News story: Projects worth £600 billion in the pipeline as government gets Britain building

- Construction pipeline forecasts £600 billion of infrastructure investment over next decade
- Ministers want more projects to be delivered using digital manufacturing techniques
- Call for evidence launched on offsite building

A massive £600 billion investment in our roads, hospitals and schools over the next ten years has been set out today, alongside proposals to harness modern technologies to build infrastructure in the most effective way.

The Government's National Infrastructure and Construction Pipeline reveals the vast scale of public and private investment underway and expected by 2028. It includes schemes announced by Chancellor Philip Hammond in his recent Budget, like the £28 billion national roads fund, as well as other flagship projects like East West Rail, upgrading the M6 to a smart motorway and Hornsea Project One – the largest offshore wind farm in the world.

To ensure maximum efficiency in building these projects ministers are encouraging greater use of more modern approaches to construction. This includes the manufacturing of components in factories using the latest digital technology before being sent for assembly on construction sites. The Government has committed to increasing use of these methods in public-funded projects and today asks for views on how to encourage greater use of these cutting-edge techniques.

Despite significant contributions to the UK economy, the construction sector's productivity is weak compared to other sectors like manufacturing. Applying modern manufacturing approaches to building projects can boost productivity and reduce waste by as much as 90 per cent. For example, a school that typically takes a year to build could be completed in just over four months.

This manufacturing technique has already been used to great success in several projects, including the A14 Cambridge to Huntingdon improvement scheme. Parts of these bridges were developed in a factory, meaning they were built more efficiently than if traditional methods of construction had been used.

The Exchequer Secretary to the Treasury, Robert Jenrick said:

"We are committed to renewing our infrastructure to drive economic growth in all parts of the United Kingdom. Over the course of this Parliament, investment in economic infrastructure will reach the highest sustained levels in over 40 years.

“And as the pace of technological change accelerates, we are stepping up our commitment to digital infrastructure, use of data to drive greater productivity and embrace new methods of construction.

“With £600bn of investment over the next decade, including the largest ever investment in our strategic road network, we are taking the long term action required to raise productivity and ensure the economy is fit for the future.”

Chief Executive of the Infrastructure and Projects Authority, Tony Meggs said:

“Government is the largest client for infrastructure projects so has an important role in using its purchasing power to drive improved productivity in their delivery.

“We recognise there is significant momentum within the sector to scale up the adoption of more modern and innovative practices and it is the role of the IPA to help coordinate this approach across new infrastructure projects.

“We would like to hear from a range of industry experts on government’s proposals for a Platform Approach to Design for Manufacture and Assembly.”

Chief Executive of Highways England, Jim O’Sullivan said:

“At Highways England we recognise the productivity and efficiency challenges that the U.K. construction industry is facing. In recent years we have encouraged more computer-led design, automation, and pre-assembly across all of our construction activities. As well as driving productivity and efficiency, it improves worker safety and reduces delays and frustration for road users passing through our works.

“We will adopt ever increasing levels of automation and off-site construction on road improvement schemes and smart motorways in our next five year road investment programme.”

Notes to Editors:

- The government is committed to using its investment in infrastructure to drive the modernisation of the construction sector and improve the delivery of economic and social infrastructure projects.
- Working with industry and public and private sector clients, today the government publishes details of a proposal for a preferred approach to building infrastructure called a Platform Approach to Design for Manufacture and Assembly or “P-DfMA”; a modern method of construction which is a specific form of design for manufacture and assembly.
- These proposals will contribute to the government’s objectives as outlined in the Industrial Strategy, the Construction Sector Deal and the Transforming Infrastructure Performance programme, including a presumption in favour of offsite construction announced at Autumn Budget 2017.
- A platform approach rolled across a range of government programmes means that we will use a set of digitally designed components wherever possible, on different types of buildings. For example, a single

component could be used as part of a school, hospital, prison building or train station.

- Offsite construction is already being used by four government departments: the Ministry of Defence, the Department for Health and Social Care, the Ministry of Justice and the Department for Education. The Department for Transport is also testing and rolling out a manufacturing approach on selected parts of their capital programme.
- Using a common platform approach will ensure we achieve efficiencies of scale and government can leverage its buying power to create a critical mass to accelerate change and innovation in the industry.
- Government will not define the components, these will be developed by industry whose responsibility it is to innovate and provide best value solutions.
- It will be underpinned by significant further research to design, test, provide assurance for and develop the components, standards and practices needed.
- Everyone is invited to respond to and help shape the proposal, with it being of most relevance to industry groups, academics and businesses from the construction, engineering, design, architectural and consulting sectors.
- Non-social housing is out of scope for this call for evidence as the interaction between the public sector and the non-social housing market is different from that between the public sector and construction projects relevant to this proposal. However, MHCLG are aiming for similar outcomes in the residential housing market as outlined in Homes England's Strategic Plan; including higher productivity and greater cost efficiency.