



ClairCity received funding for the European Union's Horizon 2020 research and innovation programme under grant No. 689289.



WeCount has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 872743.

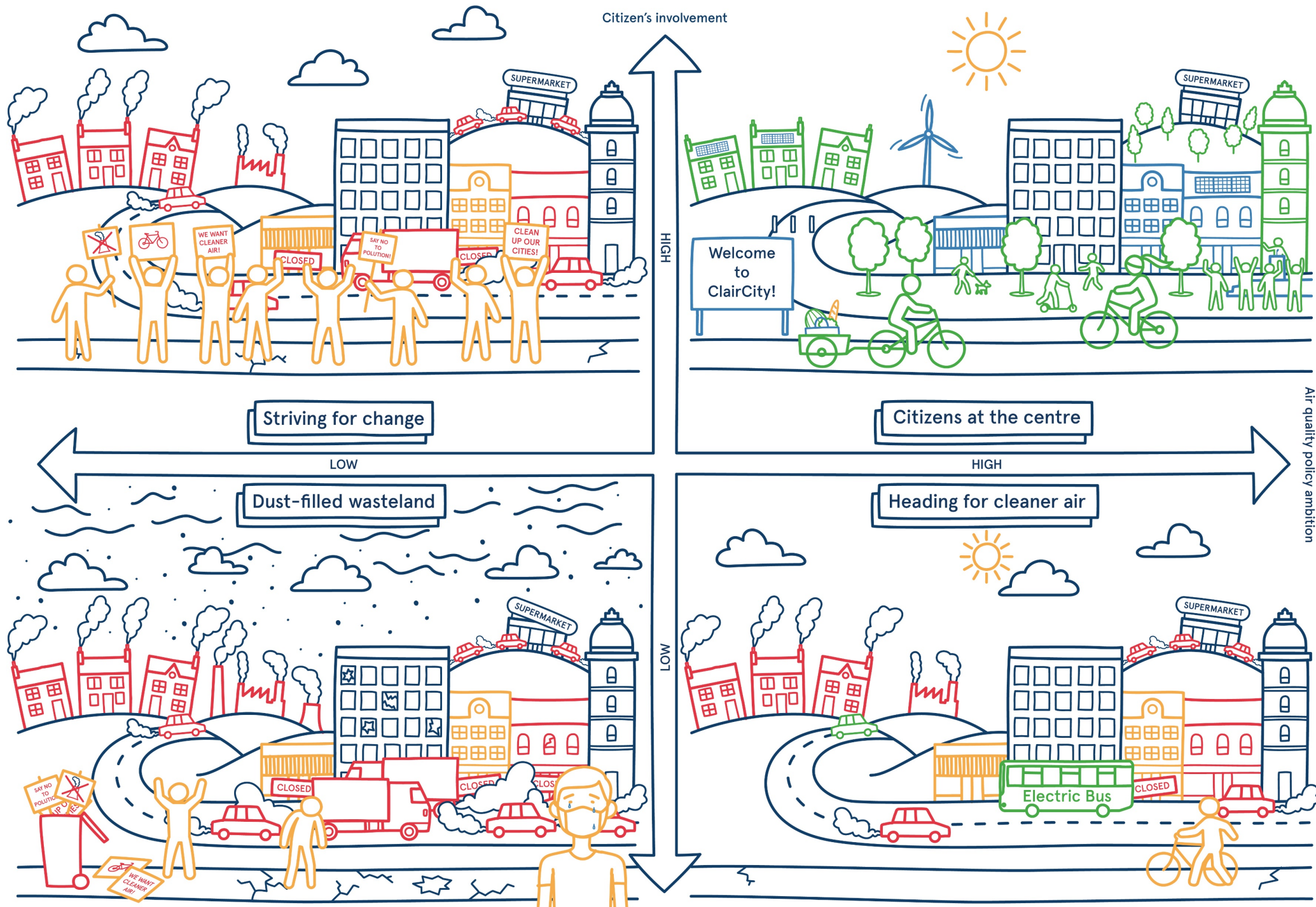


Inform, Involve, Empower – experiences of citizen engagement from ClairCity and WeCount

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Which future do you want to help create?



How to engage: the Community Engagement Continuum

Inform

To provide stakeholders with balanced and objective information to assist them in understanding the problem, alternatives and solutions.

"Here's what's happening"



Consult

To obtain stakeholder feedback on analysis, alternatives and/or decisions.

"Here are some options, what do you think?"



Involve

To work directly with stakeholders throughout the process to ensure that their concerns and aspirations are consistently understood.

"Here's a problem, what ideas do you have?"



Collaborate

To partner with stakeholders in each aspect of the decision from development to solution.

"Let's work together to solve the problem"



Empower

Shared leadership of community-led projects with final decision-making at the community level

"You care about this issue and are leading an initiative, how can we support you?"



Ways to engage

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
<p>Website, leaflets, talks, videos, Infographics, social media, advertising, media, presentations, exhibitions</p>	<p>Polls, voting, online consultations, paper surveys, interviews, focus groups, online forums, Social media discussions, Workshops, door-to-door,</p>	<p>Crowdsourcing Ideas, community mapping, digital storytelling, design charette, mind mapping, visioning</p>	<p>Large group meetings, document co-creation, online communities, open space, working groups</p>	<p>Decision-making platform, public advisory committee, citizen juries, citizen communities , community indicator projects, Asset-based</p>



Inform: 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.



WHAT IS AIR POLLUTION AND HOW DOES IT AFFECT US?

AIR POLLUTION



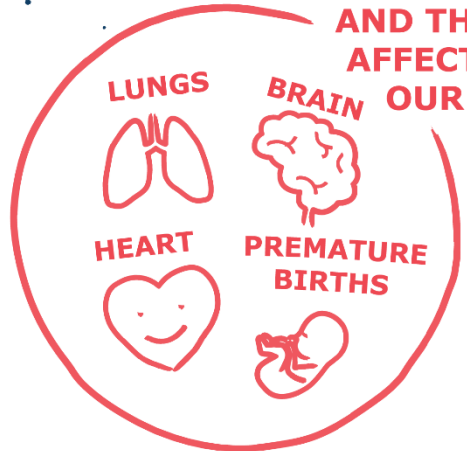
SOOT
DUST

PM_{2.5} PM₁₀

WE
BREATHE
IT IN



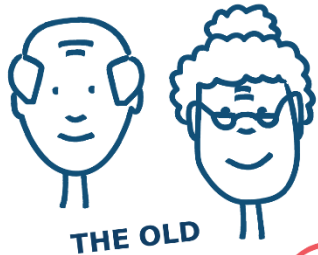
AND THIS
AFFECTS



WHO'S
AT
RISK

ALL OF US!

BUT ESPECIALLY...



THE OLD



THE
YOUNG

PEOPLE WITH
HEALTH
CONDITIONS



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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.



Climate change – what's it all about?

Electricity and heating



Using more than we need

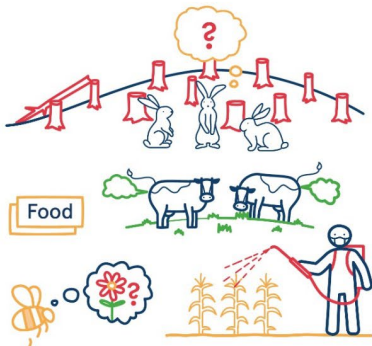


Many of our daily actions result in burning fossil fuels – when we drive our cars, fire up a gas boiler, or use electricity from non-renewable sources

Our actions



Food



Transport



Industry



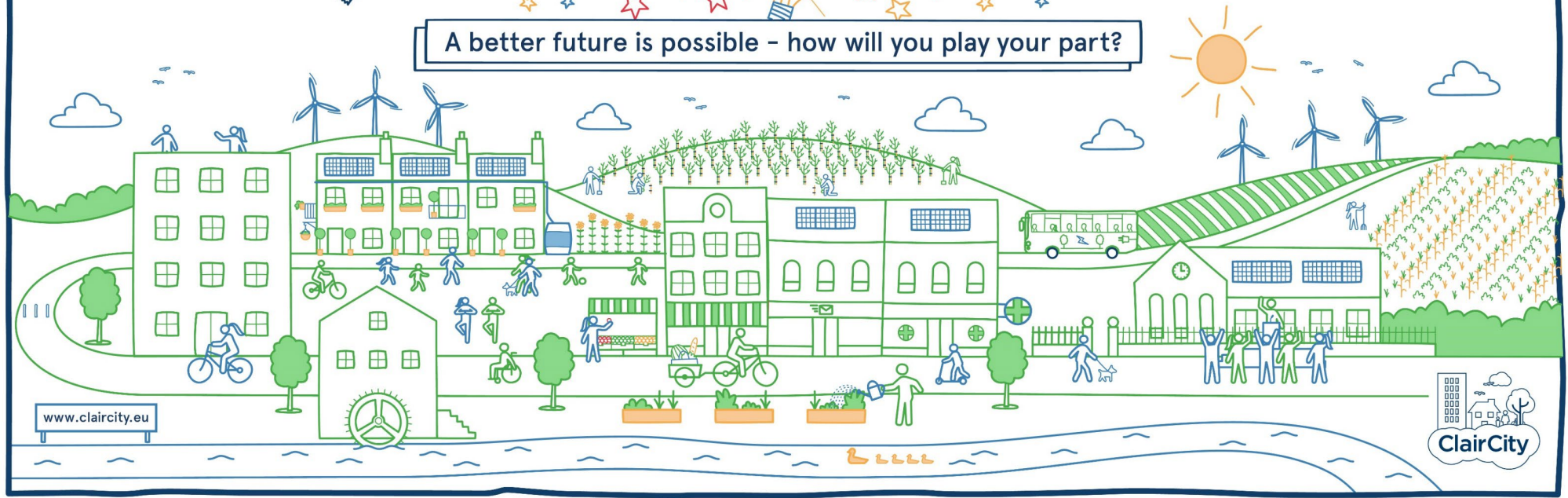
The consequences

These activities produce greenhouse gases like carbon emissions and methane. The gases form a layer which traps heat, increasing global temperatures and causing climate chaos



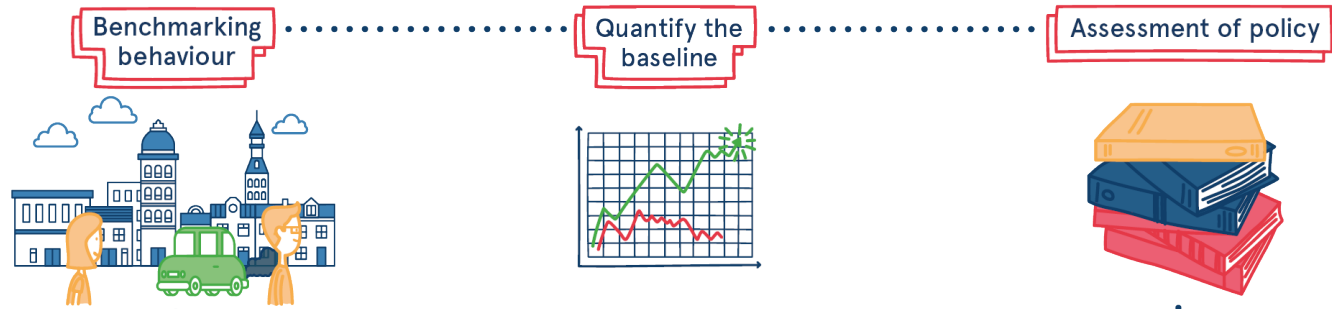
We need to change our behaviours now to reduce the impacts

A better future is possible – how will you play your part?

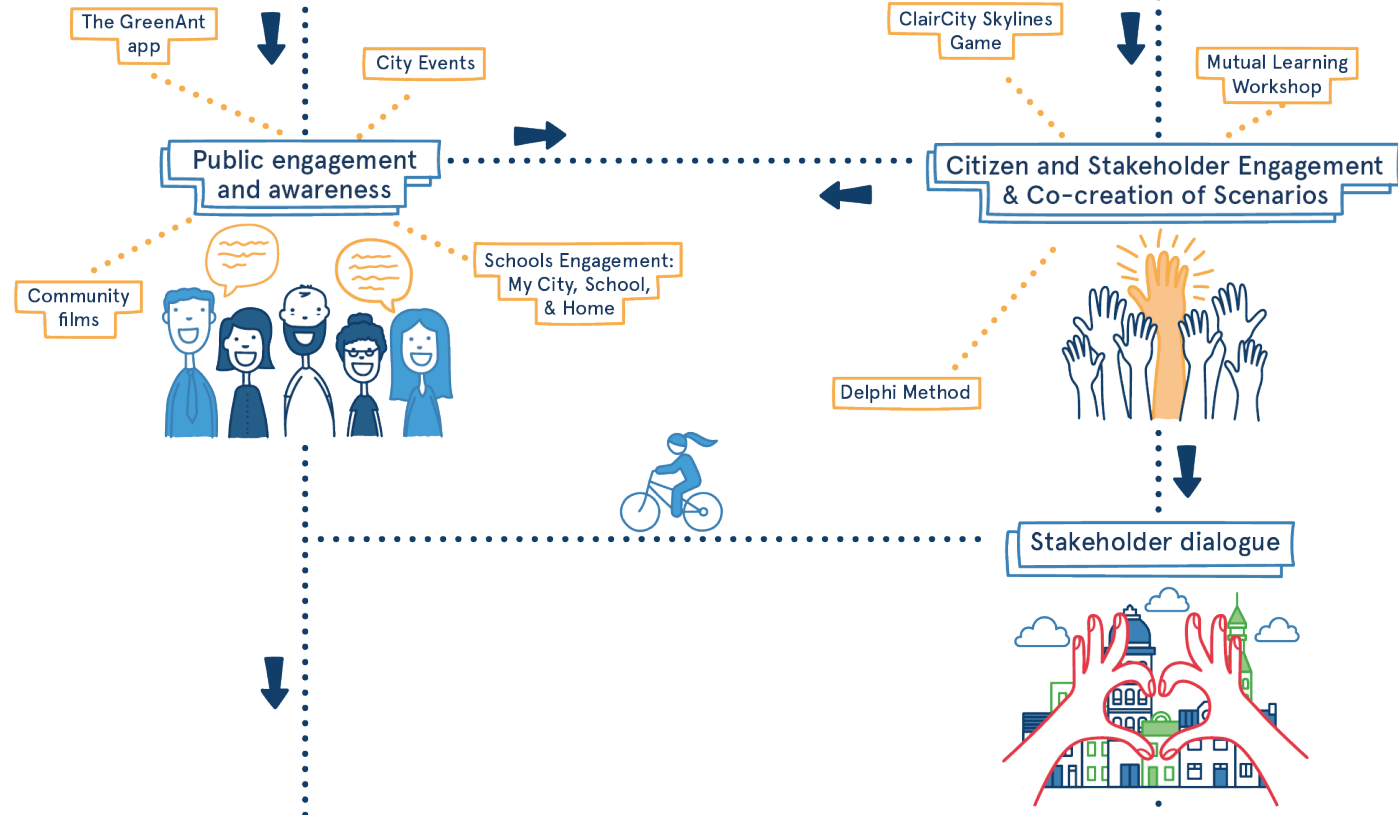


How the ClairCity process engages with a city & its citizens

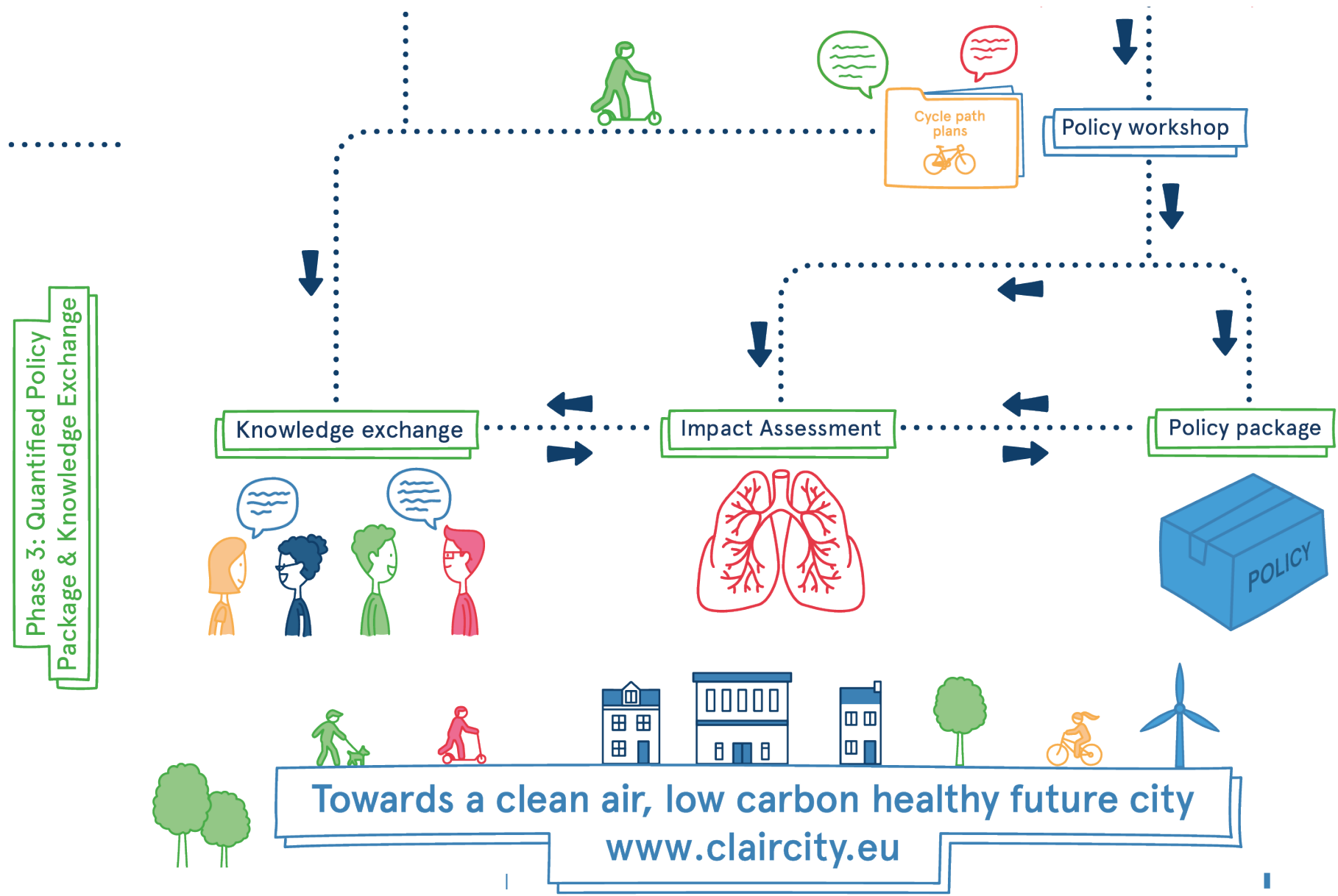
Phase 1: Establish the Baseline Evidence



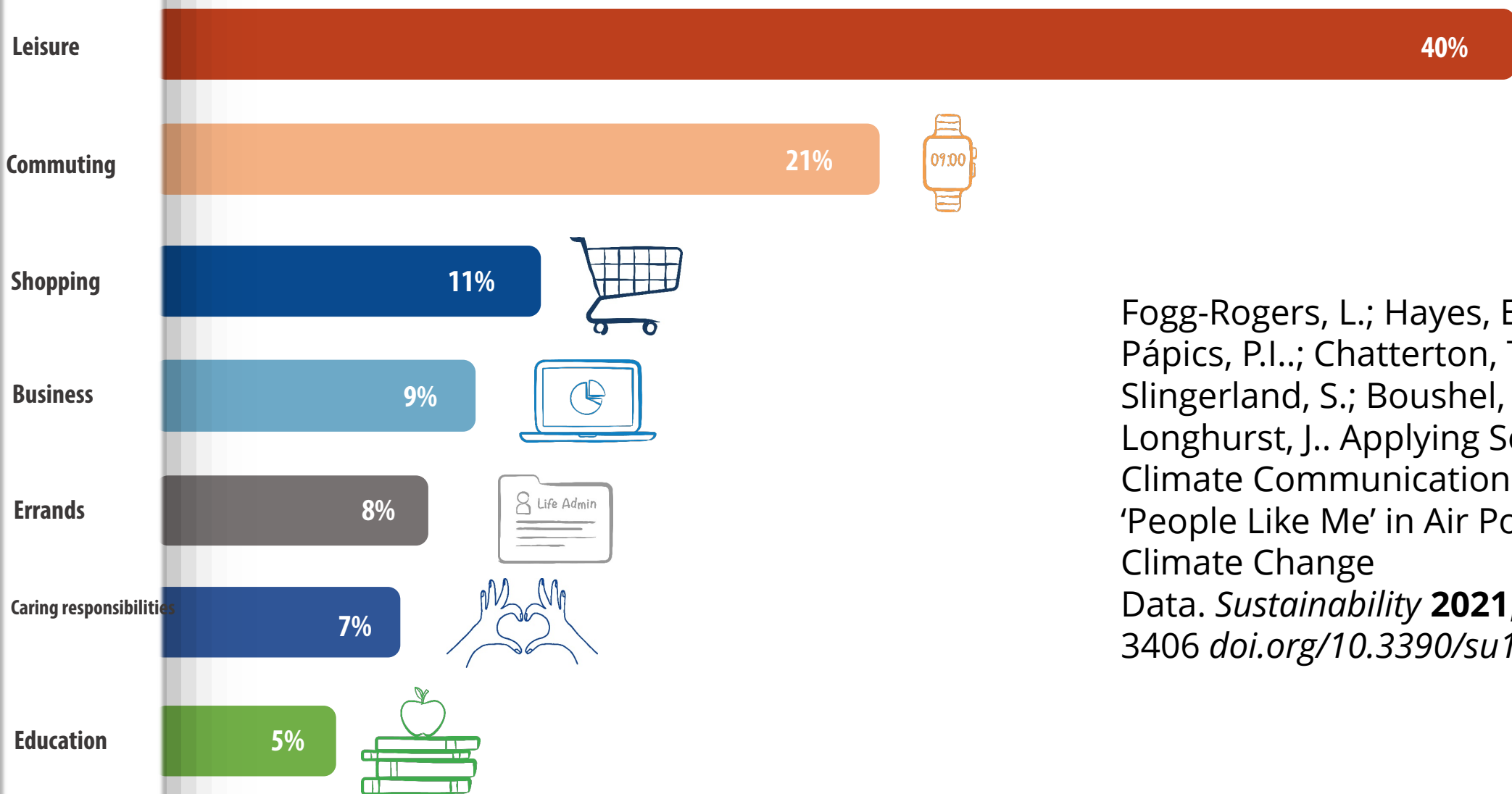
Phase 2: Citizen and Stakeholder Engagement & Co-creation of Scenarios



How the ClairCity process engages with a city & its citizens



Baseline reports e.g. why we travel... relative distance contribution of our travel activities in Bristol

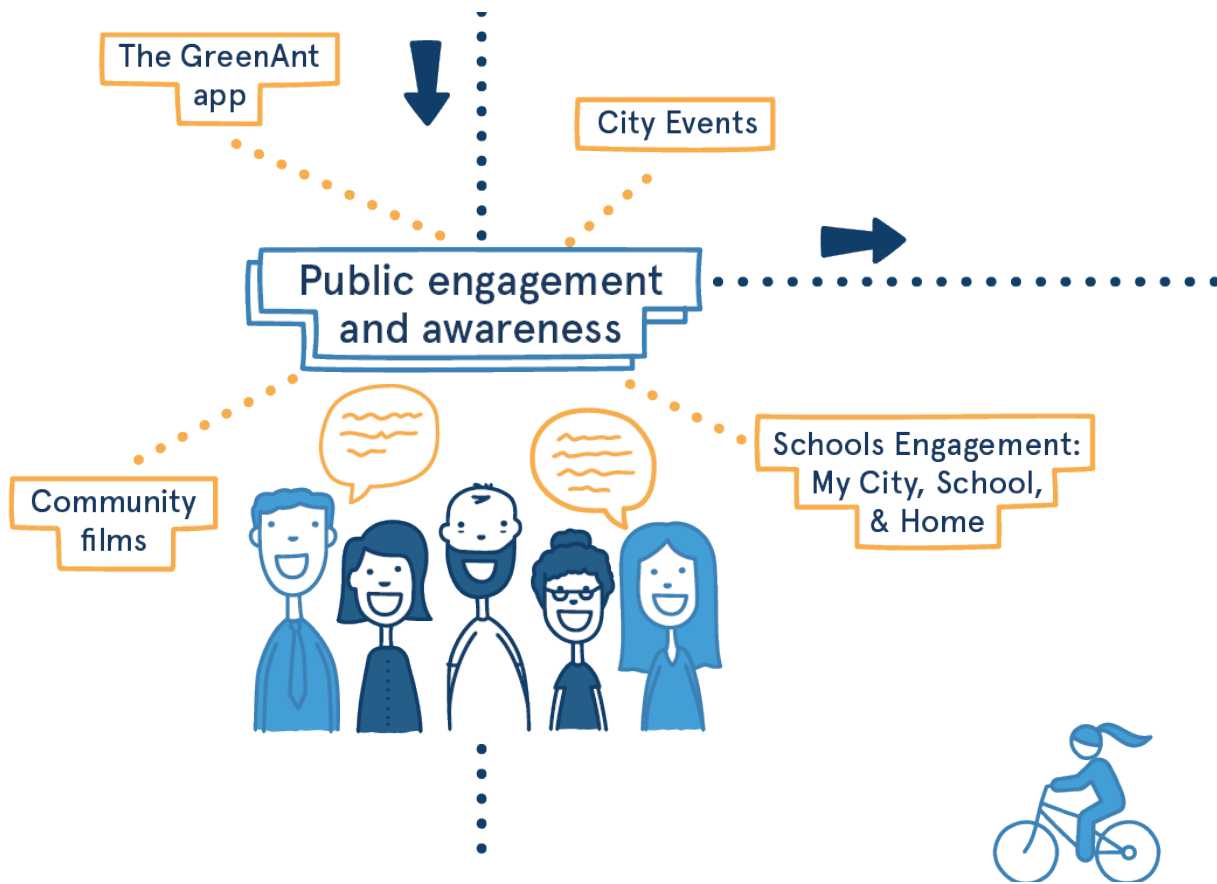


Fogg-Rogers, L.; Hayes, E.; Vanherle, K.; Pápics, P.I.; Chatterton, T.; Barnes, J.; Slingerland, S.; Boushel, C.; Laggan, S.; Longhurst, J.. Applying Social Learning to Climate Communications—Visualising ‘People Like Me’ in Air Pollution and Climate Change
Data. *Sustainability* **2021**, *13*(6) 3406 doi.org/10.3390/su13063406

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

Relative % contribution

Consult and Involve



Community films



Schools Engagement:



City Events

Engagement tools

ClairCity Skylines



Delphi Method



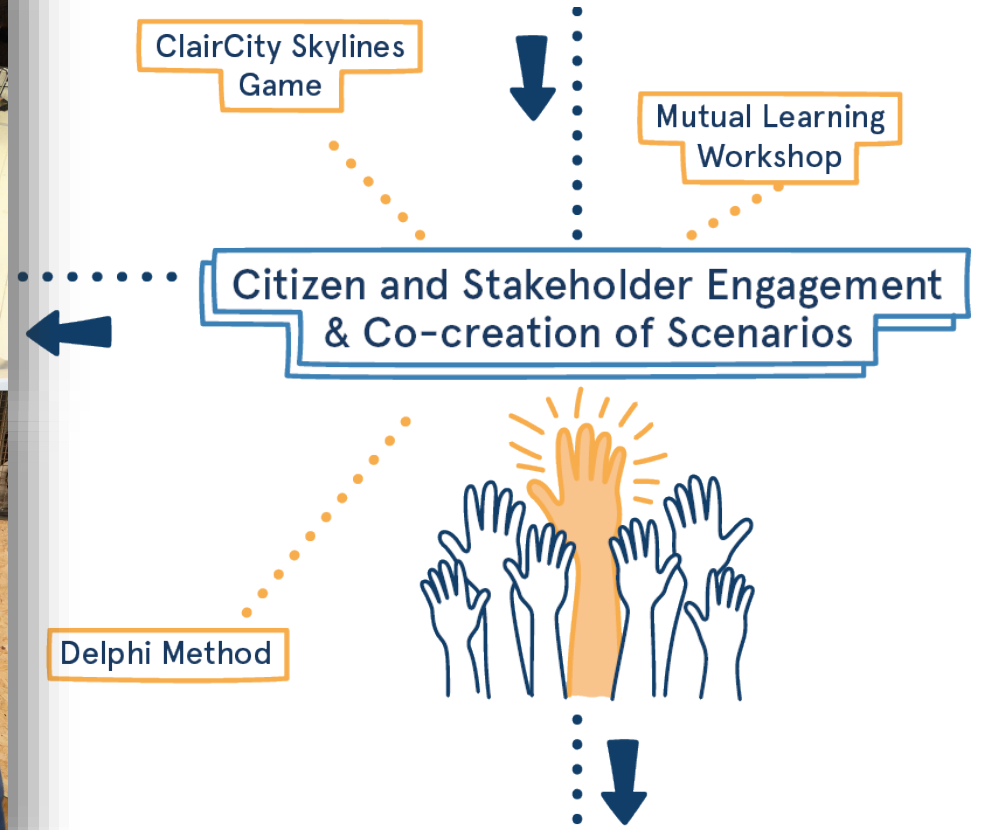
ClairCity Skylines Game

Mutual Learning Workshop

Citizen and Stakeholder Engagement & Co-creation of Scenarios

Delphi Method

Mutual Learning Workshop





ClairCity results

818,736
citizens
involved across
6 cities and
regions

770,253
Twitter
impressions



5,801
YouTube
video views



1,418
Facebook
followers



33,678
Website
visitors



4887
citizens involved
in Delphi
process



82
Policy makers
consulted



132
stakeholders
involved in Mutual
Learning Workshop



65
Older people
filmed



8302
direct
engagements

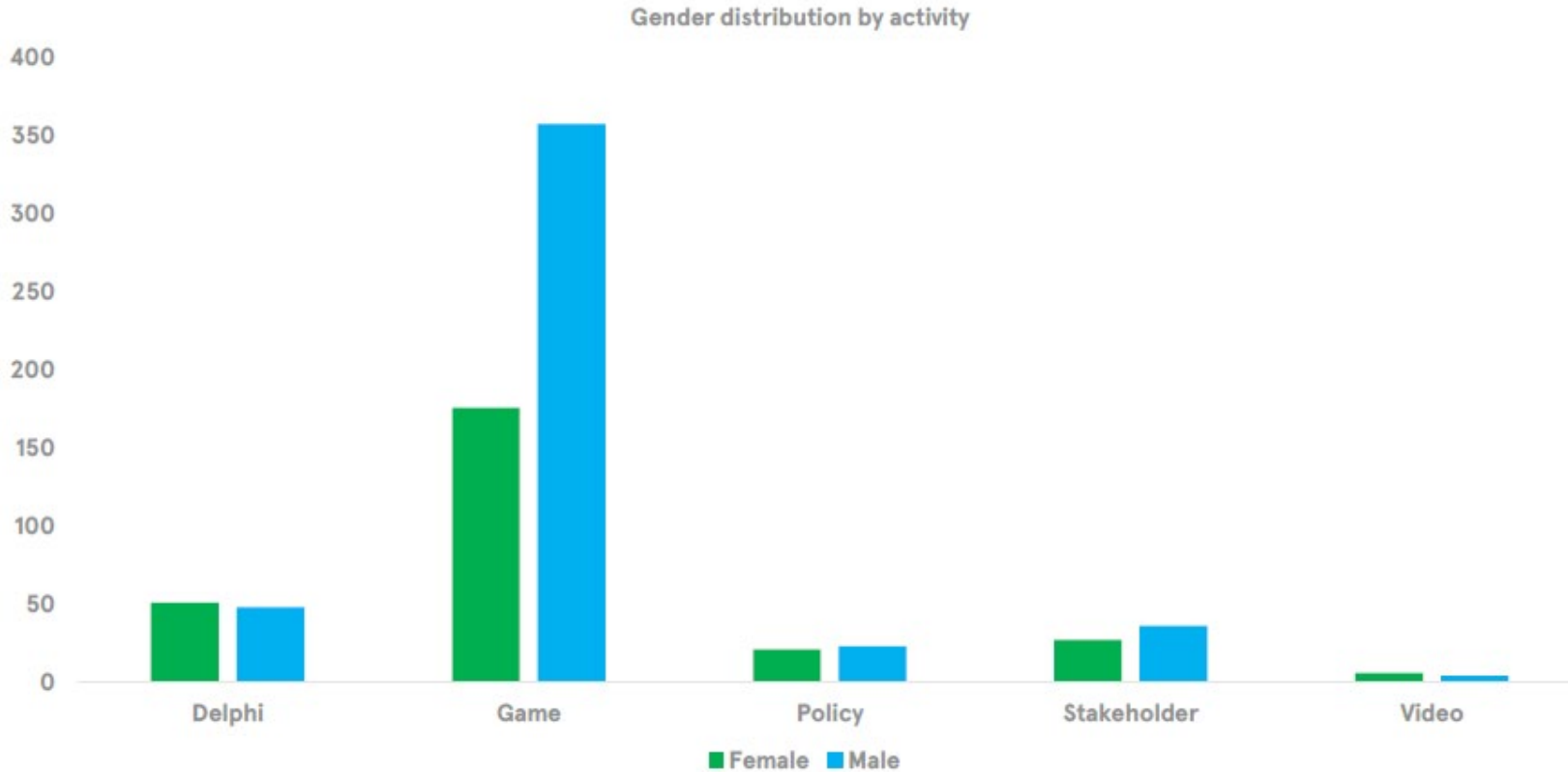
>1000
children engaged
in public events
and lessons



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



Different activities needed to appeal to different ages, genders, and communities



M. Sardo, S. Laggan, C. Boushel, and L. Fogg Rogers, “Citizen-led air pollution reduction in cities (ClairCity) Final evaluation report,” 2020. <https://uwe-repository.worktribe.com/output/6017473/citizen-led-air-pollution-reduction-in-cities-claircity-final-evaluation-report>



- the more participants understanding had improved, the more likely they were to change their behaviour



- the more participants enjoyed the activity, the more their understanding of air quality improved



- the younger the participants, the more likely they were to say that they enjoyed the activity

Collaborate – citizens want ambitious policies designed with their needs in mind

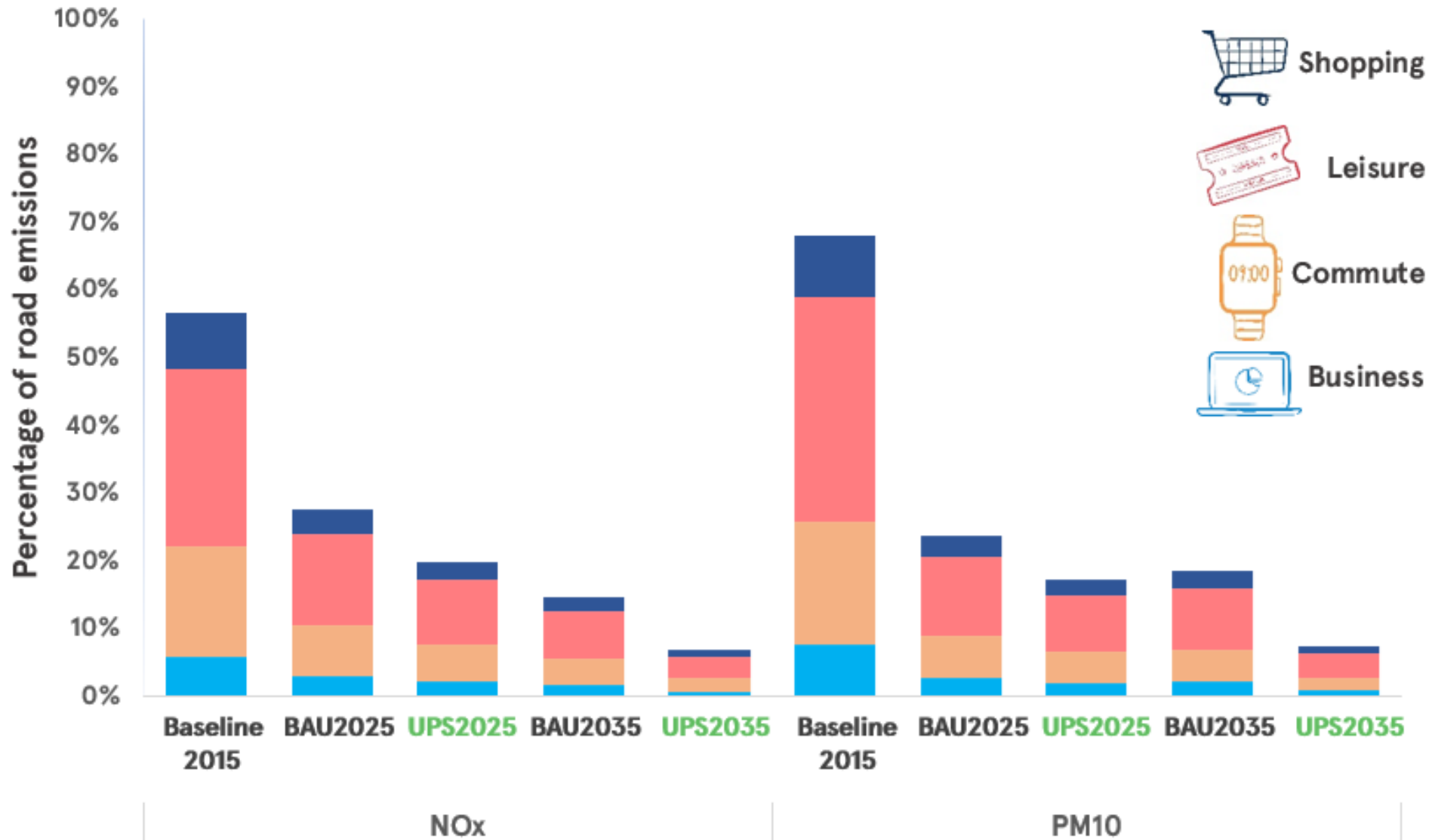
Bristol's top five Citizen-led clean air policies



- 1. Ban/phase out polluting vehicles**
- 2. Make buses greener and cleaner**
- 3. Make public transport more affordable**
- 4. Create alternatives to car use through better walking and cycling infrastructure**
- 5. Reduce vehicle road space and increase public transport space**



Road transport NOx and PM10 emissions scenarios by motive



Fogg-Rogers, L.; Hayes, E.; Vanherle, K.; Pápics, P.I.; Chatterton, T.; Barnes, J.; Slingerland, S.; Boushel, C.; Laggan, S.; Longhurst, J.. Applying Social Learning to Climate Communications— Visualising ‘People Like Me’ in Air Pollution and Climate Change Data. *Sustainability* 2021, 13(6) 3406 doi.org/10.3390/su13063406

Citizens were more ambitious than Business as Usual

NOx and PM10 emissions by scenario and Motive

Community resources



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

@Claircity

@WecountH

www.claircity.eu/take-action/educator



Engaging citizens in clean air decision making

Findings from the evaluation of ClairCity



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

Collaborate and Empower



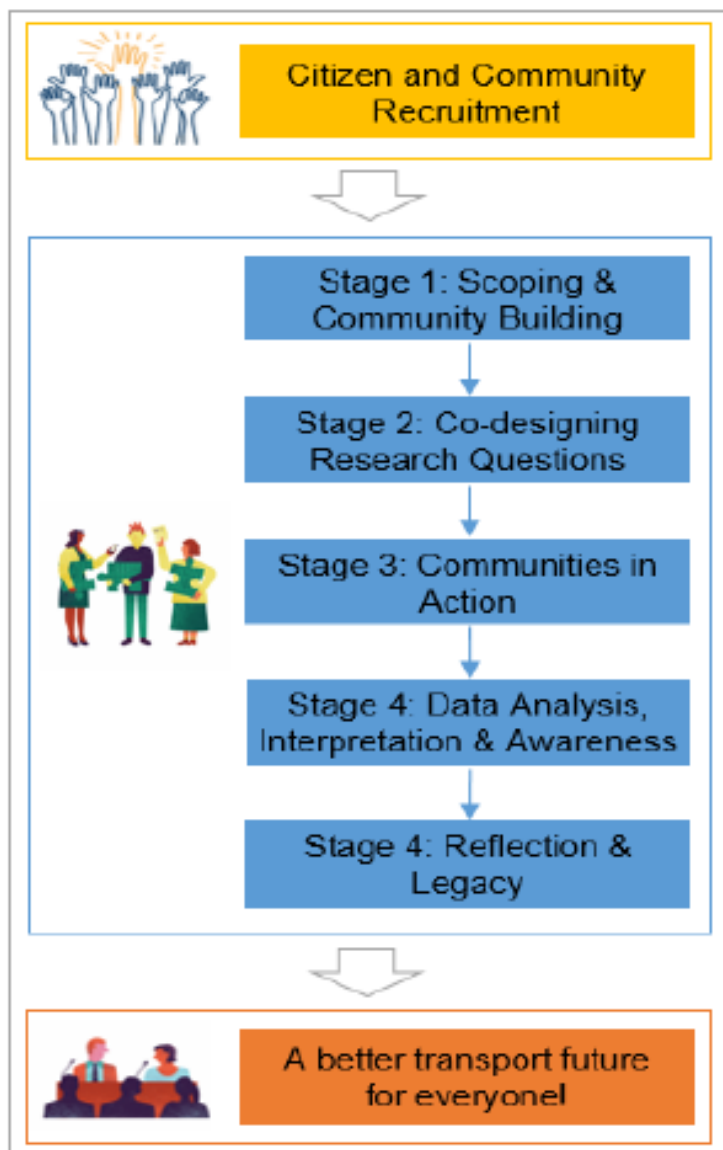
What is WeCount?

- Road traffic and urban mobility is a hot topic with plenty opinionated and even militant citizens already engaged. Although the younger voice is often not heard.
- The aim is **work with citizens to quantify local road transport, produce new knowledge on local mobility, and co-create informed solutions to tackle various urban mobility challenges** such as speeding, rat-running, peak episodes, air pollution, active travel etc.
- The WeCount project will carry out five different pilot studies in six EU cities / regions:
 - Leuven, Belgium;
 - Madrid / Barcelona, Spain;
 - Ljubljana, Slovenia;
 - Dublin, Ireland; and
 - Cardiff, UK.

Community traffic sensing



- A Telraam sensor is placed in an upstairs window with a clear view of the road. www.telraam.net
- The sensor, via an algorithm in a Raspberry Pi, counts cars, large vehicles, cyclists, pedestrians and can also assess car speeds.
- The data is open access and can be viewed on the sensor data dashboard.
- We work with local communities to establish these sensor networks in their neighbourhoods.
- We facilitate local workshops and discussions to utilise this data and local knowledge to address the key challenge(s) that the community is interested in.



What is the role of the citizen in the process?

- **Stage 1:** Bringing communities together.
- **Stage 2:** How can WeCount help answer my local transport problem?
- **Stage 3:** Communities in Action
- **Stage 4:** Analyse and discuss among stakeholders to identify areas for action and impact.
- **Stage 5:** Did we achieve our goals? What transferrable lessons? What are the next steps?



“WeCount, WeAnalyse, WeAdvocate”

Success story

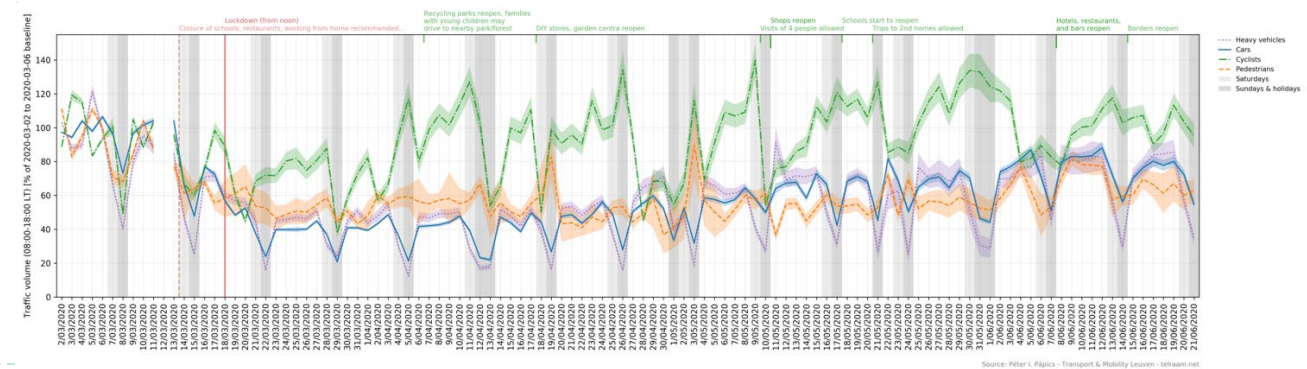
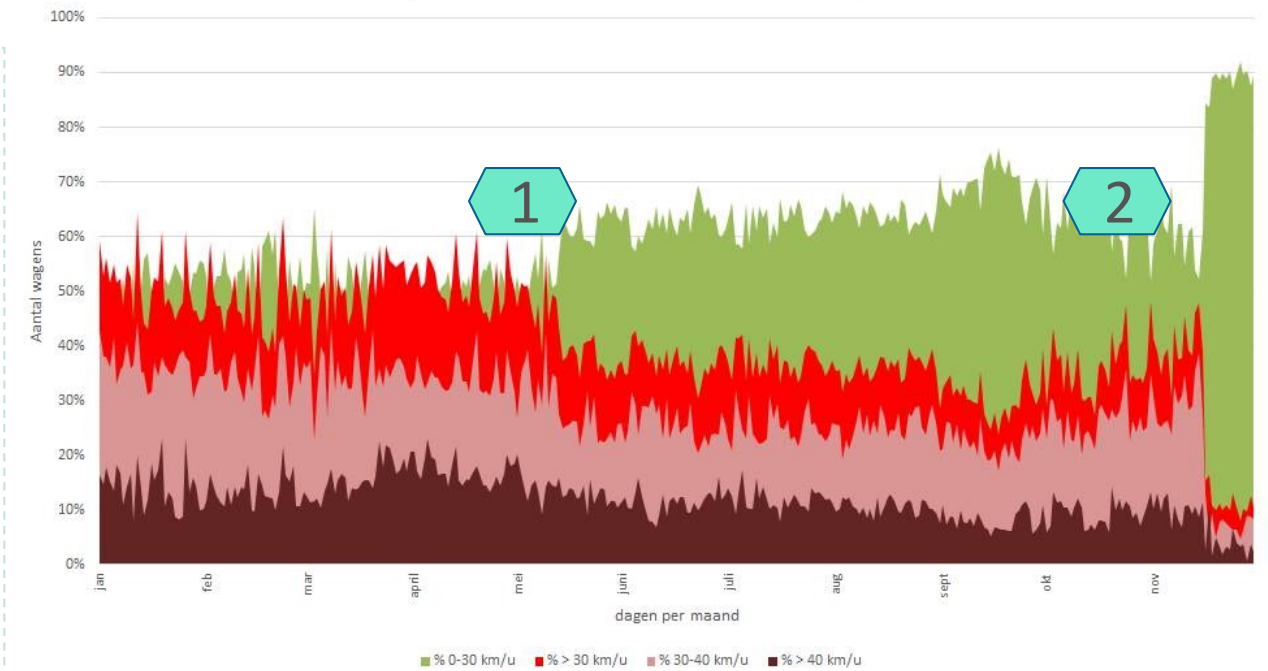
Speed analysis and policy change by participating citizen

- ⇒ Citizen installed a device to monitor non-compliance of speed limit and used data to convince the local authority to do an intervention to lower the speed of passing cars
- ⇒ 2 interventions: digital speed sign [1] & a speed bump [2], both had significant impact on the speed, as observed by the sensor
- ⇒ Analysis done by a second participating citizen (!)

“Covid-Tracker”

- ⇒ Monitoring the impact of Covid-19 on our mobility, using citizen science data
- ⇒ confirming findings by Google Mobility etc.
- ⇒ adding interesting observations on the use of active travel

Zone 30
 Aantal wagens in % - per dag en per snelheidsklasse
 Brusselsestraat, Leuven, <https://telraam.net/nl/location/34809>
 januari-november 2020



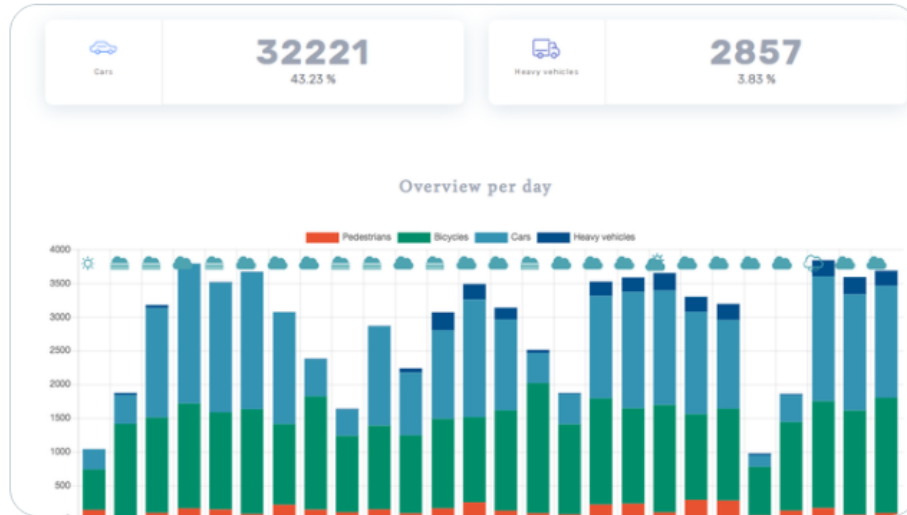
Source: Pieter P. Pappas - Transport & Mobility Leuven - telraam.net

Impact stories

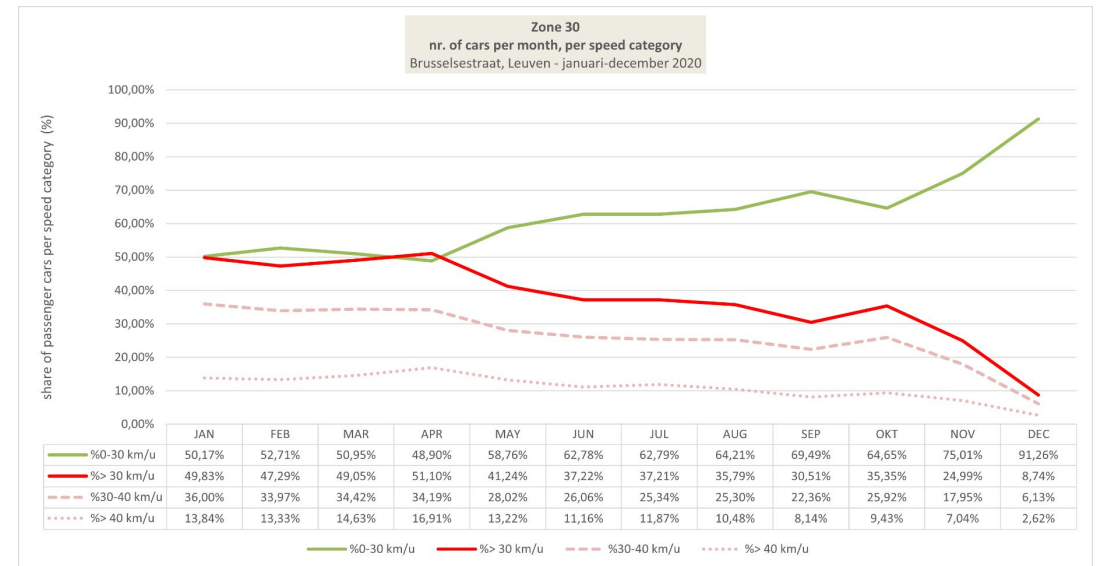


Fumuts Ros de Olano @fumutsrosolano · 28 Dec 2020

Cada mes que passa sense pacificació real a RosDeOlano és un mes amb 32.000 cotxes i 2.850 camions per davant les nostres finestres. És un altre mes amb petits i grans caminant fumuts i eixordats per les voreres de metre d'ample. És un altre mes sense que @Bcn_Gracia ho solucioni



<https://we-count.net//news>



WeCount_Dublin Retweeted

Ardgillan College @ArdgillanCNews · May 31

Our students (and even some teachers) have become #citizenscientists by building and installing @WecountH traffic sensors sent to us by #smartbalbriggan and @f_pilla . They will now spend the summer generating data and knowledge that will help improve mobility in their own areas.

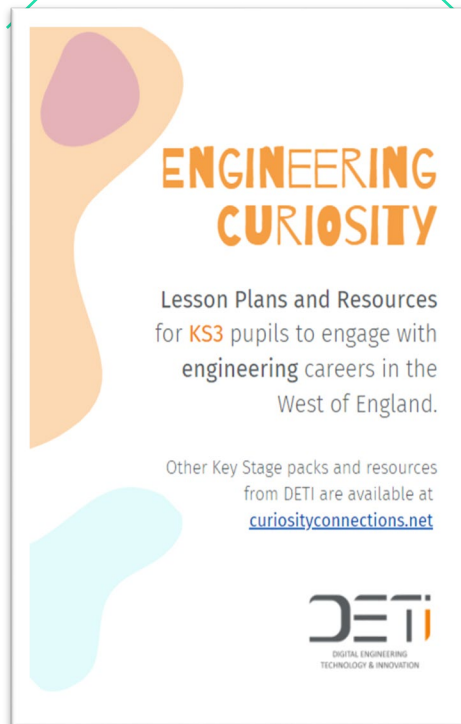
13

33

Sustainable futures series




DIGITAL ENGINEERING
TECHNOLOGY & INNOVATION



ENGINEERING CURIOSITY

Lesson Plans and Resources for **KS3** pupils to engage with engineering careers in the West of England.

Other Key Stage packs and resources from DETI are available at curiosityconnections.net



KS2 & 3

Science, Math, D&T, English




We Make Our Future

Nature-based technological solutions to the climate crisis

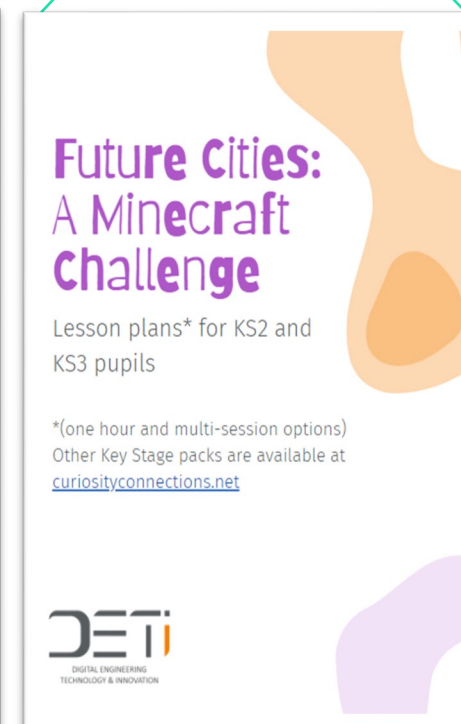
6-week curriculum-linked STEM club for KS4 pupils

This pack is part of DETI's future cities series. All resources available at www.curiosityconnections.net



KS2 & 3


Science, D&T, English, Geography



Future Cities: A Minecraft Challenge

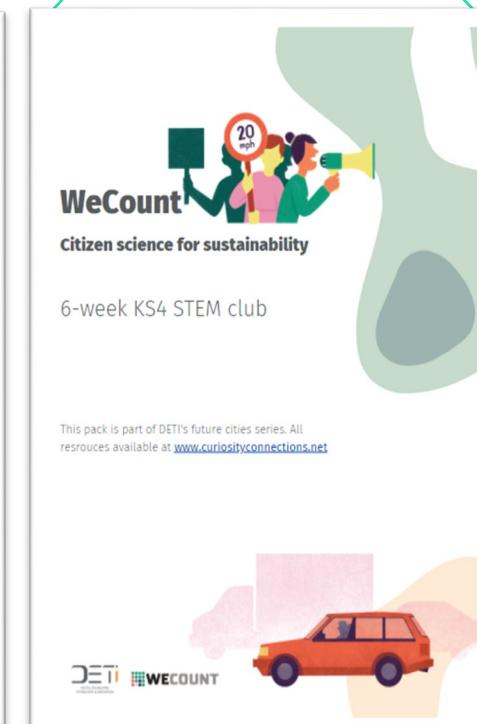
Lesson plans* for KS2 and KS3 pupils

*(one hour and multi-session options)
Other Key Stage packs are available at curiosityconnections.net



KS2 & 3

Science, D&T, English, Geography






WeCount!

Citizen science for sustainability

6-week KS4 STEM club

This pack is part of DETI's future cities series. All resources available at www.curiosityconnections.net



KS2 & KS4

Science, D&T, English, Geography, IT, Maths



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