The Hub Playbook for Policymakers





As part of the Transforming Construction Challenge, over the past four years the Hub has worked with government and industry to create solutions that support the transformation of the sector. New tools, processes and standards will boost productivity, supporting a more innovative, safer, higher quality, more sustainable sector ready to deliver the ambitions we have for our society, environment and economy.

The Hub's programme has focused on enabling the market to succeed. We have shaped the policy and regulatory environment, helping clients and policymakers to drive added value in the decisions they take. Our outputs will enable all parts of the supply chain to respond with innovative solutions that exploit the opportunities that new digital, data-centric and manufacturing approaches can bring.

This Playbook signposts how policymakers can access the Hub's outputs, and implement and embed them into their departments. This Playbook clearly articulates from a policymaker's perspective what each of the Hub's key outputs are, the key drivers behind their development, and the practical steps to take to accelerate and drive adoption within the sector.





Value Toolkit



Value Toolkit

What is it?

The Value Toolkit is a pioneering suite of tools that can be used to embed value-based decision making in projects across the construction and built environment sector. Value-based decision making focuses on how an investment can deliver the best outcomes and thus value, rather than focusing exclusively on delivering to the lowest possible price. The Value Toolkit process can be applied to both construction of new assets, as well as repair/maintenance of existing ones.

Why do it?

The government is driving the construction industry to adopt value-based decision making through policies set out in the Construction Playbook and Transforming Infrastructure Performance Roadmap to 2030.

Both the public and private sector can apply the tools within the Value Toolkit on single projects, across programmes or at an enterprise level.

Use of the Value Toolkit will drive transformational change in the way all stakeholders in the sector are able to create better schools, hospitals, homes and buildings in the future.

The Toolkit can be used to help tackle the increasingly complex challenges our society now faces, from climate change to economic recovery in a post-pandemic world.

The role of policymakers

The Value Toolkit is a government-funded industry-led initiative – with roots in the Construction Leadership Council's Procuring for Value report. It is set to deliver on the ambitions of the Construction Playbook and the IPA's Transforming Infrastructure Performance Roadmap. The Toolkit reflects the government's desire to ensure we embrace investment in the built environment that delivers better outcomes.

It complements the government's commitment to boost the productivity of the construction sector, to grow the economy and create good quality jobs. The Toolkit's value-based methodology positions the UK construction sector at the forefront of conscious and informed decision making. Policymakers use the Value Toolkit to work with their supply chains to make informed, value-based decisions that drive better social, economic, and environmental outcomes. Policymakers can evaluate the extent to which policy informs decision making in the built environment and the outcomes that are subsequently delivered.

What practical help is available to policymakers?

The Value Toolkit sets out a series of processes, tools and guidance and two interlinking activity streams: one covering value definition and measurement; the other through a client approach. Both are designed to evolve alongside industry and policy priorities.

The Value Toolkit has been created to support the implementation of the policies described in the Construction Playbook. The Toolkit's <u>introductory e-learning</u> and overview document provides foundational knowledge on the application of the Toolkit while an integrated process map shows how policy feeds into the process. Over time, insights collected should show how policy flows into investment decision making and the resultant outcomes. It should also show any gaps in policy – where areas of focus are continually missed in value profile setting.

What are my first steps?

Policymakers can use the Value Toolkit as a resource to educate, enable, and empower clients to deliver on policy objectives through investment in the built environment. The overarching principles are set out in a <u>BSI Flex standard</u> (BSI Flex 390 Built environment. Value-based decision making – Specification) and will be supported by a detailed suite of tools that integrate to support key decisions that, at every stage of the asset lifecycle, allow clients and the market to work together to target, measure and deliver improvements in value.

Find out more about the Value Toolkit here

Product Platform Rulebook



Product Platform Rulebook

What is it?

Platform construction uses product platforms as standard, repeatable assets with interoperable components. Their use can reduce cost, waste, and carbon and help the infrastructure sector better deliver the future pipeline of projects and programmes.

Platform construction will drive transformational change in the way clients think about how our schools, hospitals, homes and buildings can be created in the future.

It is designed with built-in mechanisms for continuous improvement and the opportunity for synchronisation and streamlining as both capability and capacity grow.

Why do it?

The Platform Programme has focused on adapting and developing manufacturing approaches that will improve productivity whilst shifting focus to quality, performance and the whole-life value of assets.

Platform approaches represent a fundamental change, requiring different behaviours from both the client and the supply chain, and enabling outcomes not just at the level of individual projects or programmes, but at a societal level, for example by creating more inclusive employment. The key output from this programme, The Product Platform Rulebook has been created to support the implementation of the policies described in the Construction Playbook. It also enables the accelerated adoption of platform approaches described in Transforming Infrastructure Performance: Roadmap to 2030 (TIP).

The Platform Programme and this Rulebook were first conceived as a response to the growing and well-documented recognition that platforms can help the construction sector realise opportunities and benefits, address common challenges and adopt ways of working that will make us more efficient, reduce our impact on the environment, and achieve better outcomes. The needs of government, clients and industry lie at the heart of the Rulebook's development and its publication follows extensive stakeholder consultation and industry involvement. The Rulebook stands ready to be the blueprint for developing and implementing product platforms for current and future market players.

The role of policymakers

In 2017 the government committed to leveraging its buying power to support modernisation of the construction sector and create a stable cross government pipeline of demand, announcing that five central departments would adopt a presumption in favour of offsite construction. Three years later, government expanded upon this, via The Construction Playbook and by setting out specific proposals relating to a 'Platform approach to Design for Manufacture and Assembly (P-DfMA)'. The Transforming Infrastructure Performance – Roadmap to 2030, published in 2021, details the planned steps behind this commitment, outlining how government will apply platform approaches to not only realise economic benefits, but "to generate greater societal outcomes from its pipeline by enabling a disaggregated manufacturing industry that creates stable and inclusive employment where jobs are most needed". The development of the Product Platform Rulebook is a key technical enabler to this roadmap, in setting a framework to enable the growth of the platform market.

What practical help is available to policymakers?

The Construction Playbook outlines an intent to 'harmonise, digitise and rationalise demand' across individual projects and programmes. The Product Platform Rulebook provides guidance that enables and supports this approach.

What are my first steps?

Policymakers can reference the Rulebook in working groups and supporting documentation and guidance published in response to the Construction Playbook and TIP Roadmap. They can consider the requirements for harmonisation of demand and act on specification maturity recommendations, in conjunction with the Construction Playbook. Policymakers can use the Rulebook as an open access resource to educate, enable, and empower their management and staff. It outlines additional guidance, case studies and definitions.

Find out more about the Product Platform Rulebook here

Information Management



Information Management

What is it?

The Hub's Information Management project developed tools and guidance designed to support industry to adapt and thrive within an evolving digital landscape. Information management is the key to unlocking industry's potential, providing the Golden Thread that enables transformation to evolve and improve our infrastructure. The Hub-developed resources include: policies and standards; operating models, processes and tools; and a library of case studies and evidence to support business cases.

Why do it?

The future of construction and infrastructure is focused on digital advancement. There's no winding the clock back, only forward.

The government is driving the adoption of information management through policies set out in the TIP Roadmap to 2030 (Information Management Mandate) and the application of the UK BIM Framework, and through the introduction of the National Digital Twin Programme.

Enhanced information management practices and processes will enable construction companies to help build back better and promote a green industrial revolution in the transition to Net Zero.

By applying effective information management processes, the market can benefit from greater efficiencies, improved quality and consistency, reduced costs and increased resilience and agility.

Our research found that £6 of direct labour productivity gains can potentially be secured for every £1 invested in information management. Similarly, 1.6% to 18% costs savings can potentially be secured for every £1 invested in information management.

The role of policymakers

Policymakers can support industry and the technical community by continuing to evolve information management processes and standards to support the transition from BIM to digital twins and the shift to digital by default throughout the built environment. This is an opportunity to drive greater efficiency across the asset lifecycle.

What practical help is available to policymakers?

The Hub was worked in partnership with industry, government and academia to produce open-source outputs that support industry on the transformation journey. This includes: The UK BIM Framework – a series of guidance documents for using BIM in the UK; Digital Twin Navigator – an interactive guide for considering digital twins in business cases and capital project procurement; Energy and Carbon Framework – guidance that defines operation energy and carbon dioxide emissions; information exchanges for Government Soft Landings (GSL); Local Authorities Soft Landings Navigators – an interactive navigator for implementing GSL; LEXiCON – methodology for creating and managing Product Data Templates; Information Requirements Tool – to support client information managers; and a Skills and Competency Framework – guidance to support the development of information management capabilities. All have been designed to align with government policy.

What are my first steps?

Read <u>Our Vision for the Built Environment</u> to understand the future ambitions for the digitalisation of the built environment.

When developing policy, refer to the UK BIM Framework as the go-to resource for implementing information management in the UK. The UK BIM Framework sets out an approach for managing information provided by the ISO 19650 series for Building Information Modelling (BIM). It has been developed in partnership with government to ensure it is aligned with policy. It includes:

- the published standards called upon to implement BIM in the UK
- the UK BIM Guidance Framework
- useful links to other resources

Find out more about Information Management here

Quality Assurance



Quality Assurance

What is it?

The Hub's work into quality assurance provides the guidance and tools for construction product manufacturers to deliver higher quality, safer, more sustainable outputs, whether a provider of traditional products or producer of offsite, platformbased solutions. It focuses on two main areas. Quality – CPQP offers a toolbox of resources to help manufacturers produce products and components in line with best practice quality standards, ensure legal compliance and improve the efficiency of their operations. Product verification and validation offers a clear route to product validation as part of a platform-based approach to construction. This helps ensure finished products meet all requirements set out at design stage.

Why do it?

Our tools and guidelines set the level of quality assurance and risk assessment that should be embedded within both the design and production stages of product manufacturing. They will help businesses conform with new standards such as BS 99001 and ensure compliance with legislation, including the new Building Safety Act. The Construction Playbook and Transforming Infrastructure Performance Roadmap to 2030 both set out a vision for a manufacturing-led construction sector. CPQP is part of a suite of tools that the Hub has developed to meet these ambitions.

The role of policymakers

The Construction Playbook and Transforming Infrastructure Performance Roadmap to 2030 both set out a vision for a manufacturing-led construction sector. The Hub's Quality Assurance and Product Validation and Testing programmes are key to government's ambitions for a safer, more sustainable construction sector. The CPQP framework includes the creation of a live control document. This provides an audit trail as per the requirements of the Golden Thread. In parallel, a digital tool is in development that will monitor, track and measure the CPQP process. This removes risk from the process, helping manufacturers to comply with regulations and reducing the potential for product failures and warranty issues in the future.

What practical help is available to policymakers?

The Construction Innovation Hub and partners across industry have developed the CPQP Quality Framework process that should be followed during the creation of new construction products. It includes five phases, ranging from product definition to product launch.

A Verification & Validation Guide (VV) has been designed to help constructors efficiently and effectively navigate the verification and validation processes in line with shifting regulatory landscapes. The guide focuses on the testing of components and their integration as part of a system during the product development process. It is designed to fit within the CPQP framework.

What are my first steps?

Encourage the use of the Hub's quality assurance outputs throughout your supply chain. The Hub has created a range of resources to support <u>Quality Assurance and Product</u> <u>Validation and Testing</u> that are available open access. CPQP directly supports the Hub's Product Platform Programme. It provides practical tools for the quality assurance of product platforms developed using the guiding rules set out in the Hub's Product Platform Rulebook.

CPQP aims to ensure that quality is built into any new manufacturing processes and final products from the start and supports the creation of a live control document for the Golden Thread.

Find out more about Quality Assurance here

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The Construction Innovation Hub is a partnership between:



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