

# How IPI delivers the key outputs required by The Playbook

(Insurance Backed Alliancing)

Introduced by

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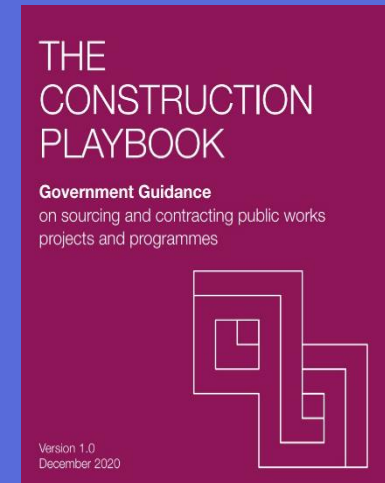
**IPI**Initiatives  
Collaboration Without Barriers

- The Government Construction Strategy 2011, 2015 & 2025
- The Farmer Review (2016) warned *of potential marginalisation and deterioration that might not be recoverable..*
- P13 Blueprint by the Infrastructure Client Group and ICE – NIC report
- The Housing Forum – Stopping Building Failures
- Hackitt review of Building Regulations and Fire Safety
- Industrial Strategy – Construction Sector Deal (CSD)
- Construction Leadership Council – Procuring for Value – response to CSD
- House of Lords Science and Technology Committee – Off-site manufacture for construction: building for change.
- 2020 The Construction Playbook
- Constructing the Gold Standard (Frameworks) - 2021

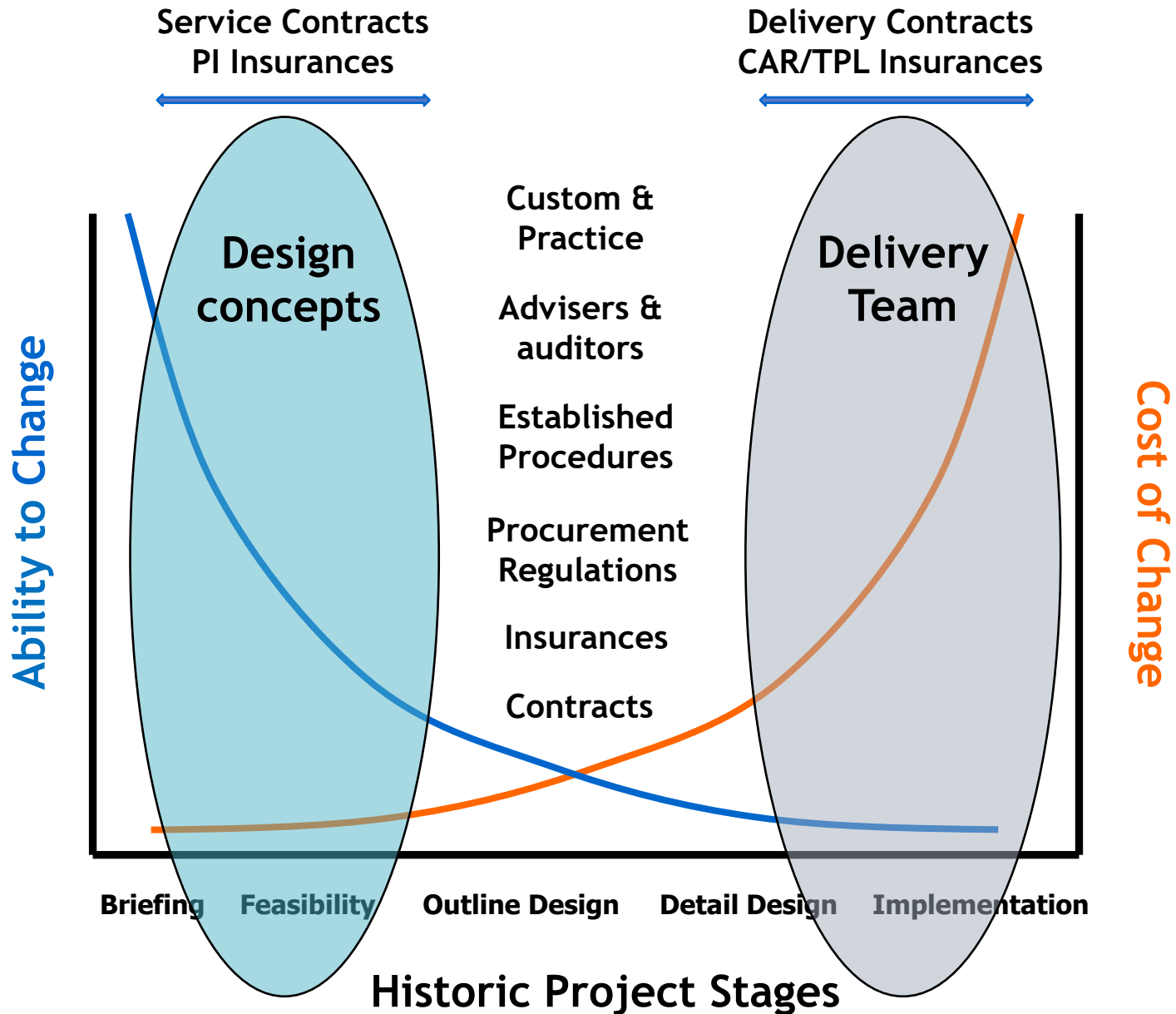


## Focus

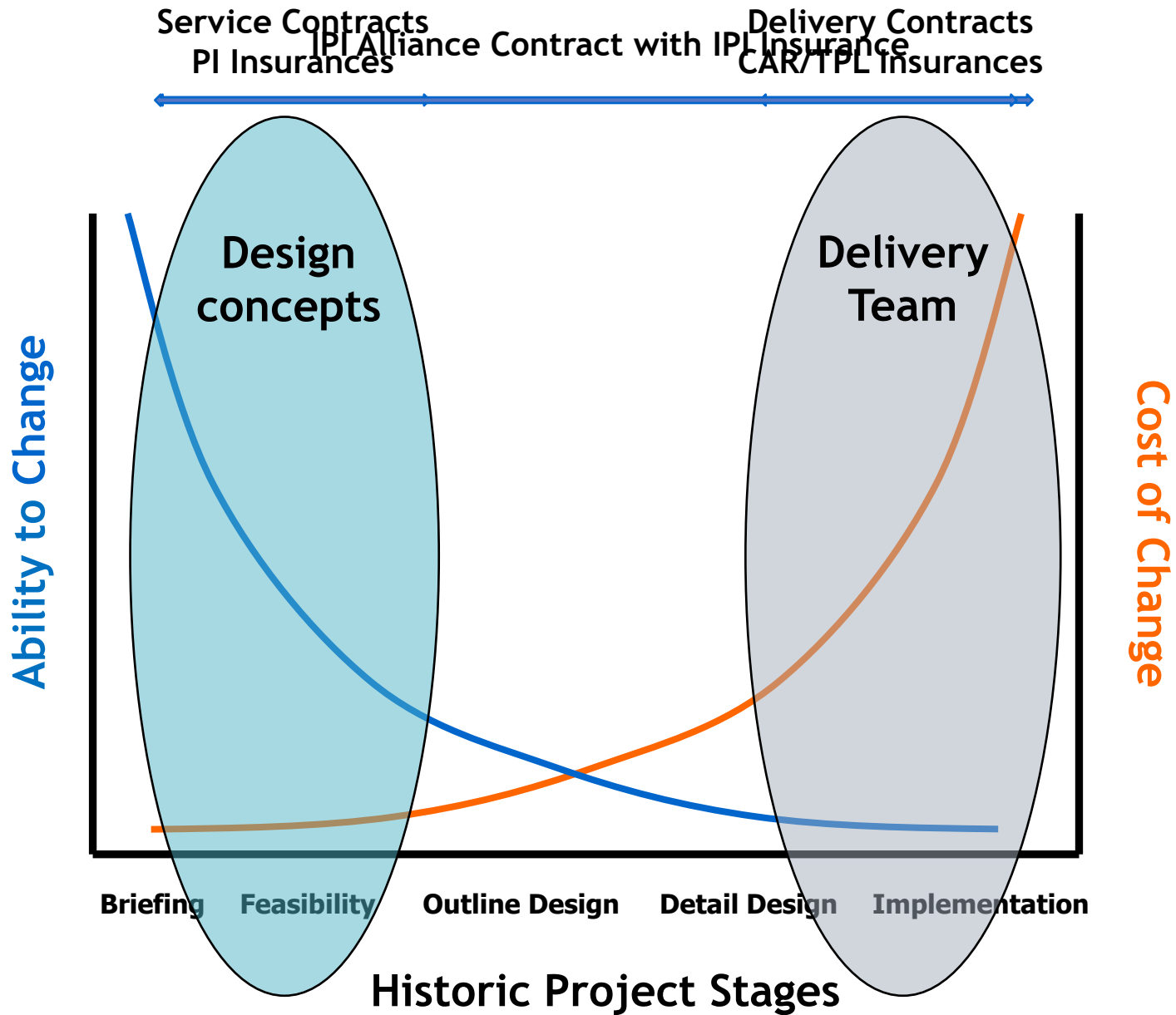
How the industry needs to change to improve productivity, end user satisfaction and safeguard those in the sector.



# The Need for Change - The Reports



Design & Delivery Integration – what’s wrong with what we do now – why can’t we achieve it



# Design and Delivery Integration

- Fragmentation –
- *Contractually and insurance forced disconnect – design, delivery and end users embedded in Industry*
- Disconnect between
- *Value to Supply Chain/Owner & End User*
- Margins so low little investment
- Understanding Value
- Disconnect between Capex and lifecycle costs
  
- Ingrained Behaviours!!!

*e.g. offsite cost 10% more but reduced time adds to clients value in revenue by 7%*

- *KPMG figures on Laing O'Rourke*

Industry's  
biggest issues  
affecting ability  
to innovate and  
reduce risk:

# What solutions might you come up with...

- Get your message to the whole team at the same time - once
- Procure the exact team of specialists required to produce the product you need at the beginning
- Run the project as a business with all parties having a vested interest in the best outcome
- Pay everyone at the same time for everything they do on the project
- Design and deliver everything once only
- Achieve commercial certainty – Manage project by managing risks as a whole team
- Use BIM and create a CDE to manage design solutions and information
- Ensure you have a team that is truly collaborative

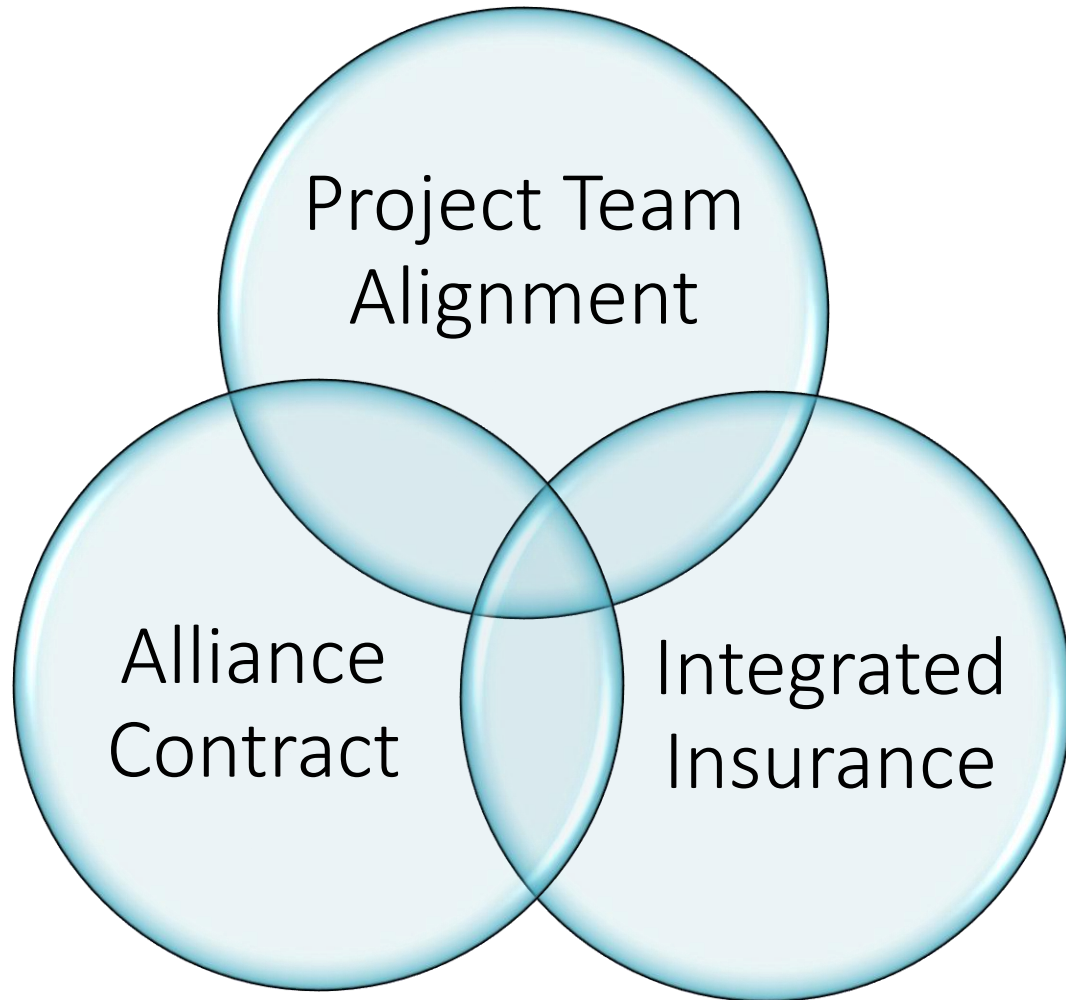
# How the IPI model addresses those ideas..

- One multiparty Contract
- Invite whole supply chain to party
- Virtual business – board of experts
- PBA – open book – pay for people and buy things separately
- Don't start design till fundamentals of the solution agreed
- Appoint independent experts as part of the process
- Ensure all team have input and buy in from day 1
- Choose the team for their ability and measure their behaviours; monitor and mentor ongoing

Importantly...

How do we make sure the client gets their desired outcome within the cost and time they actually have to invest?





Enabling an absolute no blame culture

## Insurance Backed Alliancing (IBA) under the IPI Model

Integrated Project  
Insurance; the first in  
a new generation?

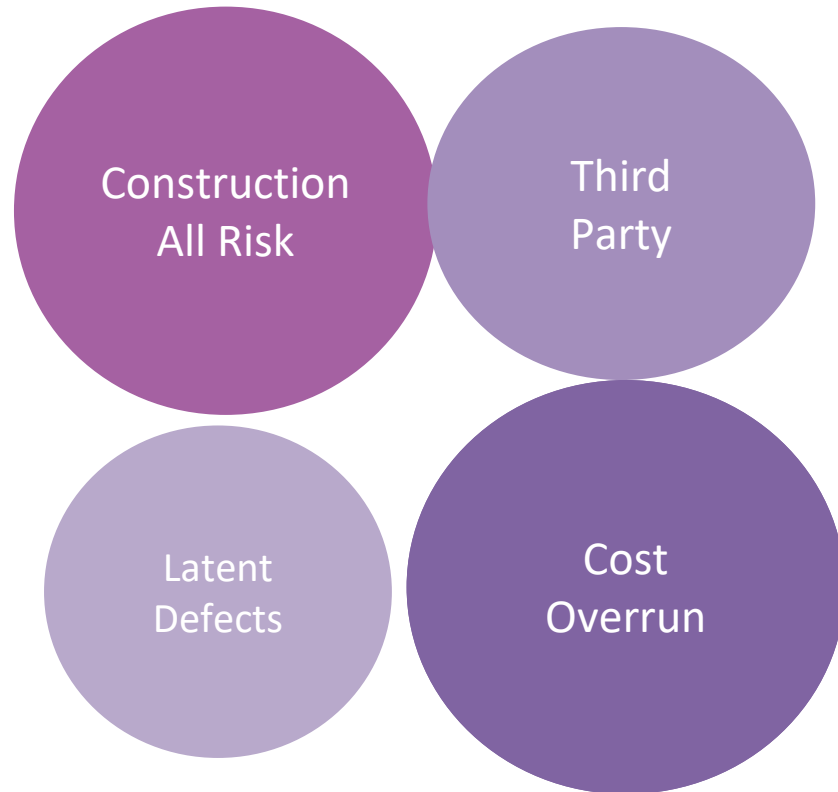
- Common selection (was OJEU) based on ability to achieve including behavioural competence
- New Alliance Contract creates a virtual business - Board of partners with 'skin in the game'
- Whole team optimise performance deciding who does what, when and how
- Open book – pay for people and buy things separately – through a PBA
- Work top down from a benchmarked investment target to meet the needs
- Supply chain involved in all design decisions
- Value achieved by stripping out processes, products and procedural waste & inefficiency
- Team identify opportunities and risks - allocating to party best suited

Main benefit is flexibility.. Able to adapt and manoeuvre easily – no claims!

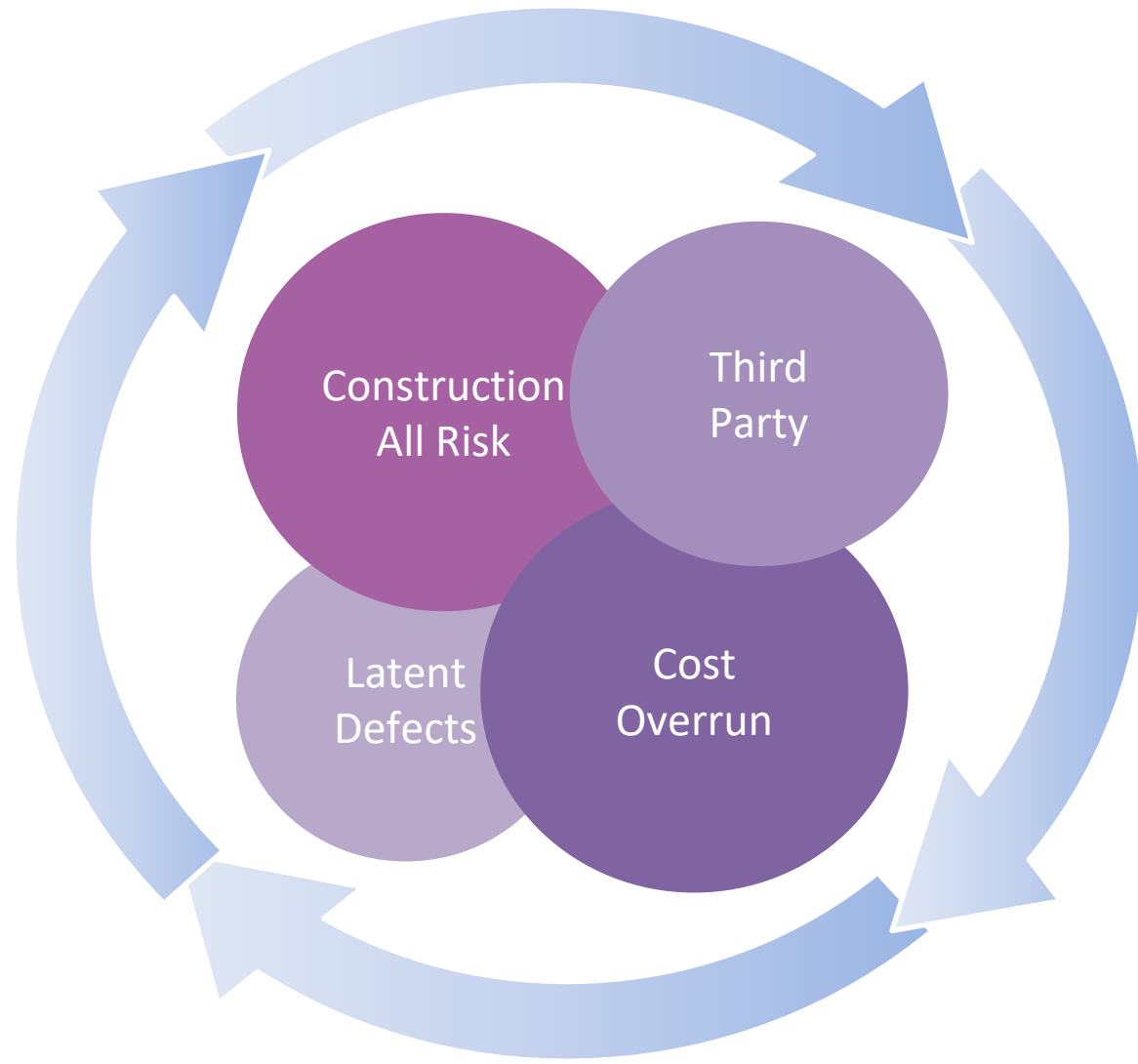
# Key Features of IPI - Alignment

- 3 independent experts included in the process
- Independent Facilitator (IF) to ensure an inclusive collaborative culture is developed and maintained
- Technical and Financial Risk Assurors to ‘interactively audit’ and confirm solutions;
  - ✓ are technically sound
  - ✓ affordable
  - ✓ have appropriate allowances for risk
- Alliance (Inc. Client) and underwriters receive regular reports and recommendations regarding status and issues

## Key Features of IPI - Assurance



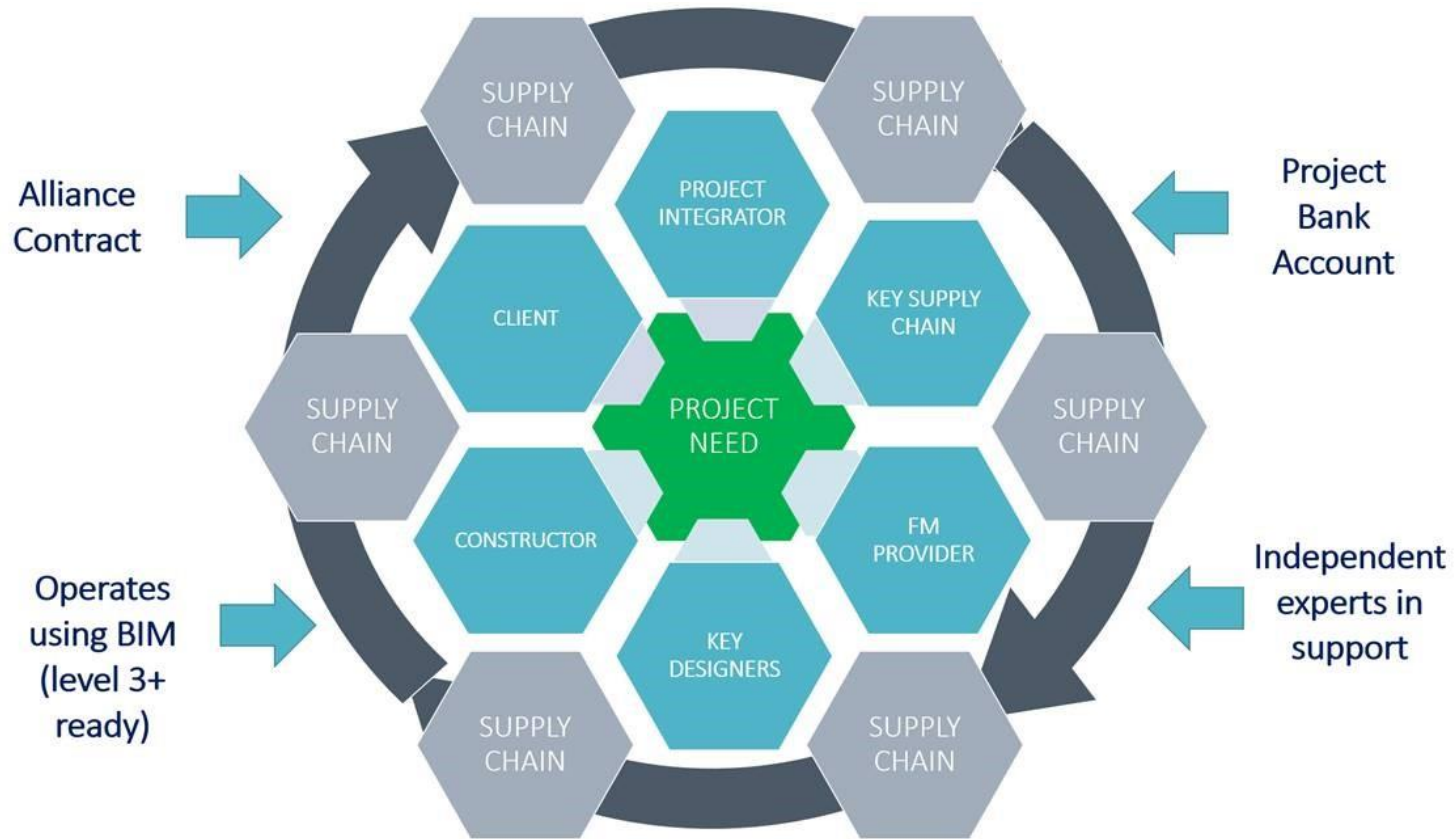
# Key Features of IPI - Insurance



## Key Features of IPI - Insurance

- Covers the whole team and all their suppliers
- Cost overrun insurance to a pre-determined painshare means parties know their maximum liability
- Policy covers cost overrun above painshare (policy excess)  
- new form of security for funders with no need for collateral warranties or retentions
- No blame - no need to hide mistakes or failings even when projects go wrong
- No rights of subrogation - no legal or forensic costs to fund
- Fit for 'defined' purpose sign off
- 12 year LDI insures outputs so PII negated

## Key Features of IPI - Insurance



All covered by IPI Insurance;  
inc. cost overrun



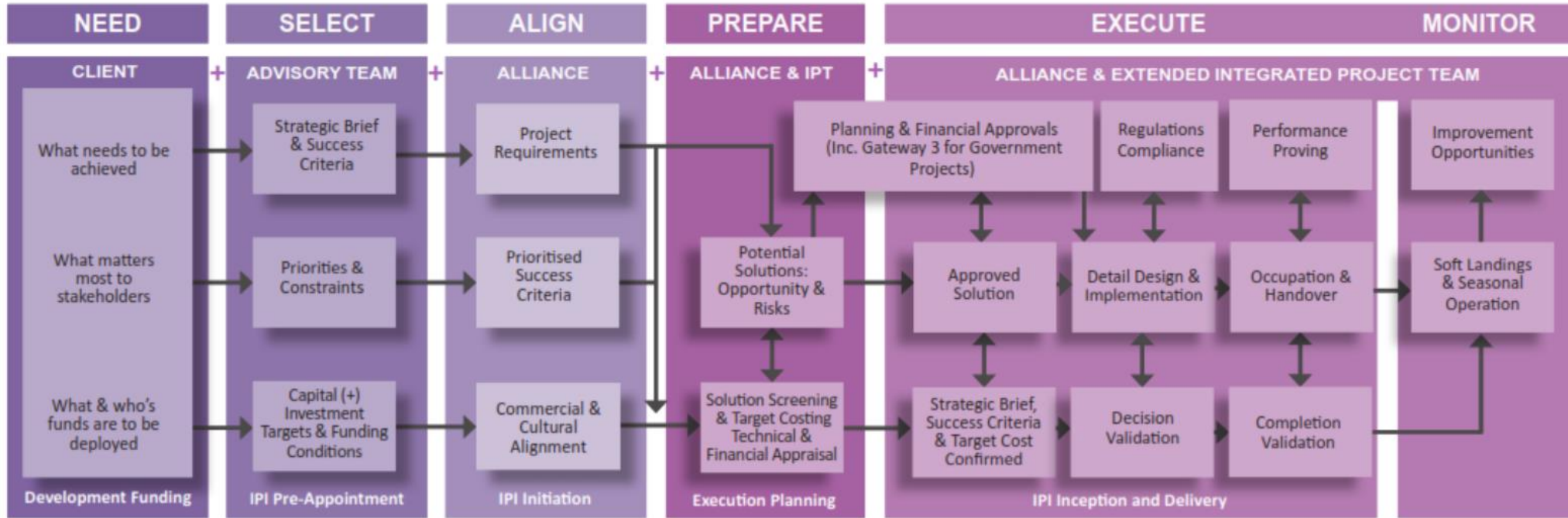
Integrated Project Insurance®

# How IPI is set up

**IPI**Initiatives  
Collaboration Without Barriers

# Mapping the IPI Model Process to the Alliance Contract Phases

From Inception to Completion Through a fully Integrated Collaborative Team

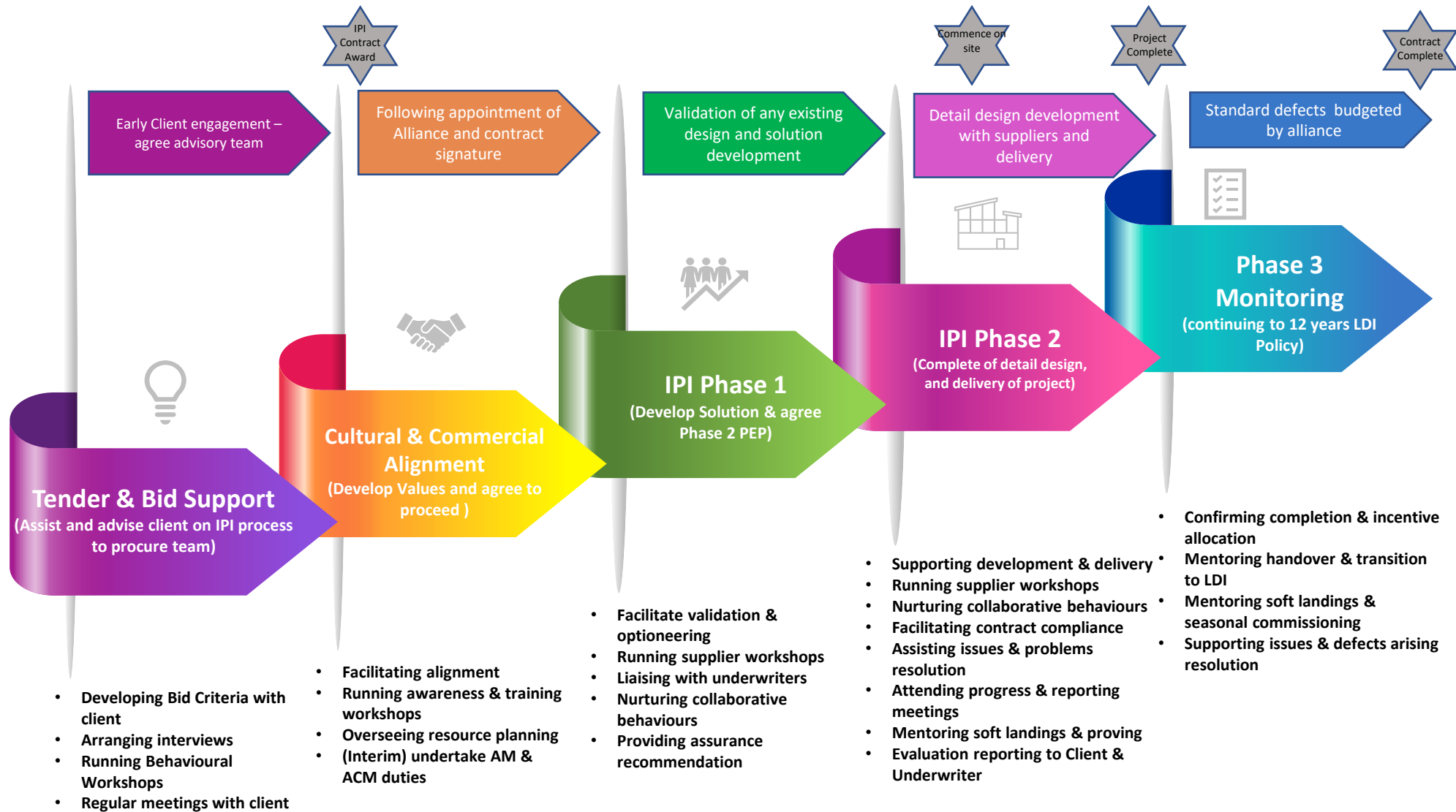


## Alliance Contract Mapping





# Activities, workstreams & Key meetings – Facilitation role



# The Playbook States...

*“Deciding on the correct commercial approach is critical to achieving the intended benefits and wider value. The commercial approach should be linked to the delivery model, the desired outcomes and type of relationship you want to have with the supply chain. Depending on the commercial approach and nature of the works, this will impact the procurement procedure and contracting strategy.*

And

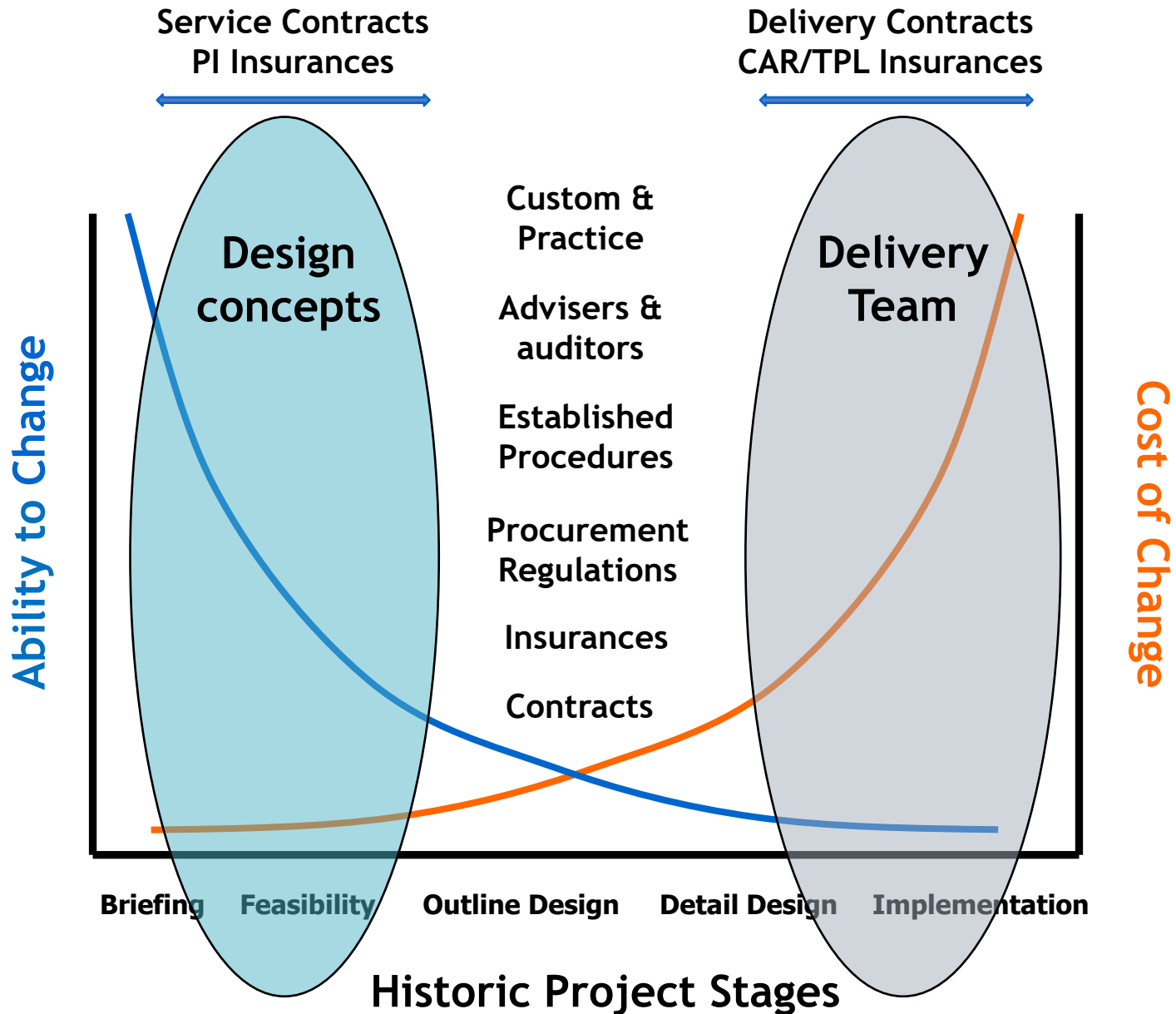
*One of the most effective ways to deliver outcomes is to create contracting environments that promote collaboration and reduce waste. Contracts should create positive relationships and processes designed to integrate and align multiple parties’ commercial objectives and incentives.”*

Alliancing gets a brief mention and Frameworks more so as they are adopted by clients but equally these reports are just that – there is no “How to” in there

*“Frameworks are an efficient method for government to procure public works, goods and services and can provide an opportunity for contracting authorities to access economies of scale. However, using frameworks inappropriately can have negative consequences for contracting authorities, markets and suppliers, and can unintentionally inflate prices. “*

Key aspects of  
the Playbook  
wants....

Do D&B and other existing contracts do this?



Design & Delivery Integration – what’s wrong with what we do now – why can’t we achieve it

MAPPING HOW IBA COMPLIES WITH THE PLAYBOOK'S POLICIES AND UNIQUELY CHANGES THE APPROACH TO DELIVERY

Playbook Chapters	Playbook	Procurement & IBA Phases	Playbook Outcomes: "Driving better, faster greener delivery" with cross-cutting priorities  Insurance Backed Alliancing processes	Improved quality	Value for Money	Raising productivity	Optimising programme	Predictability of Delivery	Low carbon /sustainability	Safety of products and services	H&S and wellbeing in workplace
3.2	Outcome-based	P	Client defines need – solutions follow	✓	✓	✓		✓	✓	✓	✓
5.1	Benchmarking		Benchmarked and prioritised targets – outcome based	✓	✓		✓	✓	✓	✓	✓
7.1 8.0	Risk Allocation Economic Status		Independent assurance collaboratively minimises risk for whole alliance		✓			✓		✓	✓
6	Effective contracting		Earliest selection of whole alliance - contract signed; cultural and commercial interests aligned	✓	✓	✓	✓	✓	✓	✓	✓
3.1	Early supplier engagement	1	Alliance engages suppliers' expertise to identify options to meet client needs	✓	✓	✓	✓	✓	✓	✓	✓
2.2	Embed digital technologies		Interactive digital twin to produce "best for project" solution – one team one platform one model	✓	✓	✓	✓	✓	✓	✓	
5.2	Delivery model assessments		Proposition for full development & delivery agreed; final funding provided; unique IPI policy incepted	✓			✓	✓	✓		
6	Effective contracting	2	Add remaining suppliers, execute agreed plan and prove Fitness for Defined Purpose	✓	✓	✓	✓	✓		✓	✓
7.2	Payment and pricing		Payments through PBAs, target cost owned & managed by whole alliance, outcomes incentivised	✓	✓	✓	✓	✓			
10	Resolution Planning		Independent assurers, governance transparency & maximum liability minimise risk for whole alliance		✓			✓			
		3	Seasonal commissioning, ongoing FM support, digital O&M and LDI, lessons learnt shared	✓	✓	✓		✓	✓	✓	✓

What they all say and agree upon?

*Hot off the press and under further review*



Here's how ...

# Following Completion of 2 IPI projects in 2021 – the Alliance for Dudley IoTT have Published a Second Prospectus - the “How to...”







“We all talk about ECI and supplier engagement but how do we achieve that and influence design and cost decisions when current industry processes separate by, time, contract & insurances?”



## Environmental



Greenhouse gas emissions	Water consumption	Waste management	Resource management
Mineral extraction	Materials	Resource efficiency	Recycling

## Social



Diversity and social inclusion	Health and well-being	Legacy planning
Community impact and integration	Education and skills	Emergency response planning

## Governance



Strategies	Policies	Constitution of governing body	Procurement
Sales	Supply chain management	Stakeholder engagement	Diversity, equality, and ethics

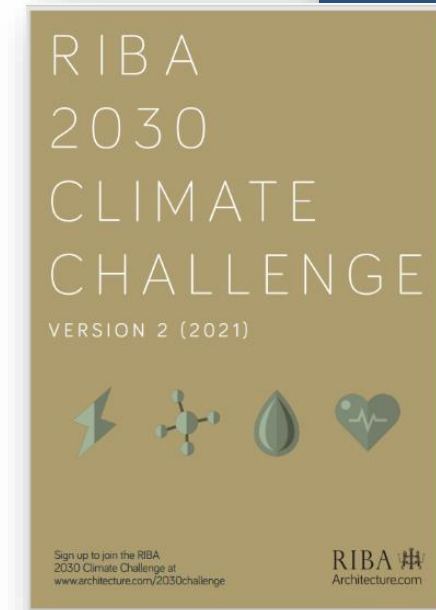
## Environmental Net Zero/Sustainability...

How do Clients ensure retention of these design criteria i.e., that aspects are not “Value Engineered” out

The Architect Said...

*“The BREEAM criteria are a case-in-point. BREEAM, by its nature is a very broad credit-gathering based certification system. Fundamentally, the client’s ambition towards a low-carbon low-energy solution would far exceed the energy requirements of BREEAM ‘very good’ and potentially BREEAM ‘excellent’.*

*...for want of a better title, the agreed success criteria were labelled as Best of BREEAM, as shorthand for meeting or exceeding the low energy targets, water use, ecology etc. of BREEAM excellent, without the requirement for full overall compliance or certification. IPI allowed the team to see a best for project solution”*



## RIBA 2030 Climate Challenge target metrics for non-domestic (new build offices)

RIBA Sustainable Outcome Metrics	Business as usual (new build, compliance approach)	Black Country & Marches IoT	2025 Targets	2030 Targets
Operational Energy kWh/m <sup>2</sup> /y 	130 kWh/m <sup>2</sup> /y DEC D (90)	76 kWh/m <sup>2</sup> /y	< 75 kWh/m <sup>2</sup> /y DEC B (50) and/or NABERS Base build 5	< 55 kWh/m <sup>2</sup> /y DEC B (40) and/or NABERS Base build 6
Embodied Carbon kgCO <sub>2</sub> e/m <sup>2</sup> 	1400 kgCO <sub>2</sub> e/m <sup>2</sup>	738 kgCO <sub>2</sub> e/m <sup>2</sup>	< 970 kgCO <sub>2</sub> e/m <sup>2</sup>	< 750 kgCO <sub>2</sub> e/m <sup>2</sup>
Potable Water Use Litres/person/day 	16 l/p/day (CIRA W11 benchmark)	16 l/person/day	< 13 l/p/day	< 10 l/p/day

Approach gave results comparable with targets set for 2025/2030

*“The driving principle in reducing energy use, while maintaining budget was in a fabric-first approach. That is in making the design moves within the building’s overall design that reduce energy demand, rather than looking for technological fixes to problems of the design’s own making.*”

*This involves a high degree of robust decision-making discipline, involving all the skills of the design and construction team considering the issue in the round from the outset. IPI, by its nature, is ideally suited to the holistic approach inherent in successful low-energy design.”*

# Social

## MEP Constructor

*“The IPI commercial model came into its own for us when the pandemic occurred, as it was the only project where we were aware of our full financial risk – at a time when sites were shutting, personnel were isolating, restrictions were being imposed, manufacturing was reduced, deliveries were delayed etc. the above cannot be understated. Furthermore, on loTT we noticed the less tangible benefits that IPI delivers, such as:*

*Furthermore, on loTT we noticed the less tangible benefits that IPI delivers, such as:*

- ✓ *individual professional development,*
- ✓ *encouraging everyone to have a voice,*
- ✓ *the “no blame culture”, for example, we were in the midst of a pandemic and everyone rallied together to deliver the project, and*
- ✓ *great team culture, for example, there was the pressure to deliver the project, but it never turned to stress which is so often unfortunately seen.”*

Better Mental Health!

**BLACK COUNTRY & MARCHES**

**I N S T I T U T E OF  
T E C H N O L O G Y**

*Good behaviours,  
coming together, still  
learning, frustrating,  
opportunity, hard work*

*A good way of developing a  
construction project with  
involvement of all parties  
throughout*

*Enjoyable - rewarding - better!*

*Progressive, collaborative, game-changer*

*The overall experience was challenging  
but satisfying when you consider the  
experiences that we went through as a  
team. A breath of fresh air when  
overcoming budget constraints!*

*I feel it worked well with a  
collaborative approach  
met from everyone I  
worked with on site.*

*Very Interesting and good  
Education*

*Collaborative,  
committed, enjoyable*

*Very good. But  
still more room  
for improvement.*

*Different and more  
captivating*

*New, hesitant, surprised,  
collaborative, effective,  
efficient, team building,  
looking forward to doing it  
again.*

*An inclusive team, with the  
opportunity to develop new  
skills, for myself and the  
wider team*

*New, refreshing,  
engaging, enjoyable.*

*Just Brilliant – want more*

*Work in progress - concepts are brilliant,  
needs more managing of people to achieve success*

**BLACK COUNTRY & MARCHES**

<b>I</b>	<b>N</b>	<b>S</b>	<b>T</b>	<b>I</b>	<b>T</b>	<b>U</b>	<b>T</b>	<b>E</b>	<b>OF</b>
<b>T</b>	<b>E</b>	<b>C</b>	<b>H</b>	<b>N</b>	<b>O</b>	<b>L</b>	<b>O</b>	<b>G</b>	<b>Y</b>

***Calm, Supportive,  
Grown-up,***

***A step in the right direction***

***Thought provoking,  
steep learning curve,  
satisfying***

***ok but maybe room for improvement***

***Collaborative,  
enjoyable,  
unique***

***Thoroughly enjoyable, less stressful,  
collaborative, productive and successful.***

***Good initial planning and commitment but fell off***

***A breath of fresh air in an ever  
increasingly difficult world of  
construction!***

***Positive, collaborative,  
innovative.***

***Positive, refreshing,  
collective focus, challenging,  
enjoyable, effective***

***Inclusive, Collaborative,  
Engaging, Fantastic***

***Challenging and Insightful.***

***Very good and rewarding, feeling very  
much part of a team - true collaboration.  
Found the digital experience fantastic.***

***A collaborative and team central process,  
succeeding through the challenges of the  
Covid-19 pandemic***

***Fun, Rewarding, Encouraging,  
Challenging, Educational,  
Collaborative!***



## Governance

“The IPI process allowed the design team to work with the selected sub-contractor to set-out the cladding to minimize waste in production for the leanest cost. Working with suppliers in the design process is not at all unusual, but it is often the case that on finalizing a design, the contract is put out to tender and a different supplier is awarded the job, perhaps with the subsequent need to alter the design. Here the supplier could work with the team to find the least wasteful design, using rates in an open book manner, in the knowledge that the job was more certain.”



“  
Certainly, it  
is vanishingly  
rare to have  
the chosen  
contractor fully  
engaged before  
a single design  
concept is  
drawn

Examples of the  
Architect’s view  
True Collaboration  
and Involvement  
From day 1

*“From a design perspective, the IPI approach to cost planning, using target costs and a priced opportunity and risk schedule, allowed design work to progress with a much clearer idea of the budget, and where efficiencies could best be pursued.”*

*“Having the contractor as part of this very initial exercise meant they could propose moving the building on the site a small amount (appx 5m) to the south. This change was entirely insignificant to the success criteria of the building design, but made a big difference to the logistics of the residual loading area, which would eventually reduce prelims and programme risks. This is an elimination of waste at a point where there was zero addition to the design time or the client’s built asset. But it would not have happened this way under a traditional approach.”*

*“With a full IPT assembled, the architect could look at several iterations of the form, working with the M&E engineer, acoustic engineer and contractor to find a form factor that found the best way to:*

- a. Be efficient in enclosing maximum space in the envelope.*
- b. Maximise naturally ventilated rooms without resorting to acoustic attenuation*
- c. Bring in in good daylight, while minimising unwanted solar gain.”*

## Examples of the Architect’s view



*“Reflecting on the project as a whole, I am 100% confident that if we did it again, we would see a significant step change improvement in a number of areas, not just in the evolution of tech during the pandemic, but greater trust in the IPI process. ... casting my mind back to March 2020 and re-starting site in May. Covid-19 and controls around that were a key priority and not something that is easy to measure, in terms of inefficiency and distraction! There was a significant mental strain for all involved on site, with new people attending site, regular concerns around infection and protecting all those on the site, I think this impeded communication, made worse by an internet black spot where the IoT is located! So for a short period, the site was to a degree, isolated from the wider team and whilst the project was very much an overall success, I keep wondering how good it could have been....I am content with that, as it gives me a greater confidence in the process, even more under the circumstances!”*

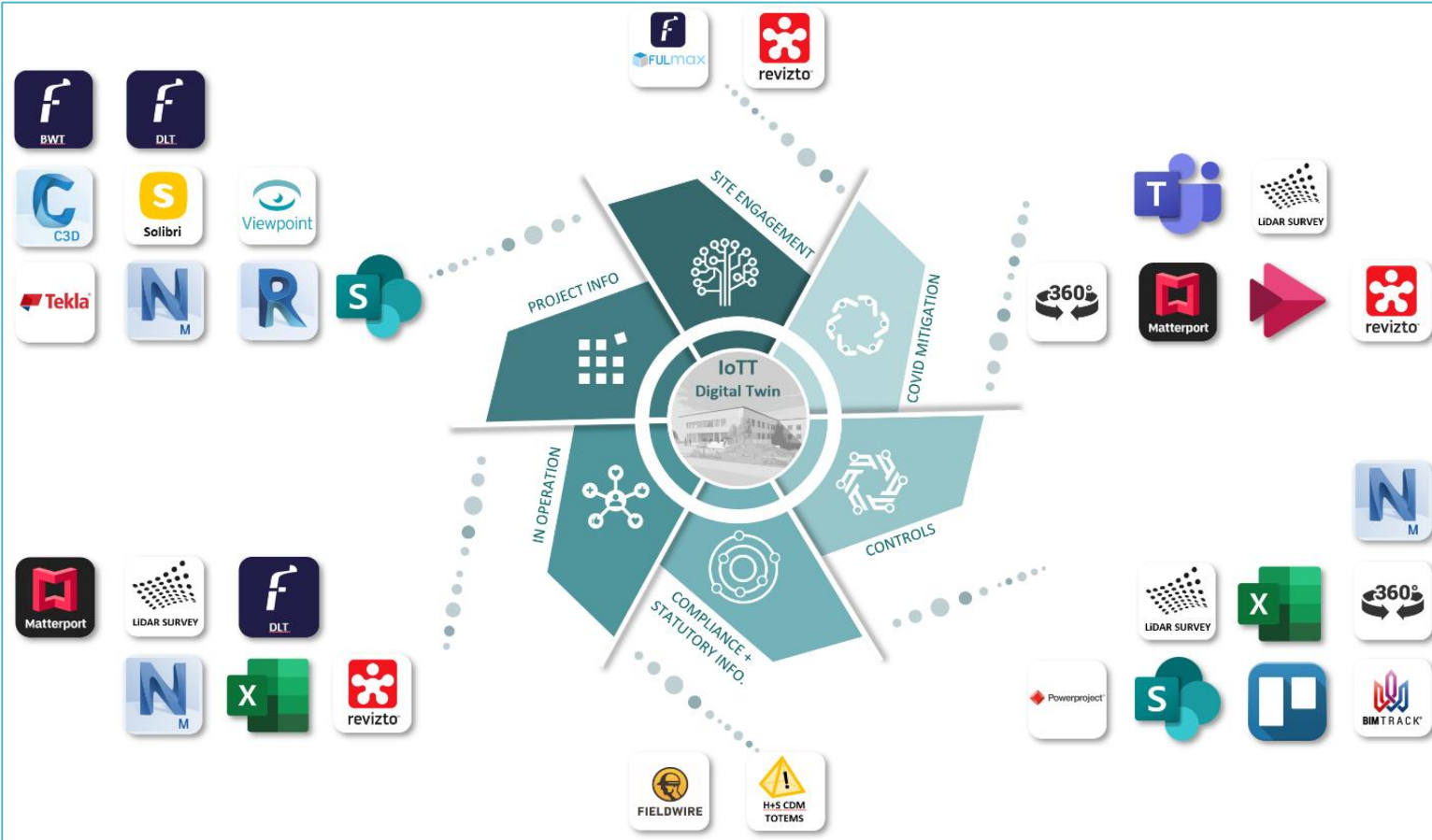
*“there is still potential to unlock more if suppliers are fully inducted and engaged into the collaborative alliancing environment.”*

## Examples of the Constructor's view

*“Live digital working environments are not easy for everyone to embrace; users can fear exposure. Trust must be established, and as we know trust is something hard earned but easily lost. Building trust through behavioural workshops embedded a sense of ‘team’ from the outset; this fostered a collective willingness to ‘give the unfamiliar a go’ whilst being safe in the knowledge that ‘stragglers would not be left behind’.*

*Essentially, we were going for what can only be described by those who embrace BIM under IPI, and the technology that surrounds it, as ‘EXTREME COLLABORATION’, not for the faint-hearted,...everyone experiences in varying degrees their source code being over written, as traditional industry behaviours and habits are reprogrammed and replaced with new and more collaborative ways of working.”*

## The Digital Coordinator’s Perspective

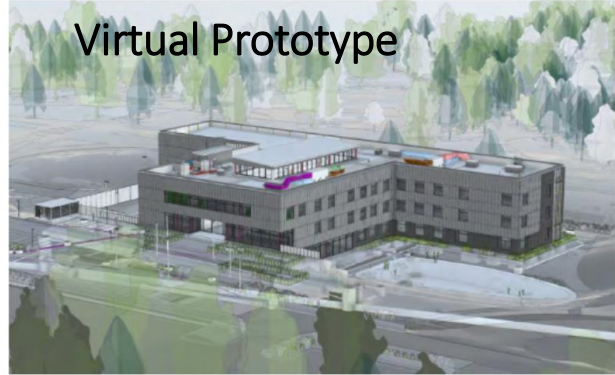
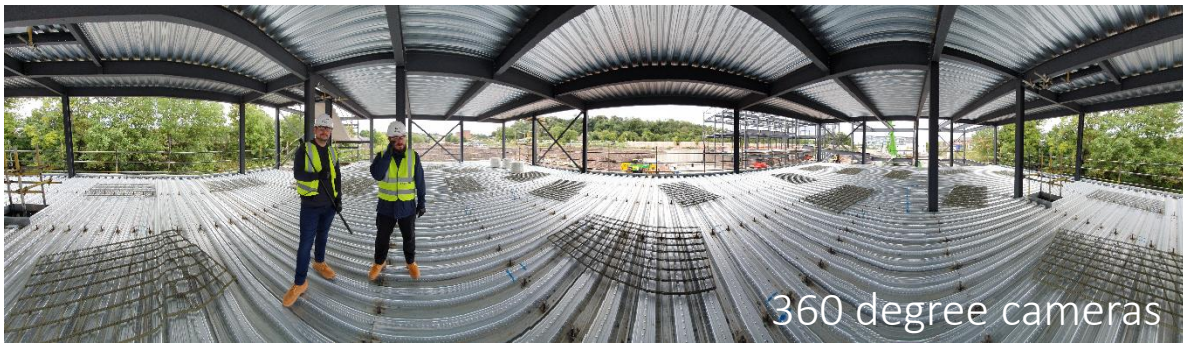


# Digital Twin, BIM et al..

*“It’s so much easier in an IPI environment to ensure everyone uses the same platform & contributes to a shared model from day 1 when PII and the “car crash insurance mentality is negated”*

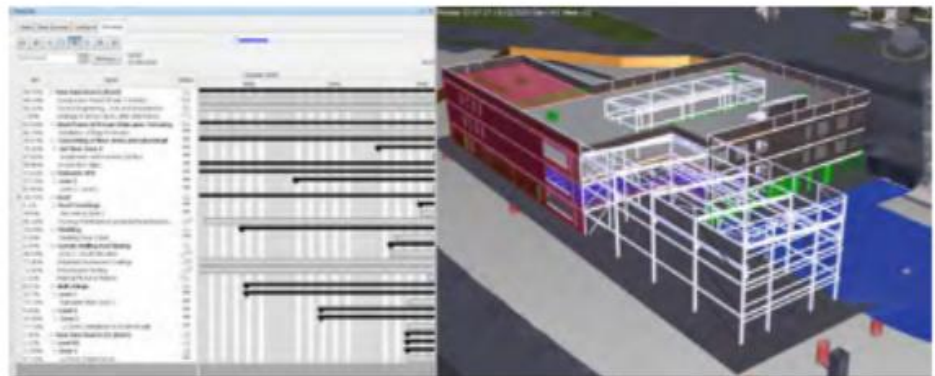
*“As a team, prior to the pandemic we were already using Zoom and Teams to be more time efficient – the tools we all embraced and used enabled us to work through the pandemic easily and without doubt enabled us to meet the programme and cost parameters– although the site team did not feel the full benefit of the IPI collaboration as we weren’t all able to support they still knew they were doing something different”*





*“It’s important to recognise from the get-go that every individual’s experience is different. The IoT alliance had varying levels of competency that had to be accounted for, to ensure a workable solution could be established for the project and supported holistically by the team. Understanding each team member’s level of confidence and experience in interfacing with and adopting technology was critical.”*

**“This information kept the whole alliance informed throughout the duration of the project, but also informed the IPT of any tweaks that were necessary to the digital prototype.”**



4D programme sequencing - We thought we would give Synchro a rest and try Navisworks Trimliner on this project

## So why no more uptake??

1. Risk management not understood – some clients prefer “Design and Dump”
2. In general Industry slow to change without legal mandate – inbuilt behaviours.
3. Reticence by Employer's Agents to recommend – perhaps no risk free fees for them?
4. IPI Sweet Spot - £10- £50+m (IPI lite is slowly emerging though!)
5. We're brought in too late – turning a D&B into an IPI project is not easy and benefits are lost
6. Perception that it's more expensive – it is not!
7. Not for everyone – not everyone thinks like the current audience!

IPI delivers what  
all the reports  
tell us we need...

So our message to Government and the Industry at large is: stop investing in lengthy reports which construction practitioners won't read.

Insurance Backed Alliancing is “oven-ready”: it does “change our approach to delivery”. Don't waste more years trying to invent something else.

Instead: define the project brief, select the best team of organisations and people to deliver on that brief, empower them in an “insurance backed alliance” which assures collaboration, risk management and “no blame” – and you will get the results you deserve.

Further message from Louise –

**How about actually investing in change via trials instead of talking about it!**



To review the IoTT Alliance's report, look on our front page:

<https://www.ipinitiatives.co.uk/>