

# The benefits of proactive citizen engagement: lessons from two EU projects

Prof Enda Hayes

Email:  
[Enda.hayes@uwe.ac.uk](mailto:Enda.hayes@uwe.ac.uk)

Twitter:  
@HayesEnda

Welsh Air Quality  
Seminar

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*“What do I know about Euro Standards!  
I just drive to the shop for milk”*

# Engagement: a 'new' frontier for AQM?

Legislation and guidelines requires us to engage the public.

- UNECE Aarhus Convention 1998
  - access to information, public participation in decision making, access to justice
- Ambient Air Quality Directive (2008/50/EC)
  - Article 19: event information, alert thresholds
  - Article 26 and Annex XVI: public information
- Wales LAQM.PG(W)17 – *"For local communities, including residents and businesses, to play their part in the solution to local air quality challenges, they must first be engaged"*

Common practice to *'provide information'* and *'consult public and stakeholders'*.

Is this really engagement?

But the public landscape is changing.

- Growing environmentalism and activism (e.g. the Greta Thunberg effect, Extinction Rebellion, ClientEarth)
- Impact of socio-economic status - access to data and environmental apathy
- Pathways to evidence – LCS data accuracy, citizen science, Twitter!
- **Does the air quality community still influence the narrative or are we bystanders in a new wave of environmentalism?**

# Has policy / research / media failed?

Failure of policy to bring citizens, communities and organisations on board?

1. **Poor perception of risk:** Issues are presented in abstract, descriptive and analytical formats.
2. **Psychological distance:** Focus on future consequences but costs/health not immediately recognised.
3. **Negative framing:** issues framed against losses to society e.g. higher taxation, reduced consumption, low quality of life etc
4. **Better contextualisation** to allow people to make sense of data in relation to the real world
5. **Overwhelming** people with evidence or are we continually reminding them of the importance of this issues?

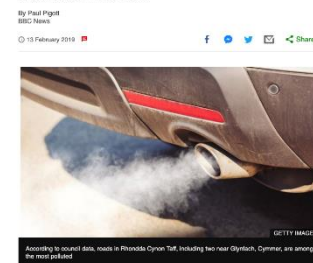
## What does air pollution do to our bodies?



## Watch how air pollution moves across Europe



## Dangerous levels of roadside pollution in Wales 'overlooked'



## Air pollution: How damaging are idling cars and buses?



## Air pollution: Leeds street worst outside London, says campaign



## Air pollution: Residents told to stay on most polluted street



# The 'public' and their 'behaviour'

- No two people are the same!
- Their behaviours are different: spatially, temporally and demographically.
- The factors that influence their behaviour vary: socially, income, flexibility, responsibility

UK Committee on Climate Change, Net Zero, 2019

*"Societal change is required for shifts in consumption patterns and the use of technologies, and the potential implications of how these can be unlocked by policy interventions."*

*"... over 60% of the abatement requires some level of change. They also imply co-benefits in terms of cleaner air and healthier lifestyles."*

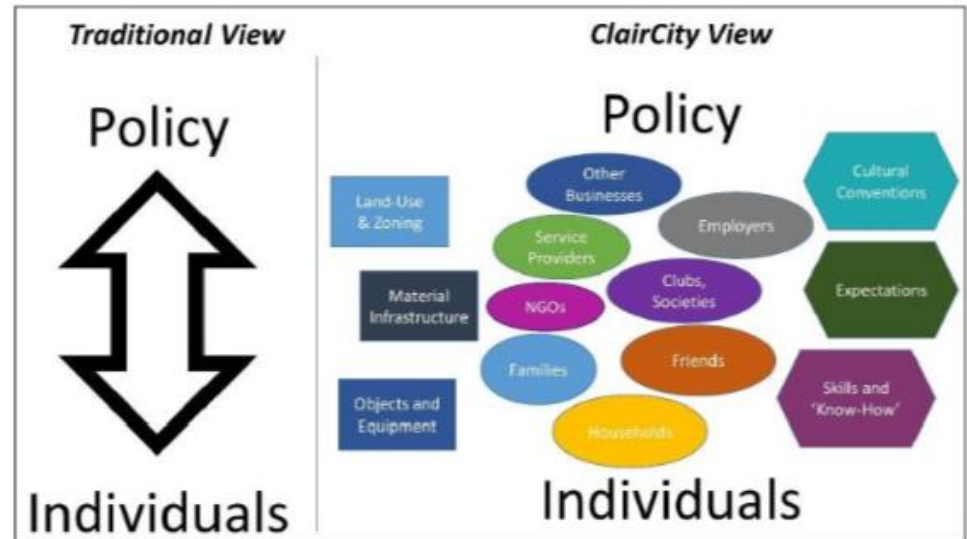
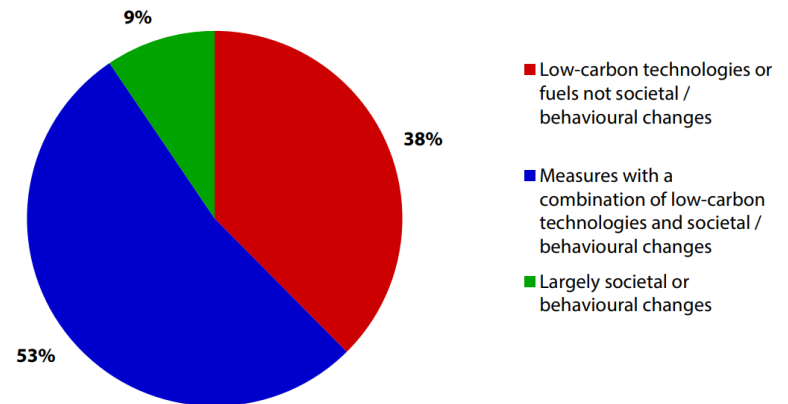
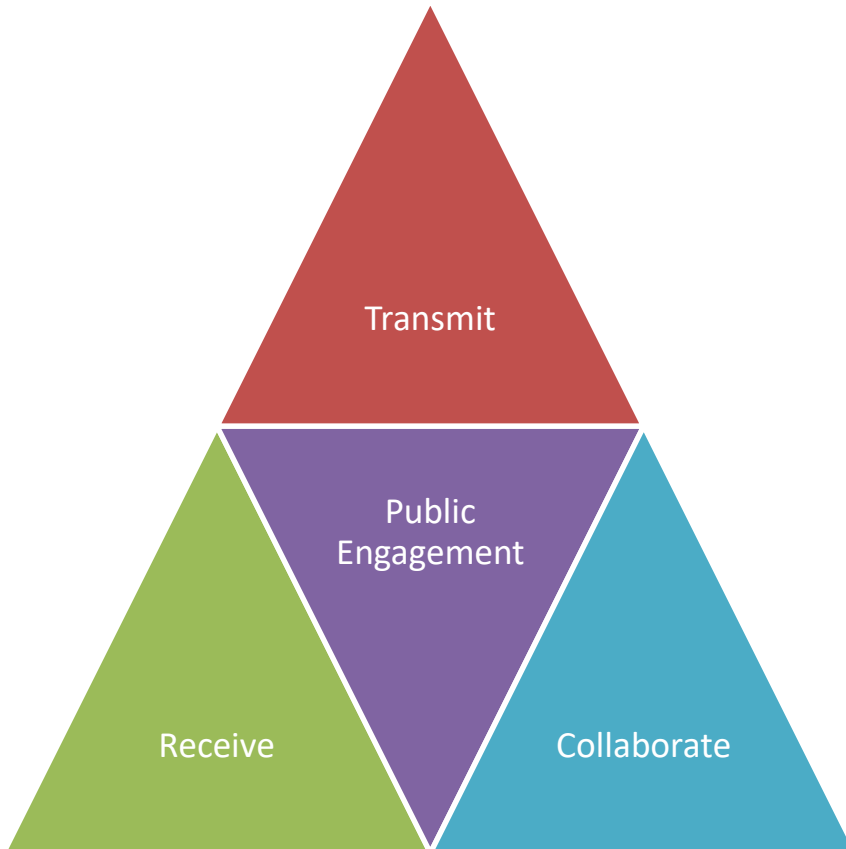


Figure 5.6. Role of societal and behavioural changes in the Further Ambition scenario



Source: CCC analysis.

# Three dimensions of public engagement



## **TRANSMIT**

Inspire, Inform, change, educate, build capacity, inform of influence the decision of others e.g. public awareness event

## **RECEIVE**

Use the skills, experience, knowledge of others to inspire, inform, change educate or build your own capacity or decisions e.g. surveys

## **COLLABORATE**

To collaborate, consider, create or decide something together e.g. consensus building.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 689289.



# ClairCity: Citizen-led Air Pollution Reduction

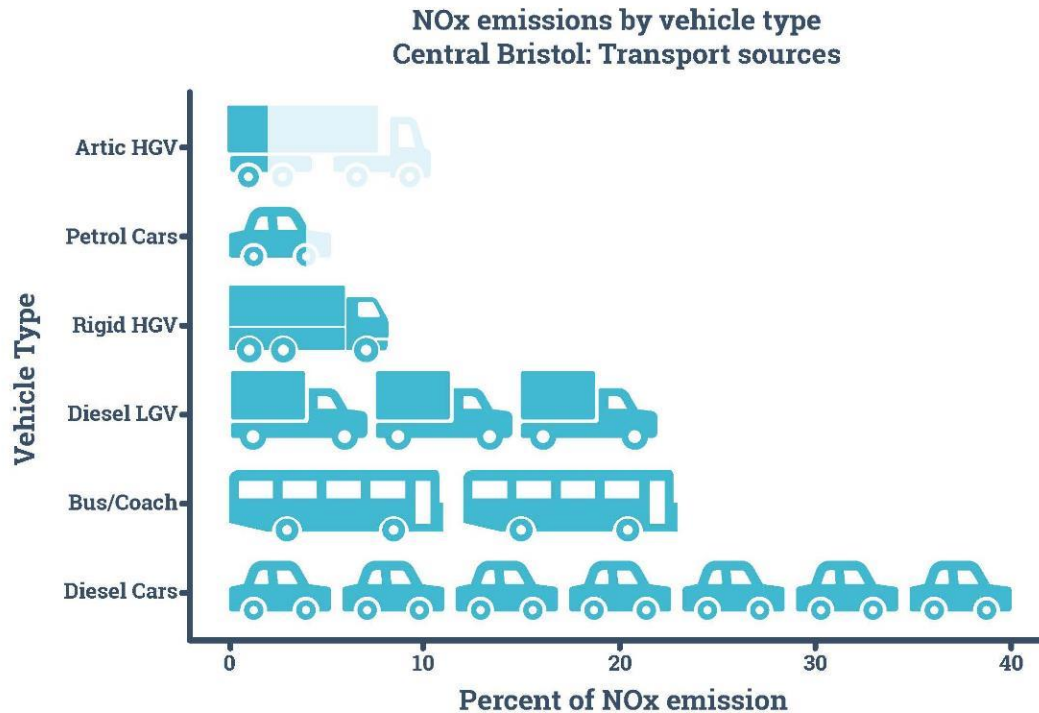
Traditional approaches  
to managing air  
pollution



ClairCity approach to  
managing air pollution

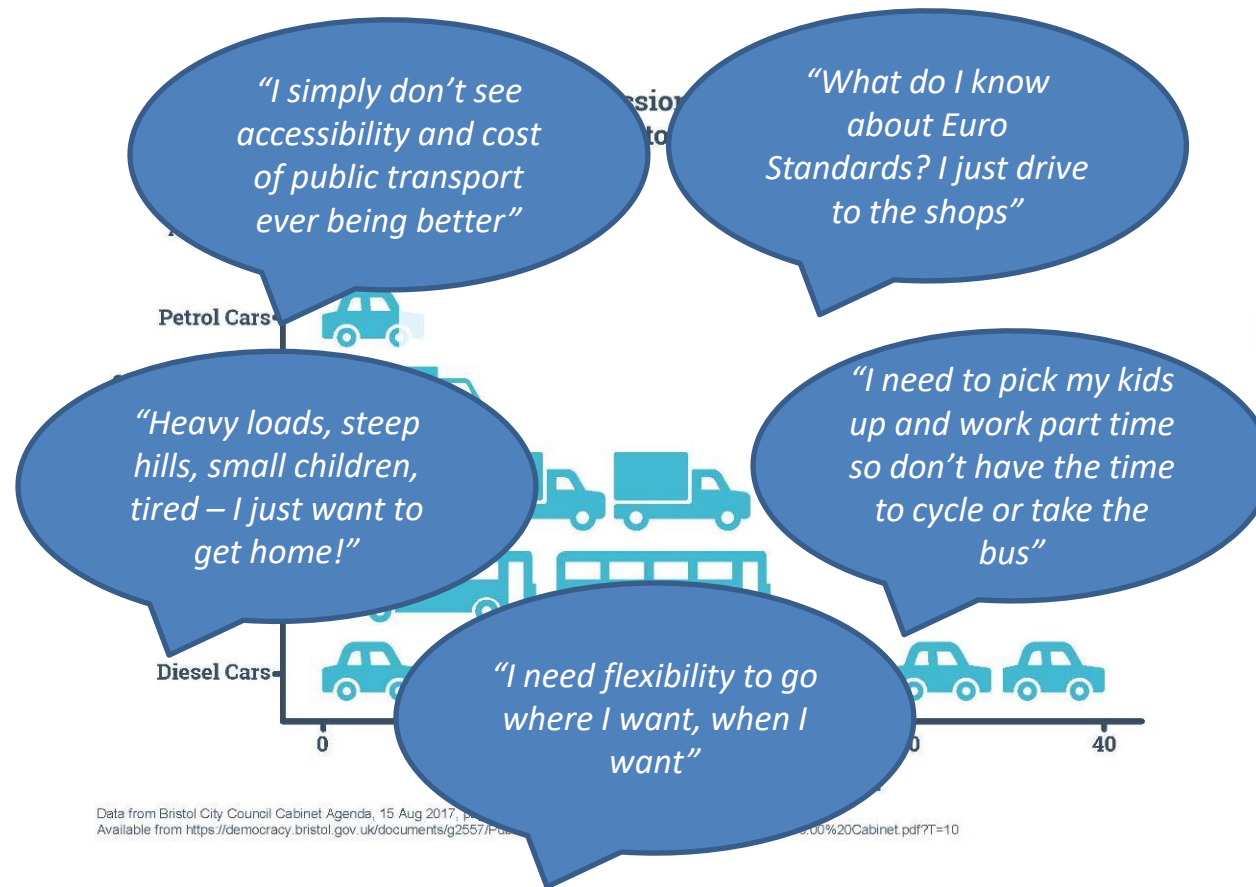


# Are we having the right conversation?

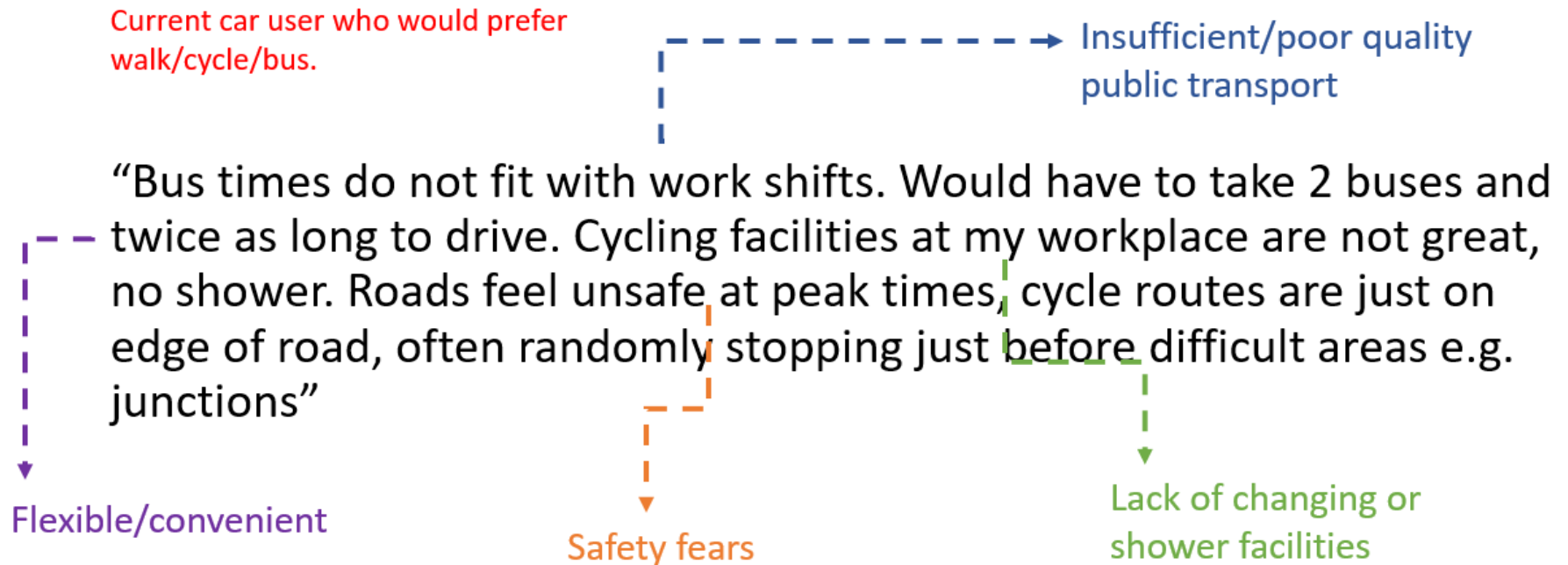


Data from Bristol City Council Cabinet Agenda, 15 Aug 2017, page 105.  
Available from <https://democracy.bristol.gov.uk/documents/g2557/Public%20reports%20pack%2015th-Aug-2017%2016.00%20Cabinet.pdf?T=10>

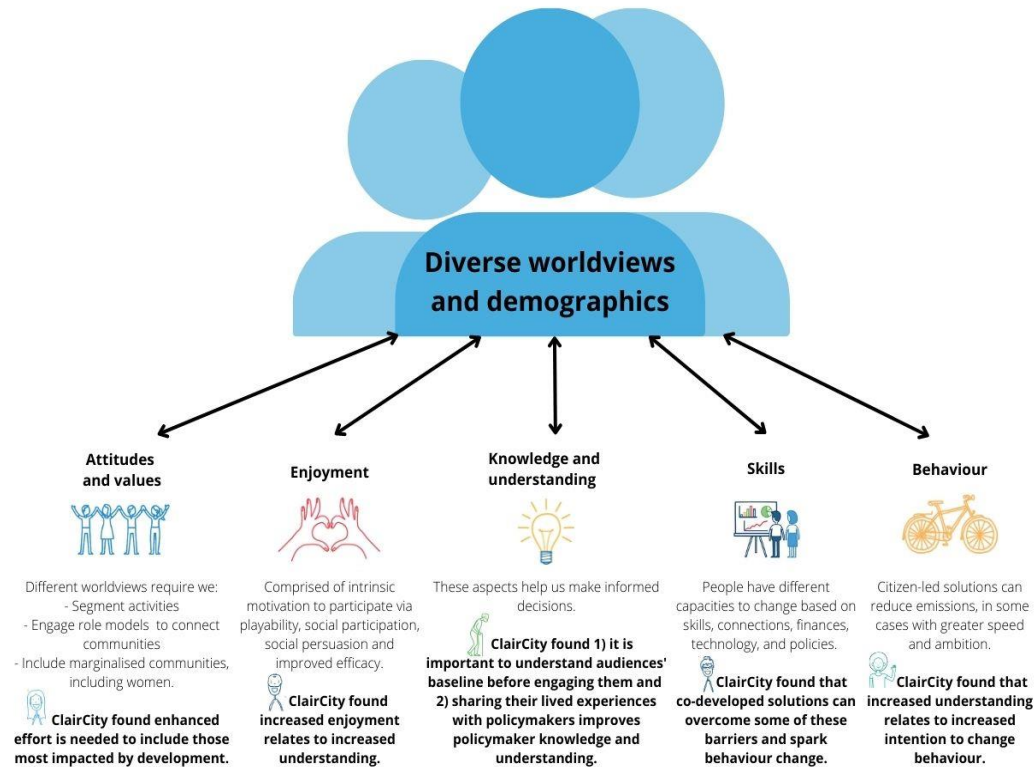
# Are we having the right conversation?



# Why do car users want to change (or not)?



# Citizens at the centre

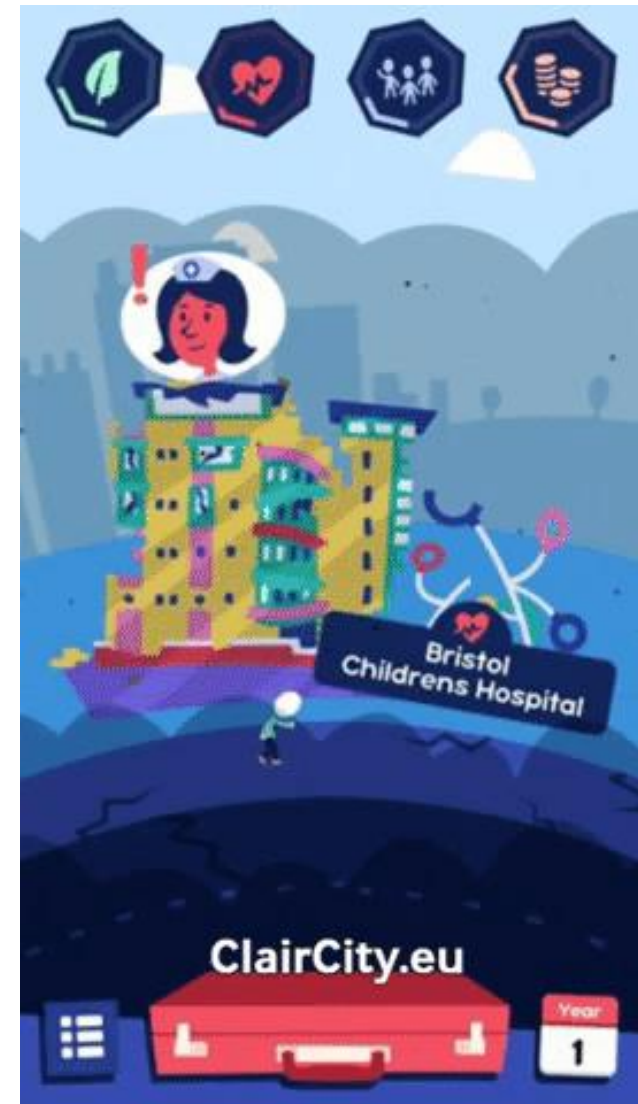
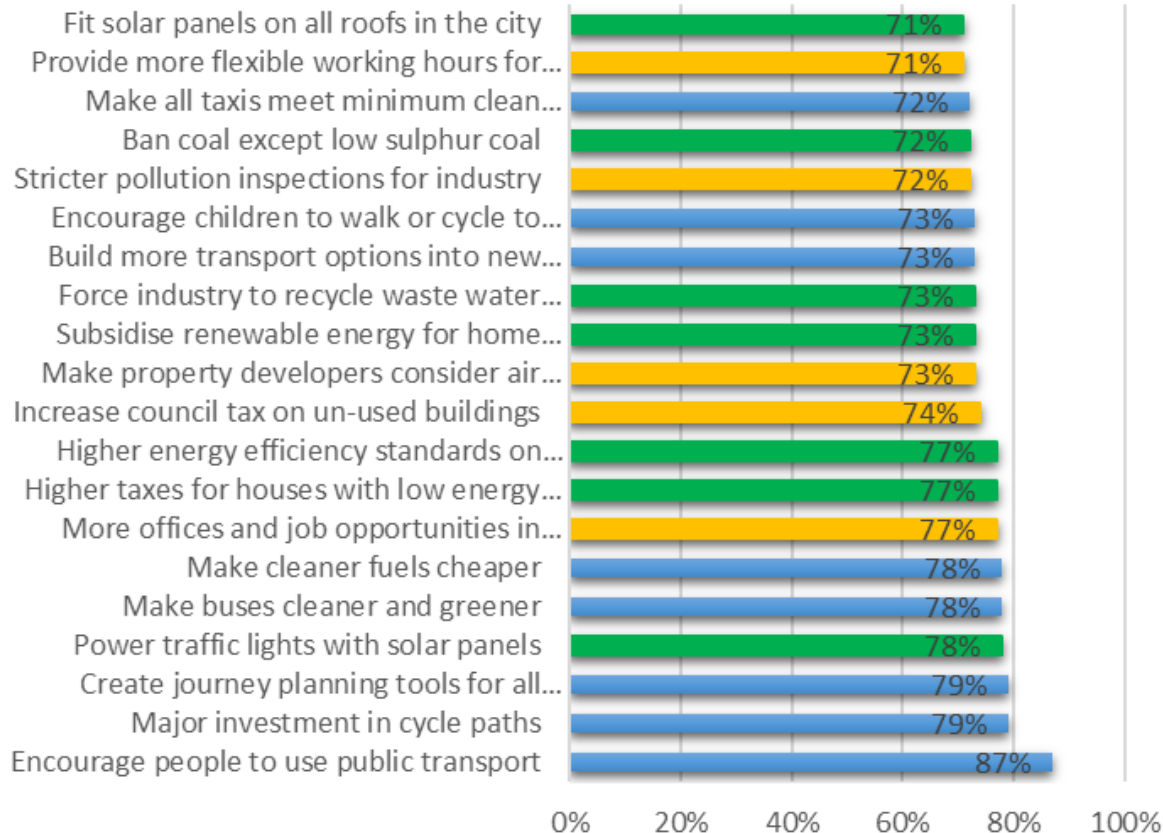


## Engage diverse participatory methods for emissions reductions

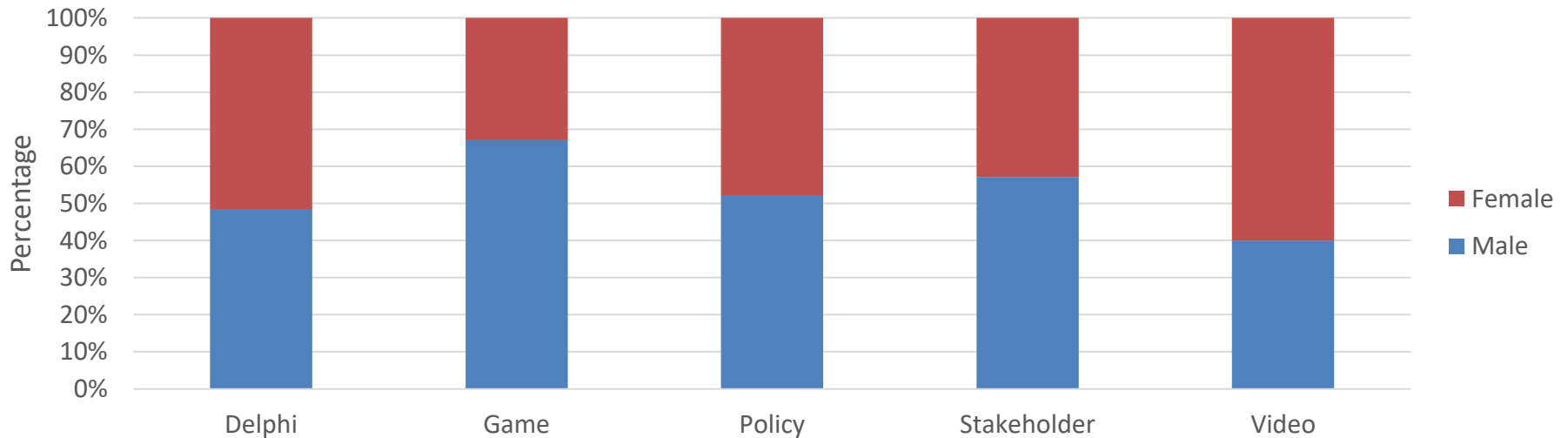
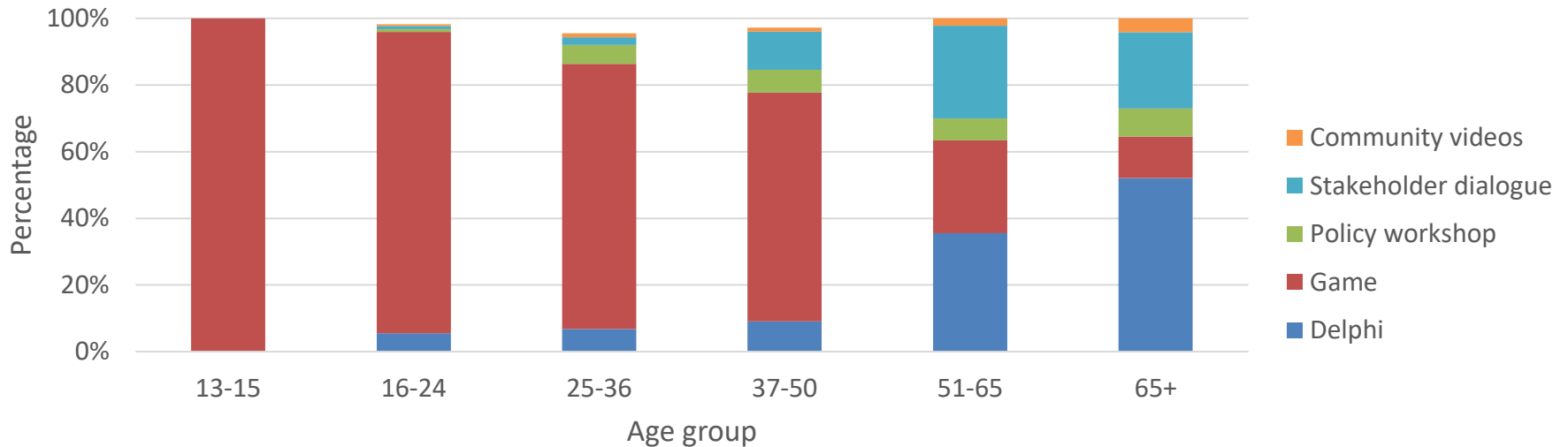


# Making it engaging: ClairCity Skylines

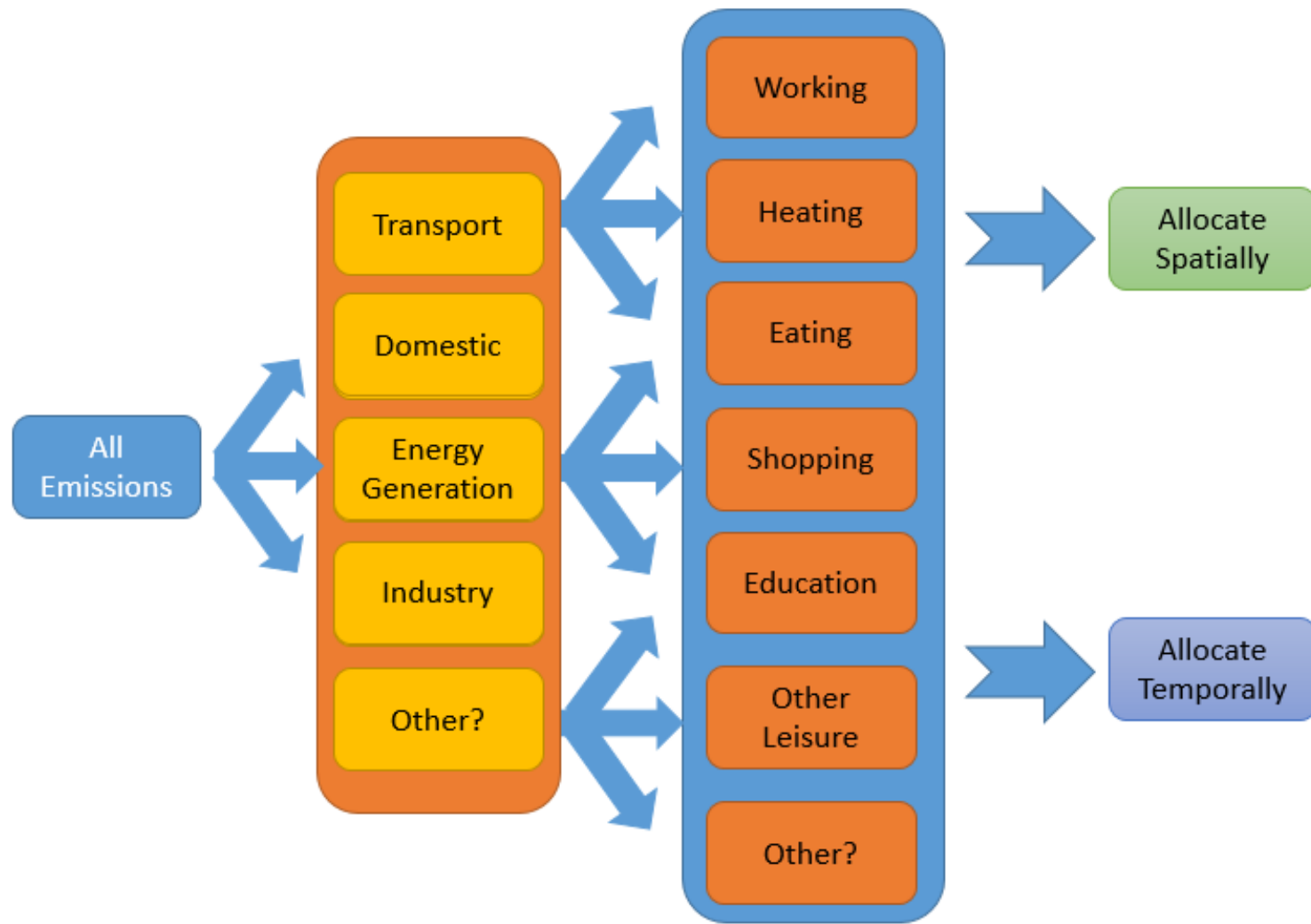
## Bristol Top 20



# Who is engaging?



# Putting 'people' into the data



# Source Apportionment: Motive & Demographic



Car



Bus



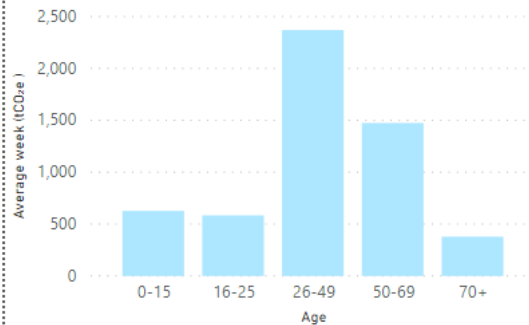
Motorcycle



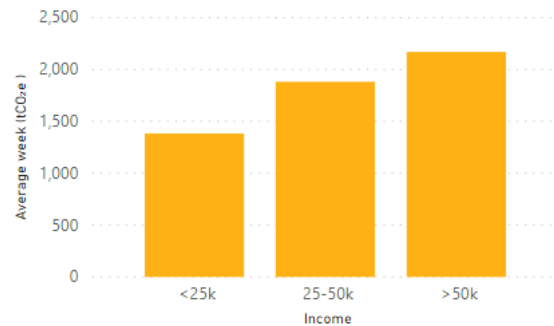
Reset Page



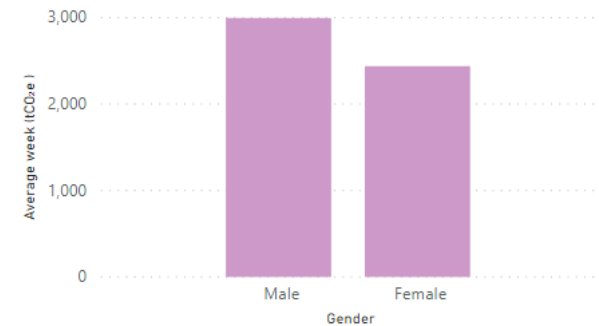
Average week (tCO<sub>2</sub>e ) by Age



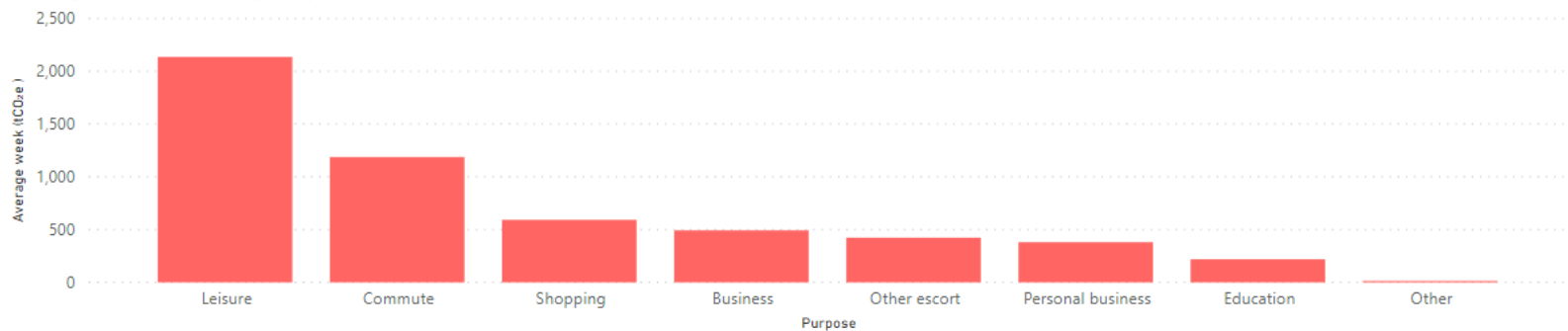
Average week (tCO<sub>2</sub>e ) by Income



Average week (tCO<sub>2</sub>e ) by Gender



Average week (tCO<sub>2</sub>e ) by Purpose



# Source Apportionment: Motive & Demographic



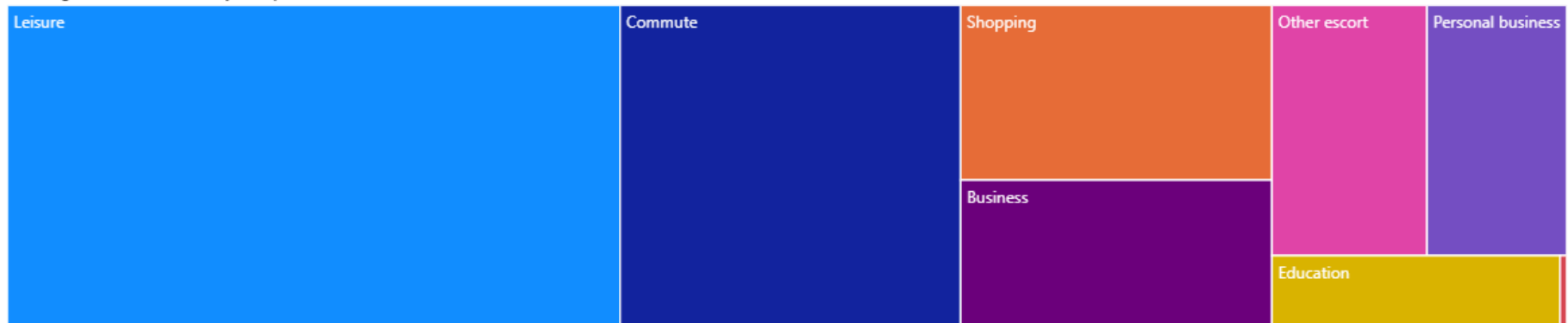
Male

Female

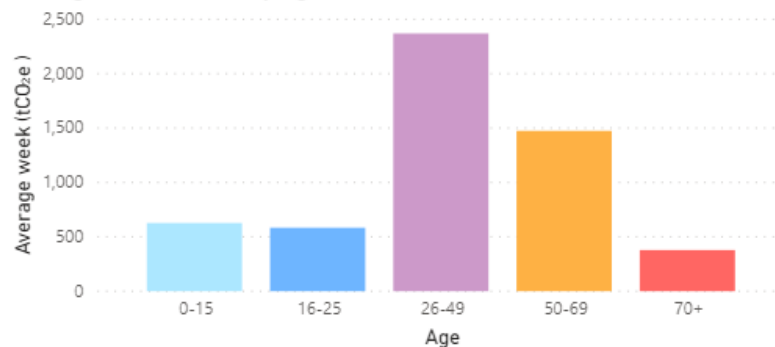
Reset Page



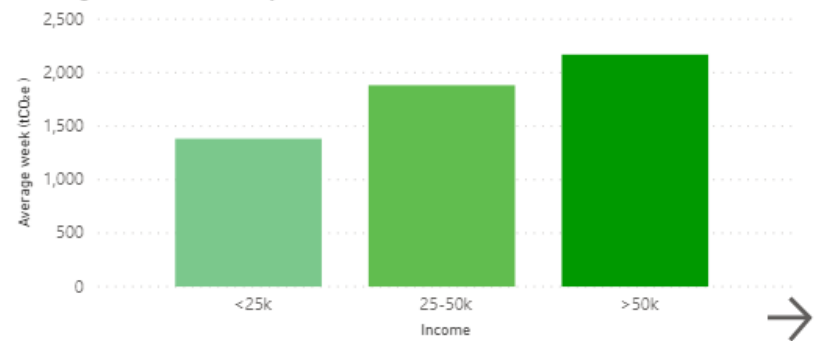
Average week (tCO<sub>2</sub>e ) by Purpose



Average week (tCO<sub>2</sub>e ) by Age

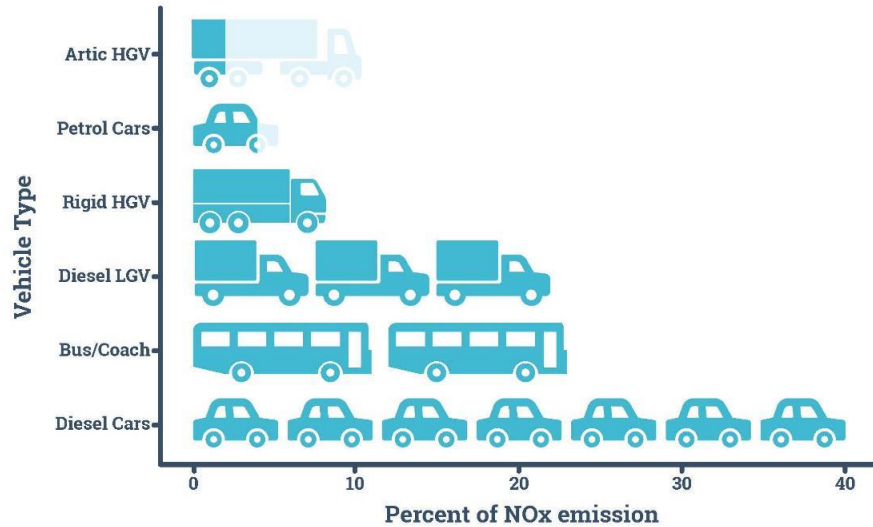


Average week (tCO<sub>2</sub>e ) by Income



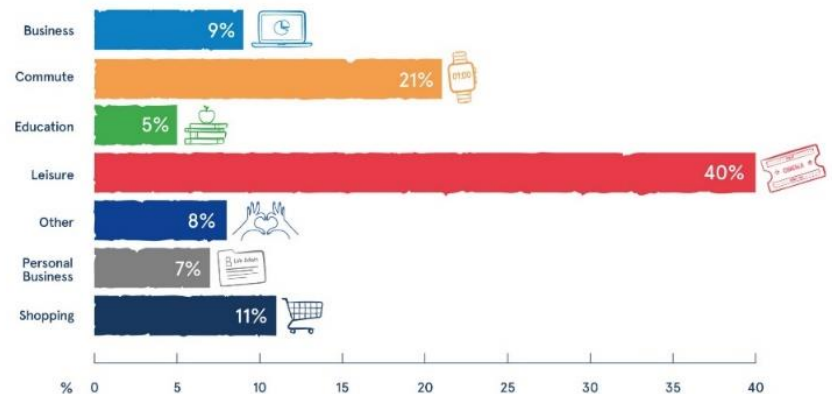
# Shifting the conversation towards people

NOx emissions by vehicle type  
Central Bristol: Transport sources



Data from Bristol City Council Cabinet Agenda, 15 Aug 2017, page 105  
Available from <https://democracy.bristol.gov.uk/documents/g2557/Public%20reports%20pack%2015th-Aug-2017%2016.00%20Cabinet.pdf?T=10>

KM travelled by motive, 2015 baseline in Bristol



This graph shows the relative contribution of each motive to total KM travelled in Bristol in 2015.



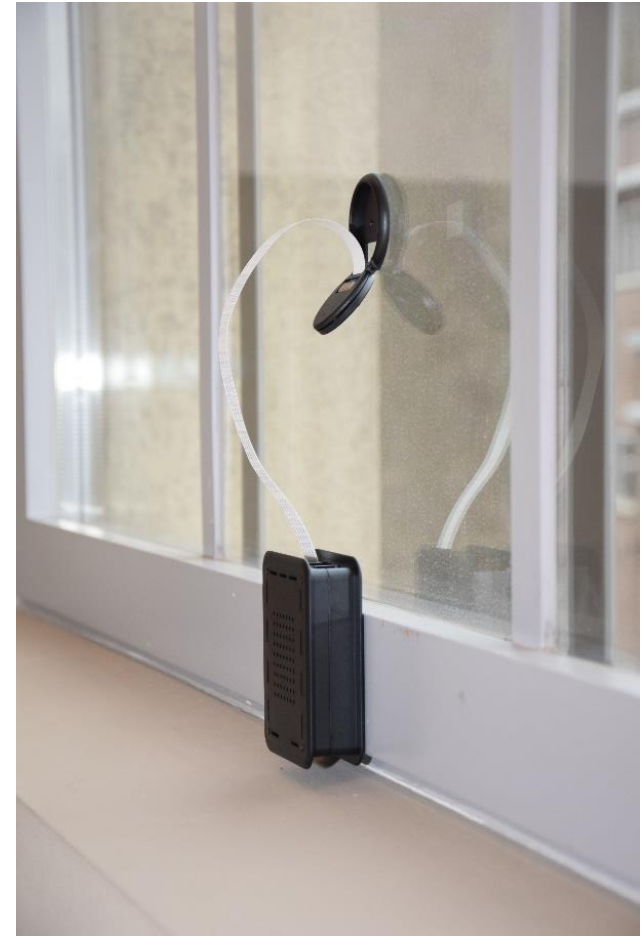
This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 872743.



# WeCount: Citizens Observing Urban Traffic

WeCount has:

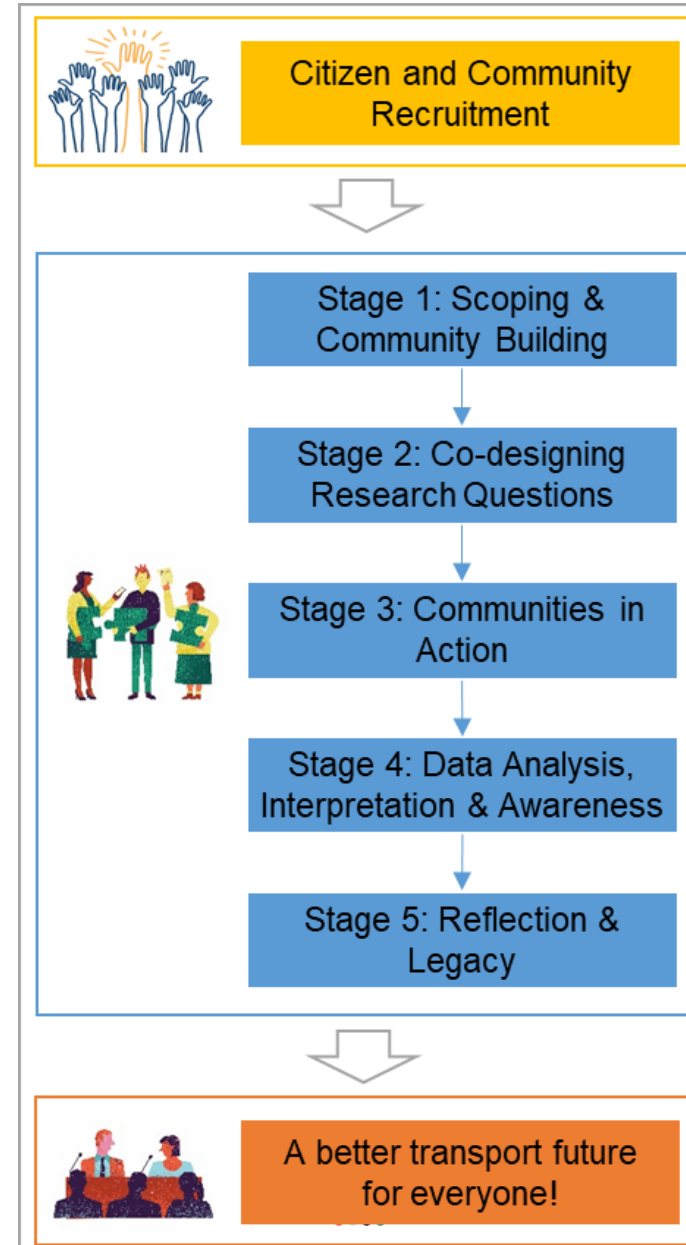
- worked with citizens to quantify local road transport,
- produced new knowledge on local mobility, and
- co-created informed solutions to tackle various urban mobility challenges such as speeding, rat-running, peak episodes, air pollution, active travel etc.



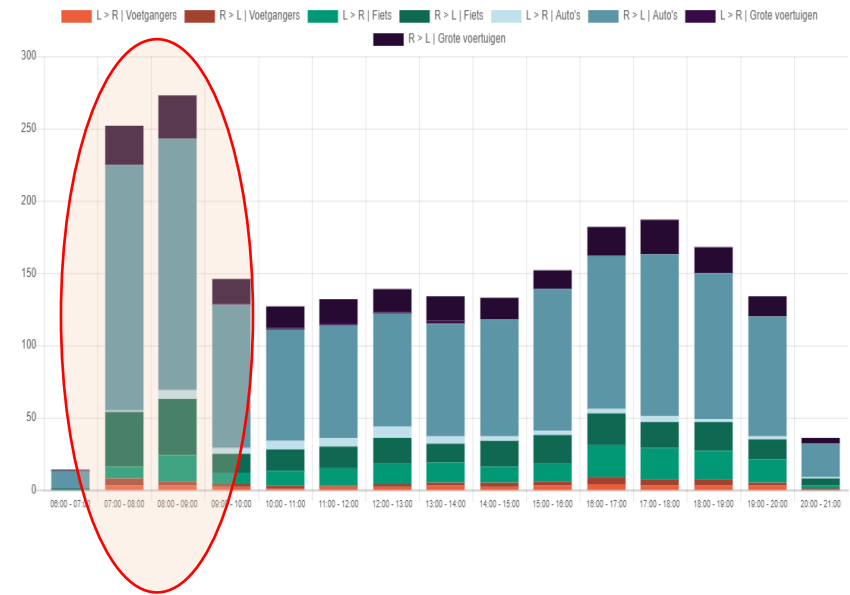
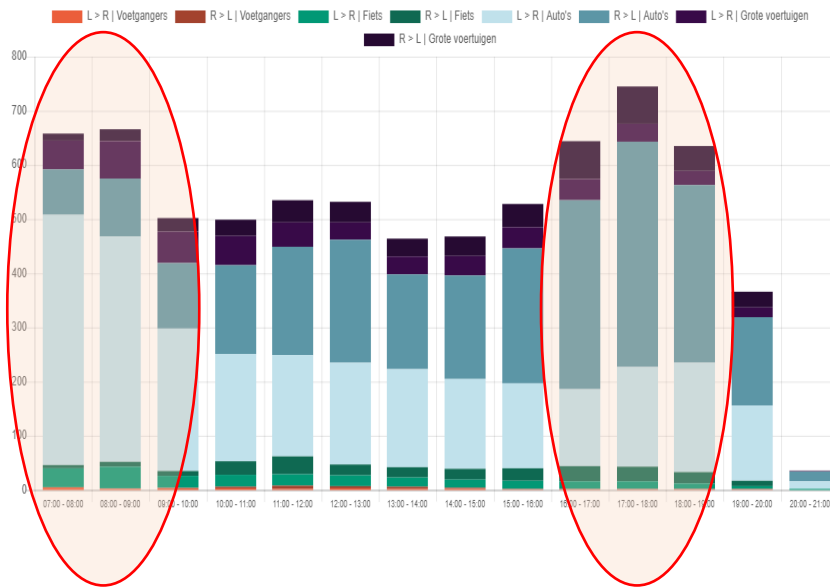
# What is the role of the citizen in the process?

- 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?

**This is not a recipe book but a collection of tools, resources and experiences to inspire and facilitate the five WeCount use cases**



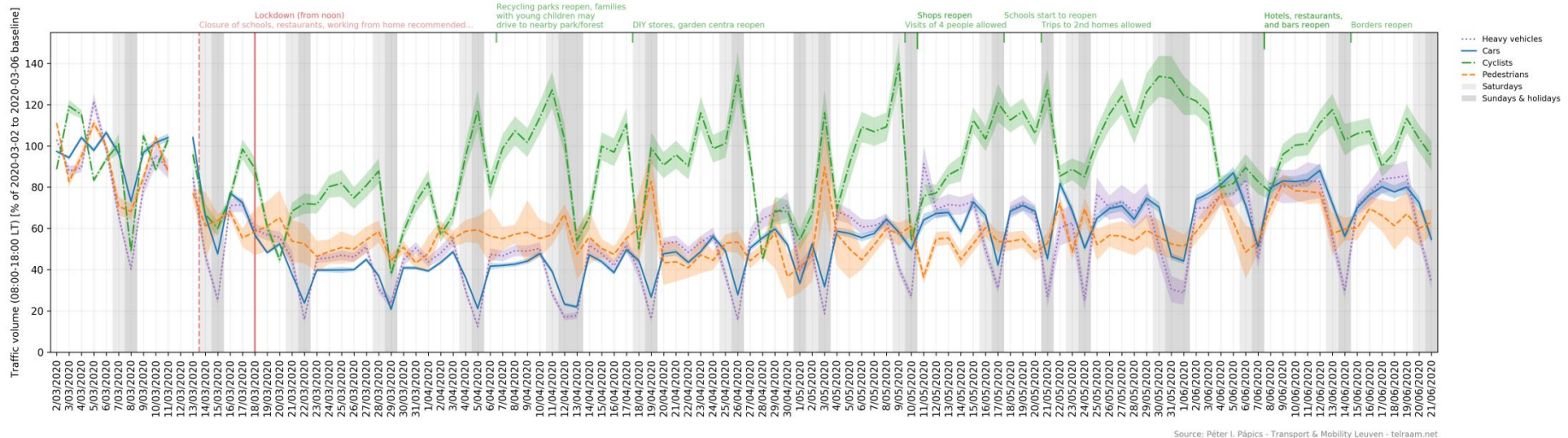
# Telraam Dashboard: Data Examples



Time of Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
06:00	22%	23%	25%	24%	24%	29%	29%
07:00	23%	22%	22%	23%	26%	32%	32%
08:00	21%	19%	16%	19%	23%	33%	35%
09:00	23%	22%	22%	23%	23%	29%	31%
10:00	22%	20%	23%	20%	20%	23%	29%
11:00	20%	19%	20%	20%	20%	22%	21%
12:00	19%	16%	18%	17%	19%	19%	19%
13:00	18%	14%	17%	16%	16%	17%	21%
14:00	16%	15%	16%	14%	15%	18%	21%
15:00	13%	14%	14%	14%	14%	18%	21%
16:00	14%	12%	13%	13%	15%	17%	17%
17:00	10%	10%	10%	10%	11%	13%	13%
18:00	13%	10%	11%	12%	13%	14%	17%

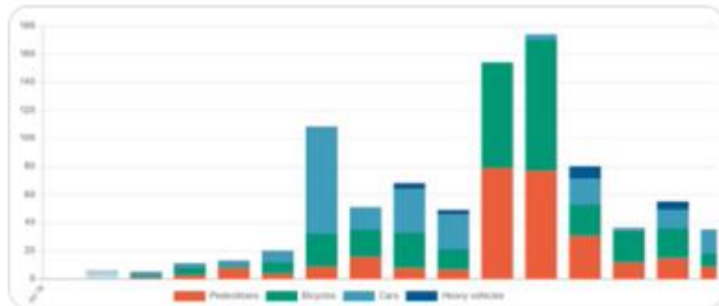


# Telraam Dashboard: Data Examples



**Roath Court Road Play Street**  
@RCRPlayStreet

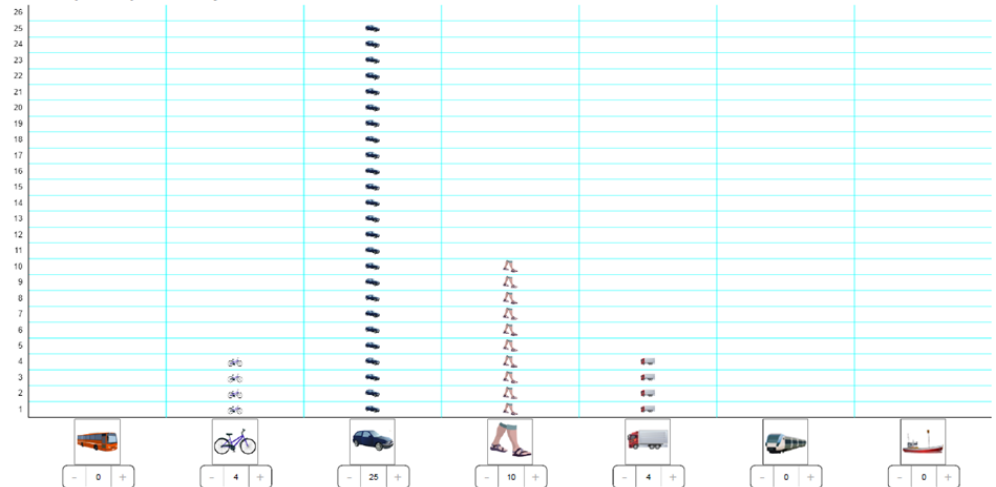
@BetterRoath @WecountC @PlayWales The Telraam camera in Roath Court Road captures traffic movements. See what a difference holding a play street makes. The absence of cars allows the kids to reclaim the street.



8:40 pm - 18 Jul 2021 - Twitter for Android

4 Retweets 4 Quote Tweets 18 Likes

Transport past my house in the last hour



# Amplifying the citizen voice

*"It made me feel empowered"  
"I was a bit nervous about if I  
wanted to join but it was  
friendly and idiot proof"*

*"[It] has given me actual data  
with which to lobby the  
council for traffic calming  
measurements - I now have  
actual data to submit to the  
council not just my personal  
observation"*

*"I knew there were patterns of  
traffic behaviour but my  
feelings about peak traffic  
levels and speeds were not  
correct. Having the data has  
helped me have a clearer  
picture"*

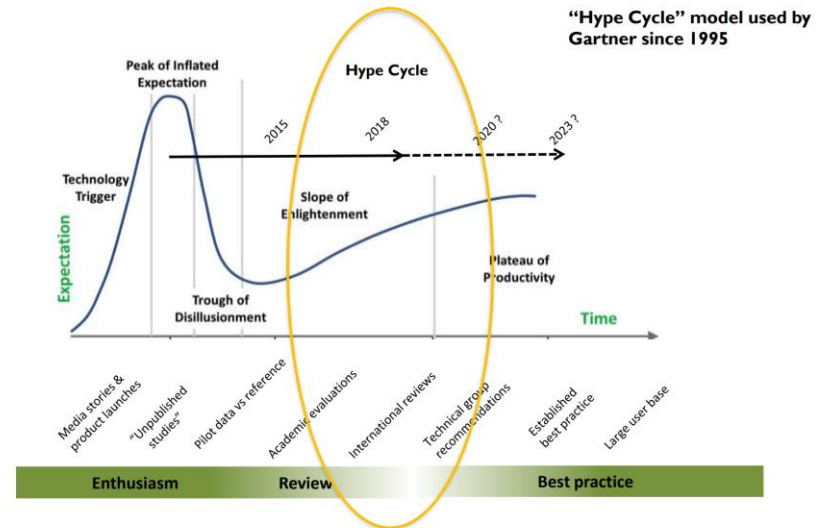
*"I think it does give an  
interesting potential boost to  
your activism... as in its  
empowering I suppose is the  
word...I know at least two  
other sites have opened up  
because of my agency"*

# Value of Citizen Science

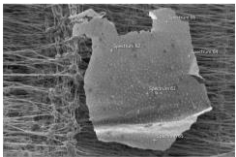
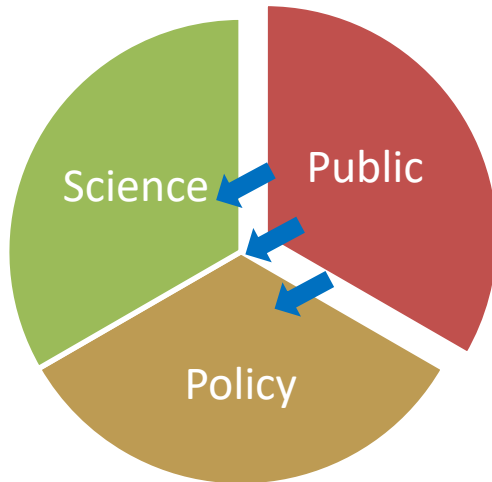
1. **View 1: Not our business....**citizens can do it for themselves
2. **View 2: Annoying....**gives problems, nasty questions and inaccurate data
3. **View 3: Great fun....count us in!** If you invest you get great results beyond just data!

## Key tasks for AQ Community

- Explaining: **interactive communication**
- Assuring quality: **validation / calibration**
- Making available: **open data**
- Providing context: **link to policies**
- Interpretation: **understanding units**
- Continuity: **maintain momentum**
- **Are they hard to reach or are we not trying hard enough?**
- **How do we convert citizen scientists into citizen champions and allies?**



# Citizen advocates for change



- **Need ‘enabling’ policies that breakdown social practice barriers so that greener choices become the social norm for everyone!**
- Must understand how social practices influence the generation of pollution and stop blaming the individual for their lack of willingness to change.
- How to engage the public
  - Know your audience
  - Connect to their lived experience / expertise
  - Find common ground to discuss the challenges and solutions
  - Need mechanisms that allow for continuation of engagement
  - Need multiple engagement pathways: the way we engage young people will be very different from older people
- The bottom-up approach raised ambition levels in the cities: policy-makers feel empowered to be more ambitious.

# Some Resources

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

1. Community Activator Pack - <https://zenodo.org/record/4045909#.Y1fpVHbMKUI>
2. Educator Pack - <https://zenodo.org/record/4045897#.Y1fpo3bMKUm>
3. Our City Our Future: 6-week STEAM Eco Club Challenge - <https://zenodo.org/record/4073019#.Y1fpdnbMKUm>
4. British Science Week Secondary Activity Pack - [http://www.claircity.eu/wp-content/uploads/2020/01/BSA\\_BSW\\_secondary\\_ClairCity-p23.pdf](http://www.claircity.eu/wp-content/uploads/2020/01/BSA_BSW_secondary_ClairCity-p23.pdf)
5. Clean Air Top Trumps - <https://zenodo.org/record/4046632#.Y1fp-HbMKUm>
6. ClairCity Board Game - <https://zenodo.org/record/4266664#.Y1fqD3bMKUm>
7. ClairCity Air Pollution Infographic - <https://zenodo.org/record/4268193#.Y1fqN3bMKUI>

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

1. P1: Scoping and Community Building Toolkit - <https://zenodo.org/record/5666231#.Y1fronbMKUk>
2. P2: Co-Design Toolkit - <https://zenodo.org/record/5666870#.Y1fr0HbMKUk>
3. P3: Data Collection Toolkit - <https://zenodo.org/record/5667082#.Y1fr7XbMKUk>
4. P4: Data Analysis and Awareness Toolkit - <https://zenodo.org/record/5668088#.Y1fsBHbMKUk>
5. P5: Reflection and Legacy Toolkit - <https://zenodo.org/record/5668123#.Y1fsKXbMKUk>
6. WeCount Schools Pack (KS2) - <https://zenodo.org/record/5361919#.Y1fsRnbMKUk>
7. A practitioner's guide to evaluation, engagement and policy change - <https://zenodo.org/record/5742726#.Y1frQnbMKUk>
8. Community Advocacy Toolkit - <https://zenodo.org/record/5879127#.Y1frfnbMKUk>
9. British Science Week Activity Packs 2022 - <https://www.britishecienceweek.org/plan-your-activities/activity-packs/>

**Prof Enda Hayes**

**Email:**  
[Enda.hayes@uwe.ac.uk](mailto:Enda.hayes@uwe.ac.uk)

**Twitter:**  
**@HayesEnda**

**Welsh Air Quality  
Seminar**

**October 2022**

# Thank You