

O₂ customer story

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Jacobs and O₂ Smart Steps achieve a step change forward in transport planning

Jacobs introduces new ways to leverage big data sources from O₂ to transform the way they use information for better transport demand forecasting.

JACOBS[®]



“ Using mobile phone data to derive accurate trip patterns is the biggest step change in my professional lifetime. ”

Stephen Rutherford,
Executive Director, Transport Planning

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A new way to generate data: abundant, accurate and instant

Whether it's consulting on plans for a high-speed railway, forecasting the impacts of changes to an airport, or advising for all kinds of other transport projects, one critical aspect underpins much of what Jacobs' transport planners do: and that's accurate data.

In the past, that often meant roadside interviews, coordinated by the local police force, asking drivers where they had come from, where they were going, and the purpose of their trip. It was particularly time-consuming in both planning and execution. The quality of the information relied on truthful self-reporting by those interviewed and yielded small sample sizes. It also only captured detail from the drivers, neglecting any passengers and other road users such as pedestrians, bicycles and buses.

So Jacobs decided to try a completely new approach, one that didn't require lengthy and costly projects to gather the detail they needed, but could instead draw on the millions of pieces of data captured by a mobile network each day.

In speaking to O₂, Jacobs realised that O₂ Smart Steps could provide aggregated and anonymised data (to ensure that individuals cannot be identified) from over 24.5 million mobile phones. Jacobs was able to instantly access big sets of live, active data as well as analyse historical data that reached back to 2013. This told them when and how people travelled across the country, and contained a wealth of other demographics as well.

Jacobs' research analysts instantly saw how this would significantly enhance the services they could offer their clients, providing deeper understanding and insight while reducing a project's time and costs.

Helping make cities better places to live

O₂ Smart Steps provides Jacobs with aggregated and anonymised mobile phone data based on real crowd behaviour. With increased quantities of higher quality information at their fingertips, Jacobs' analysts can ask more questions of the data. They can explore new lines of thinking. They can get easy, accurate insights fast, to help clients make better transport and infrastructure decisions.

"By fusing the mobile phone data provided by O₂ Smart Steps with other big data sources (including social media, smart cards, cycling apps, GPS from freight and taxis), we're able to devise schemes and advise clients on exactly which schemes they should go forward with (on both the supply side and the demand side), to make cities a better place to live," says Jacobs Head of Digital Solutions, Darren Martin. With historical data available from 2013, as well as continually updated data providing much higher sample sizes, Jacobs can more accurately calculate the impact of a particular scheme for an airport, building, road or high-speed rail line.

O₂ Smart Steps gives Jacobs:

- A saving of four months for a typical 16-month project.
- Visibility and insight to over 100 million journeys per day.
- Access to over six billion network events per day.
- Secure, anonymous, aggregated and extrapolated data.
- Digital access to data from 2013 onwards for immediate analysis.
- The chance to leverage O₂'s mobile customer base of over 24.5 million subscribers.
- Coverage across more than 99% of the UK population.
- O₂ professional services that help tailor relevant reports and data outputs.

“Working with O₂ Smart Steps openly and collaboratively is really giving us much better data on journey demand that we use within our models as part of our larger digital solutions capability.”

Darren Martin,
Jacobs Head of Digital Solutions –
UK, Europe, Middle East, Africa



“ At Jacobs we help businesses by turning big data into actionable insights and develop forward thinking digital solutions. ”

Darren Martin,
Jacobs Head of Digital Solutions –
UK, Europe, Middle East, Africa



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About Jacobs

Jacobs is one of the world's largest and most diverse providers of full-spectrum technical, professional and construction services for industrial, commercial and government organisations globally. The company employs over 54,000 people and operates in more than 25 countries around the world. For more information, visit www.jacobs.com

Jacobs provides transport planning, consultancy, appraisal and advisory services to help clients move people, goods, and freight over land, through the air, across the sea, underground, and even through mountains.

Clients rely on Jacobs to be strategic and practical; to help them save money while being innovative; and to be environmentally sensitive and understanding of community concerns when delivering crucial infrastructure projects.

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