

Pace of Pace – what have we achieved?

Highlights

Highlights from the Major
Projects Association event
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**MAJOR PROJECTS
ASSOCIATION**

The Project Speed initiative was launched by the UK Government in the summer of 2020 with a promise to review every part of the major project life cycle in pursuit of faster, greener, better delivery.

A series of pathfinder projects followed in the spring of 2021, and in September the Infrastructure and Projects Authority published its **Transforming Infrastructure Performance Roadmap to 2030**, setting out a vision and action plan for reforming the delivery of major projects in the public sector.

Chaired by Infrastructure and Projects Authority Chief Executive Officer, Nick Smallwood, this seminar explored what has been learnt from Project Speed (**S**wift, **P**ragmatic, **E**fficient, **E**nhancement **D**elivery) and efforts elsewhere in the major projects world to accelerate delivery and secure benefits earlier.

The world of major projects has changed

'The context in which we deliver major projects has changed...we need far more focus on the societal outcomes. We also need to recognise that the built environment has to coexist with the natural environment. We have to embrace the UN Sustainability Development Goals in all that we do. And last, but not least, we need to wake up to the digital revolution. It's not a case of just going out and building what we could for the lowest price. We are working in a different environment.'

Nick Smallwood, Chief Executive Officer, Infrastructure and Projects Authority

The New Hospital Programme (NHP) is one such programme charged with delivering these aspirations, but must do that against a challenging geopolitical backdrop, post-Brexit, post-Covid, too few people working in the NHS, a disrupted international supply chain, and a supplier marketplace that has a suppressed appetite for construction of a high-risk programme.

'Project Speed gives permission to do things differently – to be brave and bold.'

Emma-Jane Houghton, Commercial Director – New Hospital Programme, Cabinet Office

'It has opened the door to new suppliers, new techniques, technical and commercial innovation because business as usual is not an option.'

Natalie Forrest, SRO – New Hospital Programme, Department of Health and Social Care

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Project delivery products

The NHP is pursuing standardised design as one of the routes to delivering better value at pace, but other projects are testing a full productisation approach to accelerate project delivery. One such programme is the **A66 Pathfinder Scheme**. The project, which covers the dualling of the remaining 18 miles of the A66 (all the tricky bits), has reduced its projected construction time from 10 to 5 years based on an approach called the Delivery Acceleration Programme (DAP).

DAP is a set of project delivery products (35 in all) which define a proven set of designs/methods, each one of which can shave weeks off the programme. The project team select those that they wish to use on their section, and they receive support and advice to help them release the benefits. It is often a multitude of small things adding up to something significant.

'This "product factory" is based on the develop once – deploy 20 times approach to give consistency and confidence so it becomes business as usual.'

David Haimes, Director, Regional Investment Programme North, National Highways

Another organisation taking a productisation approach is Anglian Water. Their Strategic Pipeline Alliance is tasked to deliver a network of interconnected pipelines to secure the water supply for the Anglian region under intense pressure of a predicted water deficit by 2045.

'There is not enough time, money or carbon to do what we'd usually do to deliver a major project, so we have to deliver differently.'

James Crompton, Strategic Pipeline Alliance Director, Anglian Water

Tasked to deliver outcomes not scope, the project took some bold decisions early on. In addition to using a Production Management Approach, they have not separated the digital and infrastructure components of the project in order to drive full integration.

What is Production Management?

Production Management is an innovative and progressive approach to delivery. It involves the use of standard products and components that are developed away from the project environment, are stored in digital catalogues along with all the required asset information, and used repeatedly across programmes and project

Products are integrated into solutions within a digital model, where construction, commissioning and operation can be simulated, rehearsed and optimised. The resulting construction is then more about manufacturing and assembly, with higher degrees of off-site construction leading to a delivery phase that is more 'LEGO brick' than it is traditional civil engineering. This approach provides higher levels of reliability and productivity.

Taking this approach requires a different mindset to schedule and progress. 'Best results are gained by going slow first to get speed later' – getting it right first time and then focusing on continuous improvement as the standardised components or techniques are repeated. Intensive simulation of design and rehearsal of assembly is also key, and Anglian have established on-site factories for essential pipeline components to mitigate risk and ensure repeatability.

Anglian characterise their approach as 'Deliberately Doing Things Differently', and in the area of commissioning they can demonstrate the huge benefits of learning from both the food industry and the oil and gas sector in developing low water commissioning which has transformed the way they will bring the facility online, more sustainably, without the colossal waste of water that would be the norm in the sector.

For the Ministry of Justice and their new prisons programme the benefits of design standardisation and off-site modular construction had an additional benefit of contributing to the levelling up agenda. It transpired that many of the companies with the facilities to offer off-site modular construction were in Northern Powerhouse target areas most in need of investment.

Innovation leadership

From the project narratives presented it was clear that creating the right environment for innovation, collaboration and new ways of working was essential in order to deliver faster, greener and better.

Clarity of vision is often recognised as a key tenet of project leadership, and it was seen as a powerful motivator in increased project pace

and breaking down barriers to collaboration with partners. Examples of the London 2012 Olympics and the success that Thames Tideway has had with their 'Reclaiming the River' message were acknowledged. Moving towards an outcome-driven specification gives a great opportunity to harness the power of a vision, particularly on projects with a societal and environmental benefit.

Leadership lessons from other projects were that innovation needed to be purposeful and not left to fate, so leaders need to help their teams navigate the space between collaboration and competition.

Leaders also need to fully embrace the power of digital engineering, complex new technologies and a recognition that, over the lifetime of a project, technology will evolve and may require change and integration, particularly if it can provide a more sustainable solution.

The need for speed

The premise of this seminar was that improved project pace is in fact a good thing, but is that always the case? With extracts from the National Audit Office (NAO) **Lessons learned: Delivering programmes at speed** report, Emma Willson, Major Project Delivery Hub Director at the NAO, gave us a salient reminder that in some circumstances – such as an emergency situation, a fixed deadline or a compelling case to deliver benefits earlier – an accelerated delivery is a positive outcome. However, there are risks associated with it that may not be acceptable. These include cost increases, the risk of things going wrong, or capacity constraints for human or capital resources.

Faster, greener, better?

'Building back better, faster and greener is doable, it really is doable', was the call to action by the Chair. But whilst standardisation of design and new commercial frameworks can lead to faster project delivery, what of greener and better? Whilst there was passing mention of net zero and sustainability, there was little evidence of the use of net zero or the burning platform of climate change to drive audacious goals. The agility and innovation that we pursue to deliver projects faster should also facilitate the horizon scanning and early adoption of new technologies needed to deliver greener. On this topic the Chair was emphatic that hope is not a strategy.

Points for further discussion

- How can we upskill the sector to enable it to drive the digital engineering revolution that will be required for the future?
- How can we transfer the learnings from the pathfinder projects across the whole sector?
- What one lesson can you apply to your project to make it 'faster, greener, better'?

Chair

Nick Smallwood, Chief Executive Officer, Infrastructure and Projects Authority

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