



TRANSPORTATION | SOURCING

# Crossrail Relies on JAGGAER to Source Europe's Largest Construction Project

## Customer Profile

Crossrail is one of the most significant infrastructure projects ever undertaken in the UK. The high frequency, high capacity railway is currently the largest construction project in Europe. The numbers involved are testimony to its size and complexity: 10,000 people working across 40 sites; a route running over 60 miles, 26 miles of new twin-bore tunnels

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Kevin Lloyd-Davies,  
Head of Procurement, Crossrail

requiring 250,000 tunnel segments of pre-cast concrete. This mammoth \$21 billion spend project must ensure that all goods and services are sourced efficiently, fairly and cost effectively.

The environment in which procurement operates today has become far more complex, and Crossrail is no exception. The program is large and multi-faceted, and the supply chain long and diverse. More than 62% of Crossrail Ltd (CRL) business has gone outside London and 58% small or medium-sized enterprises (SMEs) have secured work (directly and indirectly) on Crossrail's new, world-class railway. It has committed contracts worth \$15.5 billion so far, including major tunneling contracts and main construction contracts. Tight control over the sourcing process and pin-point accuracy of stored and disseminated information is essential to its management.

The staggering volume of goods and services to be acquired calls for a procurement system that is equally world-class, flexible, yet robust enough to handle the hundreds





of interdependent sourcing projects and sub-projects that must be managed. With a successful track record in large, one-off, time-bound projects like the London 2012 Olympics and the 2014 Commonwealth Games in Glasgow, JAGGAER sourcing solutions were seen as the obvious choice. It has been an integral part of both the Olympics and Crossrail's successful procurement processes which has led to its adoption for the HS2 project preliminary surveys and services.

## Challenges

From the very beginning of their initiative, to implement a full procurement system rapidly from start-up to complete operational delivery to meet testing timelines, the JAGGAER and Crossrail implementation teams were faced with tough challenges. One of the key activities facing procurement is to ensure delivery on time, on budget, and to relevant quality standards all within a highly regulated and sensitive environment demanding open and transparent processes. Thus, it was paramount that multiple procurement phases be interfaced and the various partners involved completely aligned to ensure timely and sequential delivery of the procurement

of critical-path categories, like tunnel boring, excavation, signaling and tracking. At the same time, Crossrail had to take into account the complex supply chains and local economic impact and, of course, user acceptance of the system. The organization sought a full program procurement strategy, which included supply chain tiering, market engagement and process management.

Kevin Lloyd-Davies is head of procurement at Crossrail, charged with looking after the procurement function, including core procurement, supply chain and ERP. "Many organizations, especially in the public sector, need to undergo a cultural shift in order to change to an automated process. New technologies are not always welcomed by people who are used to doing things in a certain way. But that wasn't the case at Crossrail — JAGGAER helped us get the message across and once it was understood, it was accepted rapidly."

"In terms of procurement," said Paul Darlington, Crossrail's procurement production manager, "we are happy to say we have met all our deadlines to date. Without the electronic



tendering system this would have been very difficult to achieve; to get where we are now, with everything in place, is, in part, due to the software and the partnership built between JAGGAER and ourselves.”

Once a PQQ is opened on the system, all a company has to do is register to view the opportunity and respond. Once the deadline for responses is reached the PQQ is evaluated to select a shortlist of bidders. Those who are successful at the pre-qualification stage are then invited to submit bids. “We want to shortlist only those that will give us a viable option,” explained Darlington.

It is imperative that if any changes are made they are reliably communicated to all suppliers. It was vital for Crossrail to have a proper and robust procurement process in place. Lloyd-Davies explained, “When we release a new RFP on the system it is live immediately. If, for example, we, as the buyer, make a change, all suppliers will get alerts. This automation gives us peace of mind that all suppliers receive the information at the same time to comply with EU rules. The

software has also helped us with the logistics of the documentation, as some bids contain thousands of documents; paper versions would not have allowed us to package, distribute, and receive them in an efficient and timely manner.”

## Solution

The essence of a good procurement process is its responsiveness to change. As a result, the ability of procurement managers to be flexible in their response to complexity is key to the success of the function, so it is important that the software easily accommodates change. This is a function of the JAGGAER system that Crossrail finds particularly beneficial.

Lloyd-Davies explained, “All of the projects are interdependent on the Crossrail program, which means updates could be required as the program proceeds. The bids are big, they can have anything from 2,500 to 4,000 documents attached — it would be near impossible to manage without the software. Specifications, drawings, methodology and milestones may inevitably change during the bidding period, and we need to be sure those changes are reflected universally and communicated instantly to the suppliers. The JAGGAER system is a reliable communication system and traceable; it’s real-time and it’s live.” Crossrail is always mindful of compliance and regulation. It takes its responsibility very seriously, ensuring it operates on an open and fair playing field for all tenderers. The ability to have all documentation electronically in one place, easily accessible and easily retrievable, is a must for auditing and reporting. The company is accountable to various government stakeholders including the Department for Transport (DfT) and Transport for London (TfL) for the expenditure incurred

in delivering the project; it is therefore subject to scrutiny by various audit bodies. So as well as spending wisely, having a full audit trail is paramount.

“The system allows us to interrogate the data at any time,” said Lloyd-Davies. “Should a message or communication not get picked up promptly, we are aware. It gives us full visibility of who received an amendment, who opened it, and which documents have been downloaded. We have available to us accurate and demonstrable evidence, in the system, that appropriate communications were made, and when. Under a manual system this would be unmanageable, so this aspect of the software is very valuable to us.”

Crossrail uses the data for monthly reports and to answer enquiries. Being able to respond quickly and confidently gives the company a professional edge, whether it is FOI requests, parliamentary questions, or specific questions from the Mayor. Crucially, this data is centrally available and always accurate.

## The Future

Darlington has been using the software for many years, so has seen some changes and developments in the tool in his time. “A big advantage of JAGGAER is that it consistently updates its software to make it more intuitive — things like phraseology, making the buttons do exactly what they say they will, moving things around to make navigation easier.

They take customer feedback seriously.” And in terms of support, Crossrail has been happy with JAGGAER’s responsiveness and helpfulness. Upon first registration, a supplier is pointed to a help facility — even if they have difficulty loading their registration, they are fully supported.

For Crossrail’s procurement team, it’s all about efficiency. Darlington knew that making the procurement process as streamlined and standardized as possible would reap great efficiencies overall. “Sending out 4,500 documents by post is a near-impossible task,” he said. “It impacts not just cost, but time and resources. So the system has brought us time and cost savings. It speeds up the delivery dates and makes for an all-around more efficient procurement process which we can manage more effectively.”

Crossrail is making exceptional changes to the way people will travel, and will benefit the UK economy as a whole. Businesses around the UK can seize the opportunities that the program has to offer. Many contracts throughout the supply chain are yet to be awarded, and the main contractors still need to buy a wide range of goods, works, and services from companies of all sizes. Crossrail has created some of the largest value contracts in UK construction history, providing a much needed boost to the industry and creating major job opportunities. JAGGAER is proud to be an integral part of this major development.

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