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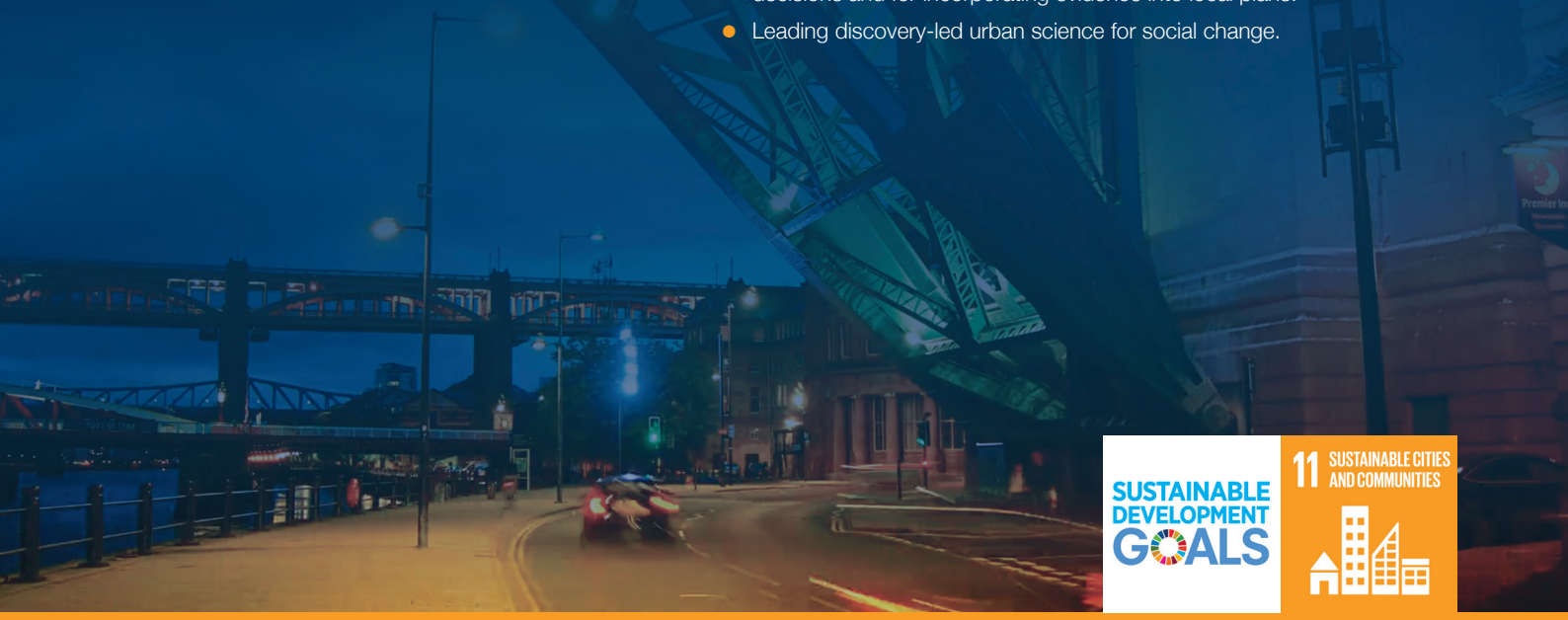
Urban Observatory
SenseMyStreet

We are:

- Providing citizens with the tools and expertise needed to create evidence for change.
- Creating a radical platform for citizen science and community action that tackles the root of urban problems.
- Equipping communities with technologies to challenge uninformed decisions and for incorporating evidence into local plans.
- Leading discovery-led urban science for social change.



SUSTAINABLE DEVELOPMENT GOALS

11 SUSTAINABLE CITIES AND COMMUNITIES

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SenseMyStreet

What is it?

SenseMyStreet is an urban sensing toolkit and citizen-led science initiative in Newcastle set up in collaboration between the Open Lab and Urban Observatory – the UK's largest urban data sensing network. It works with local communities to tackle pressing urban challenges such as:

- air quality
- traffic congestion
- flooding (river levels)

SenseMyStreet gives communities the power to gather data relevant to issues that are important to them at a local scale, using scientific grade equipment. The research is an example of how the Urban Observatory is exploring the frontiers of the science of scale to deliver urban futures that communities want. Its aim is to be an exemplar that is self-sustaining so communities with expertise and experience in digital urban sensing train and help others with sensor deployments.

Evidence for change Data for citizen action

Why is it important?

Digital technologies such as air quality monitors or vast urban sensing networks are normally not available to communities for solving local problems. Citizen science provides the means for them to collect their own data using mobile and stationary digital environmental sensors. This provides them with a stronger voice backed by scientific evidence, and ensures that they are listened to by decision makers.

The research is led by communities, enabling them to generate their own evidence to help answer the questions they want to answer.

- Communities identify problems in their neighbourhoods, such as poor air quality, and use hand-held monitors to map them.
- Stationary digital urban sensors are deployed for long-term monitoring.
- Data is provided back to the community in ways that they understand and use for civil advocacy.

SenseMyStreet facilitates the opportunity for communities to empower themselves and use science for issues of civil and environmental justice.

Bridging civil and environmental justice

What we have accomplished so far:

- We have created an open citizen science toolkit and platform that enables communities to tackle problems by using sensing, monitoring or crowd sourcing information.
- Measured the extent of local air quality problems in the city of Newcastle to help communities understand what solutions to apply locally.
- Helped citizens understand what urban sensor data is telling them through data visualisation.

Why Newcastle University?

- Unrivalled research and technology in digital urban sensing combining expertise in computing, engineering and social science, led by the Urban Observatory.
- Pioneering work in the implementation of digital urban sensing.
- Applying digital sensors to measure a variety of indicators, including: rainfall, temperature, solar radiation, wind, humidity, bee activity, air quality, traffic noise and tidal level.

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Working towards Goal 11: Sustainable Cities and Communities of the 17 UN Sustainable Development Goals (SDGS).

For more information please email: urbanobservatory@ncl.ac.uk

Open Lab
EPSRC Engineering and Physical Sciences Research Council
UKCRIC