

# Jacobs Consortium Partners with Transport for London on Big Data Analysis

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Estimating travel demand from mobile phone network data

DALLAS, Aug. 1, 2018 /PRNewswire/ -- **Jacobs Engineering Group Inc.** (NYSE:JEC), in collaboration with **O2** and **AECOM**, is working with **Transport for London (TfL)** to provide transport demand-related data and information for London using big data analysis technology. TfL is the integrated transport authority responsible for the operation of the public transport network and main roads in London.

The four parties are working together to fuse anonymized mobile network "event data" with a diverse range of complementary data sets to better understand travel patterns across London. Mobile devices (e.g. phones and tablets) generate event data as they communicate with the network in which they are connected.

Ideally, this project will reduce the need for paper surveys to understand where people are travelling to and from, revealing how the transport network enables them to complete their journeys.

The event data is being sourced through O2's Data & Insights platform using anonymized and aggregated data from the O2 network, providing a much higher sample rate and richer dataset compared to more traditional data collection methods. Advanced Big Data analytics will then be used to understand and identify trends from the combined data, providing a more detailed understanding of how people use the city's transport network at various times of the day. This will then be used in TfL's strategic models – allowing planned transport investment to be more accurately focused on where it is most beneficial to reduce delays and increase capacity.

"With London's population currently at 8.8 million, and forecast to grow by 2M to 10.8M by 2041\*, it is important to leverage the power of new technology to help TfL address the transport challenges facing the city," said Jacobs

Buildings and Infrastructure Europe Senior Vice President and General Manager Donald Morrison. "The use of big data represents a significant step change, with current models based on data collected using traditional methods such as roadside interviews and paper surveys. The insight gained will enable TfL to improve urban mobility and make better informed investment decisions."

Jacobs' Global Solutions Director for Transport Planning, and the overall project leader, Stephen Rutherford said: "To our knowledge, this is the first time such a large scale, big data project using mobile phone event data has been undertaken in a complex world city such as London. The step change allows us to statistically fuse the multi-modal, anonymized mobile data with other emerging app-based data sources to develop a full pattern of trip-making across London."

"This exciting project is an example of how we are bringing intelligent big data to the center of infrastructure decision making," added Morrison. "This builds on Jacobs' leading digital solutions in the urban mobility arena and is a great example of how we are helping our clients push the boundaries by combining the latest technology with our deep understanding of the industry and our clients' needs."

Managing Director for O2 Data & Insights Dave Sweeney said, "We've learned a great deal about how to turn mobile event data into actionable insights for the transport industry over the past few years, working with leading road and rail organizations, and we are thrilled to be working with Jacobs, AECOM and TfL to enhance London's transport network."

"The transport sector – particularly in cities – is a vast generator of big data," said AECOM Regional Director, Transportation, Paul Hanson. "Advancements in analytics, enhanced computing and improvements in mobile connectivity have opened up the potential to combine and use these big datasets in new and exciting ways. The potential transport benefits could be considerable, and include greater predictive capacity, leading to better transport and land-use planning; new behavioral insights; better customer services and better network utilization and performance. This in turn can lead to greater economic competitiveness and growth, together with the improved quality of life for residents."

**Jacobs Connected Enterprise (JCE)** is a suite of integrated capabilities and solutions to enable digital transformation. JCE provides clients the capability to connect, protect and analyze operational systems and data. JCE spans several core functional categories, including the Industrial Internet of Things (IIOT), IT and network infrastructure, cloud solutions, data analytics and cyber security.

## About Jacobs

Jacobs leads the global professional services sector delivering solutions for a more connected, sustainable world. With \$15 billion in fiscal 2017 revenue when combined with full-year CH2M revenues and a talent force of more

than 77,000, Jacobs provides a full spectrum of services including scientific, technical, professional and construction- and program-management for business, industrial, commercial, government and infrastructure sectors. For more information, visit [www.jacobs.com](http://www.jacobs.com), and connect with Jacobs on [LinkedIn](#), [Twitter](#), [Facebook](#) and [Instagram](#).

## About O2

O2 is a mobile network operator and the principal commercial brand of Telefónica U.K. Limited, which is part of the global telecommunications group Telefónica S.A, headquartered in Spain and operating in Europe, and North, Central and South America. O2 was awarded Best Network Coverage in 2018 by uSwitch and with over 32 million connections to the network, it runs 2G, 3G and 4G services across the U.K., as well as operating its nationwide O2 Wifi service. The company is the network of choice for mobile virtual network operators such as giffgaff, Sky Mobile and Lyca Mobile as well as managing a 50:50 joint venture with Tesco for Tesco Mobile.

## About AECOM

AECOM is built to deliver a better world. AECOM designs, builds, finances and operates infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, AECOM connects knowledge and experience across its global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, the work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately \$18.2 billion during fiscal year 2017. See how AECOM delivers what others can only imagine at [aecom.com](http://aecom.com) and [@AECOM](#).

### \* Mayor's Transport Strategy 2018 (London)

Statements made in this release that are not based on historical fact are forward-looking statements. We base these forward-looking statements on management's current estimates and expectations as well as currently available competitive, financial and economic data. Forward-looking statements, however, are inherently uncertain. There are a variety of factors that could cause business results to differ materially from our forward-looking statements. For a description of some of the factors which may occur that could cause actual results to differ from our forward-looking statements please refer to our Form 10-K for the year ended September 29, 2017, and in particular the discussions contained under Items 1 - Business, 1A - Risk Factors, 3 - Legal Proceedings, and 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations. We do not undertake to update any forward-looking statements made herein.

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