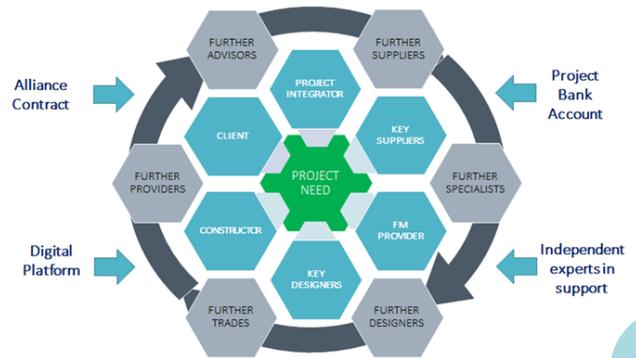


Dudley College Advance II, Dudley

Procurement route

Integrated Project Insurance Model



Project Details

Client department	Dudley College
Form of project	New build educational facility
Project value	£11.685m
IF	Integrated Project Initiatives
TIRA	Technical: SECO (Belgian) / BLP
FIRA	Financial: Rider Levett Bucknall
IPI Brokers	Griffiths & Armour
Architects	Metz
Structural	Pick Everard
Engineering services & Project coordinator	Fulcro
Constructor	Speller Metcalfe
Building services specialist	Derry

Procurement route description

IPI Approach is a process by which an alliance of consultants, constructors, specialist contractors and any key suppliers is formed with a client to design and deliver a project by integrated collaborative working. Embedded in the model are independent facilitation (to ensure all members collaborate) and independent technical/financial risk assurance (to ensure adequate attention is paid to risk). The alliance is backed by a unique IPI policy which replaces the traditional 'blame-based' insurances and covers the client, the partners, all the suppliers and any funders for cost overrun (followed by a no-blame latent defects cover for 12 years). This process has been heralded the first in a new class of project delivery models known as Insurance Backed Alliancing.

Dudley College selected the Integrated Project Insurance (IPI) model to procure and deliver a new Centre for Advanced Building Technologies, termed Advance II. Not only was Advance II approved as a trial project by the Cabinet Office via the Roll Out Management Group but it also became the primary nominated project under the Innovate UK "Rethinking the Build Process" project 101345 with a consortium of eight industry partners and academic partner University of Reading.

Key outcomes delivered via the IPI approach

-  usage of offsite/MMC — various benefits such as reduced material waste, prospective operational costs & low carbon emissions
-  reduced periods of design, construction and proving with minimal snagging or defects
-  Energy Performance Certificate A
-  IPI 'Alliance Contract' empowering the team with every member of the alliance supporting the process
-  running and maintenance costs 50% of the equivalent building on site
-  delivered 6.5% below the investment target
-  leading BIM methods & technologies from commencement
-  1st Prize in Construction Excellence National Awards 2018 for integrated collaborative working

Lessons learned

procurement

The IPI approach was successful - selection of people requires a skilled and balanced judgement. A traditional approach would have proven more risky.

planning & cost management of design

The alliance's multi-disciplinary consultant/specialist team needs a planning task-oriented context within which to find creative solutions to the strategic brief. The elemental cost of these flexing BIM-oriented tasks has to be actively managed to avoid loss of overall cost control.

opportunity/risk management

Closer synergy with insurers is also required to improve understanding of the risks and their mitigation. The clients learned that the focus should be on opportunity realisation and risk mitigation.

leadership

The project demonstrated the new roles to coordinate and manage the project needed fine tuning. The clients understood that in order to benefit from improved collaboration, reliance on a traditional PM had to be relinquished.

logistics, construction & handover

The clients learned that there must be a synergy with the alliance about the trinity of quality, time and cost of the project. Moreover, the early support of the supply chain was essential.

Key challenges

defining your need

The greatest challenge is to define your need (not pre-empting solutions) which is then expressed in the strategic brief and prioritised success criteria; solutions are for your alliance partners to develop

committed to collaboration

You should only embark on an IPI project if your organisation is ready to fully commit to the principle of collaboration with your chosen partners, including accepting that lowest price tendering will not meet your needs

choosing suitable benchmarks

Appropriate benchmarks will be required to confirm a target which is realistic and affordable - and therefore a credible challenge and incentive to your partners for improvement

investing time

Time invested in the selection, formation and operation of the alliance will pay dividends in outcomes

alliancing not a 'soft touch'

Alliancing is not a 'soft touch' - timely concentration on issues and plain-speaking will be required and rewarded

resolution through collaboration

Expect that a team striving to do better will encounter challenges and that resolution will come through collaboration, not blame



Positive opinions



Building services specialist

"Discussions, decision-making and instruction is more open and transparent under the IPI model so the client can see how the sub-contractors perform at first hand rather than relying on a Main Contractor's or Project Manager's version of events.



Constructor

"(Usually) no one wants to accept liability and a blame culture surrounds the parties to the contract. IPI drives hard true collaboration between the Alliance delivery partners. Success is the careful selection of the 'right' people who make decisions on a best for project basis; without the fear and retribution of a blame culture.



Insurance broker

"Do I think IPI is a workable proposition? Yes, I do. And I think it's going to be attractive to the private sector. It has certainly become a lot more viable because it is not just insurance. It's about culture, procurement, and linking all of that together.



Architect

"I would definitely say from an Architectural perspective that IPI provides benefits for both the business and its people. We get to design something once that is fit for purpose, of good quality and affordable. Not to mention the specialist knowledge we get to absorb from the suppliers.

Client objectives & vision

The project is being procured using the Integrated Project Insurance (IPI) methodology. A key element of the IPI process involves appointing the whole project team, including the constructors and specialists, at inception.

The building will consist of several modern construction method training facilities, some of which are the first of their kind in the FE sector in the UK. Examples include a multi-storey 'hangar' in which students will learn how to fabricate and assemble buildings using the latest available technologies. There will also be a 'digital centre' in which innovative Building Information Modelling (BIM) and digital environment software packages will be used.

Other facilities include a 'carbon-friendly technology centre' where students will acquire skills in, among other things, the installation of air source heat pumps and photo-voltaic technologies and a 'construction manufacturing and assembly centre' where they will develop their building engineering skills.

The building will also itself be a teaching resource. Not only will students experience the sustainable naturally ventilated and adaptive thermal mass environment, they will be hands-on in learning how to optimise its performance and be able to explore a range of examples of innovation in design and logistics, including a teaching version of the 3D model.

The predicted outputs of the venture by 2020-21 are:

Jobs created	390
Jobs safeguarded	765
Number of new enterprises supported	25
Number of enterprises receiving non-financial support	1405
Number of learners	3250
Number of apprenticeship starts	725

The reason for this approach

The key reason for choosing IPI was previous mixed experience of other procurement models, specifically Design & Build. Previous developments had utilised college's reserves and as much cost certainty as possible was required to minimise exposure on any overspend. The college wanted to get the best value for the money they were spending and not be presented with a post project bill; they wanted to close down the risk of cost overrun and cost dispute.

The IPI model encourages designers and builders to really fundamentally understand the client's needs. It's really conceptually radically different; it's actually about a fundamental alignment of people who want to work together. Independent oversight with no agenda other than protecting the future of the asset, i.e. the TIRA, FIRA and IF. Opportunity to make savings on waste by cutting out duplication and extra effort to cover liability, hopefully giving more facility for the money.

The difference from traditional approach

- the outcome is 'fit for purpose' defined in the strategic brief, including success criteria such as energy efficiency and social benefits
- involvement of the client in all decision-making by the alliance
- Project Bank Account for cash flow security of partners and key suppliers
- reductions in time and cost by elimination of process inefficiencies, such as by replacing sequential drawing exchange with Digital Twin
- innovation, with independent assurance and 'no-blame' protection
- empowerment of alliance contract, incentives, and limitation of liability
- the covenant of insurers ensuring performance by cost overrun cover
- predictability of the outturn cost and 12 years latent defects cover

Client's observations

Principal and Deputy of Dudley College

"The vision of the building was always that it was going to be way more than just a teaching space, and that it would exemplify the industry that we were teaching the skills in. The building would be a teaching tool in itself and it is absolutely doing that. It's a leading-edge example of industry standards which inspires learners and employers wanting to develop their skills. The close working relationship between Dudley College and the project team has created a project that is absolutely fit for purpose.

I think the model does encourage designers and builders to really fundamentally understand the client's needs. Quite early on everyone around the table knew it wasn't going to fall to pieces. Even when we were at critical points of decision-making there was an underlying commitment to the success of the project, underpinned by the model itself. That's the first test, and then the result of this test is the alliance held together - we've got a fantastic building, within a reasonable time, and even the cost overrun is pretty small in the big scheme of things - and it didn't break the model.

I think the IPI model does something purposeful to hard wiring those (collaborative) behaviours whereas the D&B model is 'hit and hope'. I don't think there was ever a question in my mind that they weren't going to do the best they possibly could to get us in on time. The model is inherently building in the right practices where I don't think some of the other models do. It's really conceptually radically different, when you actually get underneath it... It's actually about a fundamental alignment of people who want to work together. The cost overrun element of the policy was hugely important as this is one of the most attractive aspects of the model with partners sharing equally in any overruns. As in this case the model helped to ensure any cost overruns were minimal.

For more information on the case study click [here](#)