



WHY DO CONTRACTS MATTER ?

BIM AND CONTRACTS

Presented by Barry Orr | May 2026





Barry Orr

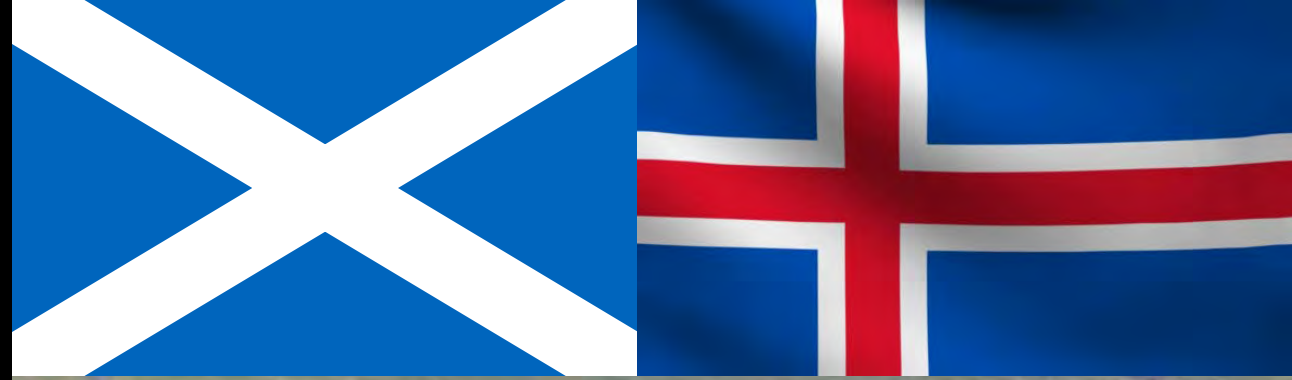
Head of Digital Engineering – UK Civil

National digital engineering lead with extensive international experience across global property & buildings and transport infrastructure sectors.



Introduction

- *Approx 30 minutes*
- *Talking about BIM and contracts*
- *From my own perspective*
- *High level*





Do we ask the wrong question(s) ?

“How can **BIM and technology** fix decades of construction industry problems ? ”





The UK BIM mandate



Centrally procured projects with mandate to BIM to 'Level 2'

UK BIM
Framework

Collaborative
digital delivery

Secure digital
information
management

- BIM is a collaborative process
- Making BIM 'business as usual' in the UK



What is BIM ?

BIM is a combination of process, standards and technology through which it is possible to generate, visualise, exchange, assure and subsequently use and re-use information, including data, to form a trustworthy foundation for decision-making to the benefit of all those involved in any part of an asset's lifecycle. This includes inception, capital phase procurement and delivery, asset and facility management, maintenance, refurbishment, and ultimately an asset's disposal or re-use.


Infrastructure
and Projects
Authority

Reporting to Cabinet Office
and HM Treasury

**Transforming
Infrastructure
Performance:
Roadmap to 2030**





The UK BIM Mandate

20% cost reduction

Improved productivity

Whole asset life thinking

“ 4 hospitals
for the price



BIM mandate = Problem solved ?

BIM can struggle under traditional procurement models



Major infrastructure



BIM vision,
implementation and
tools



Still failing

UK NAO Findings

- Design-Bid-Build problematic
- Lowest price tendering
- Pricing uncertainty
- Forcing early commitment
- Risk transfer and claims
- Fragmented accountability
- Late changes and rework
- Poor behaviours
- Poor D&C integration
- Poor value for money
- Poor whole life value
- Not great for BIM



Relatable?



Ambition without reform



The BIM mandate did not reform procurement



Better clients



Smarter procurement



Real collaborative environments



**Bolt-on BIM requirement
Do more for less**





PROBUILD COLLAPSE

BIM in a broken business model

Changing UK policy

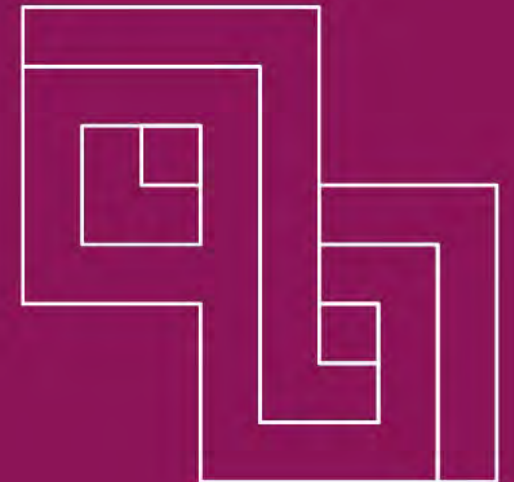
- *Delivery model assessments*
- *Discourages default DBB thinking*
- *Better options for complex projects*
- *Guidelines for complex projects*
- *Lowest cost to best value*
- *Whole life value thinking*
- *If DBB, must be justified*



THE CONSTRUCTION PLAYBOOK

Government Guidance

on sourcing and contracting public works projects and programmes



The Construction Playbook (UK)

Portfolios and longer term contracting

We will develop long-term plans for key asset types and programmes to drive greater value through public spending and improve contract management. Longer term contracting across portfolios, where appropriate, will give industry the certainty required to invest in new technologies to deliver improved productivity and efficiency savings.

Contracting authorities should demonstrate that this does not come at the expense of an innovative and competitive market.

Harmonise, digitise and rationalise demand

Demand across individual projects and programmes will be harmonised and rationalised by contracting authorities, and processes associated with design, delivery and operation increasingly digitalised. This will accelerate the development and use of platform approaches and modern methods of construction.

Combined with longer term contracts and selection of the appropriate delivery models, this will transform the market's ability to plan, invest and deliver in a digitally enabled way, using technology to drive performance improvements.

Further embed digital technologies

Contracting authorities should use the UK BIM Framework to standardise the approach to generating and classifying data, data security and data exchange, and to support the adoption of the Information Management Framework and the creation of the National Digital Twin.

Early supply chain involvement

Engagement with the supply chain, including designers, contractors, specialist contractors and product suppliers, should inform the development of the business case for projects and programmes.

Involving the supply chain early in the project life-cycle will promote effective collaboration, reduce downstream issues and help to develop clear, outcome-focused designs and specifications.

Outcome-based approach

In their specifications, contracting authorities should focus on outcomes. The Project/ Programme Outcome Profile has been developed to support projects and programmes in setting clear outcomes that align with government's strategic priorities.

In line with the government's transparency agenda, the three most relevant key performance indicators (KPIs) from each of the government's most important contracts will be made publicly available.

Benchmarking and Should Cost Models

Projects and programmes should undertake benchmarking to analyse information from past projects and programmes. This provides decision makers with key insights and data to make more informed and intelligent investment decisions.

Projects and programmes should produce a Should Cost Model to better understand whole life costs, value, carbon and sustainability.

Delivery model assessments

Contracting authorities should follow an evidence-based process to decide the most appropriate delivery model and structure for a specific project or programme. The right delivery model enables clients and industry to work together to deliver the best possible outcomes.

Effective contracting

We will ensure that contracts are structured to support an exchange of data, drive collaboration, improve value and manage risk. They will set clear expectations for continuous improvement and be consistent with the principles in this Playbook.

We have published and endorse the 24 recommendations in 'Constructing the Gold Standard' which reviewed the landscape of current frameworks and proposed a new 'gold standard' for improving the economic, social and environmental value through frameworks, framework contracts and action plans under current frameworks. These recommendations are set out [here](#) and will enable contracting authorities to easily identify those frameworks which meet best practices and embody the principles and policies set out in this Playbook. There are a number of framework options to ensure competition and flexibility across government and the wider public sector.

Risk allocation

Proposals for risk allocation will be subject to consideration and scrutiny to ensure they have been informed by genuine and meaningful market engagement.

Inappropriate risk allocation has been a recurring concern of suppliers looking to do business with government and a more considered approach will make us a more attractive client, deliver better value for money and incentivise suppliers to focus on delivering agreed sustainability, social value and contractual outcomes.

Payment mechanism and pricing approach

The payment mechanism and pricing approach goes hand in hand with risk allocation and will similarly be subject to greater consideration and scrutiny to ensure it incentivises the desired behaviours or outcomes.

This change is fundamental to making the construction sector a thriving and dynamic market that is sustainable in the long term and achieves the wider vision of this Playbook.

Assessing the economic and financial standing of suppliers

As part of the selection process, public works projects will comply with a minimum standard when assessing the risk of a supplier going out of business during the life of a contract.

Consistently applying a minimum standard of testing will provide a better understanding of financial risk and leave us better able to safeguard the delivery of public works projects.

Resolution planning

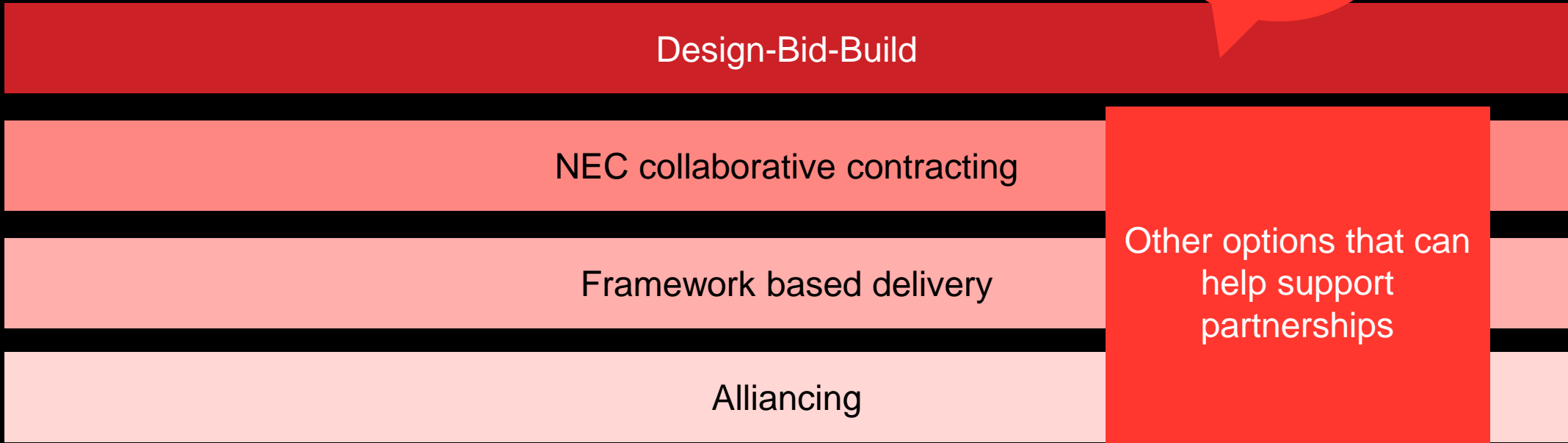
There will now be a requirement for suppliers of critical public works contracts to provide resolution planning information.

Although major insolvencies are infrequent, this change will help to ensure government is prepared for any risk to the continuity of critical public works projects posed by the insolvency of critical suppliers.

Delivering better, faster, greener

Contracting methods

Does it make a difference for BIM:



Demand to do more with BIM


Infrastructure and Projects Authority

Reporting to Cabinet Office and HM Treasury

Transforming Infrastructure Performance: Roadmap to 2030

2.9. In the UK we have already advanced the use of Building Information Modelling in the creation and care of our built environment, incorporating more categories of data and integration across the different elements. However, we need to push this faster and further to apply available technology to government sponsored projects and encourage new developments. Fifth generation communications networks and Artificial Intelligence can increasingly support far greater use of digital solutions (from sensor and wireless technologies to the use of robotics and augmented reality) and significantly improve productivity.



Long term thinking

Short term thinking can reduce value for
money



Better for BIM

Moving away from transactional, lowest-price procurement **towards** outcome-based, collaborative models

Better conditions 



Changing the model

- More collaborative contracts (NEC)
- More emphasis on partnerships
- Frameworks and alliances
- UK BIM Framework (ISO 19650 etc)
- ECI/ESI
- Better behaviours
- BIM to generate value not compliance
- Raising supply chain confidence





AN EXPERIENCE

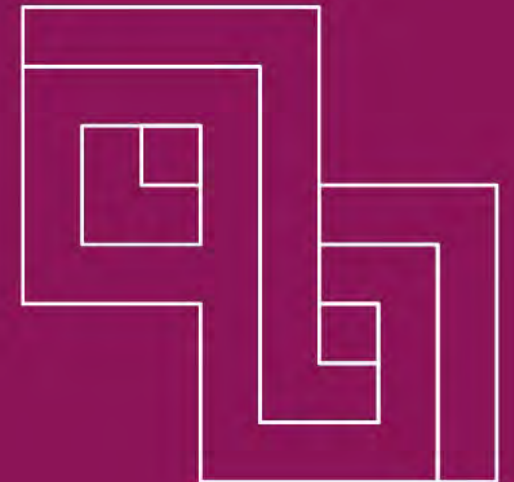


HM Government

THE CONSTRUCTION PLAYBOOK

Government Guidance

on sourcing and contracting public works projects and programmes



Version 1.1
September 2022



SMPA Alliance

- Complex and high-risk upgrades
- Long term framework
- Repeatable
- Delivered at national scale
- Political, safety and operational considerations
- Client early adopter of Construction Playbook

Digital and BIM fundamental to safe operations, renewals, and asset management (not just capital delivery)

£144.14m in savings on programmes totalling £1.2b. Digital BIM solutions helped reduce pre-construction times by up to 60%



The Alliance:

Client: National Highways

DEDP: WSP and Jacobs

PMP: Flour

OSAP: Balfour Beatty, Costain, BAM/Morgan Sindall

Working with over 100 suppliers

Seven Members

- Highways England
- 1 x Production Mgt Partner
- 2 x Digitally Enabled Design Partners
- 3 x On Site Assembly Partners



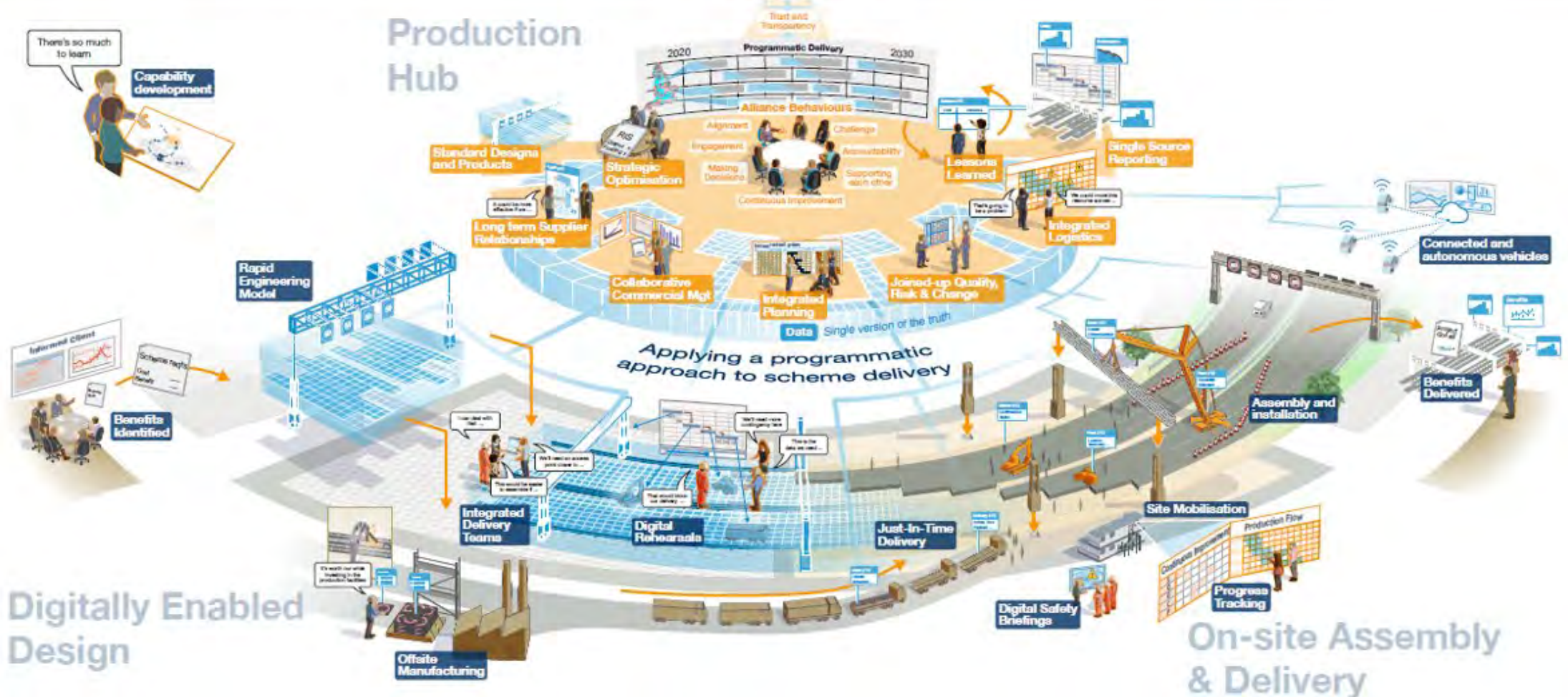
Single approach



Aligned Goals

HE Imperatives

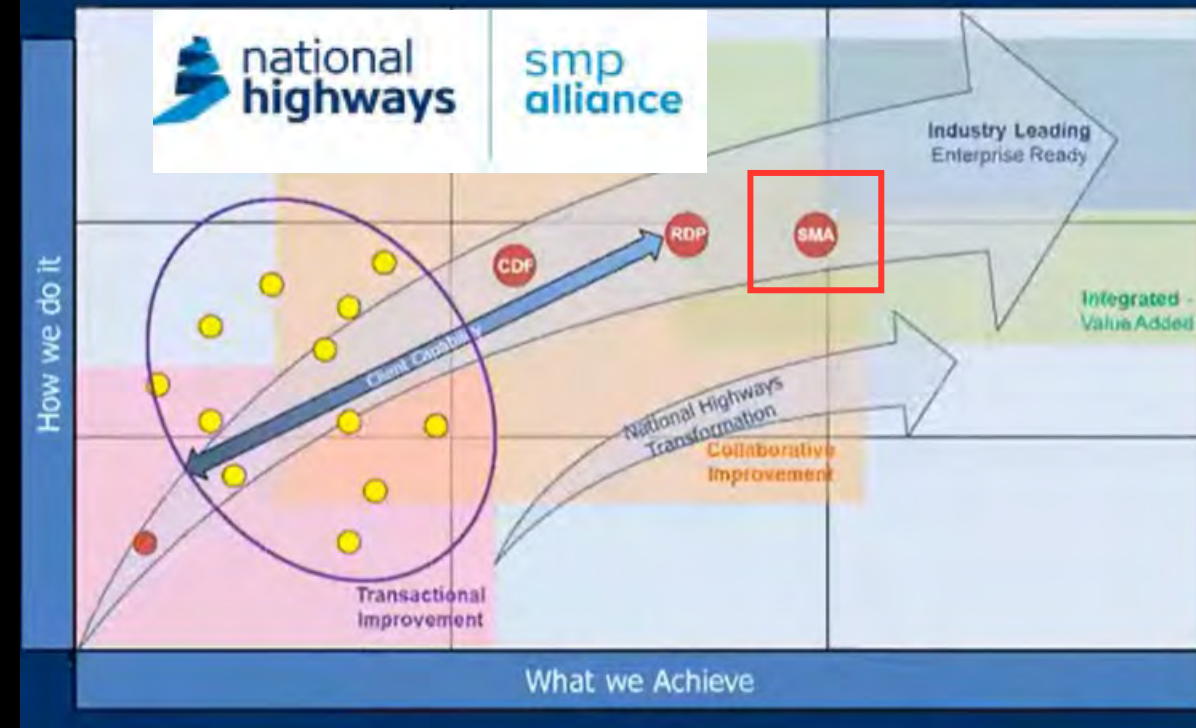
- ✓ Safety
- ✓ Customer
- ✓ Delivery of RIS





Better clients

- Major UK public sector client
- Actively trying to move the industry
- Following The Construction P'Book
- Mature, feeding in lessons learned
- Long term thinking
- Understands the supply chain
- Digital and BIM key enabler



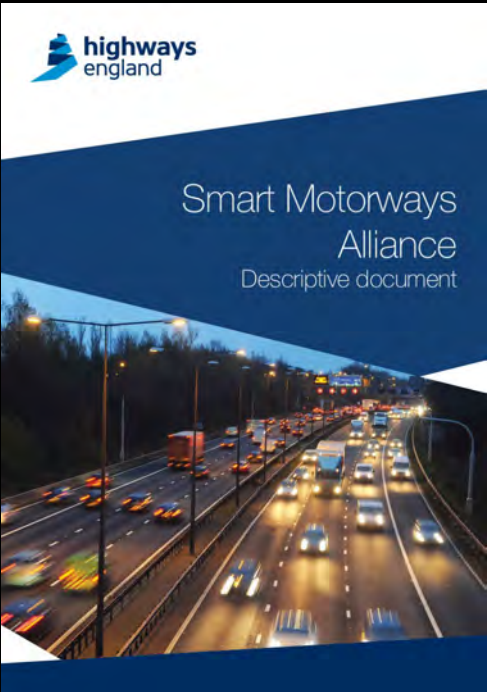
Our programmatic approach signifies a new way of working.

The SMP Alliance is transforming the way we deliver schemes by applying a programmatic approach, utilising digital rehearsals and embedding methods of construction such as off-site manufacture.

There will be a greater emphasis on digital technology, increased efficiency and standardisation.

The SMP Alliance will drive value throughout the project lifecycle by integrating a diverse supplier network to form a wider enterprise.

Smarter Procurement



Highways England is not looking for traditional thinking or experience to deliver the SMA. Rather we are seeking companies that can demonstrate their capability to be:

Collaborative leaders – willing to break down traditional design and build silo to create an integrated, collaborative environment that is ideas not resource led.

Commercial relationship that enables common goals and aligned incentives rewarding out performance.

Cultural alignment: sophisticated alliance models require embedded cultural and people alignment that can only be achieved over a longer period through relationship management and coaching.

Market capability: the market does not have existing capability to fully realise ambitious Alliance objectives. An increased term enables Highways England to embed step change in maturity with Alliance Partners to achieve outcomes.

Skills shortage: infrastructure spend in the UK is forecasted to increase in the next 10 years. In parallel the industry is seeing skills and resource shortages. A longer term contract provides the confidence to support investment in apprenticeships and resources to mitigate this.

Section 1: Challenging the traditional approach to design and delivery

New ways of working

- Investing in the digital designer solution to drive better design and asset information
- Creating a Production Hub that through collaboration optimises delivery and efficiency
- Alignment, standardisation and simplification of processes and interfaces

Behavioural change

Smarter Procurement

- Collaborative alliance contracting
- Appropriate to risk and complexity
- Long-term partnering vision
- Procuring capability for value
- One team approach - programmatic
- Early contractor engagement
- Designed for reality
- Incentive for all to invest



Pre-project	Options	Options	Development	Development	Development	Construction	Construction
0	1	2	★ 3	4	★ 5	6	7
Strategy Shaping and Prioritisation	Options Identification	Options Selection	Preliminary Design	Statutory Procedures And Powers	Construction Preparation	Construction, Commissioning and Handover	Closeout



More than a mandate

20% cost reduction

Improved productivity

Whole asset life thinking

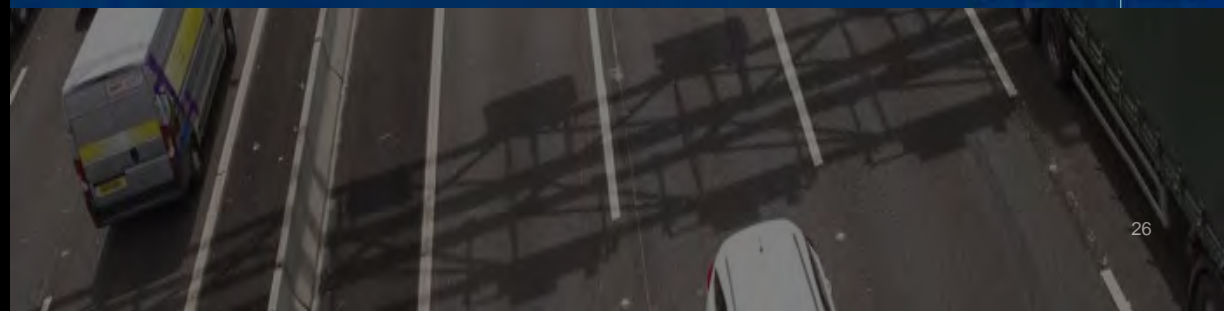


Objectives and Enablers

- Our objectives align with Highways England's three imperatives: safety, customer and delivery.



Enablers





Real collaboration

- **People** – process – technology
- Focus on behaviours & culture
- Leave your hat at the door
- Freely share information
- Tackling complexity early
- Heightened collaboration
- Early contractor involvement
- Jointly managing risk
- Pushing boundaries

CASE STUDIES

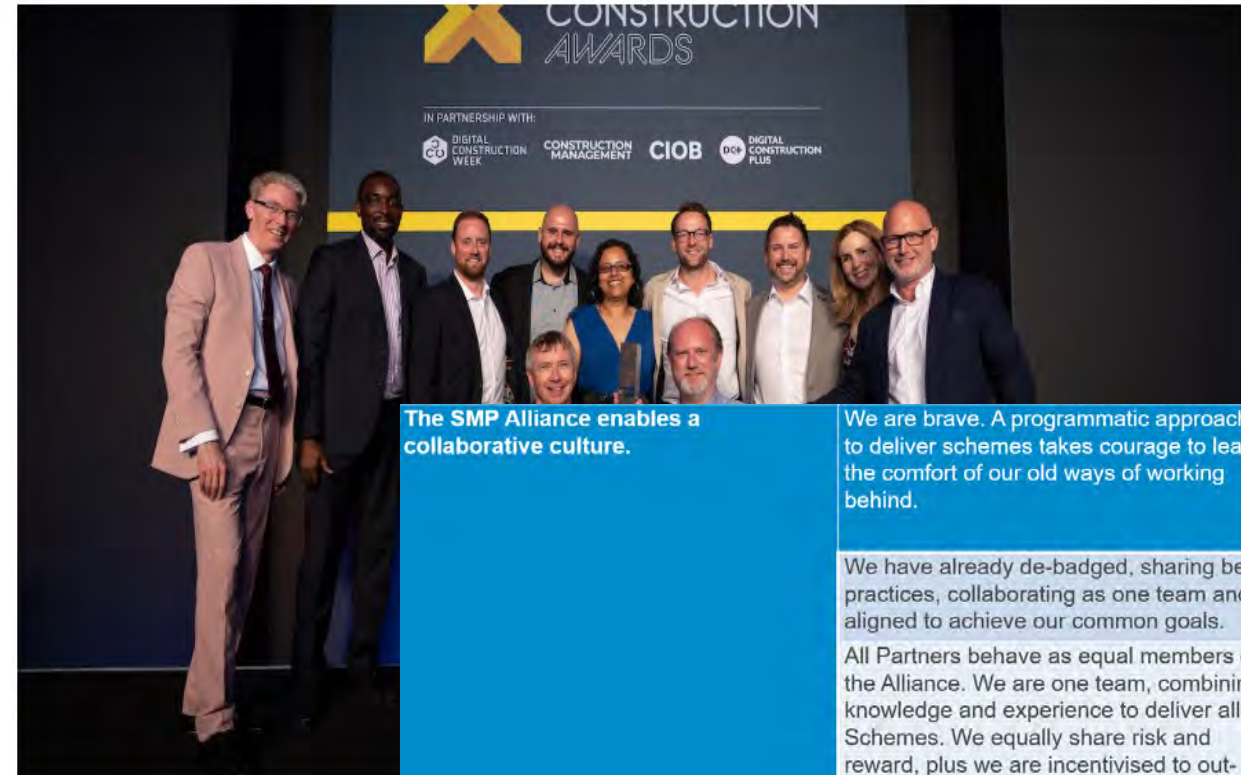
SMP Alliance's collaborative effort reaps massive benefits



Digital Construction Plus Staff

2 July 2025

SMP Alliance won the Digital Collaboration of the Year category, sponsored by Bluebeam, at the Digital Construction Awards 2025.



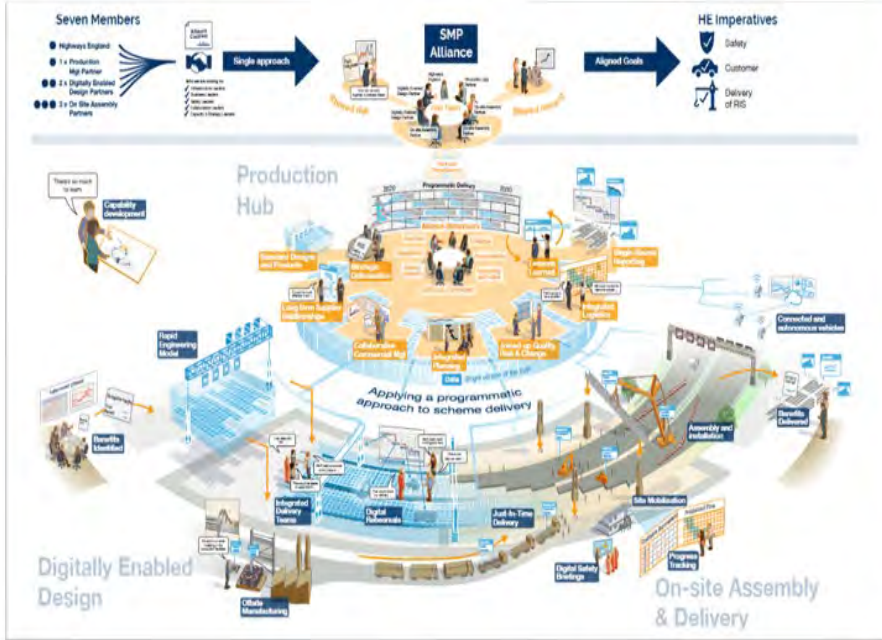
The SMP Alliance enables a collaborative culture.

We are brave. A programmatic approach to deliver schemes takes courage to leave the comfort of our old ways of working behind.

We have already de-badged, sharing best practices, collaborating as one team and aligned to achieve our common goals.

All Partners behave as equal members of the Alliance. We are one team, combining knowledge and experience to deliver all Schemes. We equally share risk and reward, plus we are incentivised to out-perform.

Real collaboration



Design Automation

Spatial Coordination

Rapid Engineering

4D & 5D

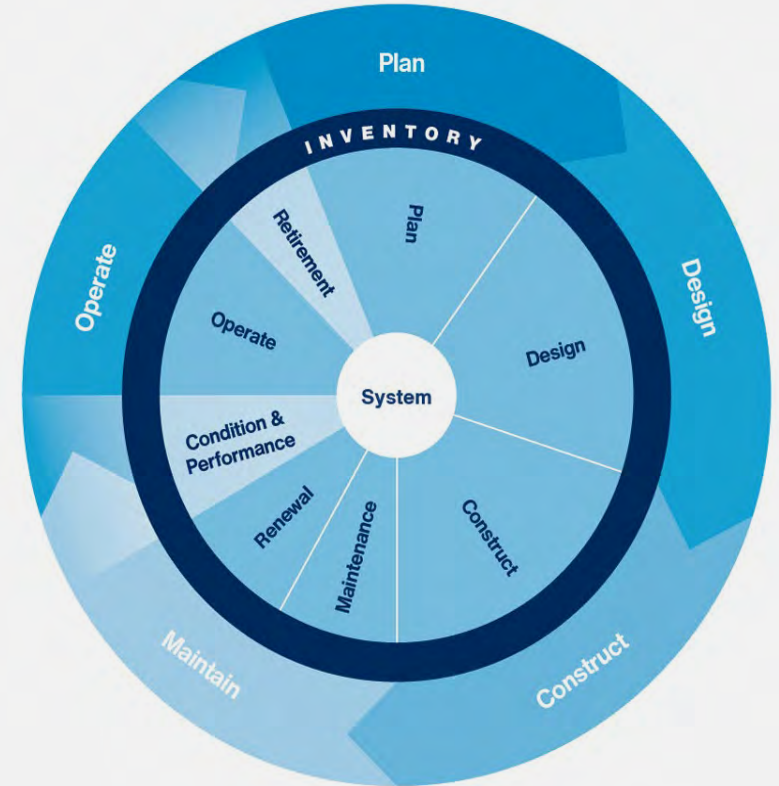
CDM, H&S

Logistics & Digital Construction

Net Zero

Reality Capture

Information Management





Key Takeaways

- BIM success is driven by commercial decisions
- Contracts shape how teams interact and share information
- Behaviours drive success, not BIM or related technologies
- BIM + collaborative contracts can drive better outcomes
- Big changes take time, investment and learning
- Long-term partnerships provides supply chain confidence to invest