



**International Conference
on Problem-solving
Approaches to Ensure
Schoolchildren's health**

**Citizen Led Air pollution
Reduction in Cities**

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representing the Clair City Consortium

Regional Environmental Center

Budapest, 24 May 2019

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ClairCity Consortium



1. Trinomics B.V. (Project Coordinator - Netherlands)
2. University of the West of England, Bristol (Technical Lead - UK)
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 aiming 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 reduction to shape the cities of the future.



Air pollution and health



HEART ATTACKS & STROKES

BREATHING POLLUTED AIR INCREASES THE LIKELIHOOD OF HEART ATTACKS, STROKES, AND LUNG CANCER. IT MAKES CONDITIONS SUCH AS ASTHMA OR BRONCHITIS WORSE. ¹



1 IN 8 DEATHS

AIR POLLUTION IS LINKED TO ONE IN EVERY EIGHT PREMATURE DEATHS WORLDWIDE, INCLUDING 7,700 DEATHS ACROSS EUROPE EVERY WEEK. ^{3 4}

NEW EVIDENCE ON HEALTH

THERE IS NEW EVIDENCE LINKING AIR POLLUTION TO DEMENTIA, TYPE 2 DIABETES AND AUTISM. RESEARCH IS STILL CONTINUING ON THESE AND OTHER CONDITIONS. ^{5 6 7}

BREAKING THE RULES

21 OF THE 28 EU MEMBER STATES FAILED THE STANDARDS FOR ONE TYPE OF AIR POLLUTION - CONCENTRATIONS OF PARTICULATE MATTER (PM10). ⁹



Climate change



**BURNING
FUELS
TO HEAT
OUR
HOMES**



**THESE ALSO
CAUSE CLIMATE
CHANGE**



2/3
EUROPEANS ARE
WORRIED

67% OF PEOPLE IN EUROPE THINK THAT CLIMATE CHANGE IS A "VERY SERIOUS PROBLEM".¹⁰



DIESEL VS PETROL

DIESEL CARS CAUSE MORE AIR POLLUTION THAN PETROL CARS, BUT HAVE LOWER CARBON EMISSIONS.



Nearly Zero Energy Buildings
contra (?) IAQ



ClairCity Concept.... challenging the debate

Where & What? >>>>

Who & Why? >>>>

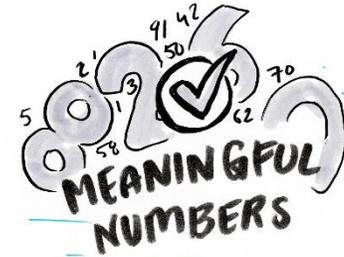
ClairCity



ClairCity Objectives

ClairCity integrates and quantifies 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 environment changes and their solutions.



ClairCity Scope – What do we include?

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

Pollutants

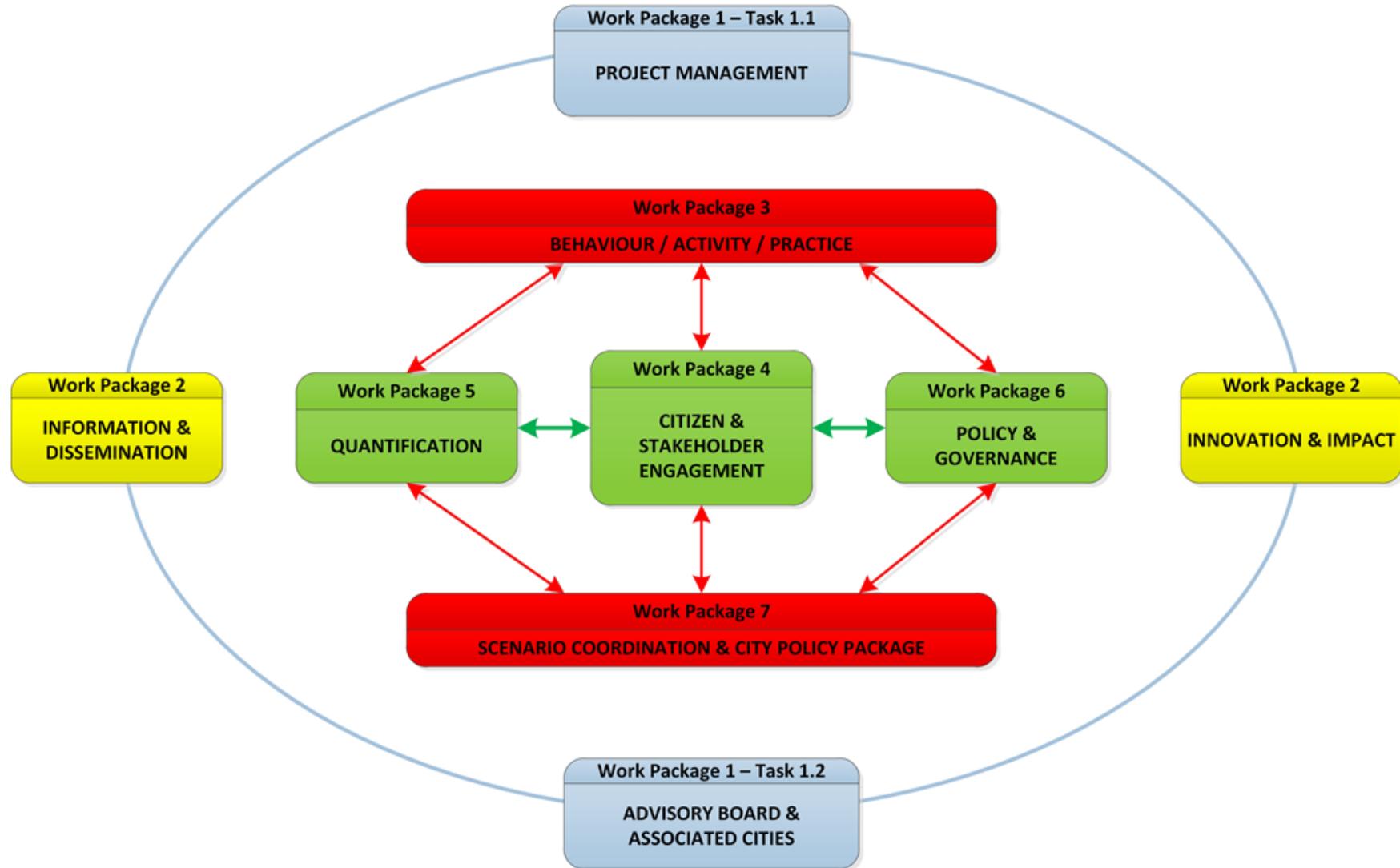
- 'Priority 1 Air Pollutant' - those within existing legislation and are most relevant re citizens health as result of citizens action (i.e. NO₂, PM₁₀, PM_{2.5}).
- 'Priority 2 Air Pollutants' - those within existing legislation and less prominent as result of citizens action (i.e. Ozone, Sulphur Dioxide, 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

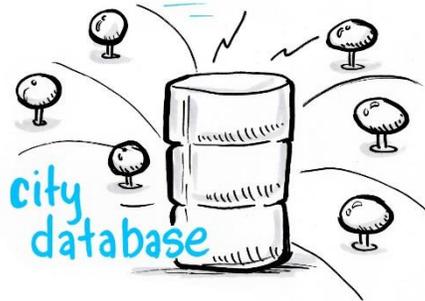
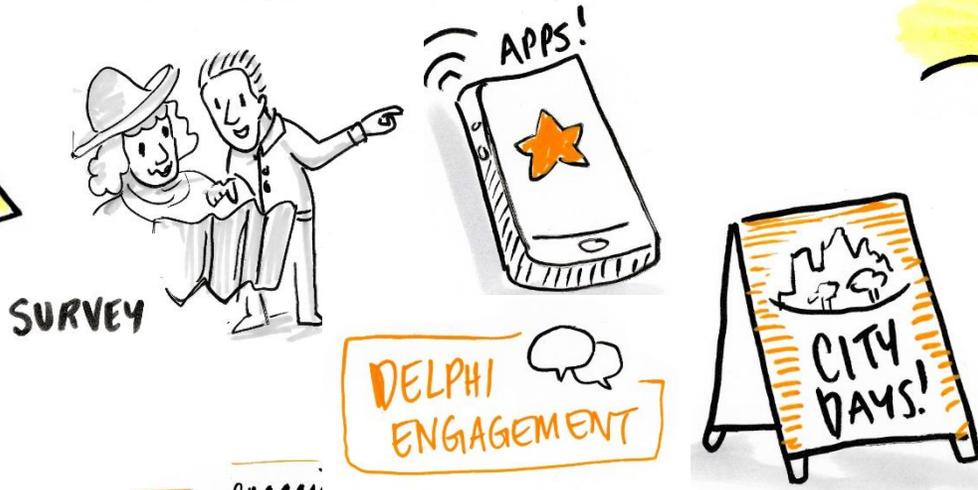
- 'TIER 1 within city/region boundaries': detailed assessment of emission sources and air quality (fine resolution)
- 'TIER 2: immediate vicinity of the city': Some of the activities within the city impact the emissions in the immediate surroundings of the city. Trans-boundary effects also (i.e. emission 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).



ClairCity Project Overview



ClairCity Approach



Phase 1: Establish baseline evidence

Phase 2: Citizen and stakeholder engagement

Phase 3: Scenario analysis, results and dissemination



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

not every
city is
the same!



THESE CITIES
REPRESENT
VARIETY

Our PARTNER CITIES:



SOSNOWIEC



LIGURIA
REGION



LJUBLJANA



BRISTOL



AMSTERDAM



AVEIRO
REGION

Our Game

ClairCity Skylines puts the players in charge.

ClairCity Skylines has arrived!

Download for **iOS devices here.**

Download for **Android devices here.**



Czy podoba Ci się jak podjęte przez Ciebie decyzje
zmieniły Twoje miasto?

Isk widzies, dzialania ludzi mogą pomóc lub przeszkodzić w ulepszeniu stanu naszego

14. Reduce car size (and the corresponding fuel consumption) by law.

i Fuel consumption is directly proportional to the weight of the car, no matter ho...

[Read more](#)

YES

NO

15. Provide tax benefits for employers who encourage their employees to commute by public transport, bicycle or on foot.

i In many countries, employees receive financial support for their journey to work...

[Read more](#)

YES

NO

16. Require schools to calculate the CO₂ emissions of the journey to school of teachers and pupils.

i If a school plan includes environmental tools for calculating CO₂ emissions gene...

[Read more](#)

YES

NO



+52%
CLIMATE**+37%**
AIR**+43%**
HEALTH

Czy podoba Ci się jak podjęte przez Ciebie decyzje
zmieniły Twoje miasto?

Jak widzisz, działania ludzi mogą pozytywnie lub negatywnie wpłynąć na stan naszego
środowiska.

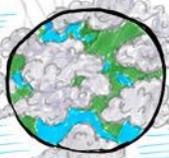


CLAIR City

WE ARE TACKLING

AIR POLLUTION

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



1 in 8 PREMATURE DEATHS!

WHAT WE WILL DO:

USE THE LATEST SOCIAL SCIENCE

NEW MODES OF ENGAGEMENT

HOW DO WE CONNECT these inner with EVERYDAY LIVES?

BRING BACK

Citizen AT THE CENTRE

HOW WILL WE MEASURE SUCCESS?

- RAISING awareness
- HELPING CITIZENS TO MAKE INFORMED DECISIONS!



DISCUSSION

POLICY

Citizen Led Air pollution Reduction in Cities

ClairCity Website
www.claircity.eu

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

ClairCity Associates

(IDEALLY...) WE ARE ALL ON the same page!

COULD WE USE TOOLS LIKE SLACK?

DIALOGUE

CO-ORDINATING OUR EFFORT

LISTEN

CITIZEN LED

WE WANT TO DO THE RIGHT THING BUT WE CAN'T!

PEOPLE CREATE POLLUTION NOT TECHNOLOGY!

LOOK AT CITY LEVEL

Individual Citizen

EXAMINE THE roles

ORGANISATIONS, INDUSTRY

LOCAL GOVERNMENT

THEY MIGHT HAVE A BIG IMPACT!

LOOK AT THE LIKELY CHANGES

MEANINGFUL NUMBERS

WE ARE THE...

OUTPUTS

QUANTIFICATION

city database

SCIENTIFIC BASIS

DATA

ACTIVITY MODELS

IMPACT

Quality of life

sustainable lifestyles

ESTABLISH CONTACTS

POLICY & GOVERNANCE

CITY POLICY PACKAGES

BASELINE & SWOT ANALYSIS

EMISSION FOOTPRINTING REPORTS

POLICY WORKSHOPS

HOW TO INTEGRATE citizen behaviour into POLICY MAKING

DECIDING HOW WE LIVE TOGETHER FOR THE FUTURE

CITY POPULATIONS

UP BY **70%** by 2050

THIS PUTS A LOT OF PRESSURE

not every city is the same!

THESE CITIES REPRESENT VARIETY

OUR PARTNER CITIES:



FUNDED BY HORIZON 2020

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

GRAPHIC RECORDING BY LAURA - WWW.AURALABS.CO.UK



Thank you

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Regional Environmental Center for
Central and Eastern Europe

www.rec.org

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