11:30 – 12:30

DATA & AI FOR PUBLIC DECISIONS

Expert Session 2



Barcelona Regional

Dr. Ángel López
Director of Mobility Strategies
MODERATOR



City of Hamburg

Dr. Lea Decker
Project Manager & Strategy at NMS Hamburg
SPEAKER



City of Ioannina

Giorgos Antoniou
Special Advisor to the Mayor – City Council
SPEAKER



City of Coventry

David Hope
Business Development Manager – City Council
SPEAKER

From Innovation Projects to Evidence-Based Mobility Decisions

Hamburg`s Approach



Dr. Lea Decker
Project Manager & Strategy
New Mobility Solutions Hamburg

SPEAKER

Hamburg's Approach

Urban Living Lab at City Scale

- Mobility data as the foundation for sustainable, efficient, and resilient cities
  - Implementation of the Strategy for Digital Mobility in 2024
- Hamburg as a model city for data-driven mobility solutions
- Transparency Act of the Free and Hanseatic City of Hamburg (FHH): A framework for open data and innovation

Central Data Infrastructure:

- Urban Data Platform (UDP)
- GeoPortal FHH
- Masterportal www.masterportal.org as a public

Flagship Project:

- Mobility Operating System Hamburg (MOS)



© Jan Brandes

MASTER PORTAL

MOS
Mobility Operating System

Hamburg's Approach

Urban Living Lab at City Scale

Integration of data generating projects into Hamburg`s project portfolio management tool insight+ to monitor developments

MOS as part of the backbone of Hamburg mobility data structure:

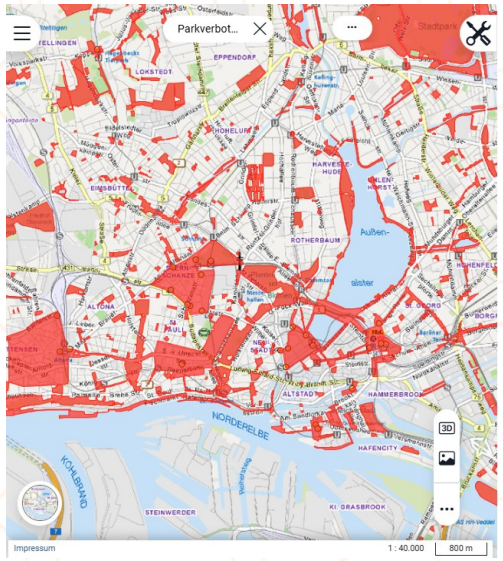
- Integrated mobility data platform
- Traffic flow forecast
- Foundation for traffic and mobility management

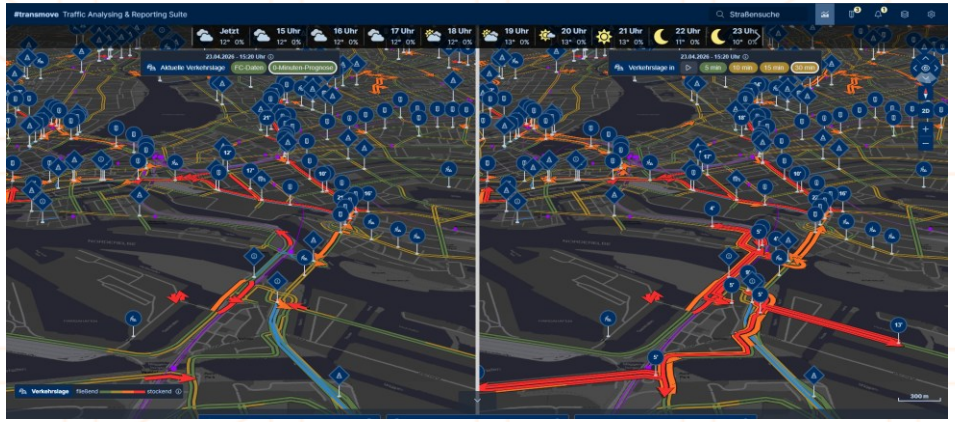
Hamburgs E-Scooter Dashboard:

Guiding principle: Beyond black and white regulation

- No laissez-faire, no blanket bans
- Data-driven steering instead





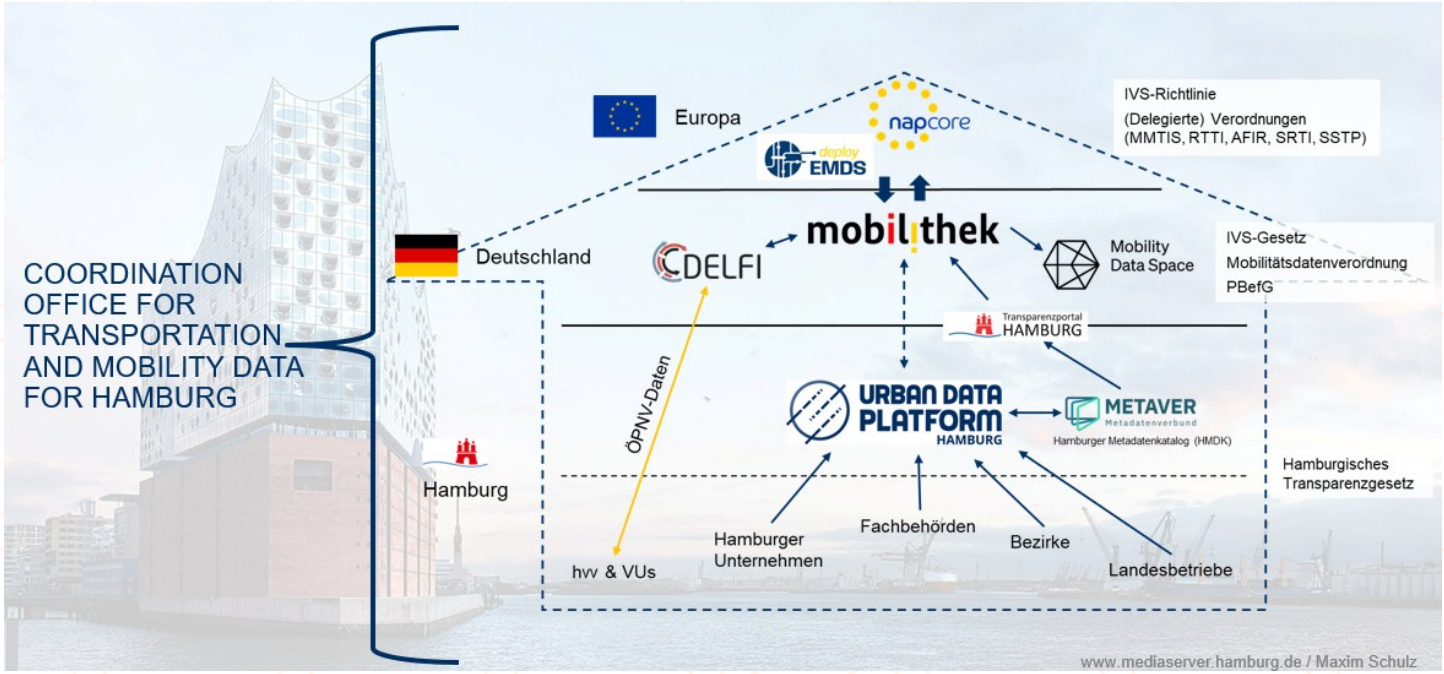


Hamburg's Approach

Collaboration as a Key Success Factor

Partnerships & Data Exchange:

- Integrating Hamburg's data platforms into national and international ecosystems
  - Expanding the database for collective learning and evidence-based decision-making.
- MoUs with research institutions and industry
- Biannual stakeholder meeting (50+ representatives from industry, research and Hamburg's public authorities)



Autonomous Mobility

A Concrete Example

Two flagship autonomous mobility projects in Hamburg for PT:

- The city provides real-world testing environments together with industry and research partners.
- Pilot operations generate valuable insights into user behaviour, operational requirements and service performance.
- Comprehensive data is collected on safety, public acceptance, travel behaviour and network impacts.
- Evaluation results provide critical evidence for scaling autonomous mobility services and informing future deployment strategies.



Autonomous Mobility

A Concrete Example

Hamburg`s pioneering role in bringing autonomous ride-hailing from pilot operations:

- Testing a new regulatory framework together with operators through commercial real-world operations
- Developing scalable governance models for integrated mobility planning across German cities
- Operational Data sharing as a key driver to develop evidence-based passenger transport regulation
- Fostering data sharing among federal states



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From Evidence to Decisions

How the city of Ioannina turns data, local context and citizen needs into mobility and climate choices

Giorgos Antoniou
Special Advisor to the Mayor of Ioannina

SPEAKER

Ioannina at a glance

A mid-sized city with a 2030 climate-neutrality ambition

113,978	residents (64,896 in the city itself) · capital of Epirus · university city on Lake Pamvotis
2030	climate-neutrality target · EU Mission city (2022) · Mission Label (2024)
352 kt	CO_2e emissions in the 2019 baseline year
−80%	emissions reduction target by 2030 — beyond national goals

A testbed for EU projects: NetZeroCities · POCITYF · Motivate · Streets for Citizens · UrbanGreenLeap · ELABORATOR · MOBILITIES FOR EU · CLIMABOROUGH



Ioannina and Lake Pamvotis

Metronome
NET ZERO CITIES
Funded by the European Union

ΔΗΜΟΣ ΙΩΑΝΝΙΤΩΝ



Six Greek cities among Europe's 100 climate-neutral cities by 2030.

Six Greek cities participating in the program are tasked with achieving climate neutrality in less than ten years—twenty years ahead of the rest of Europe—by leveraging significant EU resources that offer numerous environmental, social, economic, investment, developmental, and educational benefits.

The ultimate goal of the European Mission is for the 100 selected cities to collaborate and serve as model innovation hubs for all other European cities, developing a repository of best practices derived from successful large-scale projects and investments.

From evidence to decisions: our loop

Evidence alone does not decide — legitimacy, feasibility and timing do

1

Measure

A shared baseline: emissions, mobility, open satellite data, METRONOME scenarios

2

Listen

Co-design on site: breakfasts, picnics, Greenathon, stakeholder commitments

3

Test

Pilots in specific places turn opinions into evidence

4

Commit & monitor

Climate City Contract, SUMP and Climate Neutral Zones — then report back

↻ *Monitoring results feed the next baseline — the loop never closes.*

1 · Measure: a shared baseline

Data we can maintain, not data we wish we had

GHG inventory

2019 baseline (352 kt CO_2e) — the reference for every Climate City Contract action

SUMP evidence base

Origin–destination and roadside surveys at the city entrances

Sensors from EU projects

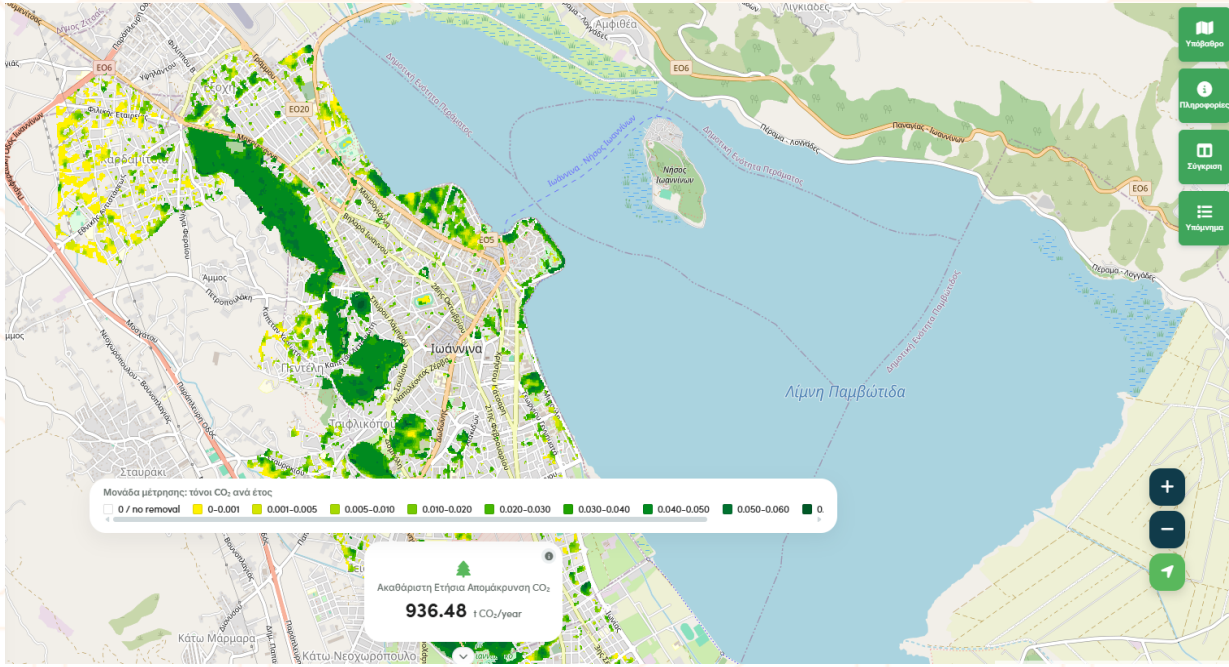
100 on-street parking sensors via Interreg MED Motivate

Open data for pilots

Copernicus imperviousness (10 m) and geological maps show where runoff hits

METRONOME platform

One GIS portal for buildings, rooftop PV, trees, roads and air quality



Metronome platform

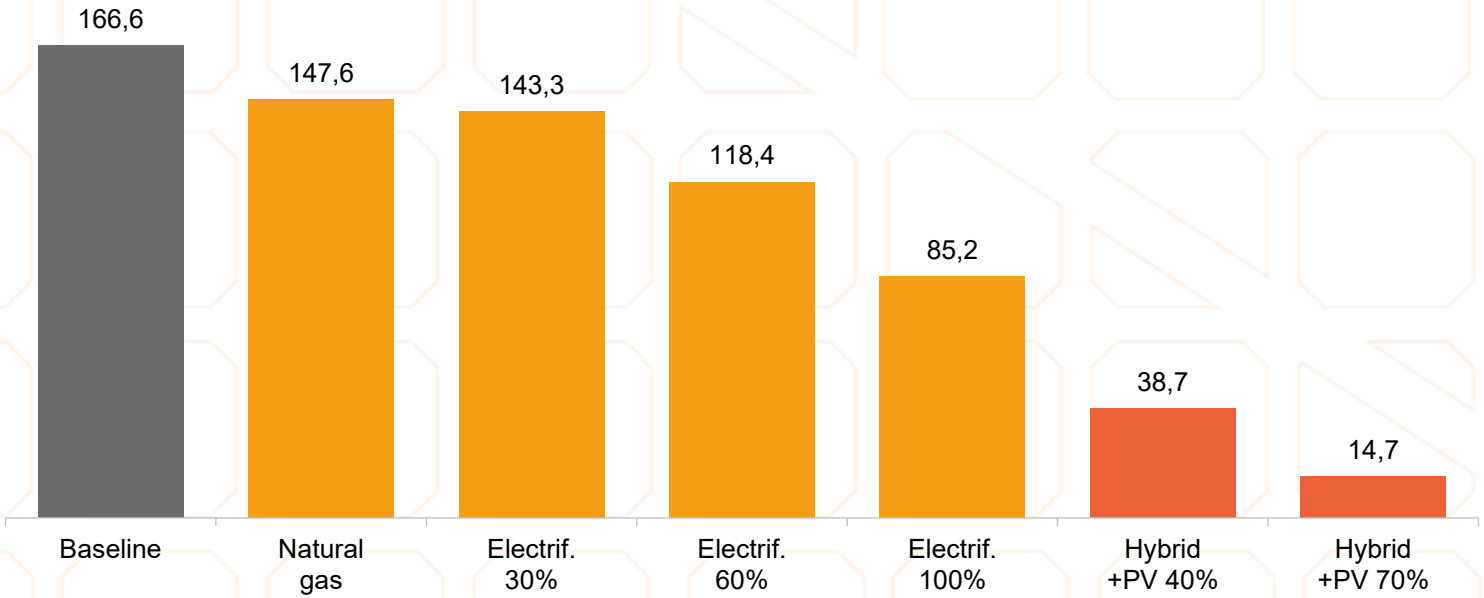
Lesson: *one set of numbers everyone trusts.*

METRONOME: compare before deciding

City-Transformative Intelligence · NetZeroCities pilot with Ioannina & Kozani

Metronome
Design, M&E
City-Transformative Intelligence

Ioannina building stock — annual GHG emissions by scenario (kt CO_2e)

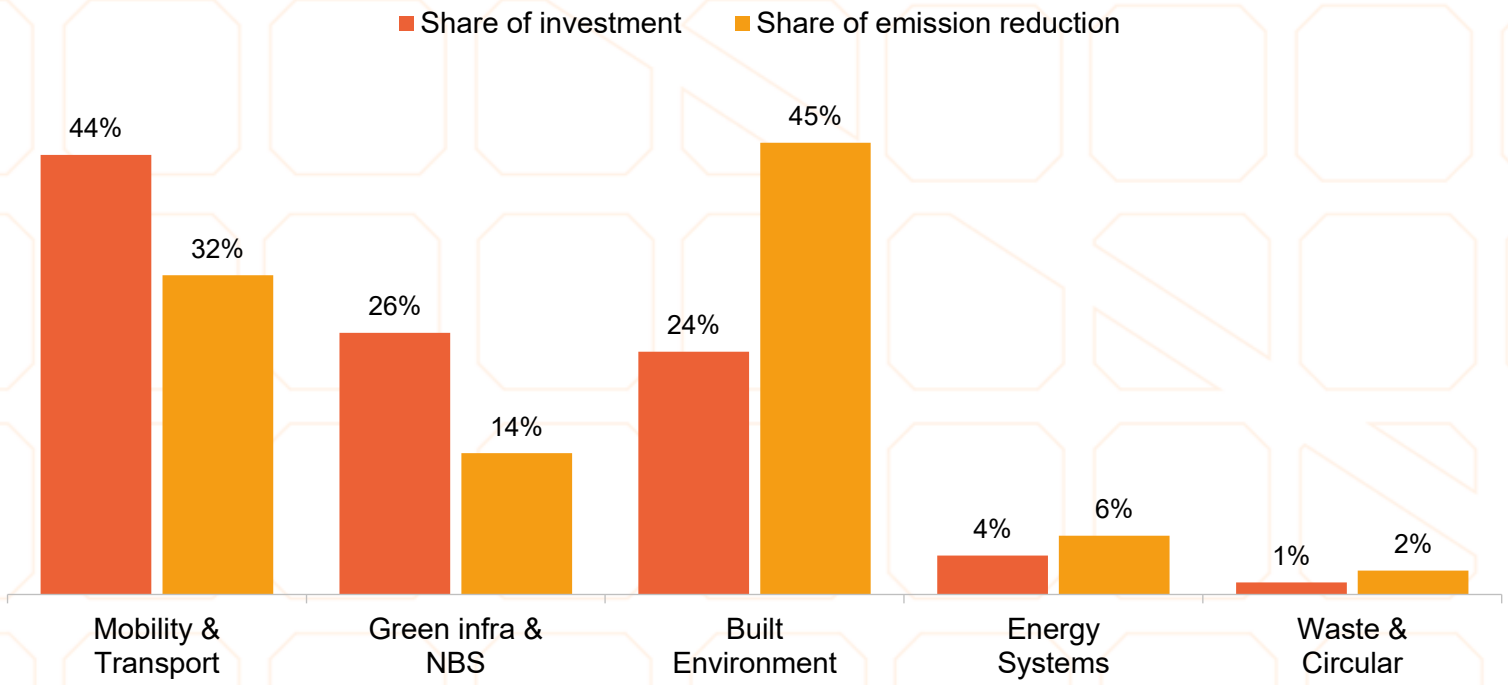


Source: METRONOME portal (portal.metronomeproject.eu) — Earth Observation, census and municipal data

262 GWh/yr	rooftop PV technical potential — 63 kt CO_2e/yr avoided
18.2 µg/m³	mean $PM_{2.5}$ in the centre — above the EU limit of 10
10 m	tree map of 13.8 km²: CO_2 removal per pixel
2019	road-transport baseline (COPERT + SUMP data)

Data reveals the trade-offs

Climate City Contract: €897.7 million programme, 320 kt CO_2e to cut by 2030



MOBILITY

44% of investment

32% of the reductions

Fleets, charging and public transport are capital-intensive.

THE DECISION QUESTION

72% funding gap (€645.6 m)

With 28% secured, the data tells us where each euro cuts most — and mobility has to justify its share with co-benefits.

2 · Listen: breakfast with the neighbours

Community breakfasts at Kaloutsiani — co-designing the staircase with the people who use it



1st Community Breakfast, Kaloutsiani, 8 March 2025



On-site information and feedback stand





The staircase before, and the co-designed proposal

180+	100+	1
1st breakfast	2nd breakfast	city walk with residents

Residents asked for — and got: lighting, low vegetation, bins, better surfaces and resting areas. The lesson: *discuss parking openly before work starts.*

3 · Test: the Kaloutsiani staircase

Streets for Citizens (Interreg Euro-MED) — a car-occupied void turned into a walking link

WHAT WE DID

- Removed informal parking — planters and kerbs now block cars
- Rebuilt the 110-step public staircase: even steps, railings
- 4 LED lighting columns, 11 wooden seats, new planting
- First bicycle ramp on a staircase in Ioannina
- Co-designed: 2 community breakfasts (180+ and 100+ people) and a city walk

75%	83%	100%
use the passage more often	feel safer (≥4/5)	find it more pleasant (≥4/5)

Post-intervention survey of users (small sample, n=12 for perception ratings)

WHAT THE EVIDENCE ALSO SHOWED

- Lost parking moved some cars to nearby streets
- A staircase cannot serve wheelchair users — an accessible route is still needed
- No automated counts → we rely on surveys, not footfall data

Decision: keep it permanently, and scale it into a programme for the city's stepped passages and school routes.

Participation as a public event

Lakefront picnic, Greenathon and Hatzi Square — the street becomes the meeting room











WHAT IT GAVE US

People who never attend a public hearing

A car-free lakefront to experience, not imagine

Children and families shaping the design

Lakefront picnic weekend (road closed to cars) · Greenathon with schools · Hatzi Square: needs on the plans, children draw their square

3 · Test: a lakefront green corridor

UrbanGreenLeap (Interreg Euro-MED) — designed from data and with citizens

PILOT TARGETS — BEFORE → AFTER

	Before	After
Green connectivity	Two isolated spaces	~75 m continuous corridor
Surfaces	Impermeable ground	~500 m² permeable / planted
Stormwater	Runs off unfiltered to the lake	Captured and infiltrated on site
Shade	No tree cover	10+ new trees
Safety	Narrow or blocked passage	Wide, accessible crossings

Process: Greenathon → public presentation → status session — each step reports back



The lakefront today: promenade, park and cycle path

4 · Commit & monitor

Turning evidence into binding, fundable decisions

Climate City Contract — action and €897.7 m investment plan; sustainable mobility is its central pillar

Climate Neutral Zones — waterfront centre, lake island, university district: invest where context allows

SUMP — a long-term, cross-party frame; pilots like Kaloutsiani feed back into it

Stakeholder commitments — taxi union going electric, police monitoring low-emission zones

Monitoring & reporting back — progress tracked against the baseline and shared publicly

WHY IT MATTERS

A decision that is written into a contract, has a budget line and is monitored is much harder to reverse than a good idea in a report.

Where data & AI can help a city like ours

Augmenting — not replacing — public judgement

ALREADY PILOTING IN IOANNINA

AI tourism platform: connects tourist and cultural sites across the area — QR codes in the city, AI-generated maps and destinations selected to match each visitor's preferences.

NEXT, FILLING THE GAPS OUR PILOTS REVEALED

Measure what changed	Anonymised pedestrian & cyclist counters — the gap we saw at Kaloutsiani
Listen at scale	Cluster thousands of comments, in Greek, into themes decision-makers can act on
Test before building	Extend METRONOME scenarios to mobility and each Climate Neutral Zone

GUARDRAILS

- ✓ Transparent methods citizens can question
- ✓ GDPR & privacy by design
- ✓ Humans — and councils — decide
- ✓ Shared tools across cities: small cities can't build alone

Three takeaways

1

Evidence informs, legitimacy decides

Bring citizens and stakeholders in early — and turn their input into commitments.

2

Test small, decide big

Pilots like Kaloutsiani build evidence and acceptance at the same time.

3

Keep the loop alive

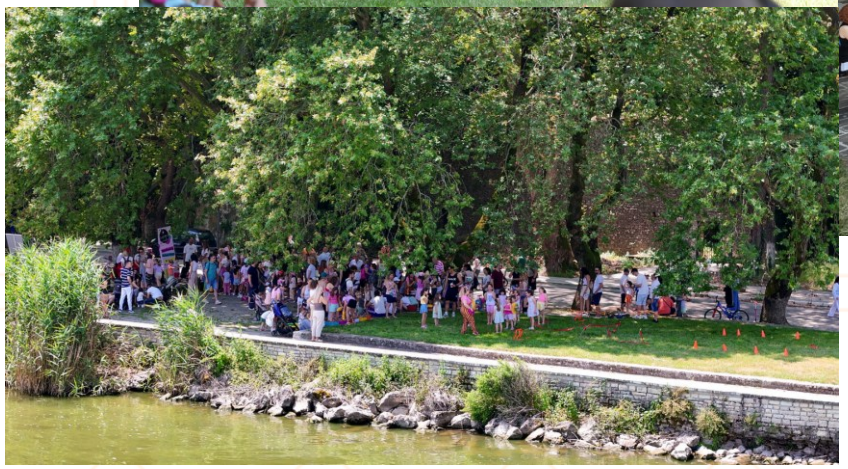
Monitor, report back, adjust. Data matters most after the decision.

Thank you

Ευχαριστώ · Gràcies · Gracias







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Role of Data and AI in Informing Policy Decisions in Coventry

The City as an Innovation Test Bed in Mobility



David Hope
Business Development Manager at
Coventry City Council

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CARNET FUTURE MOBILITY RESEARCH HUB
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UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH
Telefónica
NFF NIEDERSÄCHSISCHES FORSCHUNGSZENTRUM FAHRZEUGTECHNIK Ein Zentrum der TU Braunschweig
MobiNexus Collaborating for Innovative Mobility

Background About Coventry

Second largest city in West Midlands region

- 360,000 population, 10,000 businesses – wide travel to work area
- High concentration of Advanced Manufacturing businesses and jobs
- Rich Automotive heritage – Jaguar Land Rover and London Electric Vehicle Company HQ; Innovative supply chain of SMEs; the first car, motorbike and bicycle manufactured in the UK all happened in Coventry
- Strong innovation ecosystem to support Advanced Manufacturing and Mobility – WMG, University of Warwick, Coventry University, UK Battery Industrialisation Centre, Manufacturing Technology Centre
- Emerging strengths in Creative Technologies, Smart Energy and Professional Services – serving a wide range of industries
- Need to diversify the economy and businesses in response to electrification, regulation & public behaviour
- Tackling challenges with traffic congestion and air pollution



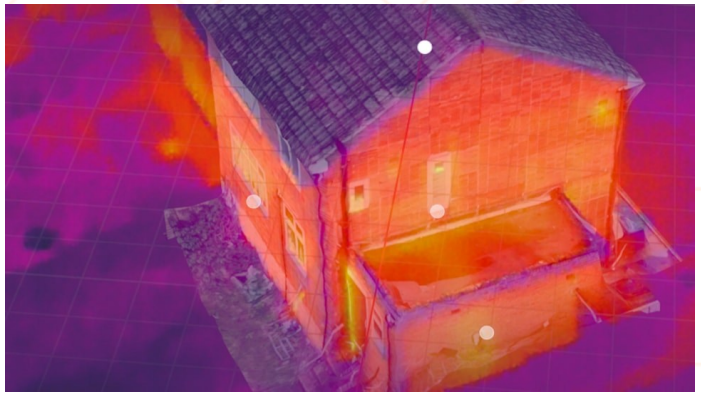


How Coventry Has Used Data & AI

Key enabler in city being test bed for new innovations

- Measuring footfall data – Huq Industries signals platform, using anonymised mobile phone data (pedestrian flows and dwell times)
- Monitor traffic flows – Vivacity AI-powered multi-modal transport data and video analytics at traffic signals
- Enabling infrastructure for testing autonomous vehicles (roadside sensors) – UK Central Test Bed
- DynaCov – piloting on-the-move electric vehicle charging with ElectReon and Coventry University
- Drone innovation – partnering with Skyfarer to trial delivery of medical supplies, work with Kestrix to measure energy performance of homes to inform investments in retrofit, and collect data for other public service uses cost-effectively
- West Midlands hosting ITS World Congress 2027 – Coventry will be a “living lab” showcase
- Greater use of AI and data to deliver early interventions – including in Social Care, Special Educational Needs, addressing barriers to employment and social inclusion





How Decisions are Made in Coventry

Elected Councillors Make Final Decisions

- Sometimes, for large regional-scale projects, it is the elected West Midlands Mayor
- Many are not experts in AI, data or technology – for many decisions, they may not be an expert in the particular subject area
- Requires a balanced understanding of the respective challenge, reasons behind it, options for delivery of solutions, and expected costs and economic, social and environmental benefits
- Timescales are also a key factor – availability of funds, local workforce capacity and perception of risk
- AI can help to expand the availability of evidence, both behind causes of challenges and likely benefits – can also offer more insights into public behaviour
- Piloting innovations and getting public feedback is an important step
- Therefore, data, AI and technology are key enablers, but not the only considerations





Very Light Rail R&D Demonstrator

Developing a new sustainable form of transport

- Tackle traffic congestion in Coventry and provide affordable form of sustainable transport to connect more residents with key employment and education sites and city centre (Transport for West Midlands, WMG and private sector partners)
- Track that goes less deep beneath road surfaces (c30cm) and lighter vehicle than conventional trams – can be built at less than half the cost and in less than half the time
- Test track uses a digital twin with vibration sensors and desire for vehicle to be autonomous, applying automotive technologies
- Route plans will also be informed by digital and data inputs – traffic flows and likely patronage
- Other cities in UK and internationally have similar challenges – therefore exportable concept if fully proven and potential to create new local supply chain and good quality jobs
- Public, Councillors, prospective funders and other Mayoral Authorities were invited to ride 220m test demonstrator route
- Positive experiences instrumental in getting funding approved for next steps - 800m demonstrator route.

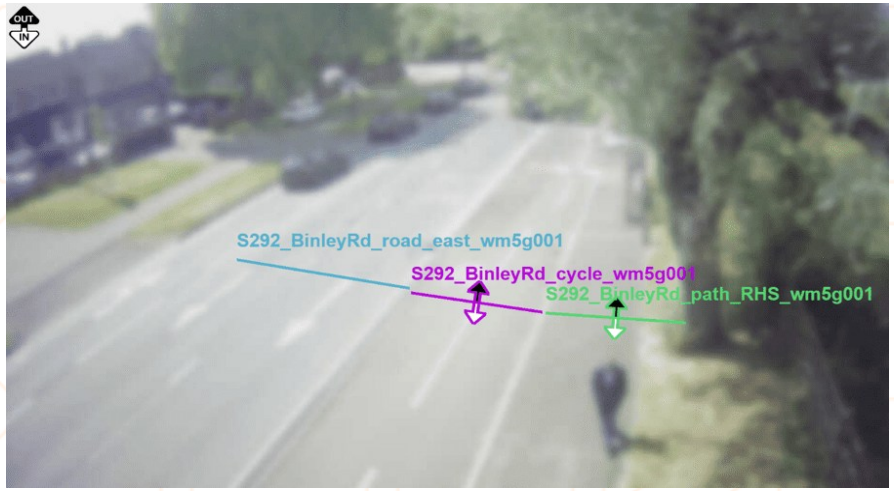


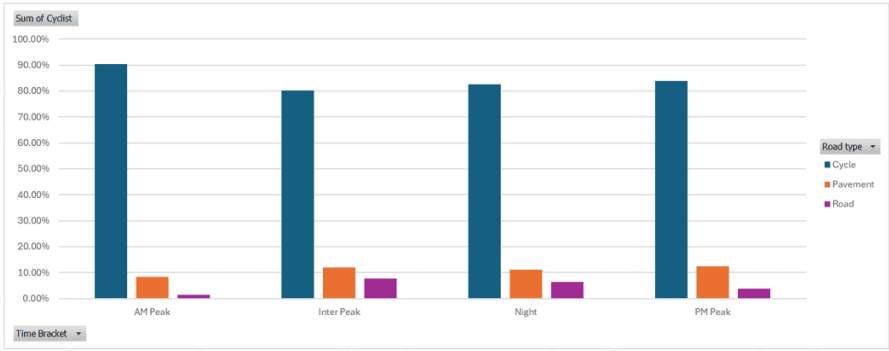


Coventry Segregated Cycle Lanes

Expanding use of active travel

- Routes informed by those with the highest traffic congestion and a lack of safe cycling routes in proximity
- Also targeting areas characterised by poorer health levels – promote healthier lifestyles
- Required digital input into the design of segregated lanes (including busy transport junctions)
- Also needed campaigns to raise awareness of benefits and opportunities linked to active travel and incentive take-up, and inform the public about the safety of segregated cycle lanes
- Sensors put on main routes to track use of segregated cycle lane vs pavement & road (82% of cyclists used the lane)
- Data on usage and behavioural changes are key to informing the rollout of additional segregated cycle lanes in the city (being funded through West Midlands Combined Authority devolved transport funds)





Coventry & Warwick Investment Zone

Accelerating the region's Electric Vehicles Cluster



- Partnership - Coventry City Council, West Midlands Combined Authority, Coventry University, WMG, and developers
- Build on local Automotive supply chain, battery R&D activities, and investment in local charging infrastructure
- Strongly informed by projected growth of global Electric Vehicle Market ($2.4tn in 2026 to $12.6tn in 2033) - and legislation for 100% of new cars and vans to be zero emission by 2035
- Data and AI feed heavily into battery design and R&D and Electric Vehicle testing and simulation
- Investment Zone status for Greenpower Park site to the south-east of Coventry – tax incentives and reinvestment of new business rates to accelerate investment in battery production and R&D and related Automotive and Advanced Manufacturing supply chain activities
- Public investment in enhanced power supply and access points, plus Supply Chain support and skills programmes
- Need stronger public uptake of Electric Vehicles and confidence that global market growth is materialising



Role of Data and AI in Informing Policy Decisions in Coventry

The City as an Innovation Test Bed in Mobility



Thank You for Listening

david.hope@coventry.gov.uk

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