



*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.*



# Community Climate Action

**Dr Laura Fogg-Rogers**  
**Associate Professor for Engineering in Society, UWE-Bristol**

<https://people.uwe.ac.uk/Person/LauraFoggrogers>



# Net Zero by 2030



Transport -  
45% reduction  
in vehicle  
miles

Energy –  
renewable  
energy for  
heating and  
hot water and  
no fossil fuels  
for all  
households

Waste – at  
least 65% of  
all waste is  
repaired,  
recycled or  
reused

Nature –  
enhance  
biodiversity by  
30% through  
nature  
restoration,  
protection and  
enhancement



1. Transport



2. Buildings and places



3. Nature recovery



4. Business & skills



5. Net Zero Energy



6. Climate resilience

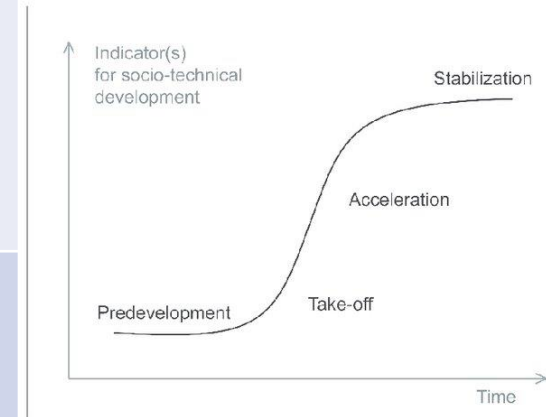


Improving People's Lives



# Socio-technical transitions

	Endogenous Niche Momentum	Regime Tensions
Techno-economic	price/performance improvements as a result of R&D, learning by doing, scale economies, complementary technologies, and network externalities	technical failures, disruption of infrastructures, accumulating negative externalities (e.g., CO <sub>2</sub> emissions)
Business	new entrants or incumbents from other sectors are more likely to drive radical innovation than traditional incumbents. Their success may lead to “innovation races” when other firms follow a first mover	shrinking markets, economic difficulties in incumbent industries, loss of confidence in existing technologies and business models, reorientation toward alternatives
Social	growing support coalitions and constituencies improve available skills, finance, and political clout	disagreement and fracturing of social networks, defection of key social groups from the regime
Political	advocacy coalitions lobby for policy changes that support the niche innovation such as subsidies and supportive regulations	eroding political influence of incumbent industries, declining political support, removal of supportive policies, introduction of disruptive policies
Cultural	positive discourses and visions attract attention, create cultural enthusiasm, and increase socio-political legitimacy	negative cultural discourses undermine the legitimacy of existing regimes (e.g., coal and climate change, diesel cars, and air quality)



Geels et al 2017  
[The Socio-Technical Dynamics of Low-Carbon Transitions - ScienceDirect](#)

**Greater levels of intervention**

**Eliminate choice:** regulate to eliminate choice entirely.

**Restrict choice:** regulate to restrict the options available to people.

**Guide choice through disincentives:** use financial or other disincentives to influence people to not pursue certain activities.

**Guide choice through incentives:** use financial and other incentives to guide people to pursue certain activities.

**Guide choice through changing the default:** make 'healthier' choices the default option people,

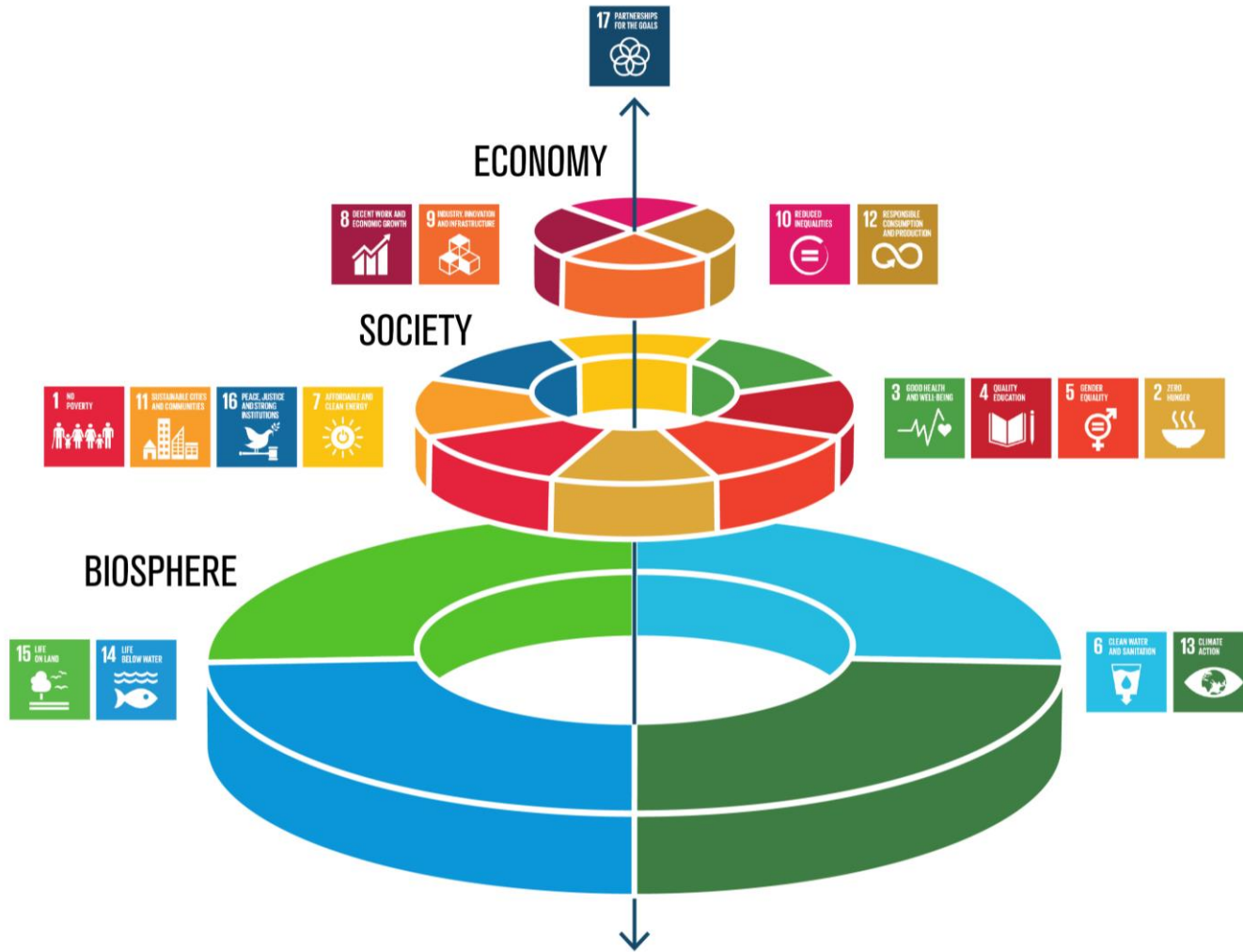
**Enable choice:** enable people to change their behaviours.

**Provide information:** inform and educate people.

**Do nothing or simply monitor the current situation.**



# A just transition?

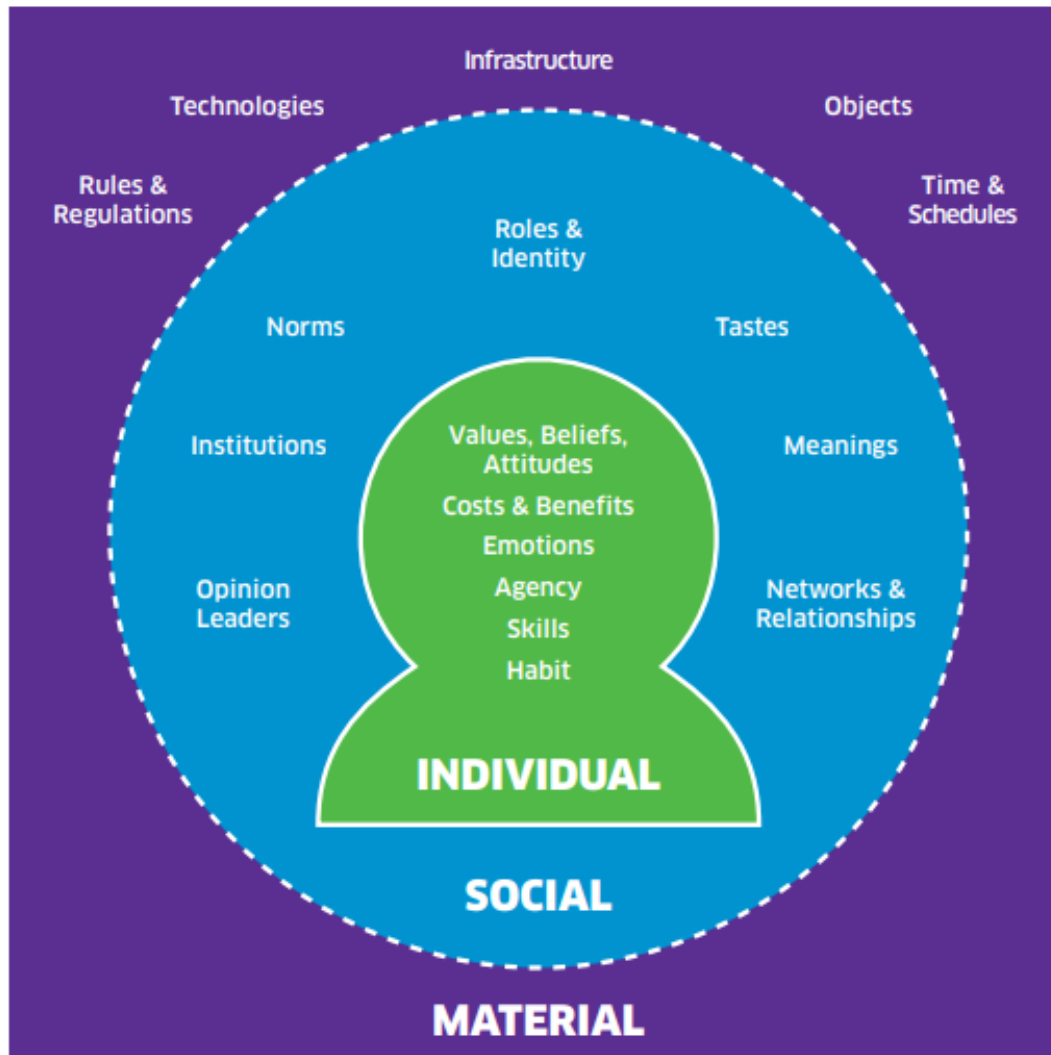


Action to enable a ‘just’ transition tries to combat inequality to bring about fairer outcomes as the world transitions to net zero carbon emissions, maximising the benefits of climate action and minimising the negative impacts for workers and communities.

- Procedural
- Distributive
- Recognition
- Restorative

Abram, S., Atkins, E., Dietzel, A., Jenkins, K., Kiamba, L., Kirshner, J., ... Santos Ayllón, L. M. (2022). Just Transition: A whole-systems approach to decarbonisation. *Climate Policy*, 22(8), 1033–1049.

FIGURE 1  
FACTORS THAT INFLUENCE BEHAVIOUR IN THE INDIVIDUAL, SOCIAL AND MATERIAL CONTEXTS ('THE ISM MODEL')



### THE INDIVIDUAL CONTEXT

This includes the factors held by the individual that affect the choices and the behaviours he or she undertakes. These include an individual's values, attitudes and skills, as well as the calculations he/she makes before acting, including personal evaluations of costs and benefits.

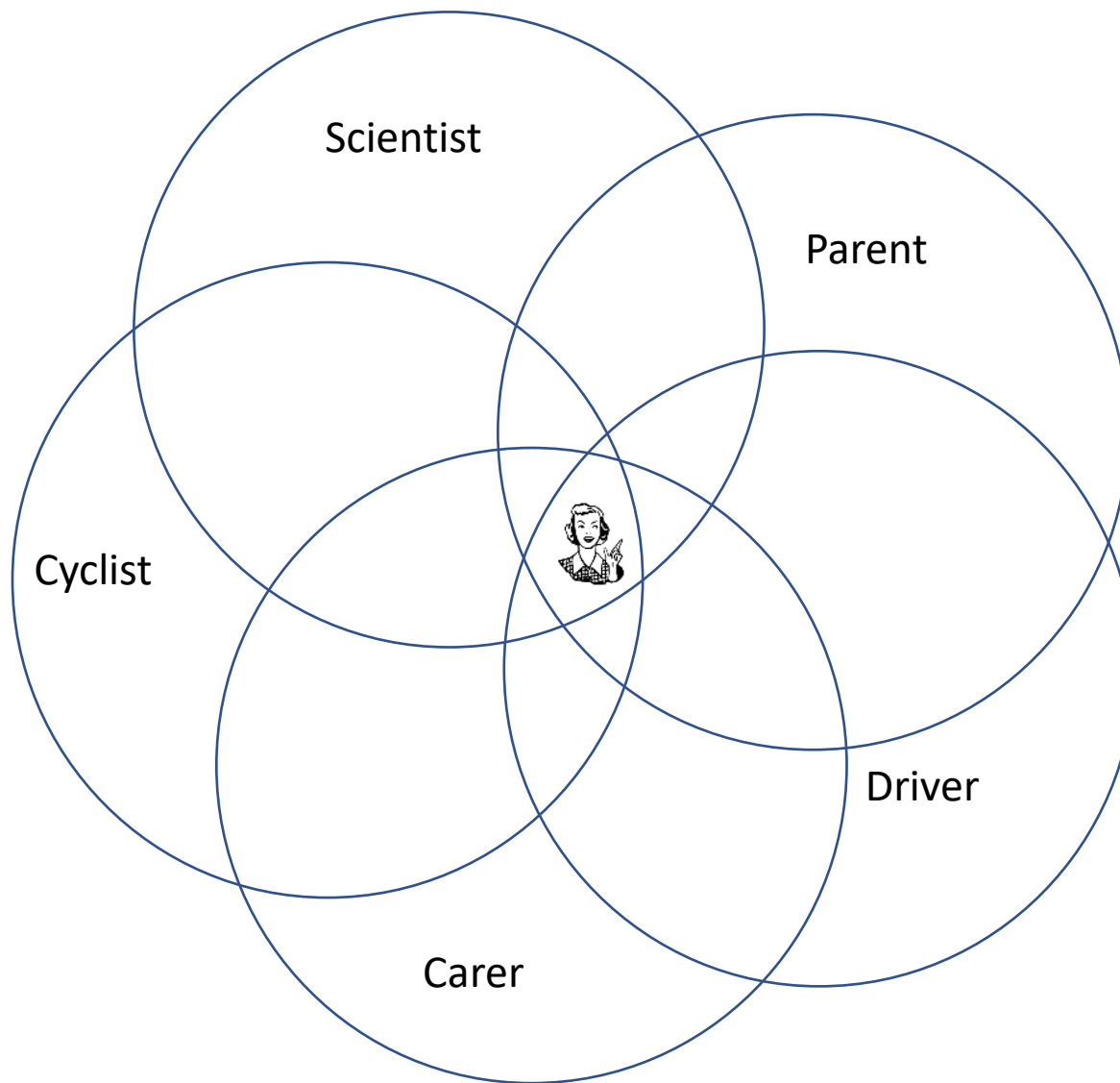
### THE SOCIAL CONTEXT

This includes the factors that exist beyond the individual in the social realm, yet shape his or her behaviours. These influences include understandings that are shared amongst groups, such as social norms and the meanings attached to particular activities, as well as people's networks and relationships, and the institutions that influence how groups of individuals behave.

### THE MATERIAL CONTEXT

This includes the factors that are 'out there' in the environment and wider world, which both constrain and shape behaviour. These influences include existing 'hard' infrastructures, technologies and regulations, as well as other 'softer' influences such as time and the schedules of everyday life.

# Demographic and geographic communities



# Social Cognitive and Social Identity Theories

“An individual's learning is not only related to their personal capabilities and experience, but also to their observations of others within the context of social interactions, experiences, and outside media influences”.

Fogg-Rogers, L., Sardo, A.M., Boushel, C. (2017). Robots vs Animals: establishing a culture of public engagement and female role modelling in engineering higher education. *Science Communication*

## **Social identity theory**

- 1) Social categorization
- 2) Social identification
- 3) Social comparison
- 4) Social badges – in groups and out group

Tajfel, 1979

## **Social cognitive theory**

- a) Vicarious experiences
- b) Mastery
- c) Verbal persuasion
- d) Emotional arousal

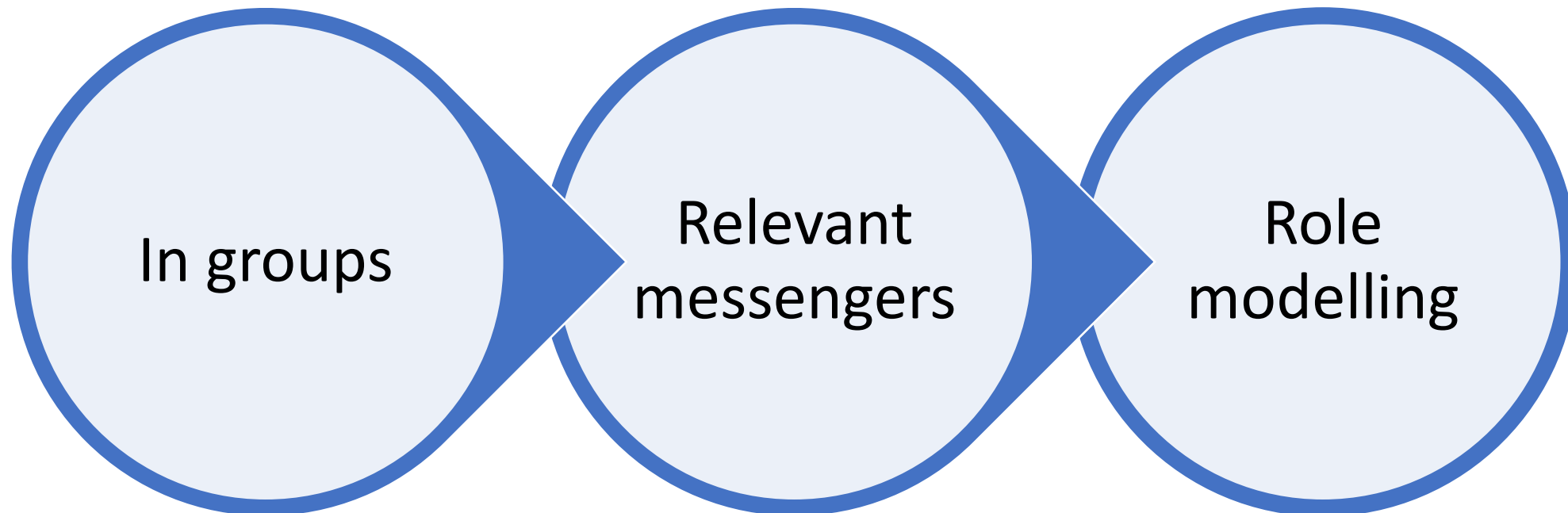
Bandura, 1977



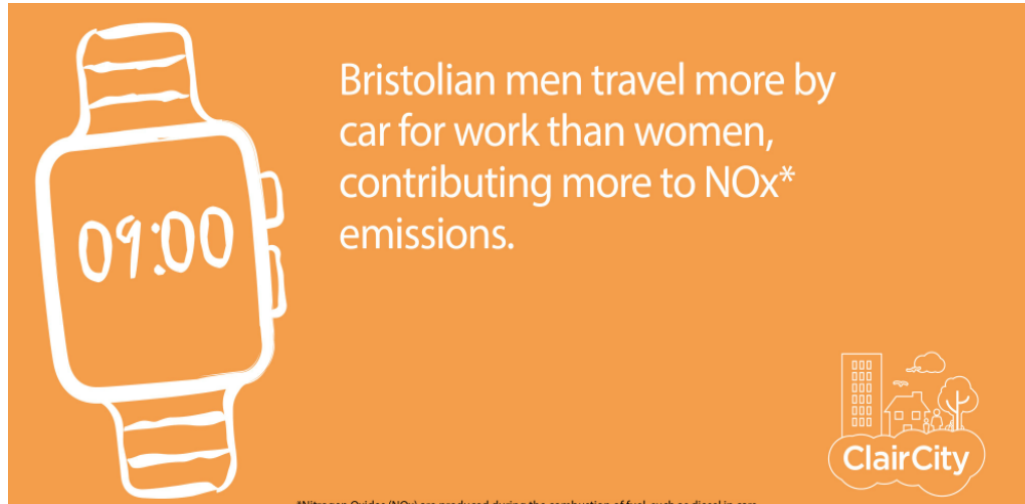
# Social Learning

“An individual's learning is not only related to their personal capabilities and experience, but also to their observations of others within the context of social interactions, experiences, and outside media influences”.

Fogg-Rogers, L., Sardo, A.M., Boushel, C. (2017). Robots vs Animals: establishing a culture of public engagement and female role modelling in engineering higher education. *Science Communication*




# Social practices: people like me create emissions and can take action



Bristolian men travel more by car for work than women, contributing more to NOx\* emissions.

\*Nitrogen Oxides (NOx) are produced during the combustion of fuel, such as diesel in cars.



Leisure and shopping accounts for half of all travel journeys by car in Bristol - that's more emissions than business and commuting combined

ClairCity

Are you a man from #Bristol? What would help you to drive less?

Read more about Bristol's #airpollution here: [ow.ly/6rba50xzwcs](https://ow.ly/6rba50xzwcs)

8:10 AM · Dec 23, 2019 · Hootsuite Inc.

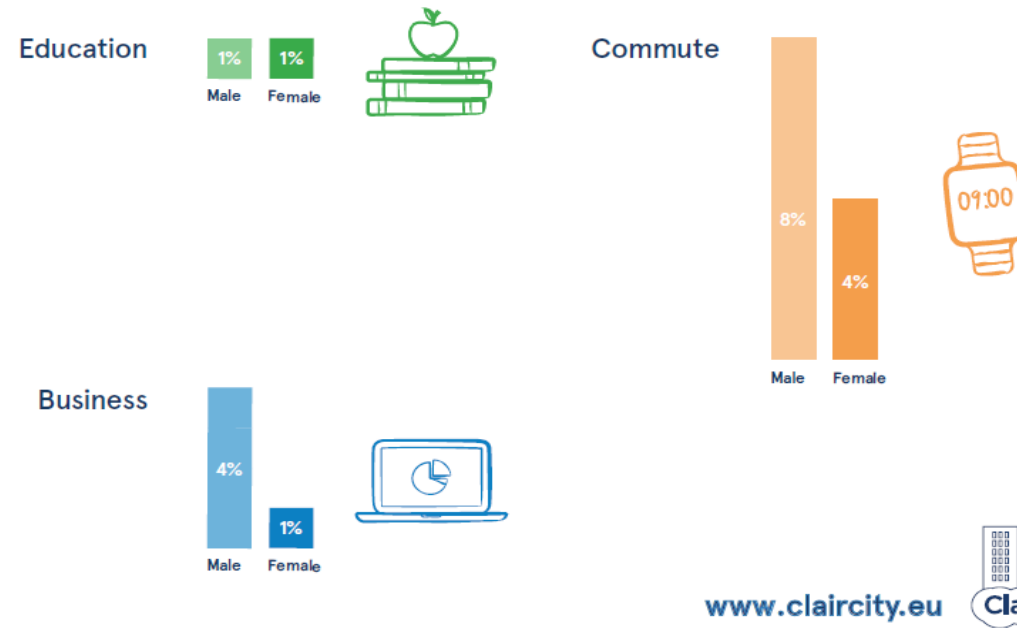
4 Retweets 4 Likes

Did you know: leisure + #shopping trips in #Bristol contribute more #airpollution than than work-related + commuting trips? Commuting is still bad... but leisure is worse.

Read more about Bristol's air pollution here: [ow.ly/6rba50xzwcs](https://ow.ly/6rba50xzwcs)

8:10 AM · Dec 20, 2019 · Hootsuite Inc.

2 Retweets 1 Quote Tweet 1 Like



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](https://doi.org/10.3390/su13063406)

# Citizen-led air pollution reduction in cities

Everyday, air pollution and carbon emissions are produced through our commutes to work, by heating our homes, or through our daily lifestyles.

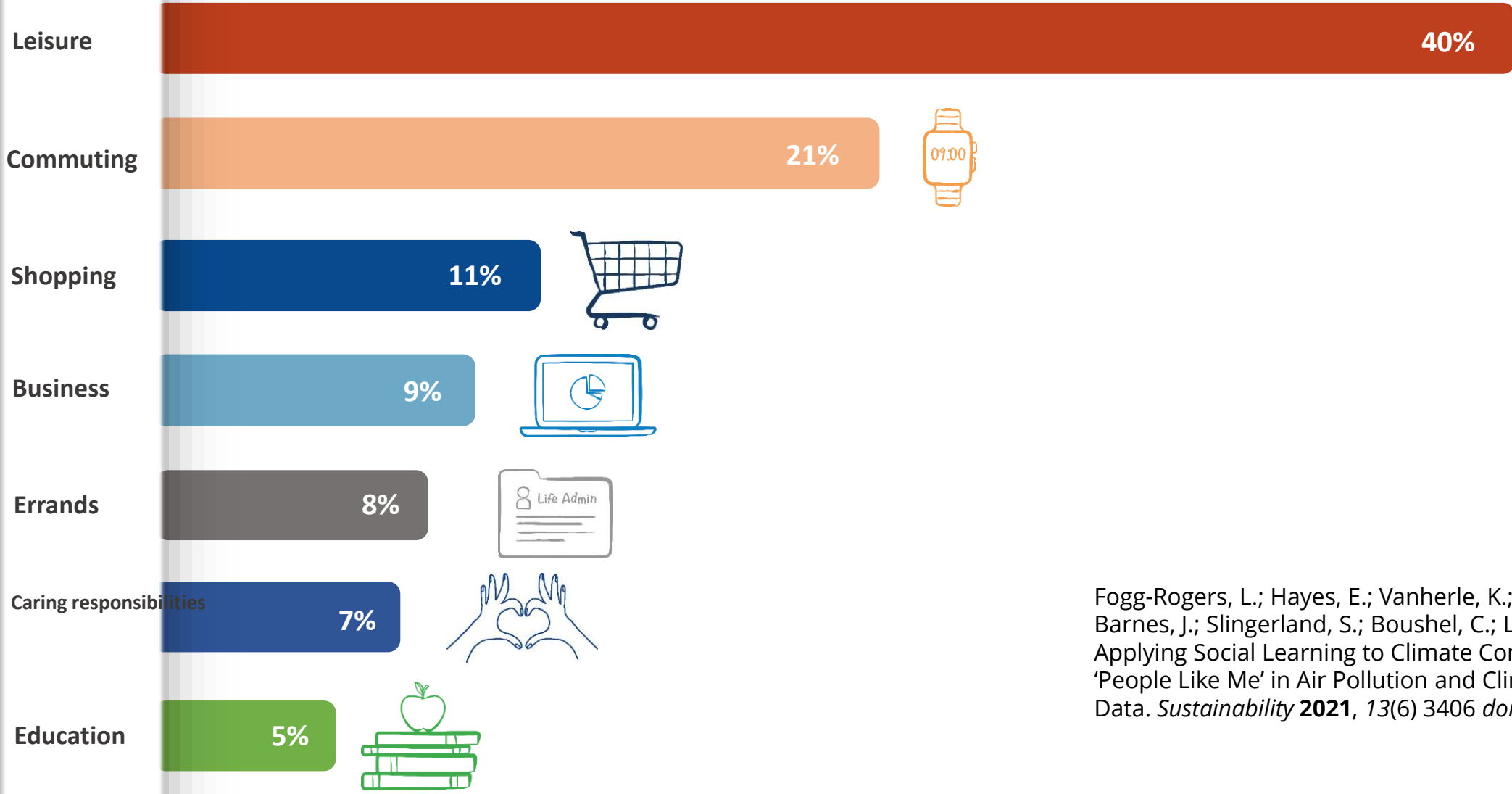
**The ClairCity aim** was to create a major shift in public understanding towards the causes of poor air quality, inviting citizens to give their opinions on air pollution and carbon reduction to shape the cities of the future.

The project ran from 2016-2020 in 6 countries.



Fogg-Rogers, Sardo, Csobod, Boushel, Laggan, and Hayes. (2024). Citizen-led emissions reduction: enhancing enjoyment and understanding for diverse citizen engagement with air pollution and climate change decision making. *Environmental Science and Policy*.

# Seeing people in the data 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](https://doi.org/10.3390/su13063406)

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

Relative % contribution

# ClairCity engagement

**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



**65**  
Older people  
filmed



**4887**  
citizens involved  
in Delphi  
process



**8302**  
direct  
engagements



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

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



Fogg-Rogers, Sardo, Csobod, Boushel, Laggan, and Hayes. (2024). Citizen-led emissions reduction: enhancing enjoyment and understanding for diverse citizen engagement with air pollution and climate change decision making. *Environmental Science and Policy*.



# 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**

## The ClairCity Bristol Action Plan

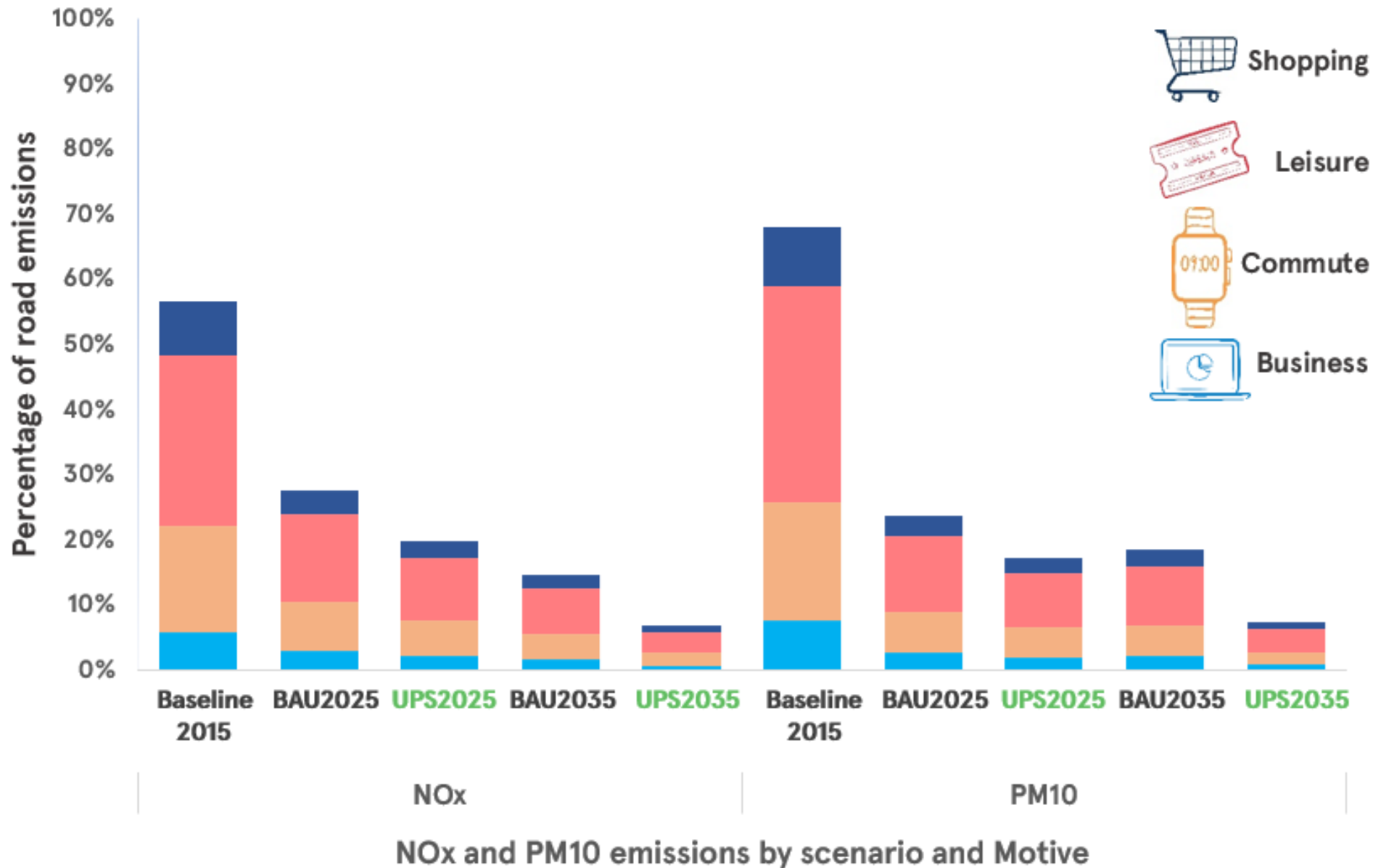
For citizen-inclusive air quality and carbon policies



Our future with clean air  
[www.claircity.eu](http://www.claircity.eu)




# Citizen involvement in policymaking can reduce emissions faster than business as usual

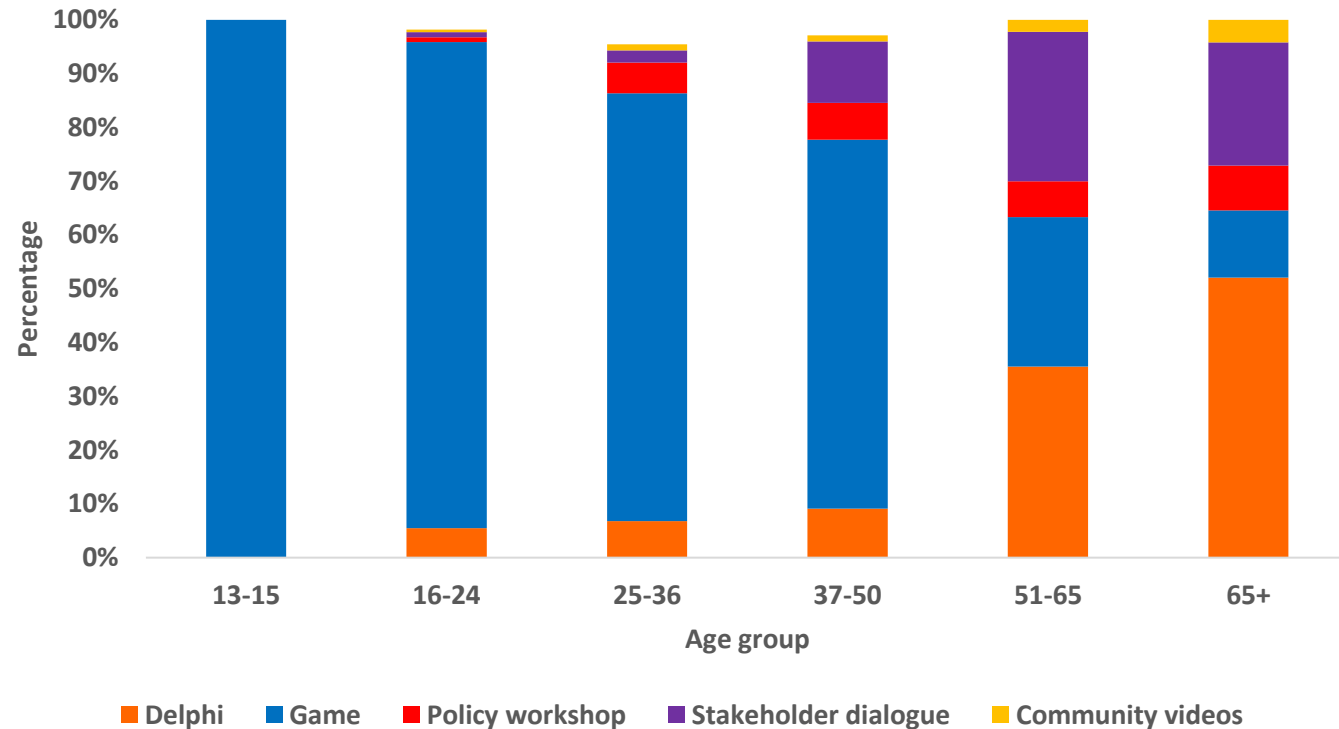
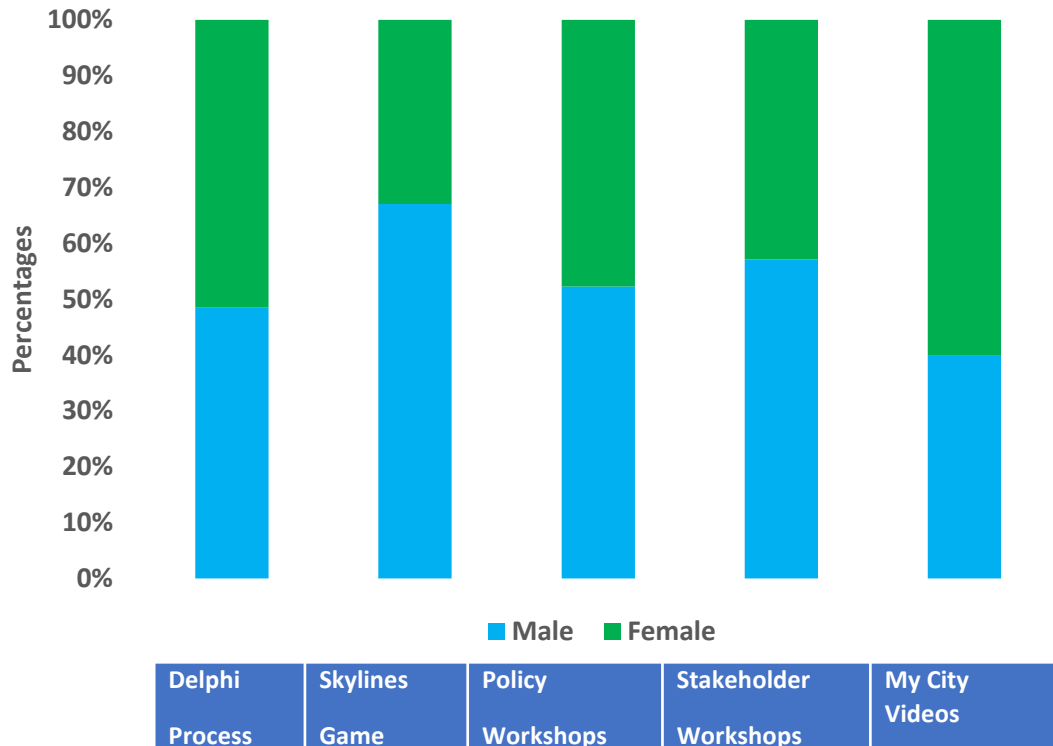


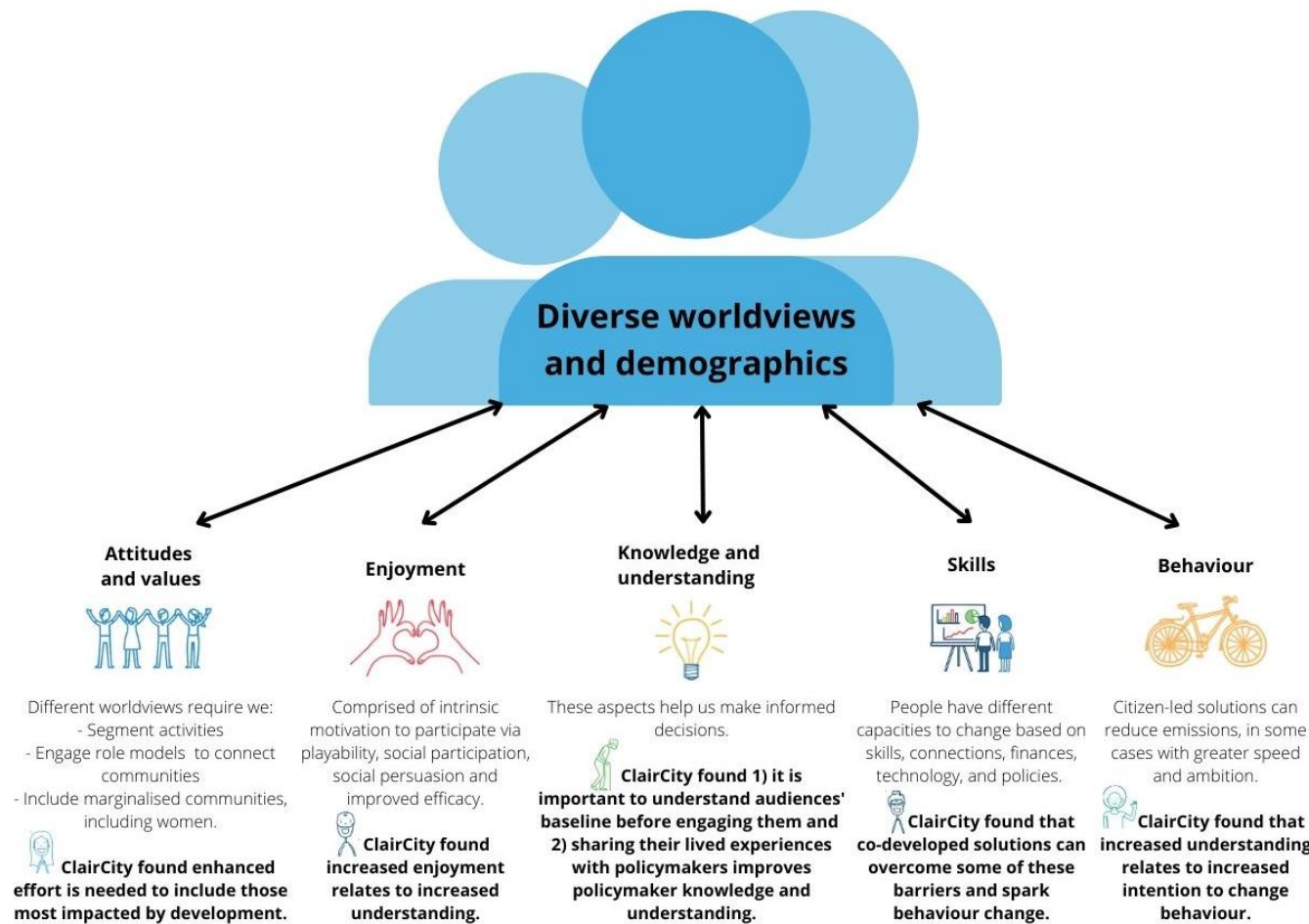
Fogg-Rogers, L.; Hayes, E.; Vanherle, K.; Pápics, P.I.; Chatterton, T.; Barnes, J.; Slingerland, S.; Boushel, C.; Laggan, S.; Longhurst, J.. Applying Social Learning to Climate Communications—Visualising ‘People Like Me’ in Air Pollution and Climate Change Data. *Sustainability* **2021**, *13*(6) 3406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

# Procedural Justice

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

**62.5%**  **Men**  
**25%**  **16-24**  
**81%**  **workshop participants older men**





- Diverse communities need representation in climate/air pollution policymaking
- One size does not fit all: engagement activities attract different demographics groups
- Activity enjoyment significantly positively correlated to understanding
- Understanding significantly positively correlated to intended behaviour change

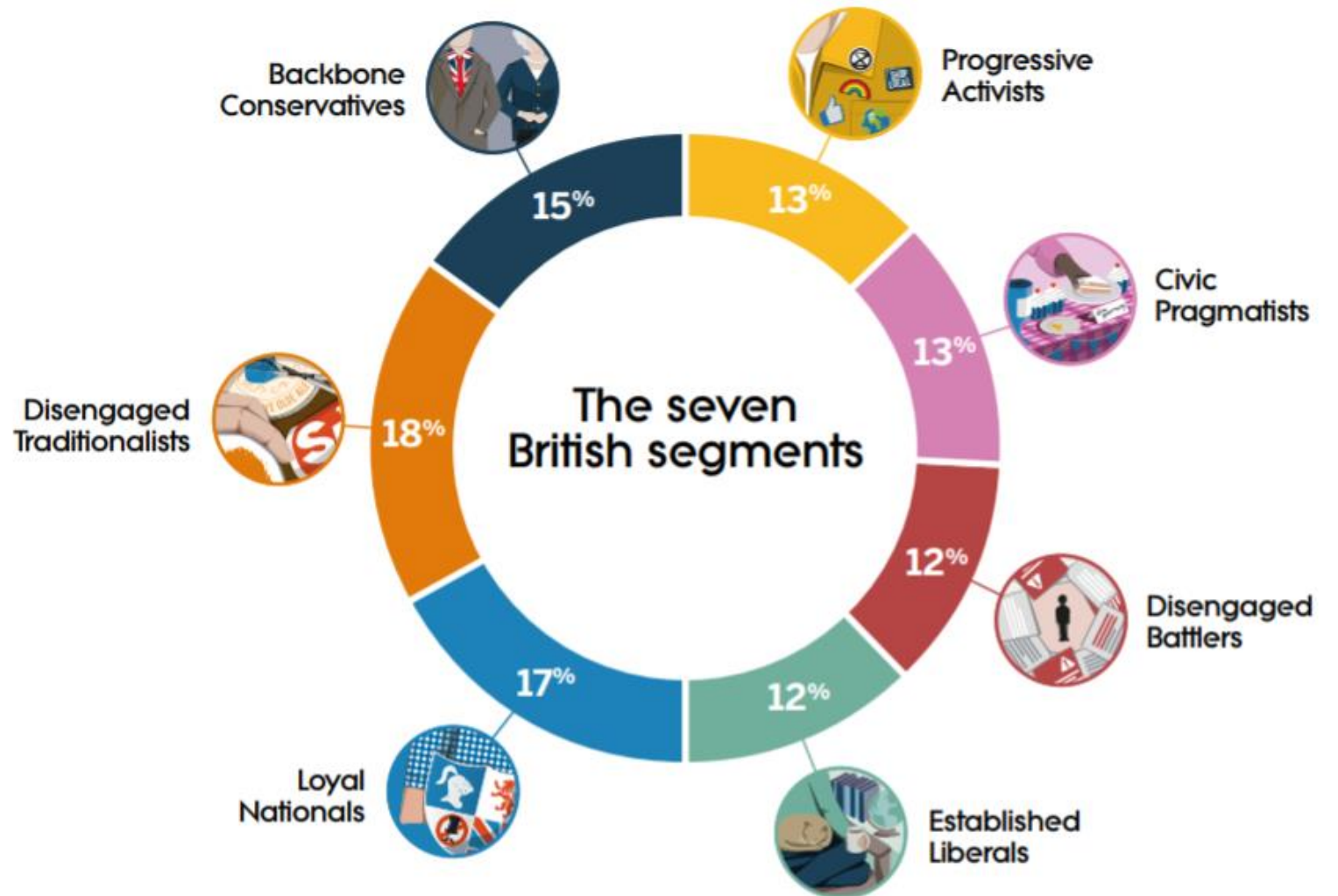
## Engage diverse participatory methods for emissions reductions



Fogg-Rogers, Sardo, Csobod, Boushel, Laggan, and Hayes. (2024). Citizen-led emissions reduction: enhancing enjoyment and understanding for diverse citizen engagement with air pollution and climate change decision making. *Environmental Science and Policy*.

# Audience Segmentation: Britain Talks Climate

<https://climateoutreach.org/britain-talks-climate/seven-segments/>





# Audience Segmentation: Britain Talks Climate

<https://climateoutreach.org/britain-talks-climate/seven-segments/>



# Uniting Frames



Executive  
summary



Recommendations



Nature



Health and  
wellbeing



Money, jobs and  
the economy



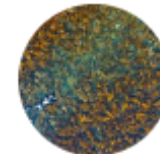
Britain's role as a  
global leader



Social  
connections



"Doing your bit"

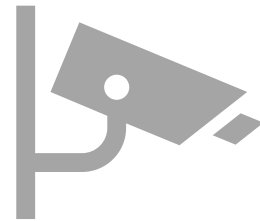


Appendices

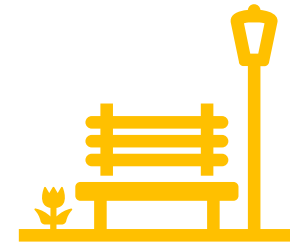
# Framing the climate story for right-wing audiences



Economy



Security

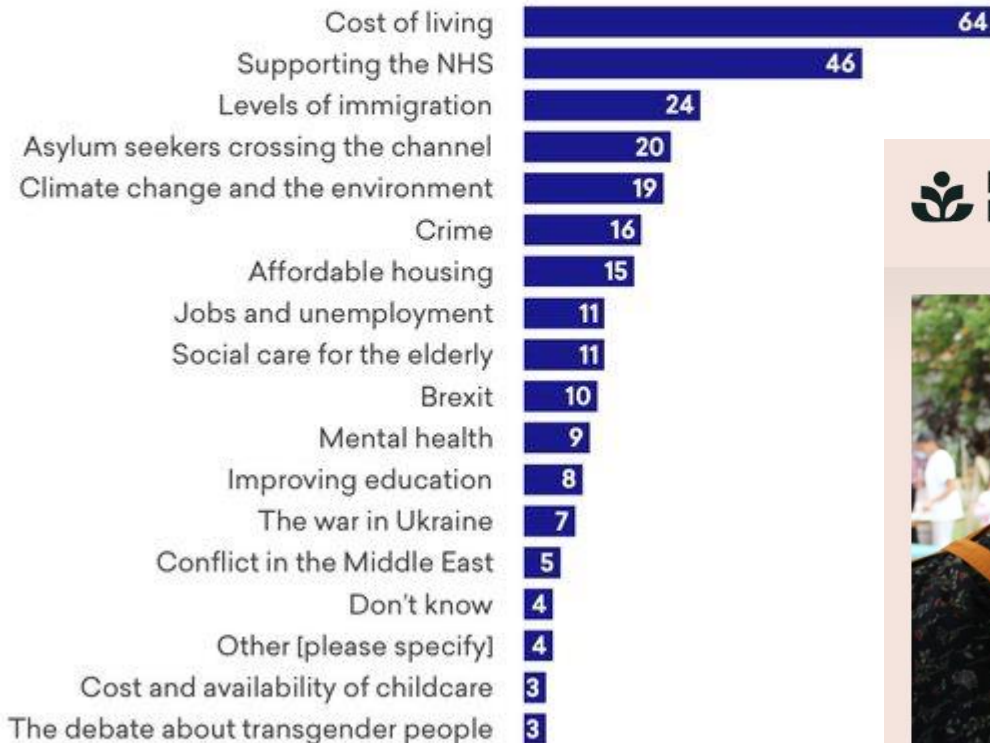



Conservation

# Britons' top issues this month


Thinking about the next General Election, which of the following issues are most likely to impact your vote? Please select up to three.

Voting intention: **All** ▼



 **More in Common** Source: More in Common, May 2024  
27-29 May 2024

# Climate action co-benefits

 Bristol Climate & Nature Partnership



## Bristol's community climate action plans

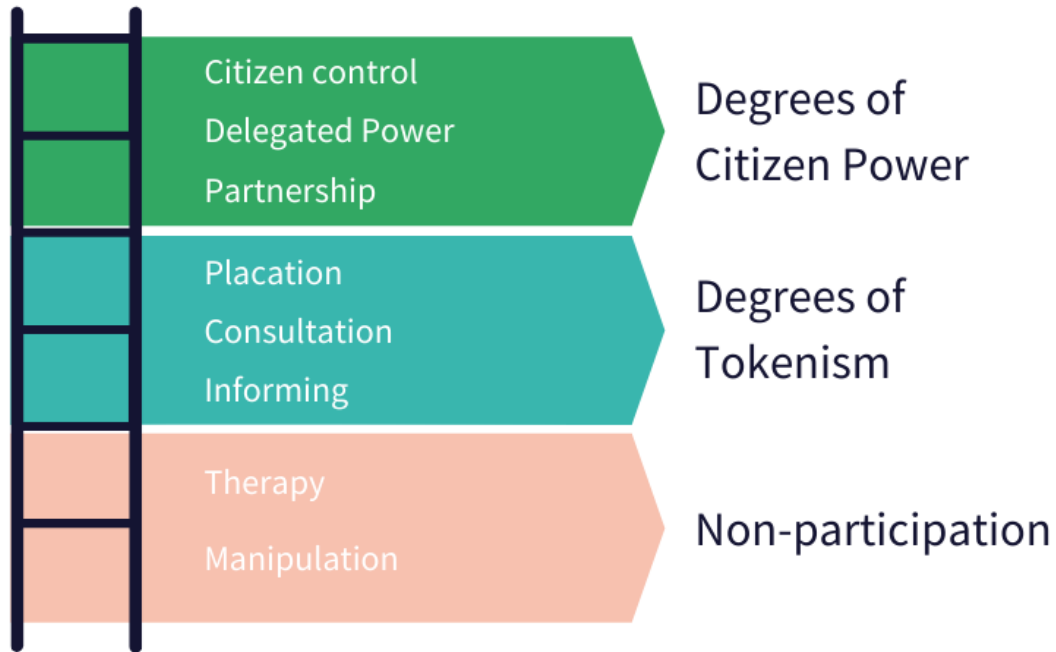
A key element of the Community Climate Action Project is the coproduction of community climate action plans which respond to both social and climate priorities. The plans are developed through community engagement with diverse communities across the city.

Bristol's community climate action plans were developed in neighbourhoods experiencing inequality and disadvantage, along with the communities of Disabled people and refugees in the city. Leading climate action at a community level provides opportunities to improve the lives of local people and ensure the needs of Bristol's diverse communities are better represented as the city responds to the climate and nature crises.



# From consultation to co-development

## Arnstein's Ladder of Public Participation



### 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?"





# Asset-Based Community Development

---



# Community climate action

---

Important for social and material behaviour change

---

Encourages social learning for individual behaviour change

---

Enhances community agency and resilience

---

Co-development accelerates emissions reductions

---

Participatory approaches enable a just transition

---

Co-benefits address inequalities and improve neighbourhoods

---

Essential for polycentric governance