quantify citizens behaviour and activities to enrich city, national and EU level policy-making, resulting in improved air quality, reduced carbon emissions, improved public health outcomes and greater citizen awareness.

1. Putting citizens behaviour and practices at the heart of the debate.
2. Develop a suite of innovative toolkits for enhanced quantification, engagement and impact evaluation.
3. Integrate citizens behaviours in city policies now and in the future.
4. Raise awareness of environmental problems and their solutions.



Flexibility is key....our six pilot cities / regions

NOT EVERY CITY IS THE SAME...

OUR PARTNER CITIES AND
REGIONS REPRESENT VARIETY.



ClairCity Scope – What do we include?

Short Term <2025 → Medium Term <2035 → Long Term <2050

Pollutants

- ‘Priority 1 Air Pollutant’ - those within existing legislation and are most relevant re citizens health as result of citizens action (i.e. NO₂, PM₁₀, PM_{2.5}).
- ‘Priority 2 Air Pollutants’ - those within existing legislation and less prominent as result of citizens action (i.e. Ozone, Sulphur Dioxide, VOCs, Ammonia, Benzene, Carbon Monoxide, Lead, Methane)
- ‘Climate Pollutants’ – both CO₂ and CO₂e.
- ‘Future & Rare Pollutants’ – future pollutants which may be relevant by 2050 and rare pollutant which are not commonly problematic now and in the future. We do not aim to quantify these but we provide a ClairCity framework and policies which aim, where practical, to be safe by design.

Boundaries

- ‘TIER 1 within city/region boundaries’: detailed assessment of emission sources and air quality (fine resolution)
- ‘TIER 2: immediate vicinity of the city’: Some of the activities within the city impact the emissions in the immediate surroundings of the city. Transboundary effects also (i.e. emission for surrounding affecting the city air quality).
- ‘TIER 3: rest of the world’: not relevant for an air pollution perspective, only relevant for carbon footprint (displacing/“exporting” carbon emissions from cities to rest of world).

WP4 – Citizen & Stakeholder Engagement

The primary objective of the WP4 is to engage key stakeholders across all of the partner cities from different European regions to give them the platform to generate their vision for a low carbon, clean air and healthy futures towards 2050 by

- utilisation of *DELPHI* process to engage citizens and stakeholder via online survey, and workshops, and give them a platform to describe their personal future visions of their city,



ClairCity WP4 – Citizen & Stakeholder Engagement

- *creating an innovative tools such as game and app experience to actively engage citizens and stakeholders with an enhanced understanding of the air quality and carbon issues, **personal exposure and possible health effects** within cities, create conditions for ownership of the problem and exploration of a diverse range of decisions to reduce impacts and decrease adverse health effects,*
- *focusing on public health and vulnerable groups- children, old people- with active participation of citizens at mutual learning workshops, school competition of children and promotion of non-motorised transportation by short film production of old people/organisation.*

The first City, Bristol, implemented the Delphi and the MLW.



Bristol Delphi/MLW

- Launched 4th May
- Promoted on regional TV & local radio
- Online & face-to-face
- Public and community events



ClairCity @ClairCity · May 17
We had a great time w @BrislingtonWI last night - lots of surveys filled + t
cake! bit.ly/bristolsurvey1 Thanks ladies! pic.twitter.com/KZiYvsqKBI



Ben Barratt @benbarratt150
Learning about @ClairCity's citizens-led air pollution project at a packed @BristolCapitalMingle. Find out more at clarity.eu pic.twitter.com/WWCmlW080



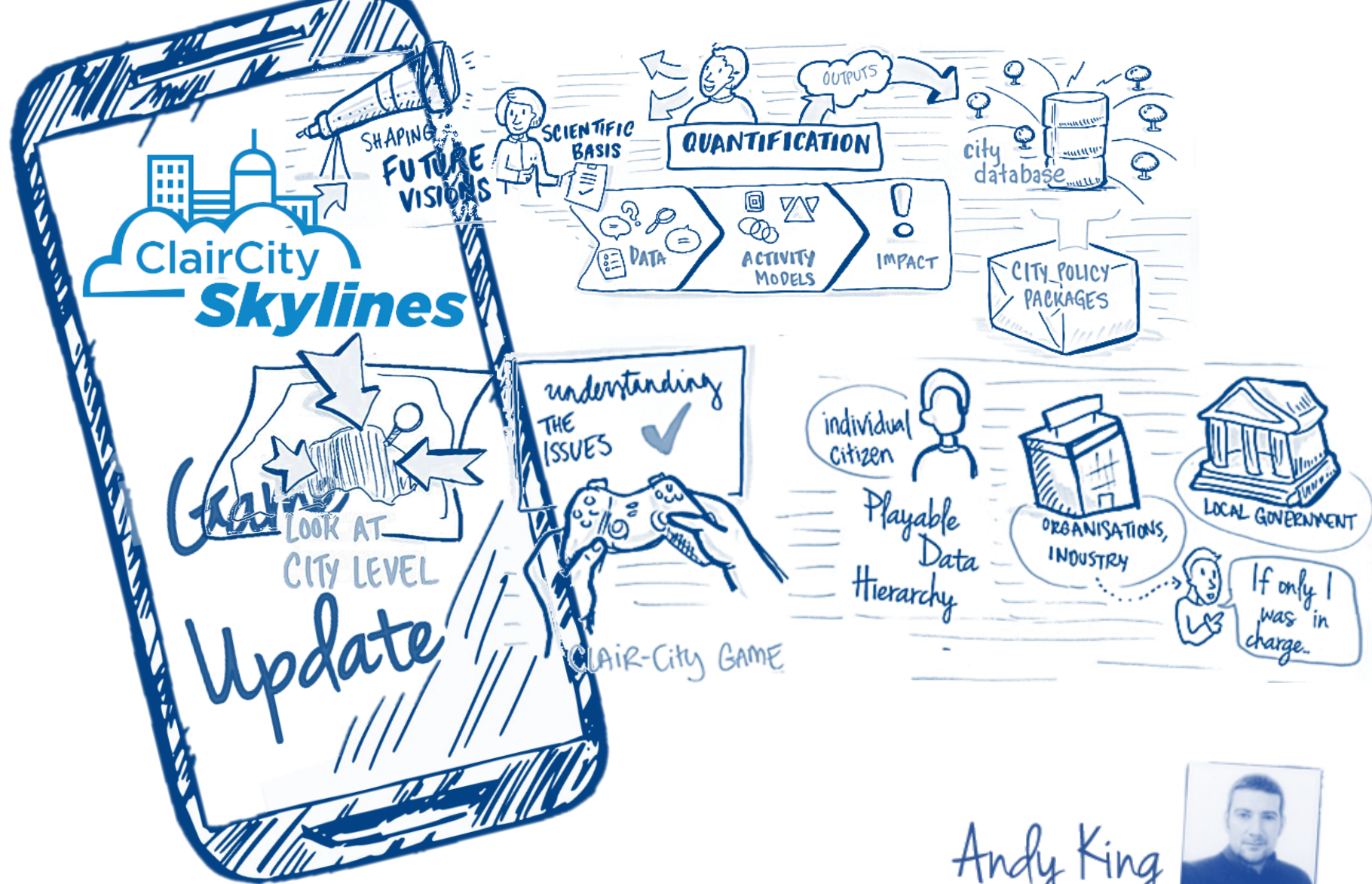
Aim of the Citizen Delphi Engagement

- City citizens to consider their own lives, behaviours, activities and practices;
- Explore future options for their city/region up to 2050;
- Create future scenario options to inform the Game (Task 4.2), Quantification WP5, Policy WP6 and Scenarios WP7.



Bristol case





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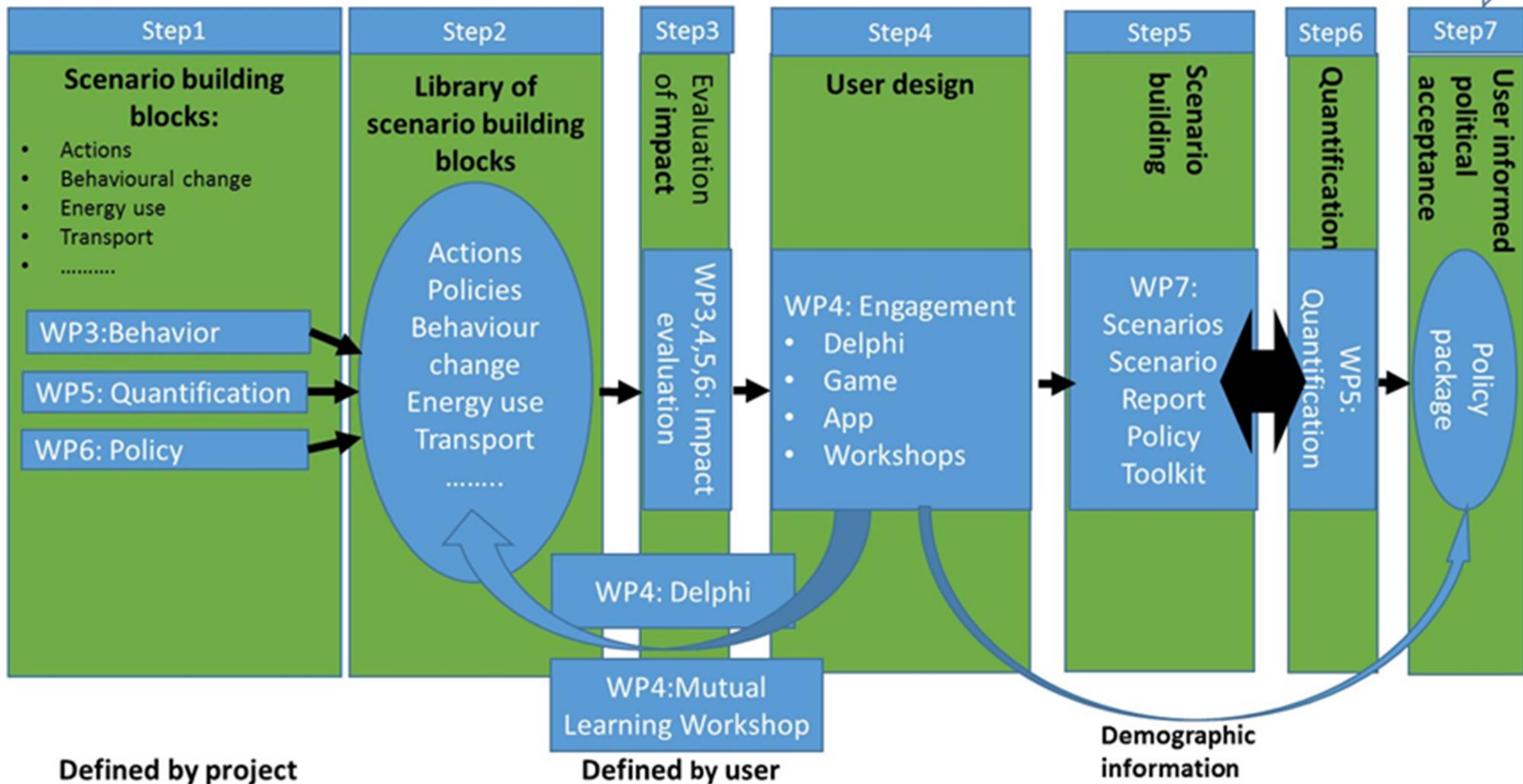
ClairCity – app concept idea



- What we know we can use newer smartphones for
 - Track activity(walking, running, cycling, vehicle)
- What citizens/ companies/organizations might want to know
 - How people move to and from their area
 - Most trafficked and polluted routes and areas
 - How much their students/employees are exposed to air pollution
- HOT-SPOT
 - “A place notable for a high level of activity”



Innovation



WP5: Quantification

The background is a light green field filled with various mathematical concepts:

- Algebraic Identities:**
 - $a^{-n} = \frac{1}{a^n}$
 - $(ab)^n = a^n b^n$
 - $a^m \times a^n = a^{m+n}$
 - $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$
 - $a^{-n} = \frac{1}{a^n}$
 - $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$
 - $\frac{a^m}{a^n} = a^{m-n}$
 - $a^2 - b^2 = (a+b)(a-b)$
 - $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$
- Geometry:**
 - Circle:** A circle with radius r . Formulas: $C = 2\pi r$, $A = 2\pi r^2$.
 - Triangle:** A triangle with vertices A , B , C and height h on base b . Formula: $A = \frac{1}{2}bh$.
 - Cube:** A 3D cube.



Activities

Setup:

- Data: collection, exchange, management
- Models: from behavior → activity → emission → impacts (air quality & carbon footprint)

Outputs:

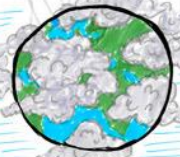
- City database
- Model toolkit: development integration
- Quantitative impact assessment (case studies)



CLAIR City

WE ARE TACKLING AIR POLLUTION

90% PEOPLE IN CITIES ARE EXPOSED TO HARMFUL LEVELS (WHO)



1 in 8 PREMATURE DEATHS!

ClairCity Website
www.claircity.eu

Twitter
[@claircity](https://twitter.com/claircity)

ClairCity Associates

CITY POPULATIONS UP BY 70% by 2050
THIS PUTS A LOT OF PRESSURE ON FOOD ENERGY WATER
not every city is the same!

HOW DO WE CONNECT these issues with EVERYDAY LIVES?

BRING BACK Citizen AT THE CENTRE

WHAT WE WILL DO: USE THE LATEST SOCIAL SCIENCE NEW MOD OF APPS! Engage

- OUR PARTNER CITIES:
- SOSNOWIEC
 - LIGURIA REGION
 - LJUBLJANA
 - AMSTERDAM
 - AVEIRO REGION
 - BRISTOL

HOW WILL WE MEASURE SUCCESS?
RAISING awareness
HELPING CITIZENS TO MAKE INFORMED DECISIONS!

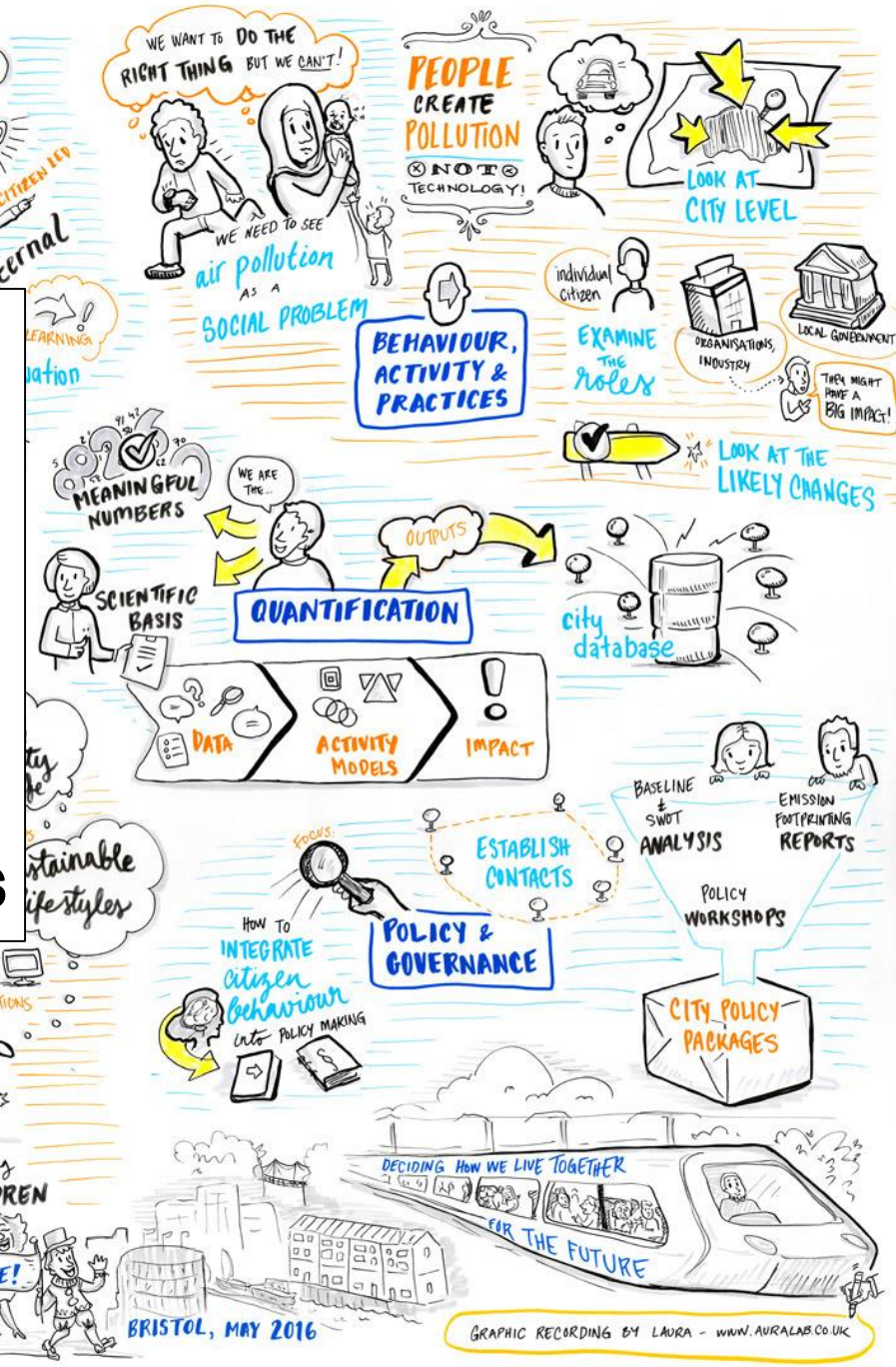


tools
CLAIR-CITY APP
CLAIR-CITY GAME
understanding the issues
engaging CHILDREN
SCHOOL COMPETITIONS

Citizen Led Air pollution Reduction in Cities

This is a chance to PUT YOUR CITY ON THE MAP!
Be BOLD, Be BRAVE!

BRISTOL, MAY 2016





Thank you for your attention!