

What does it take to deliver complex infrastructure projects on time and on budget?

For decades UK construction was plagued by an apparent inability to undertake flagship schemes without them being late or over budget. Recently, with projects such as the Olympics and High Speed 1, the industry has turned this around. But it's a reputation that is hard won and easily lost, says managing director for Europe and Africa infrastructure Ailie MacAdam.

Ms MacAdam has 30 years' experience with construction and project management giant Bechtel, which has a global reputation for successful execution of the most complex projects as a contractor and project manager.

For the UK Infrastructure Summit, Ms MacAdam distilled her experience on projects including High Speed 1 and Crossrail to give an insight into what underlies a successful project. She concluded: "It's all about deliverability and constructability."

Other key aspects needing a sharp focus were the question of how a project under construction integrated

with existing infrastructure around it, as well as engaging with stakeholders and retaining their confidence.

She expanded on her thoughts for *Transport Times*, and explained the distinction she makes between deliverability and constructability. Constructability is clearly essential, but deliverability, she explains, takes a wider perspective.

"I see deliverability as being the bigger umbrella with constructability fitting under it," she says. Deliverability covers questions such as do you have an aligned agenda with the stakeholders? Do the cost, the programme and the scope make sense? Do you have a supply chain that can respond to the cost and the scope and the programme?

"If you do a vertical cut down the project is it all aligned? Otherwise you get into a situation where the project is launched and the supply chain just doesn't have the capacity, or the resources, the talent or competence to be able to respond and deliver it in a way that makes sense."

Deliverability, she says, needs "a really razor-like vision about what the project's all about. Have you

really crystallised what's the required output, the desired outcome of the programme, and do you have the ability to verbalise what that is? Have you assessed the risks and incorporated that into the baseline?"

Constructability is a subset: part of deliverability is to have a project that's constructable.

"That requires engagement with the supply chain," she adds, "because the supply chain are the experts and have the experience and knowledge about the constructability, and it's really important that stakeholders and decision-makers on the programme engage the supply chain early in order to get the input on constructability."

"You can't just click your fingers and come up with an additional 100 signallers or 100 people to put OLE up, or another 10 cranes that can operate on Network Rail lines, for example. You have to give the supply chain sufficient visibility of the pipeline of work so they can get ready to respond to some of these programmes, and also to voice their confidence in their ability to construct to the parameters of the programme as it's been set out."

Deliverability needs a razor-like vision of what the project's all about

Bechtel has a global reputation for successful completion of the most complex projects. Managing director for infrastructure for Europe and Africa Ailie MacAdam discussed the essence of success with **David Fowler**

turn to page 28



The key to mastering complexity

