



Foresight

A global infrastructure perspective

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What have we learned from the UK's Crossrail project?

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Integrated sponsors, an independent delivery body and strong governance have made this high-risk undertaking a potential text-book case in mega-project management.

Anyone visiting London in recent years can hardly have failed to notice the development of Crossrail. At an estimated US\$ 21 billion, it's Europe's largest construction project, which when fully complete in 2019, will run 100 kilometers (km) from east to west, slashing journey times and regenerating deprived areas.

Projects of this magnitude are often plagued by inefficiencies, delays and overspend. Yet, Crossrail has largely managed to avoid these excesses. Together with Martin Buck, Crossrail's Transition and Strategy Director, and Simon Adams, Head of Commercial at Crossrail 2, I recently authored a review, highlighting several valuable lessons for other ambitious, large-scale projects:

1. Integrate sponsors and stakeholders

Mega-projects often have two or more sponsors setting outcomes and providing funds. In Crossrail's case, it's the UK's Department for Transport (DfT) and London's transport authority, Transport for London (TfL).

Over the many years of planning and delivery, political, public and stakeholder agendas can change. Sponsors may seek additions, alterations or cancellations, restricting progress and adding significant cost.

Formal, contractual integration ensures that sponsors align objectives and speak to the delivery body with one voice. Crossrail's 2008 Sponsors Agreement and Project Development Agreement define project management, ownership and governance, including each sponsor's roles and responsibilities.

This has helped control scope and accommodate views of local authorities through which the new rail line will pass, as well as environmental and other stakeholders.

According to the 2014 National Audit Report on Crossrail, "During the construction phase, the governance arrangements and oversight of the project have ensured tight management of the program so that delivery to both cost and schedule are well managed."

2. Form a capable, independent delivery body

Early in a project, when the business case is being prepared and objectives agreed, the sponsors should have sole charge. Once the plan and scope are formalized, ownership and control can be separated, and delivery delegated to a third party.

Delivery of Crossrail was given to the newly-formed Crossrail Limited (CRL). CRL has its own management team, reporting to an independent board, which challenges executives to meet financial, schedule and quality targets.

This separate, autonomous delivery organization has clarified responsibilities and maintained each party's focus. CRL is a publicly-owned limited company, bringing private sector discipline and high standards of practice and governance.

A common criticism of public-private partnerships is that private companies build, but don't manage, assets. Pressure on construction costs, along with a potential lack of appreciation of future operational needs, has in some cases created assets that are expensive to run and deteriorate quickly.

Although Crossrail's sponsors did not charge CRL with operating the railway, CRL retained an 'operator' group to ensure the line brings value for its entire working existence.

An independent delivery body with a private sector ethos can also attract talent keen to work on a high-profile project run by a professional management team, with commensurate salaries.

Sir Terry Morgan CBE, Chairman CRL, said: "The success of Crossrail has been enhanced by the ability to attract a board and management team with relevant experience of delivering large and complex infrastructure projects; this has been enabled through the independence and autonomy provided to Crossrail Limited (CRL) to focus on project delivery."

3. Create governance that gives the delivery body freedom and accountability

Crossrail's Project Development Agreement stipulates governance, assurance and risk management between the sponsor and delivery body, CRL. It outlines scope, roles and responsibilities, funding and spending rules, reporting requirements, and grounds for intervention.

Transparency and disclosure is high, with CRL management reporting monthly to its board, to demonstrate performance against objectives.

As mentioned, scope change (for instance, requesting a line extension, or new stations) can push up costs and delay delivery. With clear procedures for negotiating changes, the Crossrail agreement has generally kept progress on schedule and within budget.

Delegating full authority to the delivery body can, understandably, make sponsors nervous. Crossrail's sponsors ceded autonomy gradually over 3 years, with CRL's board proving its competence over four review points.

With US\$21 billion committed to Crossrail, sponsors wanted reassurance that funds were being spent wisely. CRL has been incentivized to meet target costs and deadlines, while contractors share both the up-side benefit of cost reduction and the down-side risk of overspend. CRL's funding is a proportion of the total funding envelope, with the remainder held, contingent on delivery performance and anticipated outturn. If goals are not met, then the sponsors can intervene and, ultimately, demand changes in management.

Finally, CRL's board and the sponsors have benefited hugely from independent assurance; an objective, professional 'third line of defense' review of performance and risks.

Andrew Wolstenholme OBE, CRL's Chief Executive Officer commented: "The governance arrangements for the Crossrail

project have provided the freedom for the executive team to focus on delivering the program and have supported a successful outcome to date."

A blueprint for success

To date, Crossrail has been widely viewed as successful. It has progressed swiftly, with a minimum of hold-ups, due in part to limited scope change. The separation of sponsors from delivery body CRL, and the independence and autonomy of CRL has helped immensely.

There are, nevertheless, additional lessons. The project could have been more closely integrated into London's regeneration and growth agenda. Governance could have focused more on realizing benefits. And control over scope change by sponsors, though largely effective, could arguably have been more strongly defined in the contract.

Overall, Crossrail could form a template for other large, complex, government-funded infrastructure projects worldwide.

As James Stewart, a Non-Executive Director of the Joint Sponsor Board between 2008-2011 and now KPMG's Chairman of Global Infrastructure identified: "Through Crossrail, the UK has pioneered the delivery model that clearly separates sponsor and developer. While this has attracted interest internationally, it will be interesting to see if it will be adopted and evolved; for example whether incentivization aimed primarily at avoiding cost overruns can be focused on delivering cost savings."

Talking points

- How much time should be invested in initial integration discussions and planning between sponsors and other stakeholders?
- How much freedom and autonomy should a delivery body have?
- How can sponsors increase their confidence in the capability of the delivery body?
- What's the best way to limit scope change?



This article takes extracts from *Crossrail: Lessons Learned from Structuring and Governance arrangements: Perspectives at the construction stage of Crossrail*, April 2016: <http://learninglegacy.crossrail.co.uk/documents/lessons-learned-from-structuring-and-governance-arrangements-perspectives-at-the-construction-stage-of-crossrail/>

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