



University of Nottingham Project SCENe: Trent Basin

Pioneering 3D Community Interaction Model Created by IES to Visualise Real-time Energy Data Online and Via 147 Inch Touch Screen.

SERVICES PROVIDED

- Community Information Model
- Online Cloud-based Platform
- Interactive Touch Screen Wall



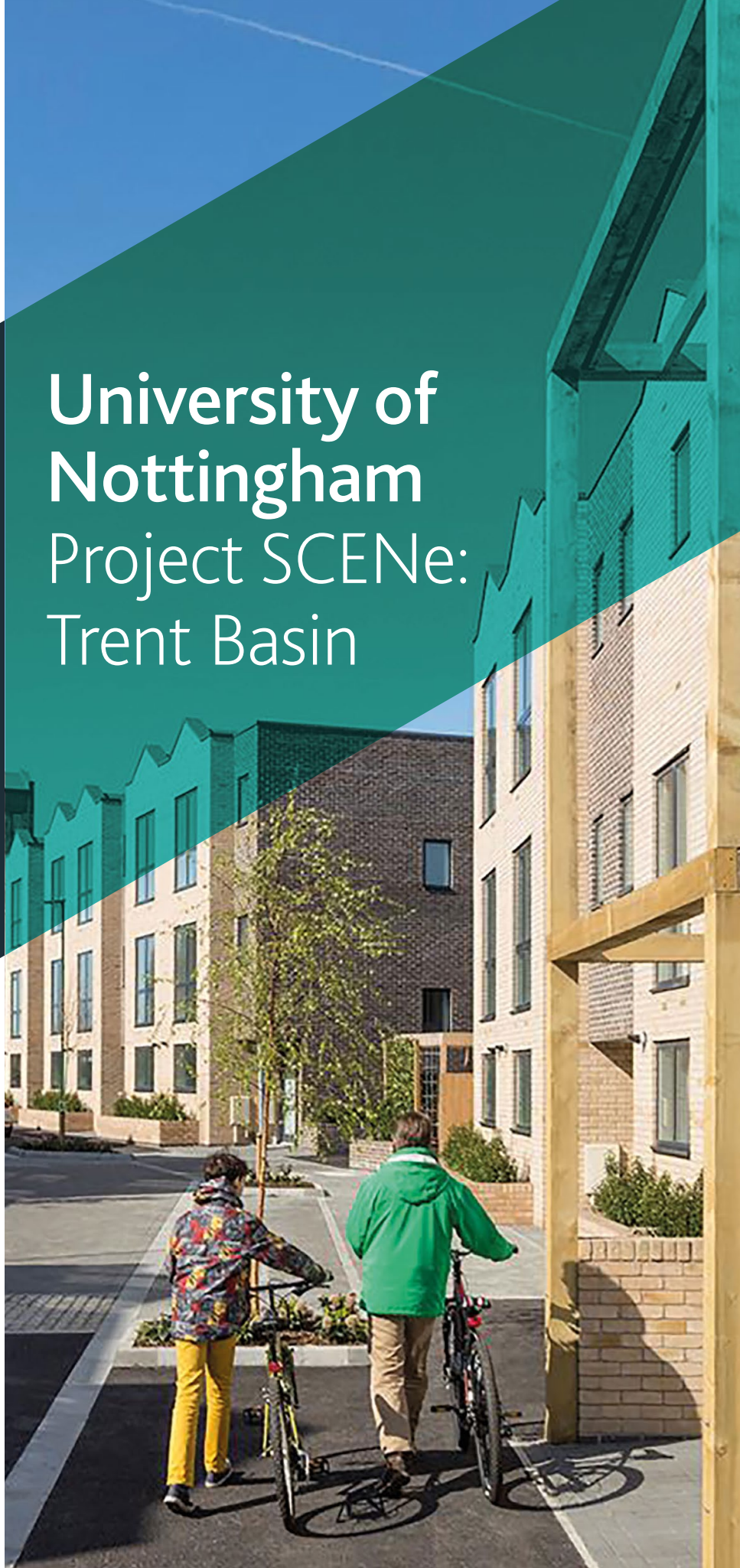
UNIVERSITY OF NOTTINGHAM
PROJECT SCENE:
TRENT BASIN

SECTOR: IES ICL

DATE: April 2019

COUNTRY: UK

www.iesve.com/icl



IES created an interactive platform that enables the Trent Basin community to visualise its energy data in real-time. The platform provides information on renewable energy generation and storage, alongside energy consumption data, and general information about the homes.



In accordance with privacy laws, the data shown in this image is example data only and is not linked to any real-life residential properties

Trent Basin is a low-energy community located within Nottingham Waterside bounded by the River Trent. The development is supported by the Energy Research Accelerator and the Innovate UK funded Project SCeNe, a research project led by the University of Nottingham and ATKearney. It is home to a ground breaking energy project, where energy is being stored on site in the largest community energy battery in Europe.

The aim of the 3D Community Interaction Model was to provide a visual tool that promotes public engagement in the community energy scheme and which communicates the results of this low energy housing development.

The project uses IES's iCIM, iCD and iSCAN technology to integrate real-time data of the energy used, generated and stored at the Trent Basin and allows residents to compare household-level data with the community average, as well as see how much energy the project is producing and selling to the grid.

IES was chosen to develop this pioneering software platform for the project after presenting its newly developed innovative, interactive smart city technology to senior University staff. The platform allows residents and prospective buyers to explore and play around with the model, and interact with energy in a way they will not have been able to do before. Users can also influence the platform's future development.

The project makes use of cutting edge smart home and Internet of Things technologies to better understand and predict energy use and behaviour. This allows residents to be given the information they need to make informed choices and to help optimise the operation of the community energy scheme for the benefit of all.

Whether using the online platform or the 147 Inch Touch Screen, residents can move virtually around the real-life site, see it from different angles, see how much energy is being generated and the charging state of the battery in real-time. They can compare this with the other real-time data available such as the weather.

The 147 inch touch screen is located in the Trent Basin 'Community Hub' room, providing a unique way for everyone to interact with the site and learn more about its energy use. The monitor's floor to ceiling design, allows people of all abilities to use and benefit from it. The aim is to make energy easy and compelling to understand, in order to realise its potential as essential for wellbeing and resilience rather than an unseen part of daily life with limited benefits to society or sustainability.

The monitor is part of a suite of methods to support this, including voice-activated helpers, bespoke and mainstream social media platforms, a customised smart metering app compatible on any smart device, and community-based activities.

"By showing community averages of household energy use data and comparative monetary and carbon costs and savings, residents will be able to more easily translate energy behaviours to meaningful impacts and compare their data with the community as a whole, giving them an instant local standard to compete against."

Lewis Cameron
Research Fellow, Project SCeNe,
University of Nottingham

Project SCeNe stands for "Sustainable Community Energy Networks". It is a consortium that brings together companies involved in construction and the energy supply chain, combined with the research community and buyers of homes at Nottingham's Trent Basin development.

Project SCeNe has a simple vision: "to enable all future housing developments to embrace renewables to lower their energy costs and carbon footprint without the hassle for the homeowner or developer".

KEY FACTS

- 145+ low-energy homes
- Integrated solar and thermal ground source energy generation
- Largest community energy battery in Europe
- Ground breaking community energy scheme
- Interactive real-time energy model
- 147 inch Touch Screen

Project SCeNe is funded by Innovate UK to find out more please visit www.projectscene.uk

PLEASE CONTACT

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