

# BUILDING SUSTAINABLE CITIES AND A BRIGHTER FUTURE

**IMPACT!**

Engineering and Physical Sciences Research Council | Case study 11



↗ 90%

of the UK population live in urban areas so sustainable development is becoming increasingly important.

**Birmingham Eastside is an exciting redevelopment project, creating a learning and technology quarter for Birmingham. EPSRC-supported researchers are helping make this project – and others like it – more sustainable.**

Located to the east of the city centre, Birmingham Eastside is a previously neglected industrial area, which is now undergoing transformation and revitalisation. Researchers from Birmingham have used Eastside to explore some of the issues surrounding sustainable development.

## IMPACT ON TOMORROW'S CITIES

Research has shown:

### → Small businesses matter.

Developments that wipe out small firms and services are liable to fracture important social and economic networks.

### → Open green spaces are not enough.

Wildlife appreciates wild and overgrown spaces: manicured parks alone will not maintain biodiversity.

### → Early involvement is essential to maximise sustainability.

As development designs advance, options begin to be 'locked in' or 'locked out'. Generally it is less effective to retrofit sustainability solutions, than to incorporate them from the start.

## Building a sustainable future

In 2007, for the first time in history, urban dwellers outnumbered rural folk and cities look set to keep growing in the future.

Sustainable development is more important than ever before. Using Birmingham Eastside as a case study, Professor Chris Rogers, from the University of Birmingham, and his team, have been investigating how the push towards sustainability might be accommodated in redevelopment plans.

Dividing the project into four themed work packages (utilities, wildlife, socio-economics and built environment), Professor Rogers and his team explored the ways in which

Eastside could maximise sustainability, and the processes that hindered or prevented sustainable practices being adopted.

## A holistic approach

Because the team were involved with the planning process from the early days, they have been able to follow the process through, assessing the final sustainability performance against the original aspirations.

Professor Rogers and his team found that lack of information and guidance was a significant barrier to sustainable practices being adopted. Furthermore, early multidisciplinary involvement was key to sustainable designs being adopted.

## Helping wildlife

A biodiversity audit revealed that Eastside was home to a wealth of wildlife. Guidance on how to maintain this biodiversity has meant that the development has incorporated a number of wildlife havens, such as green roofs on certain buildings.

Meanwhile, the Eastside land-use database revealed how the loss of small firms and services can fracture important social and economic networks. As a result public participation initiatives have been used to help sustain Eastside's heritage.

Now Professor Rogers and his team are applying the knowledge they have gained to other EPSRC-funded projects, working with Islington in London and the Ebbsfleet Valley, part of the Thames Gateway in the boroughs of Gravesham and Dartford.

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