

Is the IPI Model proving the case for better collaboration at Dudley College?

Louise Lado-Byrnes



IPI initiatives

“Send reinforcements we’re going to advance”

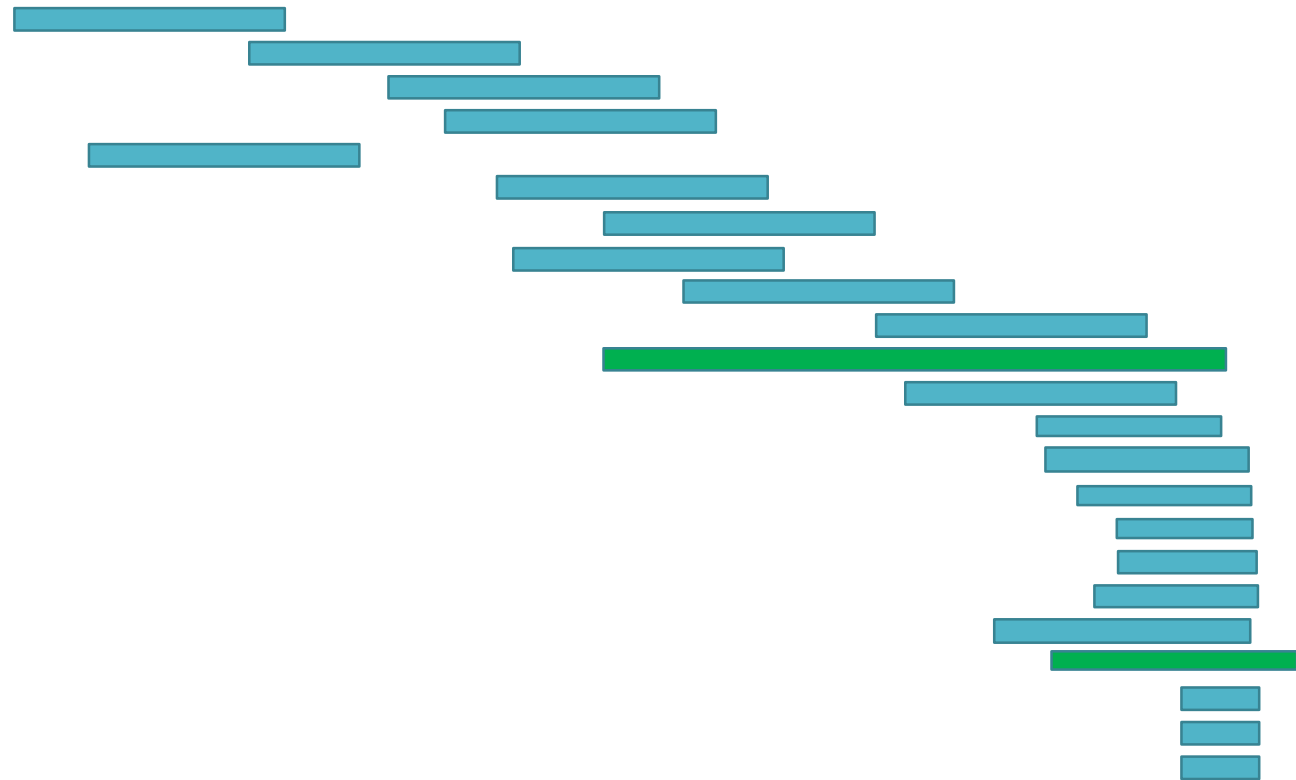


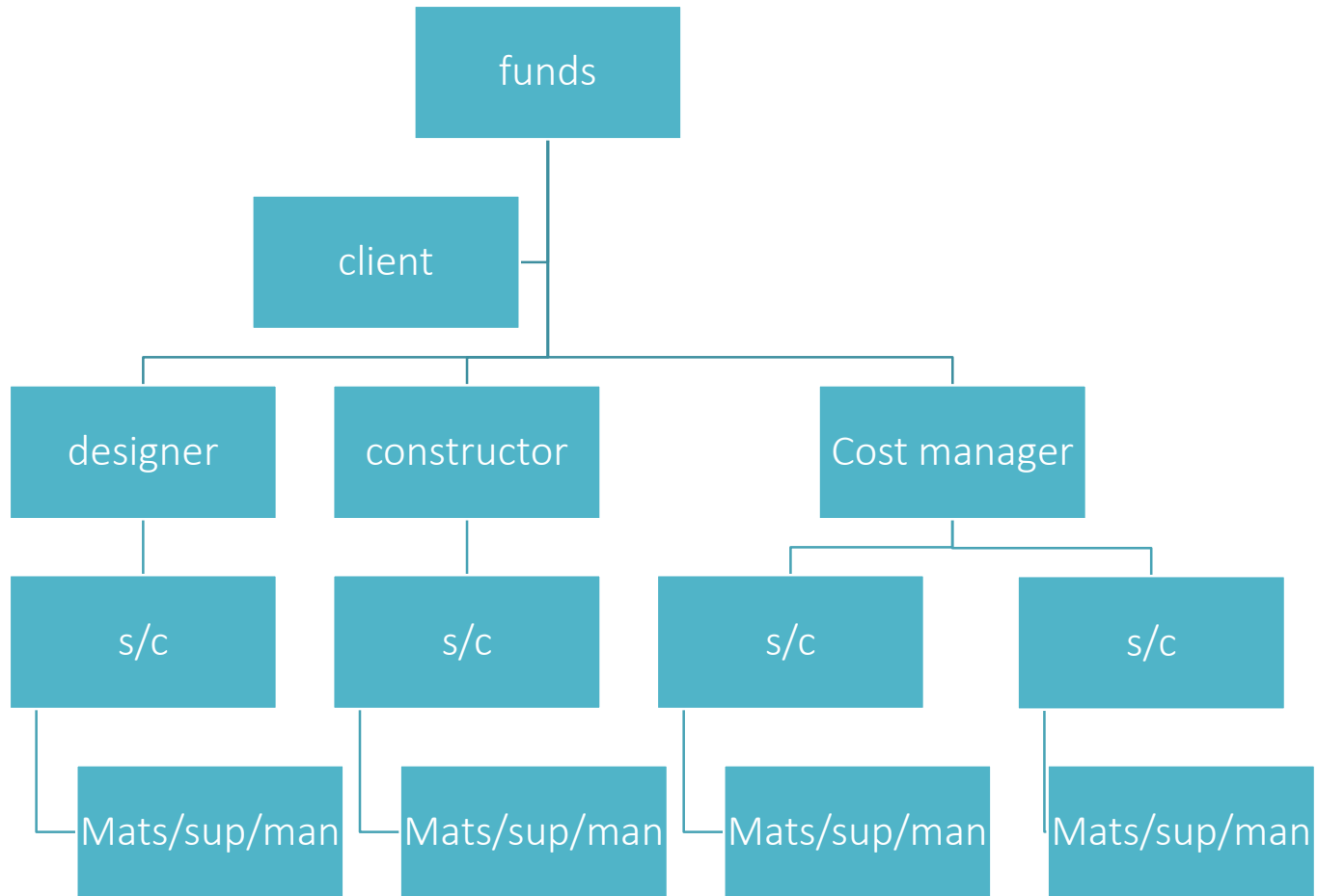
“Send three and four-pence we’re going to a dance”

Industry works
in silos... Chinese
Whispers

IPInitiatives

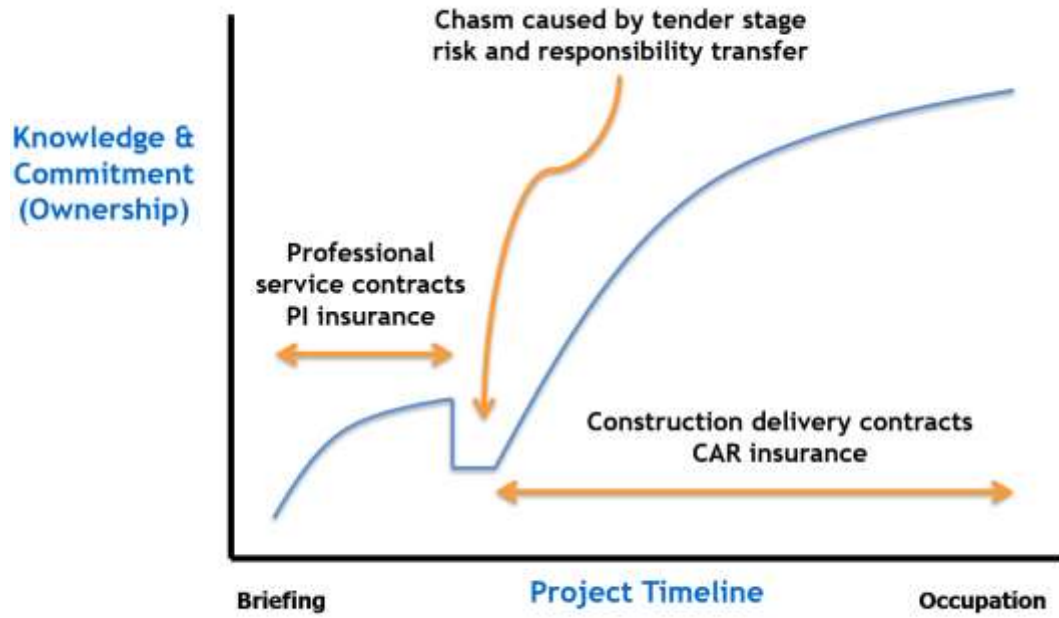
A Typical Construction Programme...



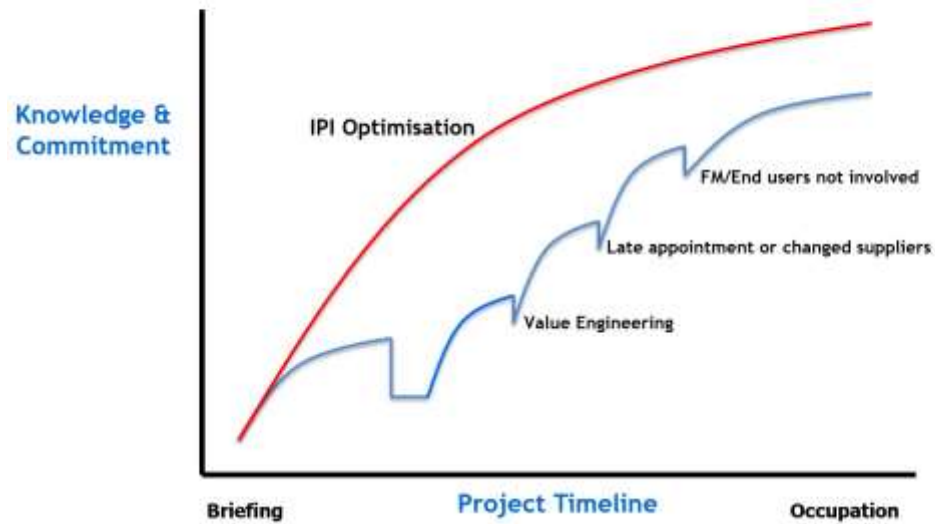


Whose needs
are actually met
– the clients?

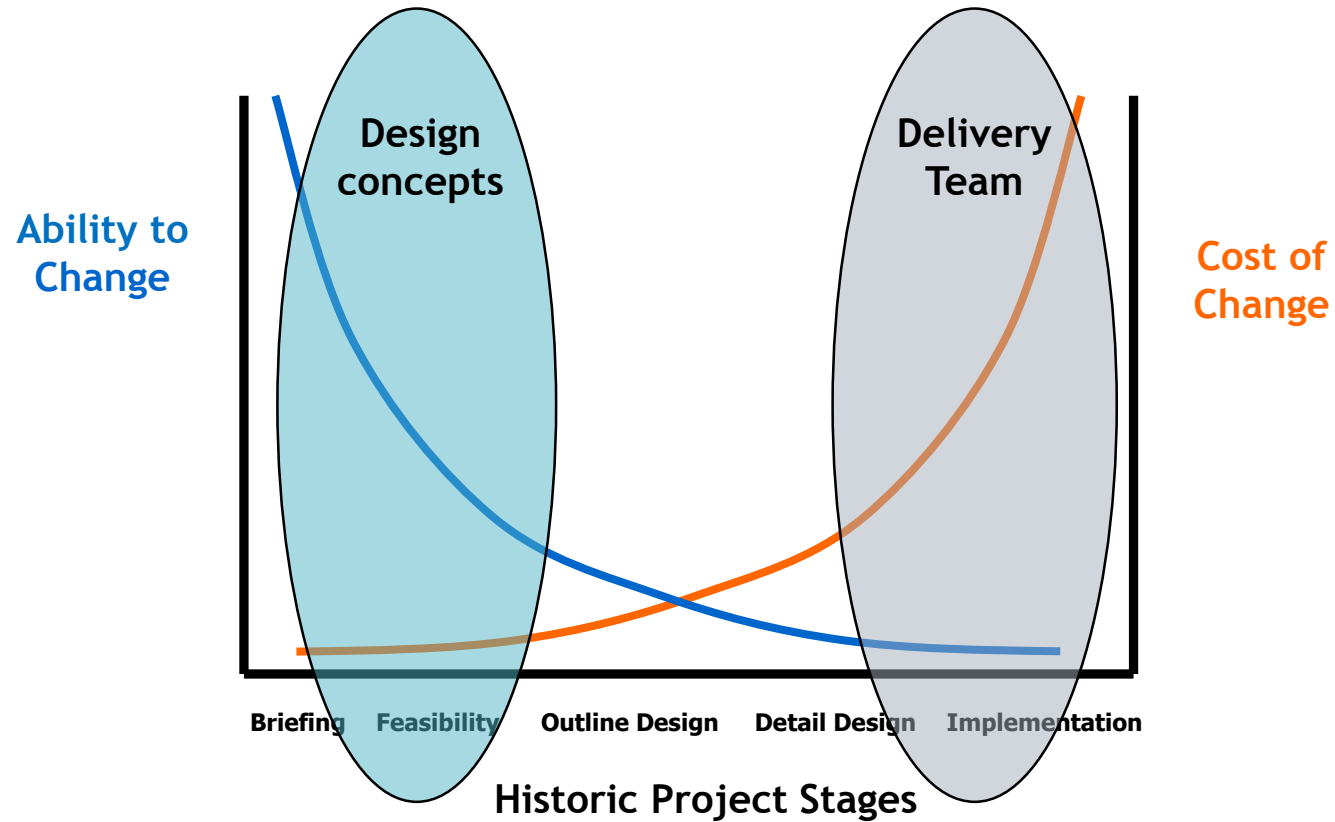
IPInitiatives



Optimised knowledge and commitment leads to increased value creation



Seeking full integration through IPI



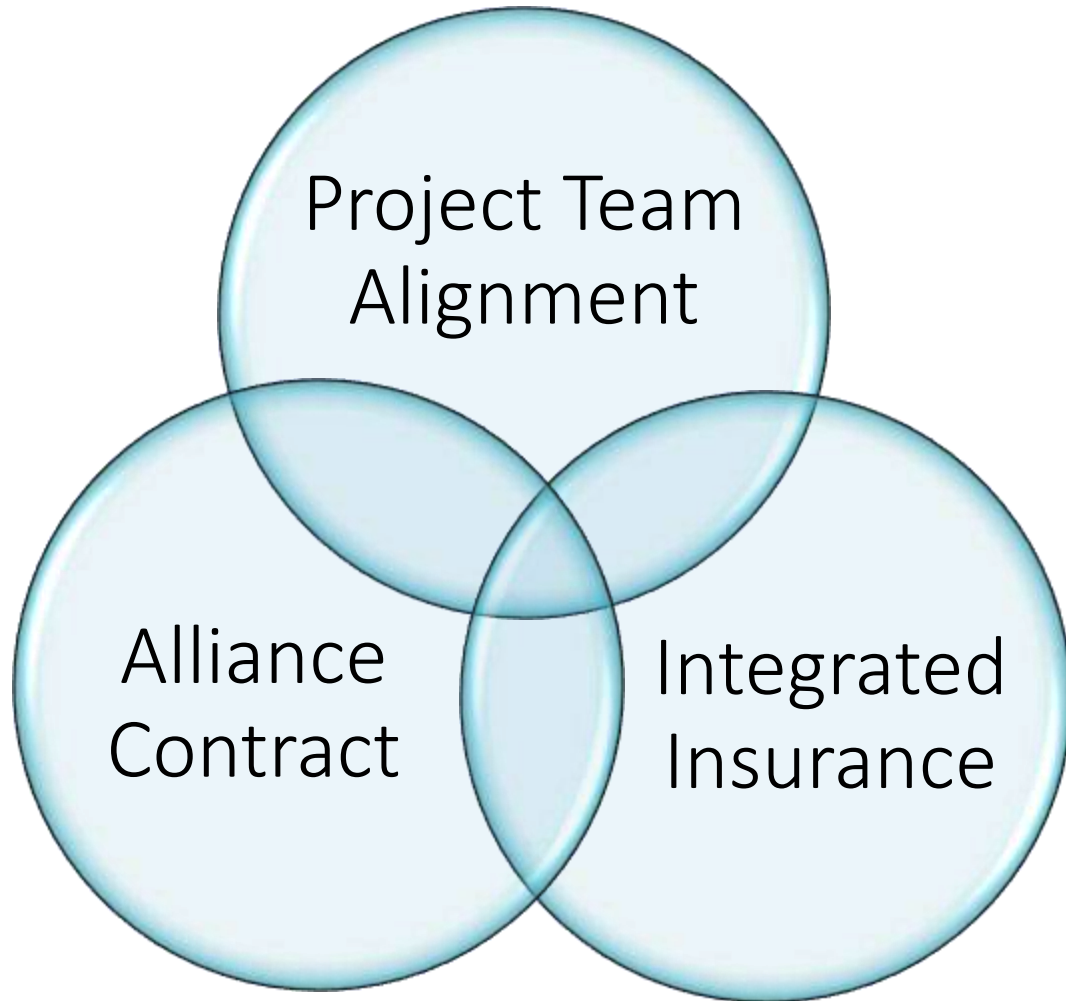
What were our aspirations....

How would you improve the industry...

- 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 engage a team that is truly collaborative

How IPI addresses that..

- 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 this ability and measure their behaviours and monitor and mentor ongoing

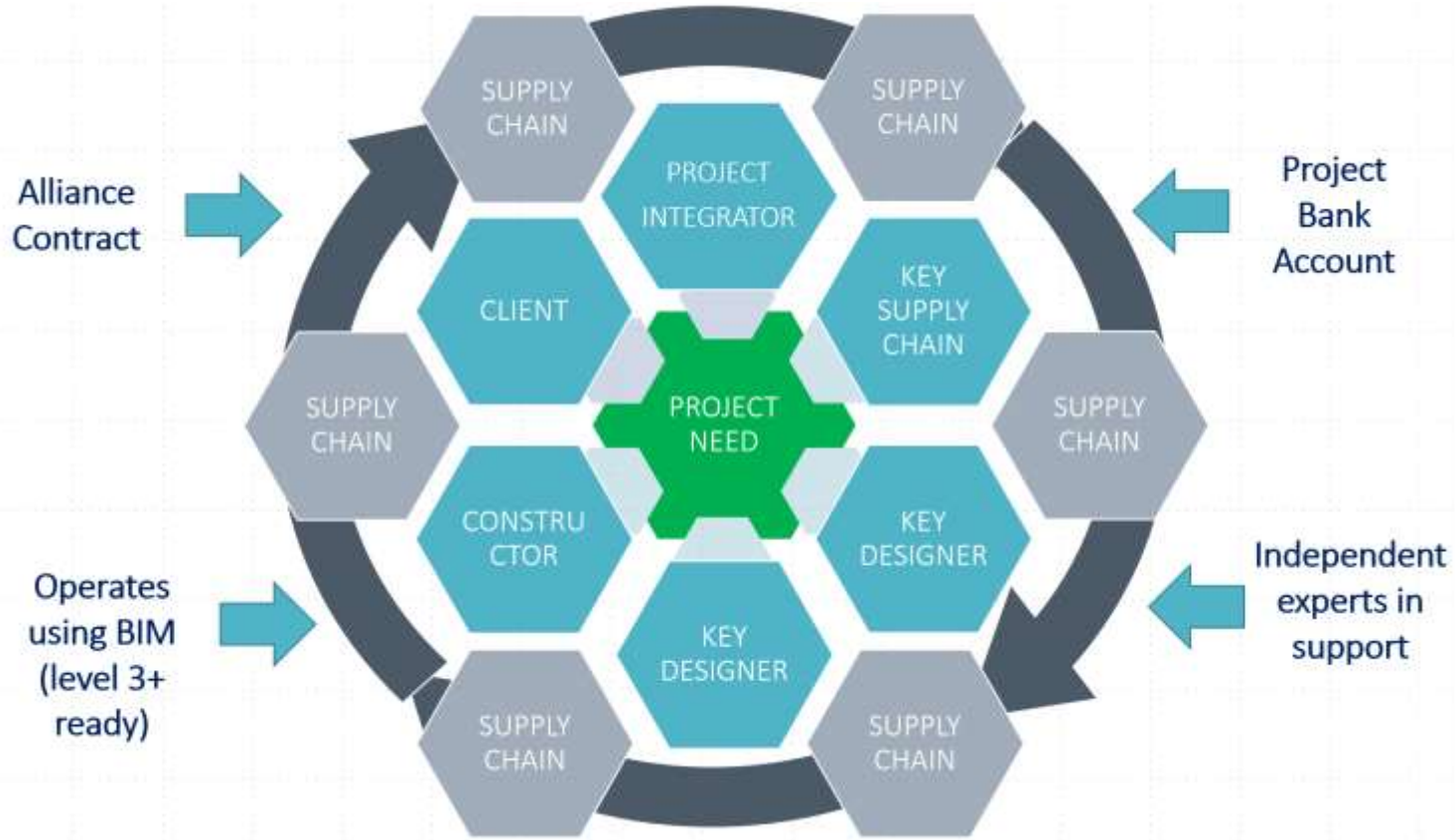


Enabling an absolute no blame culture

Insurance Backed Alliancing

Integrated Project
Insurance; the first in
a new generation –
others to follow?

IPInitiatives



How IPI is set up

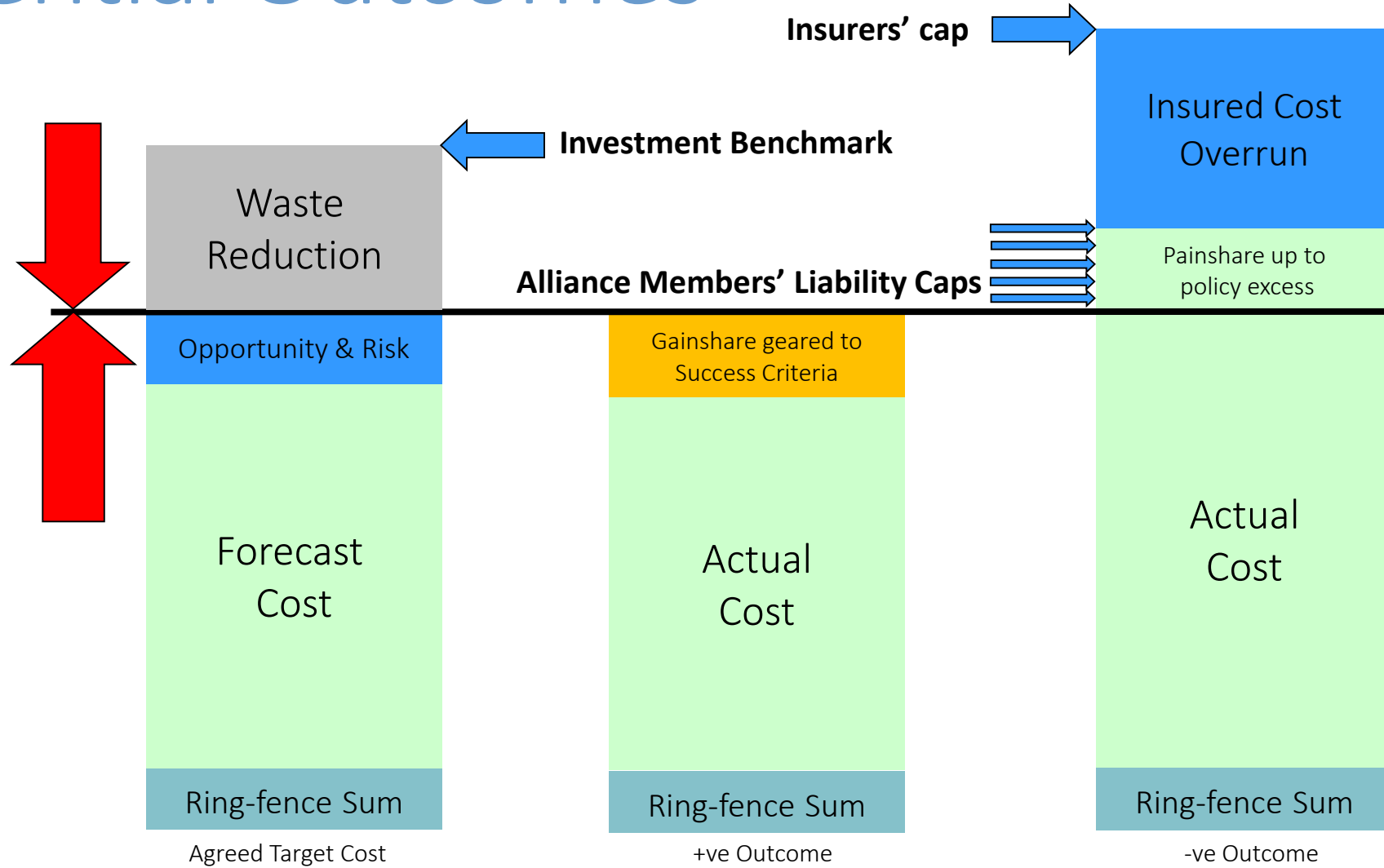
All covered IPI Insurance –
inc. cost overrun



Integrated Project Insurance®



Potential Outcomes



What does the IPI model deliver that differs from current practice?

Current Practices for expert clients

Collaborative until things go wrong then set up mean silo working ensues and blame HAS to be allocated for contractual and insurance purposes
Some project bank accounts
Soft Landings focused on needs e.g. GSL
Collaborative design with some key parties - early involvement
Use of target costing and gain pain incentives to refine solution and cost
In excess of 50 insurance policies most projects
sub-contractors appointed from established supply chains
Main Contractor appointed based on indicative design
Separate Consultancy Agreements



IPI extras

Common contract for all parties
Third party assurance and assistance throughout
Cost Overrun Insurance
Able to comply and achieve "fitness for defined purpose"
SME friendly – all appointed on same PQQ and ITT
Blame culture eradicated
Comes into its own if something goes wrong – all team own solution and all stand to win or lose together
PBA all paid on projected cost – saving on administration and "factoring costs" for supply chain
Soft Landings leading into 12 years LDI
Design by all parties straight into BIM and CDE – design done once earliest involvement (BIM level 3+ ready)
Team agree early in phase 1 to better the investment target
One insurance policy for the whole project including cost overrun cover and 12 years defects
sub-contractors appointed from start on "best for project" capabilities
Board set up under an alliance and run the project as a virtual company client an equal partner
All team appointed at commencement based on skills motivation and behaviours

To define success at Dudley College we have to start with what were we hoping to achieve.....

Some things we expected ...

- True no blame would emerge – focussing people on the “best for project” solutions to issues
- Top down pricing would be at the fore – i.e. what can we have for what we can afford
- Supply Chain would engage, lend expertise so design happened only once
- Team would run project on Opportunities and risks
- The Alliance Board would function as a business board
- BIM would create better efficiency, give asset management solutions & SL
- We would gain other efficiencies in sharing resource
- The PBA and Insurance would affect cost throughout the supply chain
- Behaviours would change
- The independents would add value & give the underwriters confidence

What we didn't expect...

- Working within the investment target was not a core skill
- Team members would over-deliver
- The level of facilitation needed
- People would not take leadership
- BIM capabilities and integrated working are difficult for some businesses on a practical and procedural level
- The extra benefits of 4D programming
- The limits of constructor's normal programming
- Supply Chain - managers didn't walk the talk – site teams did!
- Extraordinary team cohesion
- To have so much fun!

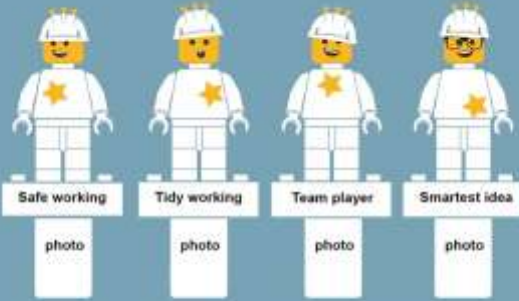


Site Operatives checking their details from “3D Model hologram”



- Thermally Adaptive Building
- Off site Manufactured Plant Room

Who's awesome...



advance II

...everyone's input is appreciated

Welcome to DC Advance 2...



...working together we can affect the way our industry evolves, and through education we can ensure our legacy continues

You and this project.....

You are taking part in a unique project with a forward thinking client, 'Dudley College'. We are delivering this project in a new way and our goal is to help our industry evolve and perform better.

Changing how we work using Integrated Project Insurance. The IPI model is new. It delivers a fully integrated solution using modern methods of construction, including computer 3D modelling.

Everyone to the right is part of an integrated and dedicated team. Each, with a passion in driving the job forward to a successful conclusion. We see everyone on this site as part of our team! That means we are interested in **what you think, what you have to say and any suggestions you might have.**

So if you have any ideas, or see a way we can do things better or more efficiently, we want to hear from you.

Let's deliver a fantastic building for the students who will form the future of our industry.

advance II



And here's a list of all the team members:

Chris Phipps	Richy Gray	Mark Williams
Mark Abney	Andy Andrews	David Thomas
Luke Haskland	Kevin Hayes	Rob Kennedy
Samuel Kirby	John Whelan	Lee Denny
Gregg Matthews	Andy Pugh	Mark Phillips
Andrew Bennett	Adam Phillips	
Andy Mackay	Malcolm Thomson	
Tim Clayton	Bill Freeman	

...working together we can affect the way our industry evolves, and through education we can ensure our legacy continues



So does better collaboration deliver?

- Building Fit for defined purpose
- Solution that would not have been designed under normal 2 stage practices
- Behaviours definitely changed – true no blame
- Focussed “best for project” solutions
- Team enjoying the project – even in adversity
- Whole team took ownership of problems and issues
- Better cost reduction on future projects from learning
- Resources can be reduced
- Site operatives were included and joined in - wanted to deliver!

What have we (re)learned to date...

- Not everyone is ready for IPI
- There is a lot less understanding of cost (and affordability) than we thought
- Ongoing facilitation is essential for change
- Don't underestimate the collaborative conundrum
- Those who get it really get it!
- BIM Level 3 won't happen without breaking down the 'liability barrier'
- Open Book is not Cost Plus
- IPI isn't ready for everyone

CONSTRUCTING EXCELLENCE

Trial project: Dudley Advance II **New delivery model / procurement route:** Integrated Project Insurance

Cost savings targeted: 15% - 20%

Other key success criteria:

- Programme certainty at below Target Cost
- Highly efficient methods, including off-site manufacturing where best for project, and new methods of construction, eliminating waste in materials, processes and procedures
- Leading BIM methods and technologies from commencement
- Flexibility of the facility to be remodelled to meet future changes in demands and training methods

Stage at which first report will be published:	Kick off meeting	Brief / Team Engagement	Decision to Build	Build and Occupy
Cost saving basis:	Investment Target	Challenging cost target	Agreed Target Cost	Outturn cost

Trial project details

Project title	Dudley College Advance II (formerly "CAB Tech")
Client department	Dudley College (with regional growth funding via the Black Country LEP)
Project value	£11.685m
Form of project	New Build Educational Facility
Independent facilitator (IF) and risk assurance (IRA/ FIRA)	Integrated Project Initiatives Technical: SECO (Belgian) / BLP Financial: Rider Levitt Bucknall
Alliance Members	Dudley College Derry Building Services: specialist project architects Fukuro: engineering services and project coordinators Metz: structural Plek Everaert: structural Spiller Metcalfe: contractor
IPI Brokers	Griffiths & Armour
Other Key Suppliers	Adstone: steelwork BC Roofing: hangar cladding H&H: cladding and glazing Gloxford: structural insulated panels Kone: lifts MSW: metal decking SDP: ceilings and partitions Terex Demag: hangar cranes Lipacour: thermally-active building structure

The IPI product

"Independent Facilitation Technical and Financial Risk Assurance"

CONSTRUCTING EXCELLENCE

HM Government

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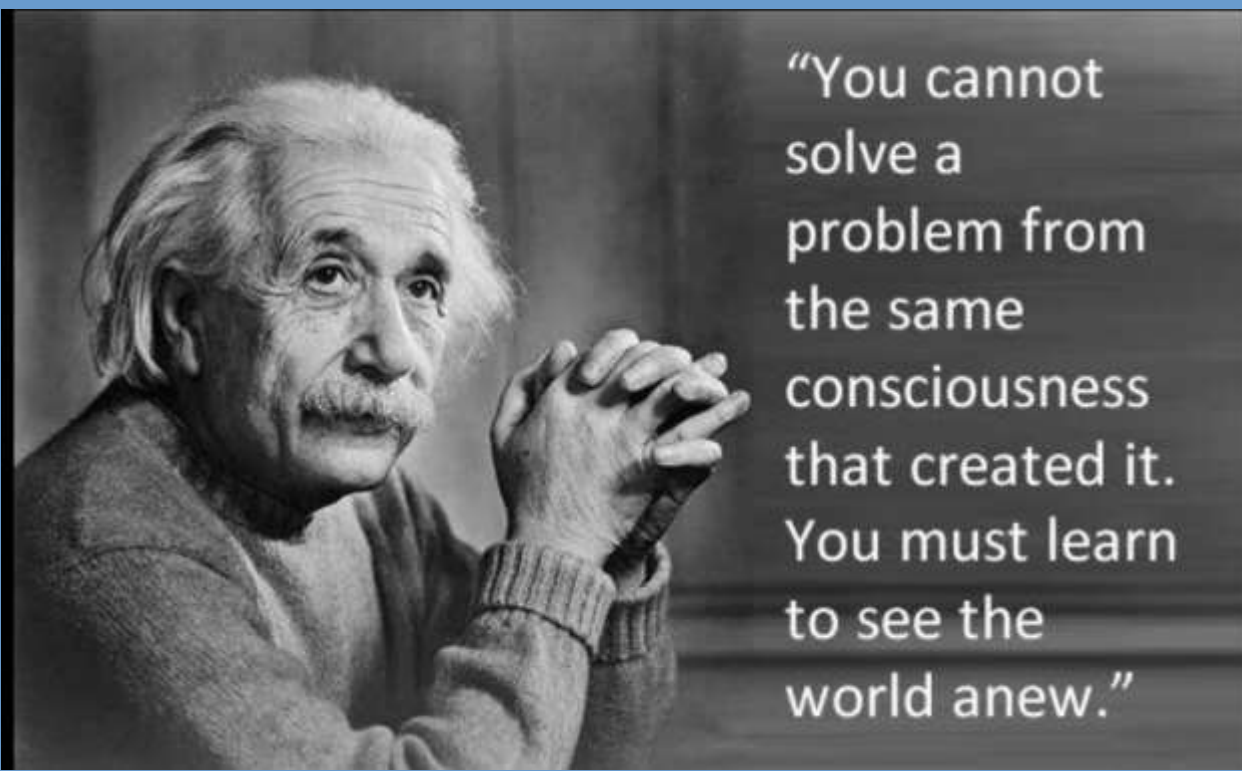
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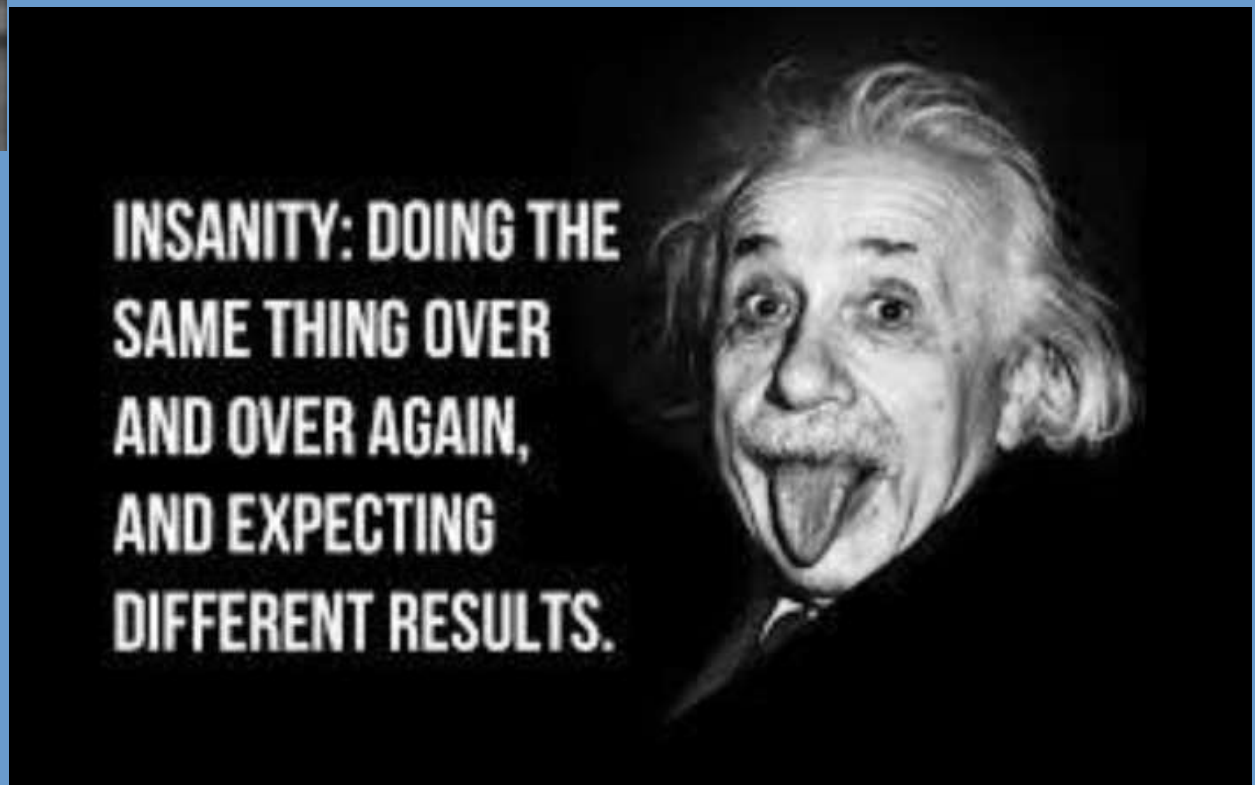
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IPI Brokers	Griffiths & Armour
Other Key Suppliers	To be appointed

Executive summary:

Dudley College has selected the Integrated Project Insurance (IPI) model to procure and deliver a new Centre for Advanced Building Technologies, former "CAB Tech". Not only is Advance II approved as a trial project by the Cabinet Office via the Risk Out Management Group but it is



“You cannot solve a problem from the same consciousness that created it. You must learn to see the world anew.”



INSANITY: DOING THE SAME THING OVER AND OVER AGAIN, AND EXPECTING DIFFERENT RESULTS.

IPI Model – First Generation
Insurance Backed Alliancing
Questions?