

Resource Library

Construction Innovation Hub

October 2022





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The Value Toolkit has undergone an incredible happen next.

On 30th September 2022 the Construction Innovation Hub four-year contract is coming to an end, however our programme, our mission, and our ambition, isn't. We have secured the seed funding for our next phase focused on deployment.

Our next phase is focused on embedding the Value Toolkit with government and industry, paving the way for better, value-based decisions. Our continued focus on deployment will include embedding the Product Platform Rulebook in platform construction and working with industry and government clients to move from concept to delivery.

journey and this newsletter will take you through how it has developed since day one and what will

Our work will help accelerate how advanced manufacturing solutions can deliver their future schools, hospitals and more. It's about creating the right enabling framework for the long term and sustainable transformation of our sector.



The Value Toolkit. A journey to value-based decision making – Construction Innovation Hub vision delivered with the Value Toolkit



Keith Waller Programme Director, Construction Innovation Hub

It's hard to believe that it's been four years since we launched the Hub, with a vision to develop and deliver innovative, synergistic solutions to the increasingly complex challenges facing the construction and built environment sectors. Over that time, we've worked with more than 600 organisations, industry bodies, practitioners and academics to rethink approaches to construction and the built environment, move the debate forward and help shape policy.

The collaborative, innovative ethos of our work is epitomised by the Value Toolkit. Decision making in construction has been historically driven by how much something cost, or how long it took to build. A project's entire value was then measured against those two benchmarks. We have reframed the definition of value, and how it can be measured, through the Value Toolkit. The Toolkit delivers a laser-like focus on project outcomes that delivers value beyond the bottom line, and positively affect communities and those who live in them for decades to come. It also improves efficiency and will ensure a more collaborative relationship between clients and suppliers throughout the whole life of a project.

From the response we've received from stakeholders, and those who were early adopters of the Toolkit, it's clear that there is not only an appetite for the type of holistic, platform-based decision making that the Toolkit delivers, but a real and pressing need for it.

That's why, as the Hub's programme draws to a close and we turn to the next phase, we will work to embed the Value Toolkit in central government to ensure value-based decision making becomes the new normal and helps shape policy so right decisions made at right time to encourage innovation. This will ensure a joined-up approach to project decision making and will encourage actions that supports low-carbon, higher quality solutions to the challenges we face. I'm proud that the Value Toolkit has contributed to and shifted the policy debate around the builtenvironment and construction sectors and shows how we can deliver practical solutions that deliver positive impact. With the Value Toolkit, we can help to grow the economy, boost our path to netzero and tackle the increasingly stark economic challenges we face. The Hub set out to drive and accelerate change in the Built Environment sector, and that's what we've done.

The next step is to set high ambitions and work together to deliver them – and given the commitment, talent and desire we've seen throughout this project, I'm in no doubt that's exactly what we will do.



The Value Toolkit. A journey to value-based decision making – Construction Innovation Hub working hand in hand with Government and Industry



Ellie Jenkins Value Toolkit Integrated Project Lead, Construction Innovation Hub

The Value Toolkit is a powerful exemplar of what collaboration can truly achieve. It is the embodiment of our sector's ingenuity, innovative nature and a desire to constantly improve the ways in which we work. This desire drove voices from across government and industry, including ACE, IPA, CLC, CIOB, CECA, RIBA, Social Value UK and UKGBC, to work on the development of the Toolkit.

Our aim in developing the Value Toolkit - a 28-month process of industry-led technical development - was to provide a user-friendly process to help close the gap between policy goals and what is happening on the ground.

Throughout the six-month pilot process, we saw more than 140 organisations from industry and the public sector trained to test the Value Toolkit across a broad range of projects and programmes, covering both linear and social infrastructure. Feedback from the pilot was overwhelmingly positive, with industry leaders and government departments lauding the Toolkit's benefits and becoming key advocates for its adoption.

In its New Foundation report, the CBI states that "the Value Toolkit's role in creating and embedding a shared definition of value in the construction industry should not be underestimated". Meanwhile, the Ministry of Justice stated that the Toolkit "allowed the trial projects to create a shared vision of the outcomes expected through the project" and that "the project teams utilised the value profile and prioritisation of outcomes as a central point of focus through design development". Establishing the priorities early, they said, "has allowed the project teams to consistently check decisions against such priorities, ensuring key values were maintained".

They concluded that the Toolkit "has helped inform the project's strategic narrative" and the team were "enthused to continue [its] use and development".

Enthusiasm for the Value Toolkit continues, as the most recent pilot of the training courses has shown renewed levels of industry engagement. As we take the next steps to transition the Toolkit to a longterm home that will be supported by both industry and government, the collaborative ethos that was the hallmark of the Toolkit's development will be vital. It will ensure stakeholders from across the built environment and construction sector have the tools and knowledge that will stand as an enduring legacy of the Hub's ground-breaking work.

We won't make the shift to value-based decision-making overnight, but we now have the momentum and tools to start the journey.





The Value Toolkit. A journey to value-based decision making -Creating the Value Toolkit



Ian Nicholson Value Toolkit Delivery Lead, **Construction Innovation Hub**

Making the shift away from project decision making based on cost or how long it took towards a methodology based on value was a daunting challenge, and a complex one. The need to deliver more efficiency, and maximise the impact of a given project's available budget was clear, but the question remained - how do you define value, beyond the bottom line on a spreadsheet?

The answer was the development of the Value Toolkit. The work of the Hub has allowed us to develop a detailed framework and Toolkit to guide the built environment and construction sector away from decision making with a focus on budgetary concerns and towards a more holistic view of value, as described in the Value Definition Framework.

This framework allows those using it to develop an understanding of what value really is in the context of a project and, by using this in concert with the Value Toolkit, we can come to better procurement decisions.

One key learning point is the need to define and embed value in the foundations of a programme, which is why the Value Toolkit gives a clear view of what the fundamental needs of the project are. There is also a need to challenge the idea that value-based procurement costs more. By scoping out the needs of the project at the outset with the Toolkit, we ensure that stakeholders are maximising the impact and efficiency of the budget available to them. We have also developed an understanding of how the Value Toolkit adheres to procurement regulations and refined the mechanics of evaluating price against value.

As this phase of the Hub draws to a close. I look forward to seeing the work we have begun on value-based decision making continue as the built environment and construction sector looks for answers to the challenges of tomorrow, today.

The Value Toolkit. A journey to value-based decision making -Pilot testing for Implementors and Facilitators



Ann Bentley Member of the Construction Leadership Council

"The whole industry needs the toolkit. We've all known for many years that procuring on price alone has led to a race to the bottom, and quality and many other parameters have fallen. Despite this, industry has seemed unable to do anything about it. So, the Value Toolkit represents a radical way forward to change this."



Watch: Ann Bentley's closing remarks at the Value Toolkit Legacy Launch Reception



Read: The Value Toolkit represents a radical way forward for industry and value

The Value Toolkit has been designed to be a collaborative suite of tools that listens to and responds to the needs of those using it. To that end, when analysing feedback from the pilot testing project for the Toolkit, we addressed three key points raised by government and stakeholders.

- and programmes using Gren Book.
- Strategic Objectives and the Mission.
- other or caused problems in the project.

1. The need to align. There was a call from government (specifically HM Treasury) to align more closely with the Green Book process. To this end, we adjusted terminology within the Value Toolkit. The Toolkit now contains a distinct stream describing project and programme-level business casing development alignment, giving assurance that the Toolkit can be used smoothly in conjunction with projects

2. The need to simplify. Industry was excited by the prospect of the Value Toolkit and the holistic overview it offered but found the initial version of the Toolkit too complex, with too many streams which were overly inter-related. Taking this feedback on board, we simplified the number of streams in the Toolkit, from 5 to 2, and simplified the prioritisation, focusing on the key question of ability to influence achieving

3. Changing process. Workshopping with beta testers of the Toolkit showed that project outcomes were a mix of strategic and tactical. By changing the process to acknowledge and support this hierarchy of outcomes, we were able to identify more clearly the Strategic Objectives versus those Outcome Drivers in a project, easing the process of how different outcomes complemented each

These three critical changes have allowed us to improve the Toolkit as we have developed it, responding to the needs of government and stakeholders.

As we move to embed the Toolkit in government processes, we can be confident that we have delivered a bespoke set of tools that will help answer some of the most taxing challenges we face in built environment and construction.

It is a legacy to be proud of, and one that was shaped due to collaboration, determination, and a shared vision from all those involved to make the way we work better.



Hear from our supporters



Lee Rowley MP Former Construction Minister • 16 September 2021 - 6 July 2022

"It's good to see this new initiative come to fruition after a successful pilot. The Toolkit reflects the Government's desire to ensure we embrace a construction procurement process that has clean, green innovation at its heart. It complements our commitment to boost the productivity of this vital industry as part of our plans to grow the economy and create good quality jobs."



Watch: Lee Rowley MP speak at the launch of the Value Toolkit



Read: Delivering the tools to meet tomorrow's challenges, today. Celebrating the Value Toolkit



The Rt Hon Anne-Marie Trevelyan MP Former Construction Minister • 8 January 2021 - 15 September 2021

"The construction industry is an invaluable asset to the UK's economy, and we are fully committed to supporting its growth and development. Bringing together knowledge from over 200 experts from across government and industry, this toolkit will make it easier to determine the social and environmental benefits of the decisions made by firms in the construction sector, helping it continue its drive to cut emissions and build back better from the pandemic."



Read: Pilot for ground-breaking Value Toolkit takes off - Construction Innovation Hub



Read: International Programme - Construction Innovation Hub



Hear from our supporters



Ron Lang Technical Director, Atkins (Former Impact Director for Value, Construction Innovation Hub)

The Value Toolkit was born from the recognition that the construction industry, and the built environment sector it serves, needs to shift from procuring for the lowest cost to procuring for value and outcomes.

The development of the Value Toolkit followed on from the Procuring for Value movement championed by Ann Bentley and the CLC, which was later enshrined in the UK's industrial strategy and construction sector deal). It was then reinforced through the CLC's Roadmap to Recovery and the Construction Playbook.

An exemplar of what collaboration can genuinely achieve, the Value Toolkit was developed by over 200 partners, including RICS, RIBA, UKGBC, Social Value UK, ACE, the CLC, CECA and CIOB. It is the embodiment of our sector's ingenuity, its potential for technical innovation and, above all, its collective desire to do things better.

As we developed the themes of the Hub and began to work with stakeholders to identify their needs, we saw that, clients were operating in an increasingly complex decision-making environment. For public sector clients, there is need to demonstrate that policy is being translated into meaningful action in projects, programmes and across portfolios. For private sector, the increasing role of ESG is driving the need to demonstrate the delivery of broader outcomes beyond traditional cost, time and quality.

We learned that, in the absence of robust benchmarking data, clients struggle to articulate what value means for a given project context and to identify the outcomes they want and need to drive through investment in the built environment. Insufficient time is being spent on this aspect (value definition) at the front-end meaning design/delivery teams are often not clear on what success looks like or how they can influence it through what we build and how we built it.

It was identified that the appointment of design and construction teams with expertise across the social, environmental and economic outcome categories is critical for success, and, to make more balanced and informed decisions, we need to make sure we have broad representation.

Predictions made in design and commitments made at tender stage should be brought together to inform 'as-built' monitoring to ensure the teams are held to account and/or rewarded accordingly. The Value Toolkit encourages shared responsibility (and shared risk/reward) for eventual outcomes (hence this approach aligns well with an alliancing type delivery model).

Was value ultimately delivered? Have predicted outcomes and impacts been realised? This gives reassurance that everyone involved is contributing to the development and achievement of the desired outcomes for the project.

Directly enabling clients to link key policy objectives to project outcomes, the Toolkit supports informed decisions at every stage of the project or programme lifecycle to optimise value. Crucially, outcomes are not limited to the delivery phase but rather the whole lifecycle of the asset, creating a golden thread of value from early concept through delivery and use.

The pandemic gave us the opportunity to reset how we view value and how we embed value-based decision making in the future. While it's too soon to know if the change started by the Hub will take root, I am proud of the work that we did, and the legacy that we leave behind for the construction and built-environment sectors.



Hear from our supporters Pilot testers using the Value Toolkit Read all testimonials



Turner & Townsend



Architecture.com







How the Value Toolkit links to other areas in the programme



The Value Toolkit maximising the potential of information management



Dave Philp Former Impact Director, Construction Innovation Hub

The information we are creating and capturing about our built infrastructure is central to overcoming the complex and wicked challenges that 21st century society faces, from climate emergency to economic growth. Secure and shared information is key to creating a built environment which will enable human flourishing and resilience.

Over the past four years, the Hub has helped transform our built environment by championing information management as a key enabler, especially when coupled with modern methods of construction and value-based decision making. This is most clearly seen in the Value Toolkit, which uses information holistically to deliver tangible benefits beyond mere capital value throughout the lifecycle of a project. The information management work of Hub, our partners such as the UK BIM Alliance and networks has helped shape policy such as the Infrastructure & Projects Authority (IPA) Transforming Infrastructure Performance: Roadmap to 2030 its Information Management Mandate and Government Soft Landings (GSL) ambitions.

Our Government Soft Landings work is helping create both a golden thread of information and also ensures that the operational purpose is maintained through aligning the interests of those who design and construct with those who use our built assets. Our work with National Health Service Scotland amongst others has seen soft landings being adopted at a national level making concepts come alive and unlock the benefits of an interactive process.

Meanwhile, our energy and carbon reporting framework and tools respond to the challenge of assessing the performance of a building or other assets during the procurement, design and construction phase which previously remained a significant challenge for the industry.

Our networks such as the Home Nations Working Group have allowed best practice and lessons on information management to be shared across the devolved nations to advance industry in a harmonised manner. And, of course, our Digital Twins guidance is helping clients prepare and mobilise for game changing digital twinning in a purpose driven manner that is built on a secure information management foundation. We have built a compelling vision for the Built Environment, encouraging innovation and maximising the potential of information management in response to the increasingly complex challenges we face.

As we head towards the conclusion of the programme, it is inevitable that industry will continue to drive toward a digital and transformed construction sector building upon the strong foundations the Hub and its partners have created. It's an honour to have been a part of this work, and to help contribute to the development of a built-environment and construction sector that is focused on delivering real change and increased sustainability for all.





The connection with the Product Platform Rulebook and CPQP



Steve Nesbit Platform Delivery Lead, Construction Innovation Hub



Gill Kelleher Former Impact Director, Construction Innovation Hub

The Value Toolkit is a powerful tool which will drive and embed value-based, prioritised decision making in projects and programmes.

The consistent use of the Value Toolkit across capital pipelines will help clients articulate what value means for them and how they will measure success. When combined with a process of harmonisation, digitisation and rationalisation, the information needed to develop a product platform becomes more accessible. Meanwhile, value profiles can be aggregated to inform platform development, particularly where they can be combined with technical requirements and financial information across a pipeline. The use of the Toolkit will also make it easier to set performance targets for product platforms. Giving stakeholders the confidence and assurance, they need to embrace the Toolkit and value-based decision making will be vital. As the Hub's former Impact Director, Gill Kelleher states:

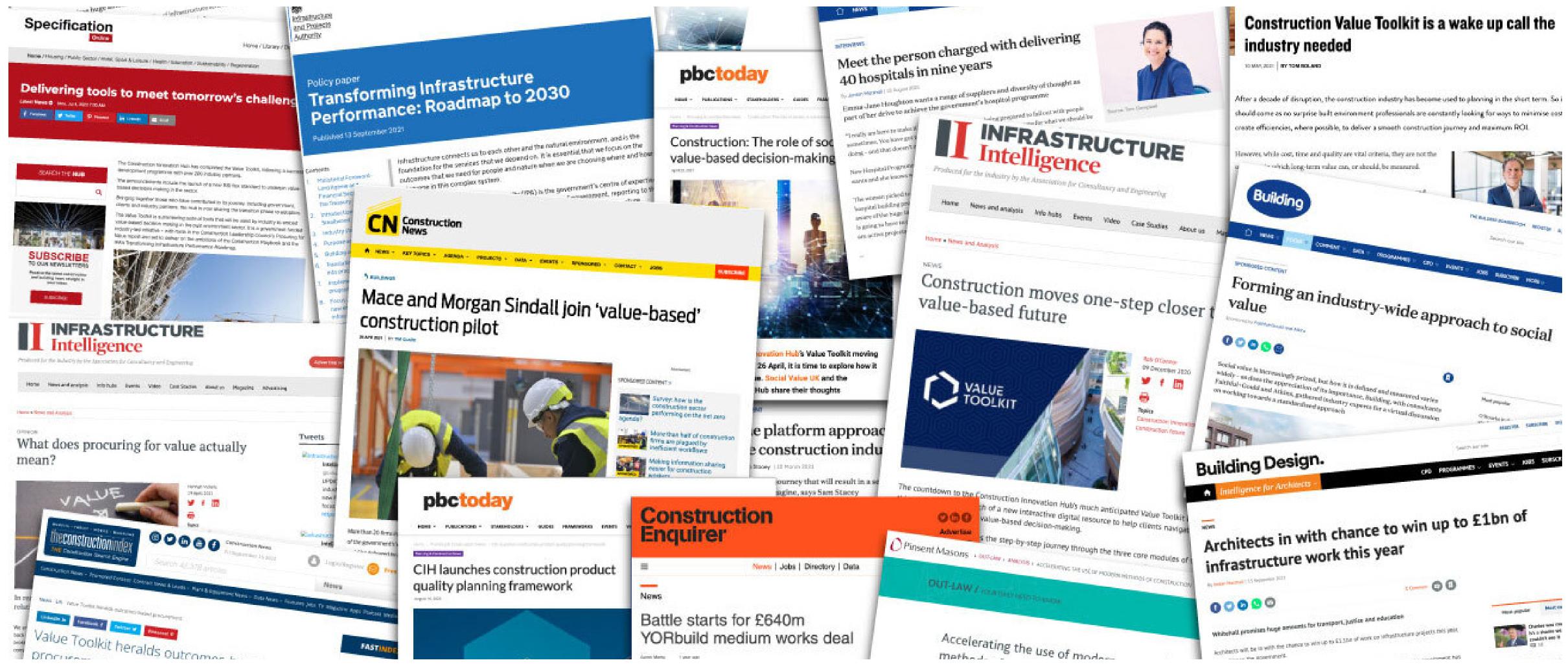
"Embedding a robust quality assurance framework and digital processes from project design stage throughout the buildings lifecycle that help create the golden thread of information, instilling trust and confidence across the built environment is fundamental".

Gill also points to the Construction Product Quality Planning (CPQP) resources now available for industry to deliver the confidence to change. CPQP aims to drive a cultural shift in safety and quality assurance for offsite construction. It builds on best practice from other industries to provide a quality assurance framework that focuses on the development and introduction of new products. CPQP has been adapted from the well-established Advanced Product Quality Planning (APQP) process used widely across leading industries such as aerospace and automotive.

Construction and the built-environment sectors must evolve to face the increasingly complicated challenges we face. When we consider the backdrop of global economic uncertainty and the need to be ever-more stringent with costs, the Value Toolkit's transformational approach to projects and programmes will be a vital tool in ensuring every project and programme reaches its full potential and truly delivers for those involved.



Where we are in the press





Statement materials



Technical information and resources



Technical information and Resources:

Visit our website to find all the up to date technical information and resources. Value Toolkit Overvie

Value Definition Fran

BSI Flex Standard

Video: Dan Rossiter, Legacy Reception

Value Toolkit Present

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The Legacy



A legacy to be proud of as we look to the future.

Over the last four years, we've seen excellent progress across the transforming construction challenge. It would be easy to rest on our laurels, look at the transformative work of the Hub and move on to the next project, the next programme, the next challenge. But, for the Hub, and what it represents, we won't do that.

But we should not be limiting our ambition to the historic rates of change we've seen in our sector. We have before us an opportunity to go further, go faster. To be bold.

The solutions that we have developed in the Hub and with stakeholders must be deployed more widely and more quickly. They support productive growth in our economy. They improve the safety and quality of the built environment. These solutions drive a faster path to net zero. They deliver greater value to society and all those who live within it. These solutions support better outcomes and, crucially, they will help make forging careers in our sector more attractive to future talent. If the vision is for sustainable, innovative and highly productive businesses with a talented, diverse and motivated workforce delivering zero carbon, safe, high-quality buildings and infrastructure that really meet people's needs, how can we make it a reality? We need a clear vision, and we need a joinedup programme. We need government, clients and industry to align behind this vision and we need a route to implement it.

While our four-year contract is coming to an end, our programme, our mission, our ambition isn't. We have the seed funding for our next phase, and the next stage will focus on deployment. We will focus on how we can work with government, clients, with industry to implement the programme. We will also help embed the Value Toolkit with government to pave the way for better value-based decisions. We'll also be working with government clients and their supply chain partners to accelerate the development of manufactured solutions deliver their futures, schools, hospitals and more. And we will create the right enabling framework for the long term and sustainable transformation of our sector. Everyone in the Hub, and the wider built-environment and construction sector, should be proud of what we have produced, what we added to our society, our environment and our economy.

And that's a legacy every one of us can and should be proud of.



#ValueToolkit constructioninnovationhub.org.uk

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UK Research and Innovation



