



Integrated Project Initiatives

**Government Construction Strategy 2011**

**The Integrated Project Insurance  
(IPI) Model**

**Project Procurement and Delivery  
Guidance**

2 July 2014

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# FOREWORD



Cabinet Office

The [Government Construction Strategy \(2011\)](#) set out to achieve savings in construction procurement of up to 20%. Reforming procurement practices to effect behavioural and cultural change underpins this effort. The Industrial Strategy for Construction ([Construction 2025](#)) re-emphasises Government's continuing commitment to this effort. The context to this initiative has been set out in "New Models of Procurement – Introduction to the Guidance".

Three new models of construction procurement (Cost Led Procurement; Integrated Project Insurance; Two Stage Open Book) have been trialed. Guidance for each describes the 'how to' in adopting the model to aid clients in the public sector, bringing together best practice and behaviors of leading practitioners to help generate savings being sought by Government. If clients and suppliers want to achieve the same level of outcomes demonstrated by the trial projects, then the steps and techniques set out in the guidance will help them to achieve this.

Through evolution rather than revolution, these models offer the potential to achieve efficiency gains that can be released for reinvestment, create new employment and industry activity, make projects more affordable and fundable, and make the UK construction industry more competitive.

## Integrated Project Initiatives Ltd

The IPI Model has been developed by Integrated Project Initiatives Ltd in conjunction with brokers Griffiths & Armour and promoted by the Specialist Engineering Alliance with the support of 30 practices and companies across the industry. Their contributions in reaching this important milestone are gratefully acknowledged.

Monitoring of the initial trial projects is being undertaken by a cross-industry consortium, with academic partner Reading University, under a 4-year project “Rethinking the Build process - delivering more for less under the IPI model” funded by the Technology Strategy Board.

The IPI model comprises a unique process of collaboration and risk management and the trials have to be conducted under protected conditions. The trial outcomes must be the result of the application of the whole model process rather than of selected elements of the model. As such the model cannot be trialed without the involvement of Integrated Project Initiatives Ltd, the owners and custodians of the model and IPI product.

This Guidance has been prepared by Integrated Project Initiatives Ltd under the direction of Martin Davis who is also Mentor for the IPI model under the Cabinet Office’s Trial Projects programme. It is published in order that information about the model and its innovative approach to the build process may be more widely disseminated and shared by those interested in adopting the model or learning more about its potential application. The Guidance document is covered by Crown copyright to enable it to be freely copied and disseminated for this purpose as a complete document under Open Government Licence. However, all rights to the intellectual property of the IPI model and IPI product are expressly reserved to Integrated Projects Initiatives Ltd. In particular the content of sections 3, 4 and 5 of the document cannot be adapted or exploited in any circumstances without the prior written permission of Integrated Project Initiatives Ltd.

*Many of the terms used in this document are either specific to IPI or have specific meanings when used within the IPI model. These terms are identified and defined in the Glossary in section 12.*

## 1.0 IPI IN SUMMARY

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Integrated Project Insurance (IPI) is a new model that unlocks the potential of integrated collaborative working by:

- Aligning the interests of all team members with the functional needs of the client.
- Assuring solutions are achievable, affordable and delivered in a culture of full collaboration.
- Insuring the outcomes including cost overrun and establishing a pre-determined maximum financial exposure for all parties.

Central to the IPI model is the Integrated Project Insurance product from which it gets its name. Whilst the insurance provisions are novel the model is founded on the proven methods of key exemplar projects, and is only available to integrated teams which are genuinely collaborative.

An Alliance Contract empowers the ‘flat’ inclusive team to create and deliver solutions fit for the purpose set out in a strategic brief in a “no blame/no claim” environment, supporting innovation and incentivising successful outcomes.

The proposition is that IPI will cost no more than traditional project insurances, but the real benefits are from collaborating as a “virtual company” to eliminate process and procedural waste and deliver improved project performance and efficiency savings which achieve the expectations of Government Strategies.

IPI brings game-changing innovations and benefits to all who adopt it.

## 2.0 THE IPI MODEL – THE KEY COMPONENTS

### 2.1 Integrated Collaborative Working: a pre-requisite

Those who have participated in projects (in whatever industry) - where there has been full integration and unconstrained collaboration between the client, consultants, contractors, specialists, manufacturers and others in supply chains - know that the project outcomes and personal fulfilment are beyond comparison. IPI is founded on the methods and experiences of exemplars which have led the construction industry's transition towards integrated collaborative working in the last 15 to 20 years.

Key exemplar projects that have provided a proven foundation:

- Building Down Barriers - Defence Estates (with Tavistock Institute)
- FUSION projects - Glaxo Wellcome
- Andover North Site - MOD (with Rider Levett Bucknall)
- Heathrow Terminal 5 - BAA

*Source: Strategic Forum for Construction Integration Toolkit*

**When these concepts have been put into practice, the results have been revolutionary.**



#### The Andover project

- *What happened when we hit a real problem?*
- *Emergency meeting of the Joint Steering Committee called*
- *All discussions centred on 'what is right for the project'.*
- *Team solution took 20 minutes!!!*
- *Everyone won. - Q.E.D.*

*DLO /Bucknall Austin Presentation*

### 2.2 The Alliance or “Virtual Company”

The IPI model requires the creation of an Alliance or “Virtual Company” - a concept promoted by the Movement for Innovation to implement “Rethinking Construction”. It is not a platitude; it is essential and it is entirely different.

Under the IPI model:

- Each selected practice or firm takes a seat on the Board of the Alliance which collectively appoints an Alliance Manager.
- Their staff are seconded to form an Integrated Project Team (IPT) reporting to the Alliance Manager and Board.

- Success (or failure) in terms of real profitability (or loss) is a function of the success (or failure) of the Alliance as a whole, not just the performance of its individual members.
- This collective commitment is secured by a “no blame/no claim” undertaking between the Alliance Members.
- Confidence to surrender individual agendas for the collective good is secured by the model’s unique insurance of the financial outcome.

*Project insurance products should be made available to underwrite the whole team to facilitate integrated collaborative working*

*Strategic Forum for Construction  
Accelerating Change 2002*

*The significant difference between this [IPI] and any existing procurement model arises with the adoption of a single (third party assured) insurance policy to cover risks associated with the delivery of the project. This policy would package up all insurances currently held by the client and supply chain members, and would also take the top slice of commercial risks, covering any cost overruns on the project above and beyond a “pain-share” threshold, split transparently between client, the contracted party and its supply chain*

*Procurement/Lean Client Task Group Final Report*

### 2.3 Integrated Project Insurance

The new product called “Integrated Project Insurance” and referred to in the Government Construction Strategy is the crucial enabler for the IPI model. Details are given in section 5

### 2.4 The collective effect

These innovations, when applied collectively under the IPI model, have the potential to introduce step-changes in performance which can be genuinely game-changing in the UK construction industry.

### 2.5 R & D support from the Technology Strategy Board

The importance of the IPI model to the Government’s Construction Strategy was corroborated by a grant awarded under the Technology Strategy Board “Rethinking the Build Process” under the title “delivering more for less under the IPI model”. The bid was initiated by Integrated Project Initiatives, the delivery organisation for the IPI model, which has been working with the Cabinet Office, testing the novel features and preparing for roll-out; and the successful consortium, with the University of Reading as academic partner, is currently in the second year of a 4 year programme to test and report on the impact of the three key components of IPI:

- Genuine integrated collaborative working.
- Utilisation of a new “Alliance Contract”.
- Utilisation of a new “Integrated Project Insurance” policy.

The results of this long term trial will be consolidated for publication together with other demonstration activities currently ongoing in the period.

## 3.0 WHAT'S NEW AND DIFFERENT ABOUT IPI?

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### 3.1 Integrated collaborative working assured

Optimum efficiency is unattainable without fully integrated collaborative working. Special measures to ensure optimum collaboration are therefore embedded in the IPI model, in particular:

- Independent facilitation from Client development of the strategic brief, through selection of the Alliance Team, to completion and proving.
- Commitment to collaborative principles and a “no blame/no claim” undertaking as conditions of entry to the Alliance.

*“The more integrated and collaborative your team is, the more successful your projects will be and the more benefits they will deliver for you all”*

*Strategic Forum for Construction  
“Are you there yet”*

*Endorsed by Constructing Excellence, based on  
14 case studies 2009*

### 3.2 An Alliance Contract that empowers the team

A new Alliance Contract has been developed to accommodate:

- A flat structure of the client and other alliance members that brings together key parties from the breadth and depth of the industry.
- Free flows of information, including costing and payment (through a project bank account).
- Processes to deliver successful teamwork without mandating contractual mechanisms that waste time and money.
- Independent facilitation to ensure inclusive collaborative behaviours are adopted and maintained.
- Technical and financial independent risk assurance.
- The IPI policy which insures cost overrun above a shared deductible (pain-share).

The IPI model can be used with other collaborative forms of contract, provided that they are amended to accord with IPI principles.

### 3.3 Alliance owns solutions and outcomes

The Alliance and the IPI product enable the Client and the other members of the Alliance collectively to build commitment and ownership in:

- the need which is to be satisfied
- the solutions that are developed including the cost profile and timeline
- what will constitute success and how the asset will be made ready for operation.

### 3.4 Financial Exposure capped

The total pain-share equals the excess under the financial loss section of the IPI policy, which means:

- The Alliance members know that their financial exposure is capped at their agreed share of the total pain-share; this includes the client, who however bears any costs beyond the insurers' cap.
- Any waste is wasting your own as well as the client's money.
- There is no incentive to hide contingencies in the target cost in case of cost overrun.

### 3.5 Outcomes insured - including overspend

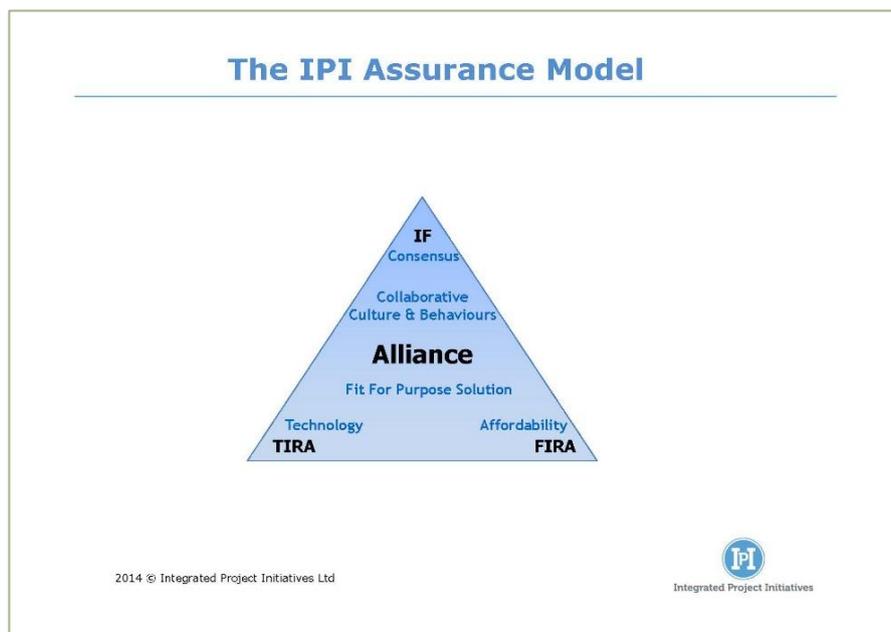
IPI covers project outcomes rather than individual liabilities:

- If it is necessary to spend more than the agreed target cost to fulfil the strategic brief in accordance with the success criteria, IPI pays the cost overrun beyond the excess subject to minimal exceptions.
- Normal cover is included for incidents during design and construction, such as physical damage and third party claims.
- The inclusion of "no fault" latent defects insurance for 12 years from completion underlines the continuity of the IPI product.

### 3.6 Affordable fitness for purpose

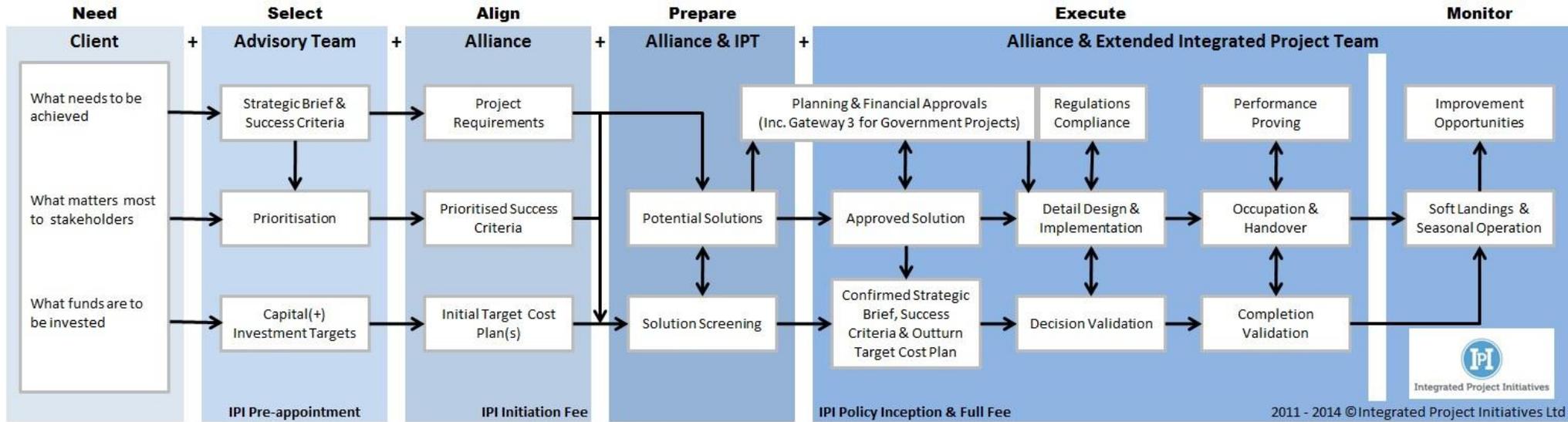
Here the IPI model makes two major breaks with tradition:

- Firstly an affordable investment target is agreed based on the client's strategic brief and success criteria, and a compliant design solution is tailored to come within it; and then
- A project execution plan is developed by the alliance to deliver the project outcome which it agrees is 'fit for the defined purpose' as stated in the strategic brief, and enables it to be insured.



# 4 THE IPI MODEL – STEP BY STEP

The IPI model embraces six steps which are shown in the following flowchart, and should be read in conjunction with Section 7.0



Processes & Tools

<ul style="list-style-type: none"> <li>Contracting Strategy</li> <li>IPIL IF Agreement</li> <li>IPIL FIRA Agreement</li> <li>IPIL TIRA Agreement</li> <li>Selection Strategy</li> <li>Strategic Brief Format</li> <li>Success Criteria Prioritisation</li> <li>Investment Target Baseline</li> <li>Selecting The Team Tool</li> <li>FUSION Assessment</li> </ul>	<ul style="list-style-type: none"> <li>Alliance Contract</li> <li>Quick Start Workshop</li> <li>Cultural Alignment</li> <li>Commercial Alignment</li> <li>Target Cost Plan Models</li> <li>KPI Selection</li> <li>Maturity Assessment</li> <li>IPT Selection Strategy</li> <li>Project Bank Account Format</li> </ul>	<ul style="list-style-type: none"> <li>Financial Evaluation</li> <li>Mentoring</li> <li>New Member Induction</li> <li>Risk Evaluation</li> <li>Opportunity Evaluation</li> <li>Solutions Workshop(s)</li> <li>Team Development</li> <li>Technical Evaluation</li> <li>PEP Initiation</li> <li>Commercial Model</li> </ul>	<ul style="list-style-type: none"> <li>Business Case Generation</li> <li>Financial Audit</li> <li>IPI Inception Report</li> <li>IPI Policy</li> <li>Incentive Scheme</li> <li>PEP Development</li> <li>Risk Register</li> <li>Team Audit</li> <li>Technical Audit</li> </ul>	<ul style="list-style-type: none"> <li>Build in a day workshop(s)</li> <li>Collaboration Coaching</li> <li>Commissionability Review</li> <li>Operability Review</li> <li>SOI Definition</li> <li>Issues Identification</li> <li>Issues Resolution</li> <li>New Member Induction</li> <li>Exception Reporting</li> <li>Performance Coaching</li> <li>Risk &amp; Cost Tracking</li> <li>Opportunities Realisation</li> <li>Team Development</li> </ul>	<ul style="list-style-type: none"> <li>Acceptance Criteria</li> <li>Completion Validation</li> <li>Gain/Pain Allocation</li> <li>SOI Testing</li> <li>Operational Proving</li> <li>Team Debrief &amp; Rundown</li> </ul>	<ul style="list-style-type: none"> <li>Operational Evaluation</li> <li>Outcomes Workshop</li> <li>Financial Closure</li> <li>Seasonal Support</li> <li>Soft Landings</li> <li>Sharing Lessons Learned</li> </ul>
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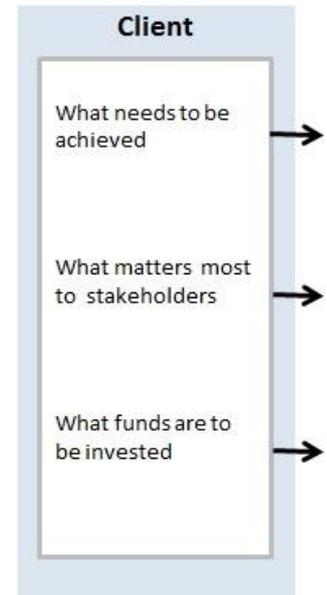
## 4.0 THE IPI MODEL – STEP BY STEP CONT...

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### 4.1 Need

In the beginning the Client's role is to:

- Establish the fundamental business or organisational need; the purpose which is required to be met.
- Identify who the key stakeholders are, what their drivers and expectations are and how they will be involved, consulted or advised.
- Determine the amount of investment which is to be made available. Intelligent clients will have access to tried and tested benchmarks to ensure budgetary realism from the outset.



IPI provides an Independent Facilitator (IF) who works with the Client from the start to:

- Assist in establishing the need, clarify the drivers and determine the necessary skills and capabilities of the Advisory Team
- Advise on the selection process to appoint the Alliance members. Under the IPI model selection is focussed on identifying both companies/organisations and individuals who have the ability to work collaboratively to maximise the opportunities presented by the whole team and to minimise waste by collective challenge and removal of inefficient methods, processes and procedures.

*Using a carefully selected integrated team will enhance a project in many ways. A key factor to the success of any project is getting the brief right, and a well-chosen team is better able to develop a brief that meets the client's needs*

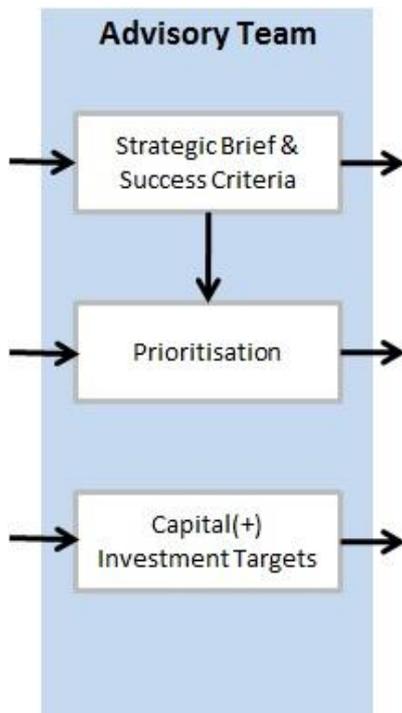
*Peter Rogers,  
Chairman, Strategic Forum*

Selecting the right team members is critical to the success of any venture. The selection process will differ depending on whether the procurement is to be a one off activity or applied as part of an existing framework.

Discerning selection minimizes the risk of disruptive team changes later.

## 4.2 Select

An Advisory Team assists the client in the selection and appointment of the parties that will develop and deliver the project. This advisory team comprises the Client and IF, together with key client advisors covering appropriate procurement, construction and cost/project management skills. The Technical Independent Risk Assuror (TIRA) and Financial Independent Risk Assurer (FIRA) may also be included. Where external appointments are required and an OJEU process is to be followed it should be made clear that such an appointment is to assist in the selection process only.



The Advisory Team assists the client in generating the strategic brief, the high level description of needs to be met, and in developing and prioritising the success criteria. A key feature of IPI is the focus on developing this baseline intelligence to inform those tendering for the project and to enable value decisions to be made throughout the life of the project. When all parties understand the hierarchy of various and often conflicting measures of outcome success, solutions can be offered which are agreed to be fit for the purposes of the Alliance whilst addressing the reality of available time and investment funding.

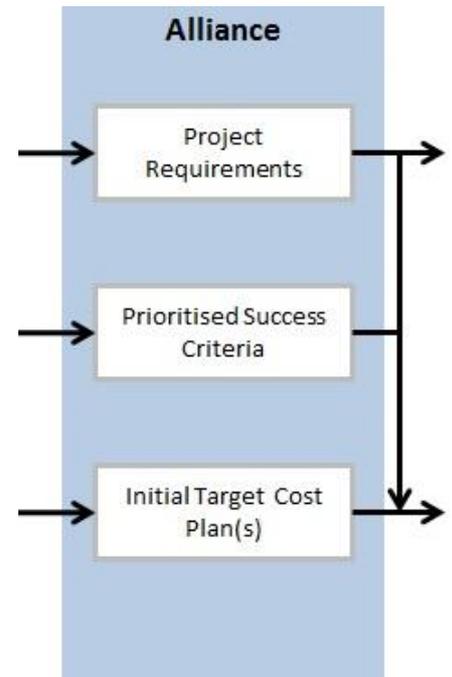
The Advisory Team assembles the procurement documentation and supports the client in the selection and appointment process. The size of the team depends on the needs of the project. Selection of the team and the award of the Alliance Contract will primarily be based on an assessment of bidders' skills, capabilities and specific proposals relating to the achievement of the strategic brief and success criteria together with an assessment of their proposals for removing waste and

inefficiency in order to achieve a total outturn cost below the target - this being on the basis of the Most Economically Advantageous Tender criteria under the EU Directive. The cost information gathered through the procurement process is used to enable the Alliance to adopt open book working during the development and delivery of the project.

At the end of this step the members of the team who will form the Alliance with the client are identified, the project bank account is established by the client, and any external advisors appointed for the selection phase alone stand down.

### 4.3 Align

The selected team members work together to achieve commercial and cultural alignment and are contracted as partners in an Alliance with the client. The partners are those who will participate in the development and implementation of the solution yet to be identified: they should cover all areas having significant design and/or delivery influence that are critical to the successful outcome. This will bring some specialists, suppliers and/or manufacturers into the Alliance at onset, which is a primary feature of the fully collaborative nature of the IPI model and key to enabling IPI to obtain savings that other methods fail to achieve. In-house specialists of the client, such as facilities managers, can also join the team. The Alliance appoints an Alliance Manager (who commands the IPT's respect and is part of the project cost) and continues to be supported by the IF, TIRA & FIRA.



The Alliance evaluates the strategic brief and success criteria to confirm understanding and to develop and feedback for confirmation (sign off) any clarification or issues which could lead to



change in the baseline requirements. The Alliance identifies high level solution types (e.g. is this likely to be new build, refurbishment, infrastructure project or some combination?), and agrees a challenging target cost - challenging because it will be below the established benchmark for a project of this nature, on the basis that this benchmark incorporates locked in waste and inefficiency. The Alliance develops the top down cost plan which is another key feature of the IPI approach: the discipline of working on an elemental basis, with increased levels of

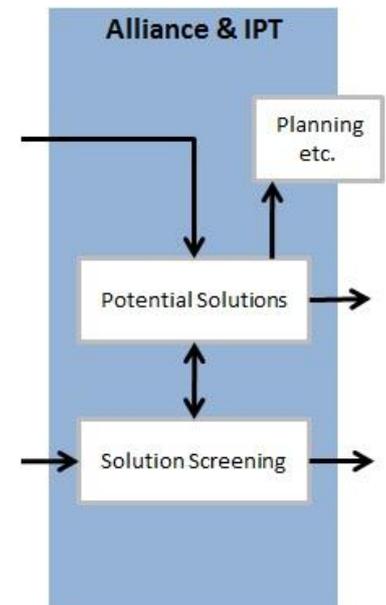
granularity as the information develops, challenging the team to determine what is possible within that target, what opportunities and risks exist and what allowances should be made for them. Out of this competitive tension the target cost is found.

The elemental target cost is developed collaboratively by the whole team through workshop style discussions and maintained by an Alliance-appointed cost manager. This is a fundamental part of the alignment that enables the IPI process quickly to establish realism, affordability and ownership of the requirements and the target cost before any significant design is undertaken.

The Alliance will also prepare the Phase 1 Project Execution Plan (PEP) which will describe the methodology and outline budget to take the project to IPI policy inception and, once approved, enables the Alliance to move on to the next step.

#### 4.4 Prepare

The Alliance develops potential solutions on an open book basis. The appointed Alliance members are paid for what they actually do, which is only as much design and investigation as is necessary to determine the viability of the most appropriate solutions. The Alliance decides who does what, and with key design and implementation parties in the same Alliance there is no need to create documentation simply to transfer risk between parties. Potential solutions are screened against the strategic brief and success criteria to ensure they are appropriate and affordable and the TIRA & FIRA work with the team to ensure technical and financial risks have been fully considered.

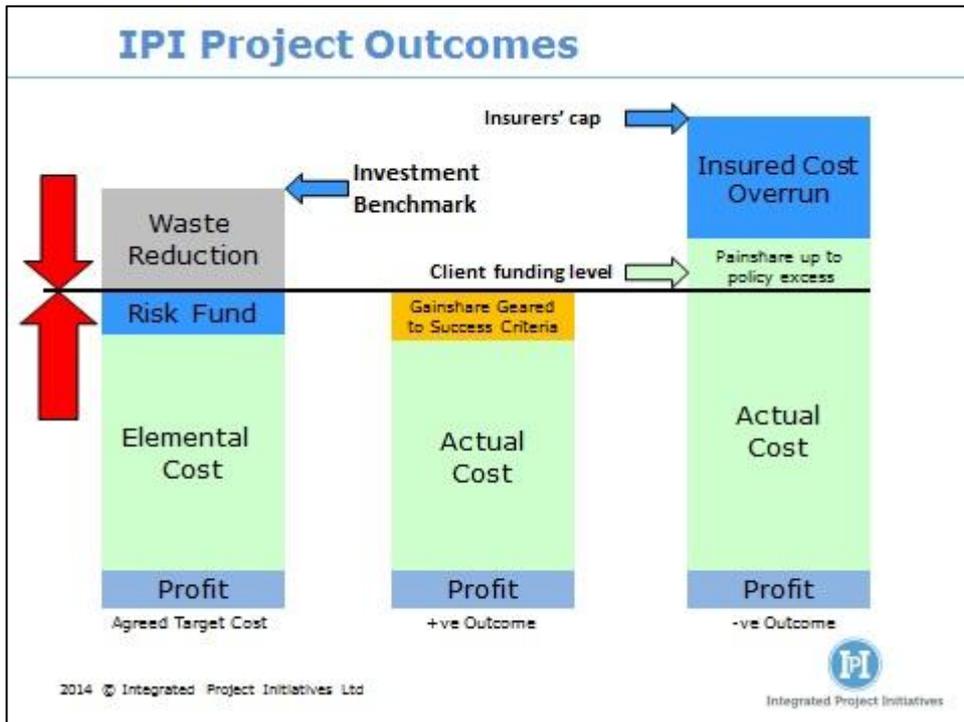


The Alliance identifies the preferred solution on the basis of the “best for project” outcome in relation to achieving the success criteria and meeting the needs of the strategic brief. The Alliance also identifies the core of the IPT including those whose impact is not significant enough to warrant being Alliance team members. Rarely and depending on the solution adopted it may be necessary to add additional Alliance members, but this should be based solely on the requirement for additional skills not already available in the Alliance, since the overriding principle of IPI is early appointment and commitment to all parties for the duration of the project lifecycle. Where an additional team member is required they will be drawn from other parties who have already been through the selection process and advised that they may be approached at a later date.

The preferred solution is developed, again only in sufficient detail as to enable a business case decision to be made and the risk profile to be quantified at a suitable level to enable the IPI policy to be incepted at the end of the step. This may require consultation with regulators including planners, and in some instances it may be necessary to submit applications to confirm the viability of solutions or elements; but under the IPI methodology the amount of design development and detailing necessary to quantify the solution and target cost is typically significantly less than with most other methods - which greatly reduces the time taken to reach approval to proceed (Government Gateway 3).

At the end of the step the Alliance:

- reconfirms the strategic brief and success criteria
- provides the preferred solution together with the Phase 2 PEP
- signs off the commercial model - which includes the agreed target cost, the gain-share/pain-share mechanism that incentivises all team members to achieve the desired outcomes, and the cap on the insurers' indemnity.

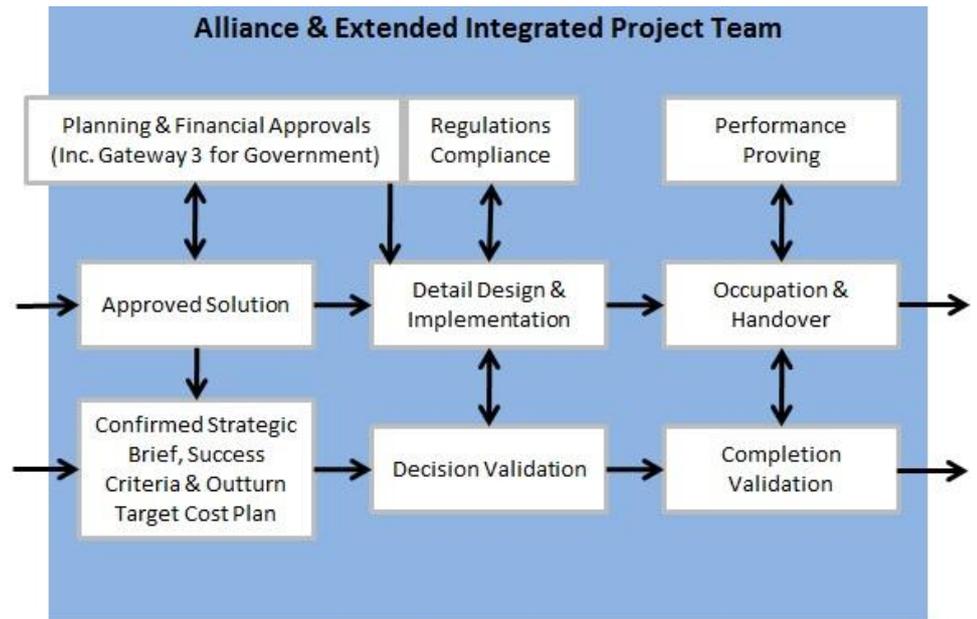


The IF works throughout to ensure an inclusive collaborative culture is embedded, and the TIRA and FIRA provide independent advice and support in respect of opportunities, risks and allowances for the same. If they are satisfied at the end of this step, the IF/TIRA/FIRA provide a report to the client and insurers in support of the Alliance proposal, enabling IPI policy inception to take place.

## 4.5 Execute

Once approval to proceed (including essential regulatory consents) has been received and the IPI insurance policy has been incepted, the Alliance is ready to commence in earnest.

The Alliance will work in accordance with the Phase 2 PEP, developing the solution and commencing physical implementation in the



most time and cost efficient manner it is able to achieve. As the preferred solution evolves all the parties necessary to complete the works will be confirmed by the IPT via second chain appointment from the Alliance Board. Opportunity realisation, risk reduction and waste elimination workshops will be held to optimise the process and the team will be supported by the IF to ensure all parties maintain a robust challenge of traditional processes, procedures and methods so as to identify and strip out waste and eliminate process and procedural inefficiency.

Throughout the development and delivery phase the strategic brief and success criteria are used as references to evaluate issues and inform decisions, and the TIRA & FIRA will regularly report both to the Client and the insurers on the resolution of technical and financial risks. The IF will continually monitor, nurture and report on the collaborative culture.

Change in the IPI environment is very different to that of traditional models. Virtually all changes required to deliver the approved solution are considered to be project development activities and included in the target cost allowances; one of few exception to this is where there is change proposed to the signed off strategic brief and/or success criteria which may have a significant adverse impact on outcome. In this instance the alliance contract provides for the impact to be assessed and for the change, if agreed, to be adopted together with any required revision in the commercial terms, including the target cost and gain-share/pain-share incentives as necessary. Even if rejected, the Client can still decide to proceed with such a change but the insurers may, on the advice of the TIRA & FIRA, accommodate this as an exclusion to the IPI coverage. However, the IPI focus on establishing the clear needs at the very beginning means it is not envisaged that such changes will be a regular feature of IPI projects.

Following the principles of integrated collaborative working, the IPT will adopt a single integrated programme which best meets the delivery objectives. As the project progresses the opportunities to add value and generate savings will be realised - which simultaneously benefits and reinforces the alignment of the team; risks will be quantified or eliminated; and costs reallocated as appropriate within the live cost plan - with payments flowing via the project bank

account. All parties, including the insurers, will be regularly appraised of progress and notified of the likely extent of gain-share distribution or any likelihood of overspend requiring draw down of pain-share or, in the worst case, funding from the financial loss cover to meet a shortfall. At completion, outturn cost is reconciled and gain-share/pain-share allocations determined, allowing for the necessary ring-fenced funds required to support the 12 months soft landings and seasonal commissioning period.

#### 4.6 Monitor



The team stays together to support the soft landings process, oversee seasonal performance monitoring and rectify any defect which occurs in the first 12 months. If there are any defects identified in the TIRA's report prior to completion which it is agreed do not prevent completion, they are carried out to an agreed timescale and the cost of rectification is included in the ring-fenced allocation, to be drawn down via the project bank account. Defects which were latent at completion are funded from the Latent Defect Insurance which comes into effect at completion. The project now has a clean bill of health, and as normal practice the building owner pays any excess, although this may be incorporated into service charges for tenants etc.

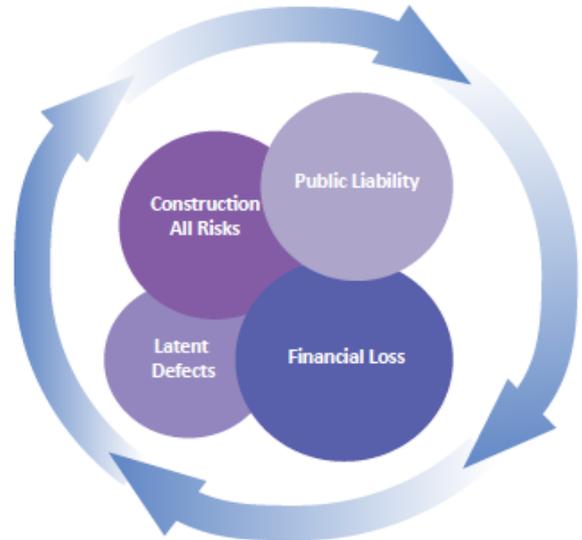
During the 12 months monitoring period lessons learned will be captured and disseminated for the betterment of future IPI projects and the industry at large. At the end of the monitoring period the Alliance and the IPT will stand down and the contract will be complete. For the remainder of the latent defects period, the insurers may at their discretion choose to contract one or more alliance members or other suppliers or contractors to rectify latent defects in the most economical way.

IPI is capable of being applied to success criteria which include operational performance beyond the first year, including maintenance and operational performance e.g. energy consumption. However, these are supplementary services for which additional costs and policy terms will be required and their inclusion will need to be determined at IPI policy inception to confirm whether such outcomes are insurable. If included, an allocation of gain-share/pain-share will also need to be agreed to enable performance beyond the usual 12 months seasonal support to be incentivised and in these circumstances gain-share/pain-share allocations for these elements will be deferred until the completion of the extended service period.

## 5.0 THE IPI PRODUCT

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**5.1** Integrated Project Insurance is an innovative insurance product which gives the IPI model its name. It collectively insures the client and all the other Alliance partners: consultants, specialists, manufacturers, construction managers and their supply chains. In particular it replaces liability-driven professional indemnity insurance (which requires proof of fault before responding) with financial loss cover where the outturn cost above the target cost plus pain-share is insured.



**5.2** But IPI is only available as part of the IPI Model which is founded on the principle of a new and transparent partnership with insurers. In granting cover the insurers will have had regard to the following fundamental principles which the Alliance members (including the client) intend to comply with when undertaking the project:

**One Team - Seamless Cover**  
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- The Alliance members embrace fully integrated collaborative working and act in a spirit of mutual trust and co-operation at every stage of the project and comply with the alliance principles agreed in the Alliance contract.
- There are mutual no-blame/no claim undertakings; and whatever percentage share you take of gain, the same must be your share of pain.
- All decisions are taken on a “best for project” basis.
- There is independent facilitation and financial/technical independent risk assurance at all stages of the project.
- The performance of the Alliance members will be measured against agreed success criteria.
- The Alliance members will work on an open book basis and seek ways of driving down costs and maximising gain-share by over-achieving against the success criteria.
- There will be no distinction or barriers between the design and construction elements of the project as all members will be working as a single integrated team.

**5.3** In parallel with the Alliance members and their supply chains waiving rights to claim against each other, the insurers waive rights of subrogation against all the insured at every tier.

- 5.4** Under the IPI model the emphasis is on collective and transparent governance:
- When the IPT is satisfied that its preferred project solution and target cost will meet the strategic brief in accordance with the success criteria and within the pre-agreed investment target, it puts it forward for approval.
  - The IF, and TIRA and FIRA, if respectively satisfied that the IPT is indeed collaborative and that its preferred project solution and target cost have adequate allowance for technical and financial risks, give endorsement to the client and insurers.
  - When accepted by the client and insurers, this project solution and target cost are insured under the IPI Policy, and the TIRA/FIRA appointments are novated to the insurers.
  - The IF and TIRA/FIRA remain involved and engage openly and collaboratively with the IPT during design development, procurement, construction and completion/proving. If the IPT does not adequately resolve issues of concern raised by the independent assurers, the assurance team reports to the Alliance Board and, if they are still not satisfied with the solution put forward, have the right to recommend to the insurers that the associated risk be excluded from coverage under the policy. This exclusion may relate to the target cost up to completion or the latent defects cover thereafter.
- 5.5** By virtue of the involvement of the IF, TIRA and FIRA, insurers have a close project relationship under the IPI Model. In essence they can have confidence based on independent expert advice that:
- the members of the IPT and their supply chains are suitable
  - they are adopting behaviours which will result in the efficient use of resources
  - project solutions and target costs provide adequately for technical and financial risks
  - a realistic and achievable project execution plan is being followed
  - outturn costs are necessarily incurred
- and they will receive early alerts to problems and potential overspends, and can participate in decisions over mitigation.
- 5.6** In return, insurers are prepared to agree a wider range of cover than under traditional project policies; they have an overview of all potential risks, and are in a better position to understand them. IPI insurers have been carefully selected by the brokers; their contracts are subject to utmost good faith; and they are expected to recognise and fund overspends promptly after they have been identified and verified by the FIRA.
- 5.7** Until the IPI product is fully established and a much simplified integrated format can be developed, the IPI policy comprises:
- Section 1: Construction All Risks (including Terrorism Extension)
  - Section 2: Third Party Liability (including Non-Negligent Liability)
  - Section 3: Delay in Completion (resulting from damage under Section 1)
  - Section 4: Financial Loss cover  
and
  - Latent Defects cover (for 12 years) - a “no fault” commercial latent defects insurance policy.

This use of known products is seen as an advantage in the early days of IPI as those who will benefit from the cover are better able to relate to the protection they are used to seeing.

5.8 The “financial loss” cover under the IPI policy has an agreed cap (limit of insurers’ indemnity), and its exclusions are limited to ‘normal industry exclusions’ which are:

- nuclear and war risks and sonic bang
- wilful default
- employer’s (client’s) risks
- change of law
- any other specific exclusions relating to the particular circumstances of the project (e.g. MOD security issues).

5.9 Under the IPI Model each Alliance member participating in the gain-share/pain-share mechanism in the Alliance contract knows that his loss is limited to his pre-agreed share of the maximum pain-share. The benefits deriving from this policy should ensure that all parties concerned are open and honest about their allowances (usually in overheads) for omnibus insurances, and exclude them from the build-up of their target and actual overhead costs for the project so as to avoid cost duplication.

*The position in relation to projects where owner controlled project insurance (or IPI) is in place is quite simple. Contractors in such a situation simply deduct the turnover for such projects from the declaration to their annual contractors "all risks" policies. Similarly, consultants deduct relevant fees from their income declarations to professional indemnity insurers. In both situations there is no duplication of cost.*

*Stephen Bamforth  
Chief Executive, Griffiths & Armour*

5.10 Under a study undertaken for the then Office of Government Commerce the combined premium cost of traditional construction all risks, public liability and professional indemnity insurances on a commercial development throughout the supply chain amounted to 2.5%. This was based on normal risks, and excluded excesses. The cost of IPI has been fixed at 2.5% of the project cost, which is better than cost-neutral because it also includes:

- independent facilitation and technical/financial risk assurance
- cost overrun cover (instead of professional indemnity)
- latent defects cover.

It also saves the cost of taking out collateral warranties. There is therefore no cost penalty for a client adopting IPI.

For completeness: due to its inherent variability, the study excluded insurances associated with feasibility or pre-project planning activities. The essential pre-initiation activity under the IPI model includes the assistance and support to the client in selecting and appointing the

members of the Alliance and securing their understanding and commitment to the strategic brief and success criteria: this variable element is covered on a time-charge basis. The 2.5% fee then commences with a pre-inception instalment, with the balance payable upon inception of the IPI policy; because locality is also variable, fees are subject to reimbursement of expenses.

## 6.0 HOW IPI OPTIMISES PERFORMANCE AND VALUE

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### 6.1 A new environment of integrated collaborative working

The professionals from the consulting, specialist and supply sides collaborate to create solutions borne of their combined intellects and experience. The products of this collaboration, unconstrained by commercial and liability issues, are threefold:

- improvements in quality and sustainability of the facility
- reduction in the periods for design, construction and proving
- efficiency gains whilst cutting process waste

In addition, experience has shown that bringing those who usually produce design concepts together with those who usually design for fabrication and installation, leads to completely different solutions derived from those which are normally available.

### 6.2 Improved quality and sustainability

With the focus shifted from protecting each organisation's own position (as professional indemnity insurance requires) to establishing "best for project" outcomes:

- The IPT's combined systems and product knowledge are applied to the development of innovative solutions.
- Non-mandatory codes and standards are used creatively, rather than slavishly, to inform decisions.
- Modularisation and prefabrication options are thoroughly evaluated at design initiation stage with the particular objective of controlling quality.
- Architectural, structural and services skills (including those of SMEs) combine to create integrated and practical design solutions.
- Integrated delivery processes lead to sustainable outcomes, designing in sustainable solutions and designing out waste and inefficiency.
- The quality advantages of BIM are shared by all members of the IPT to the benefit of the project.
- Safety in construction, operation and maintenance is considered by all members of the IPT at regular intervals from the outset of design.

*Delivery processes that are fragmented, hierarchical and adversarial, stand in the way of sustainability. Instead more integrated and collaborative approaches are required in which specialists with detailed knowledge of the installation, operation and performance of essential components and systems are brought in at the early stages as part of an integrated delivery team.*

*"Sustainable buildings need integrated teams"*

*Specialist Engineering Alliance  
2009*

### 6.3 Reduction in periods of design, construction and proving

The IPT agrees a Project Execution Plan tailored to the success criteria which include planning and completion requirements:

- Instead of sequential design processes, interrupted by those solely required for tender purposes and risk transfer, the IPT directly addresses the strategic brief and success criteria with system and product options, procuring progressively as decisions are made.
- Opportunities to exploit the time-saving benefits of modularisation and prefabrication are evaluated having regard to programme requirements.
- The logistics and risks of assembly and installation on site influence design decision-making.
- Because of the incentives to minimise waste of time and cost, and the no-blame culture, problems are raised much earlier and resolved much faster.
- Decisions are made progressively on a 'gateway' basis as and when required, minimising re-engineering or rework.
- Greater insight at the beginning as to what matters at completion means more commitment to and preparation for soft landings from the outset.

### 6.4 Efficiency gains whilst cutting process waste

Having been appointed at onset:

- There is no need to divert design effort to create information simply for the purpose of tendering (enquiry documents, tender drawings, estimating/tender pricing, re-engineering/re-tendering and negotiation).
- Alliance members' greater understanding of the needs mean inappropriate solutions are not pursued.
- The people who come up with the ideas are the ones who will make them work and are committed to intercepting problems at source.
- IPI does not require document or drawing transfer to move activity from one party to another.
- It is only necessary to record decisions not discussion (usually recorded for blame protection).
- Likewise, all notices, correspondence and documentation traditionally necessary to protect against liability or pursue claims are redundant.
- Suppliers are involved to develop and deliver their products/ solutions, not focusing their efforts on undercutting others.

With the assistance of independent facilitation, teamwork is built on mutual respect between differing disciplines and personalities, and cross-fertilisation of ideas thrives where:

- Challenge is seen as an opportunity for improvement, not a threat to personal status or position.
- The best ideas are free to percolate to the top irrespective of where they originated.
- Intellectual input is offered without fear of plagiarism because of the security of appointment.
- Suppliers are able to offer standard products instead of attempting to respond to inappropriate specifications written by people who do not make their products.
- All parties are free to enter information into a common information platform without the need to track ownership, making BIM level 3 realistically achievable.
- Efficiency and the elimination of waste are at the forefront of all minds as everyone's waste becomes everyone's loss.

Access to independent technical and financial risk assurers means:

- There is a third party keeping a watchful eye to bounce ideas off and make sure nothing is missed.
- Secure from the no blame/no claim agreement, the team is given confidence to innovate and break with traditional solutions where there are financial benefits to the project.
- Development and variations to design to meet the strategic brief are within the control of the IPT; only agreed variations to the strategic brief have to be tracked and negotiated with the client.

## 7.0 PROCUREMENT WITH THE IPI MODEL

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### 7.1 Compliance with EU Procurement Directives

- The IPI model applies the Most Economically Advantageous Tender (not lowest price) award criteria in the EU Directive 2004/18/EC, articles 53(1)(a) and 53(2), as reflected in UK Public Contracts Regulations 2006 No 5, articles 30(1)(a) and 30(2).
- The Specialist Training Wing for the Royal Marines at Lympstone Devon, the first Government trial project, is planned to be procured under the IPI model and in compliance with article 53 of the EU Directive and article 30 of the UK Regulations.
- The IPI model is potentially suitable for frameworks, to embrace a collection and/or a sequence of small projects. The same award criteria apply (EU Article 32 and UK article 19 respectively).
- Competitive Dialogue is inconsistent with the needs and culture of the IPI Model, and will not be used.
- When new frameworks are set up, it is important to include an option for the IPI model to be used, so as to comply with the provisions of EU article 32(2) and UK article 19(4).

### 7.2 Award criteria and “more for less”

- Consistent with the objectives of the Government Construction Strategy “*to reduce costs by up to 20% by the end of this parliament*”, the award criteria under the IPI model should focus on the project outcomes.
- So far as the cost criterion is concerned, the award criteria should support the formation of alliances best able and most motivated to deliver the particular project to an outturn cost some 15% - 20% below the declared Investment Target by cutting waste, not compromising quality or compliance.

### 7.3 The use of the Alliance Contract

- An Alliance Contract is proposed on the Specialist Training Wing for the Royal Marines at Lympstone, and the legal and commercial terms are currently being resolved.
- It is signed up-front by all parties and the project commences.
- A break clause is provided in case the client decides not to proceed with Phase 2, for example because the solution or target cost do not meet with approval.

## 7.4 The R&D Exclusion

- One of the specific exclusions to the EU Directive (article 16(f)) and UK Regulations (article 6(2)(k)) is:

*“Research and development services other than those where the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting authority.”*

- This was cited in the Government Construction Strategy’s Summary Action Plan for the “new procurement models” (item 11):
  - *Develop new model competition and procurement processes in collaboration with departments and their agencies to encourage innovation through integration and earlier supply chain involvement (January 2012).*
  - *Commence implementation of recommendations through trial projects (April 2012).*
  - *Evaluation of trial projects (from March 2013).*
  - *Measures: “...simplified contractual arrangements and risk pricing brought together. Analysis and report of trial project complete - new way of procurement (under research provision of EU rules in consultation with industry).”*
- Whilst the IPI model is founded on tried and tested exemplars, it breaks new ground in terms of:
  - the contractual arrangements in the Alliance Contract
  - the risk pricing - the TIRA/FIRA and the IPI product.
- The R&D exclusion is therefore now available for IPI projects, but the opportunity to take it up is limited to the duration of the trial project programme. The following will indicate whether a project should in principle qualify for adoption:
  - The procurement method would follow the IPI model from the outset - not retrofit another model.
  - The benchmark value would be in the range £10m - £25m.
  - The process of selection and award would comply with the methodology of “more for less” in paragraph 7.2 above, albeit that the other procedural requirements (time periods etc.) would not apply.
- The projects would have to be identified and submitted to the Cabinet Office without delay.

## 8.0 BENEFITS FOR EACH PARTY AND THE WIDER COMMUNITY

For change to take off - and become “Business as Usual” - there must be seen to be benefits for all parties involved. These are set out below:

**NB:** one of the unique features of the IPI model is that included within the cost of IPI are independent risk assurers and an independent facilitator monitoring the whole process end to end thus ensuring that these benefits are realised.

The Client Group	Lead Constructor/Project Manager	Design Consultants	Specialist Contractors
<ul style="list-style-type: none"> <li>• Outcomes that meet your affordability criteria</li> <li>• Assets which are accepted as being fit for the purpose in the strategic brief</li> <li>• Pre-determined maximum expenditure</li> <li>• Assistance in appointing the 'best for project' team that is incentivised to understand and meet the needs</li> <li>• Assurance that the team is integrated and works collaboratively</li> <li>• Assurance that the solutions adopted are appropriate and technically sound</li> <li>• Assurance that the target cost is realistic and achievable</li> <li>• Insurance of the whole project &amp; team with no uncertainty as to what is and what is not covered</li> <li>• No need to prove who was responsible for a loss for the insurance to respond</li> <li>• Operational information delivered in the format you use</li> <li>• Capital and revenue impacts assessed in decision making</li> </ul>	<ul style="list-style-type: none"> <li>• Clarity of purpose, targets and priorities</li> <li>• Direct access to client team members</li> <li>• Freedom to identify and appoint the most appropriate suppliers from the very beginning</li> <li>• Paid for putting the right people on the project to do what needs to be done</li> <li>• Maximum liability known in advance</li> <li>• 3<sup>rd</sup> party support to help make sure nothing is missed</li> <li>• No need to squeeze prices to achieve the budget or make a profit</li> <li>• Appointment on the basis of skills and capabilities not price</li> <li>• Help in identifying and removing wasteful processes, procedures and other inefficiencies</li> <li>• Buildability addressed up front</li> <li>• Engagement in design from concept to completion</li> <li>• Rapid decision making structure</li> <li>• Security of payments</li> </ul>	<ul style="list-style-type: none"> <li>• Free to develop solutions based on the systems, equipment, plant, components and materials which are to be used</li> <li>• Continuity of involvement without novation</li> <li>• Opportunity to benefit from the efficiencies generated through the application of innovation</li> <li>• A focus on the creation of designs for the continuance of the project instead of for responsibility transfer</li> <li>• Direct access to client team members</li> <li>• Maximum liability known in advance</li> <li>• Free to focus on problem resolution without the need to project a position</li> <li>• Access to buildability experience when developing concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Free to agree “who does what when” with design consultants and suppliers based on best use of available skills and experience</li> <li>• Direct access to client team members</li> <li>• Clarity of purpose, targets and priorities</li> <li>• Appointment on the basis of skills and capabilities not price</li> <li>• Free to develop solutions based on the systems, equipment, plant, components and materials which are to be used</li> <li>• Able to focus on problem resolution without the need to project a position</li> <li>• 3<sup>rd</sup> party support for the exploration of innovative solutions and niche products which deliver efficiencies</li> <li>• Flat alliance structure with no hierarchical chain of command</li> <li>• Security of payments</li> </ul>

**Benefits continued...**

The Client Group	Lead Constructor/Project Manager	Design Consultants	Specialist Contractors
<ul style="list-style-type: none"> <li>• Assurance that when complete the asset works</li> <li>• Soft landings and seasonal support</li> <li>• 12 years latent defects cover from completion</li> <li>• A process which is friendly to your local/SME employment strategies</li> </ul> <p>No need for "man to man marking"</p>	<ul style="list-style-type: none"> <li>• No need to prove who was to blame before (or after) fixing the problem</li> <li>• No "joint or several liability"</li> <li>• Ability to reallocate work if a supplier fails or becomes insolvent</li> <li>• Protection against redress for latent defects for 12 years after completion</li> </ul>	<ul style="list-style-type: none"> <li>• Free to agree "who does what when" with specialists and suppliers based on best use of available skills and experience</li> <li>• Paid for allocating the appropriate skills to the appropriate activities</li> <li>• Security of payments</li> <li>• No "joint and several liability"</li> <li>• Protection against redress for latent defects for 12 years after completion</li> </ul>	<ul style="list-style-type: none"> <li>• No "joint and several liability"</li> <li>• Paid for putting the right people on the project to do what needs to be done</li> <li>• Freedom to identify and appoint the most appropriate suppliers from the very beginning</li> <li>• Protection against redress for latent defects for 12 years after completion</li> </ul>

*Private Finance*

*The use of the procurement approaches in this report is designed to reduce construction risk and therefore may be useful in enabling the successful commercial wrap of the risk in private finance schemes. It should be noted that cost overrun cover under the Integrated Project Insurance could provide cost effective form of security to any funder*

*Procurement/Lean Client Task Group*

*Final Report 2012*

## Benefits continued..

Other Supply Chain Members	Insurers	Funders	Local Community
<ul style="list-style-type: none"> <li>• Paid for involvement from the beginning</li> <li>• Opportunity, depending upon the significance of their services to the project outcomes, to become a member of the IPT and share in the incentives with maximum liability known in advance</li> <li>• Potential to align manufacturing and/or delivery schedules to the project programme to derive mutual benefit</li> <li>• Confidence that their innovation, knowledge and experience will be applied to the project and not shared with alternative tenderers</li> <li>• No “joint and several liability”</li> <li>• Security of payment</li> <li>• Design based on products instead of products fitted to specifications</li> <li>• Redress for latent defects for 12 years after completion, consistent with the terms of the supply contracts</li> </ul>	<ul style="list-style-type: none"> <li>• All the risks in one place with no confusion about what is covered</li> <li>• Opportunity to engage with the alliance and IPT</li> <li>• Projects only presented for cover if and when they are a sound risk</li> <li>• Risks are identified up front and tracked to elimination in a risk register open for inspection</li> <li>• Regular reporting of risk development by TIRA &amp; FIRA</li> <li>• Minimisation of team breakdown risks through active involvement of an independent facilitator</li> <li>• Team selected on their ability to work together to eliminate risk</li> <li>• Performance incentivised through the excess/pain-share regime</li> <li>• Backstop protection (modification of cover) if the alliance refuse to address risks identified by the assurers</li> <li>• Protection against the consequences of wilful default</li> </ul>	<ul style="list-style-type: none"> <li>• Confidence that the target cost is realistic for the solution agreed</li> <li>• Knowledge that the model incentivises collaborative behaviours which focus on the elimination of waste and the judicious use of available funds</li> <li>• A cost-effective alternative security for funders against the risks of design and construction of assets</li> <li>• Technical assurance based on the proven model provided by SECO from Belgium</li> <li>• Financial assurance founded on the principles of “due diligence” already familiar to funders</li> <li>• An asset accepted as fit for the purpose in the strategic brief and provided with a clean bill of health for ongoing operation</li> <li>• Funders named on the IPI policy</li> </ul>	<ul style="list-style-type: none"> <li>• The IPI model is able to accommodate the interests of the local community to the extent expressed in the strategic brief and success criteria</li> <li>• These interests can come in many valuable forms: <ul style="list-style-type: none"> <li>○ Local community interests</li> <li>○ SMEs and regional/local businesses</li> <li>○ Employment and skills</li> </ul> </li> <li>• IPI selection seeks to identify those who best match the clients priorities which includes recognition of these interests</li> <li>• Bidders on lowest cost endeavour to avoid these options because they are expected to be embedded in the price and are therefore a drain on potential profit</li> <li>• Under IPI the extent of support is determined by the target cost allocation not the tender returns</li> </ul>

## 9.0 IPI AND OTHER GOVERNMENT INITIATIVES

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### 9.1 The Intelligent Client

- Under the IPI model the client is not expected to be intelligent in every aspect of construction.
- Focus has already been placed on the importance of definition of the client's needs, expressed in a strategic brief (with any constraints), success criteria and an affordable investment target.
- The other activity is to select the best team to design and deliver a solution which will be accepted under the Alliance as being fit for the purposes set out in his brief.
- As already explained, a small advisory team can assist the less experienced client in these two steps.
- Having established the Alliance under the leadership of its Alliance Manager, the intelligent move for the client is to stand back and leave the initiative and responsibility to the appointed experts.
- The need to arrange expensive man-marking is obviated by the independent facilitation and risk assurance services embedded in the IPI product.
- By virtue of a seat on the Board the client is aware of project developments, and if the business need or priorities change, then interventions can be accommodated.

### 9.2 Building Information Modelling

- BIM, with Government in support, is a timely driver for fully integrated and collaborative working.
- Such a mode of working is in direct conflict with a fragmented construction industry and an insurance industry that mirrors this fragmentation.
- Traditional liability and insurance practices - if allowed to continue - will undermine the benefits of a common information platform and also risk increasing protective costs.
- BIM is a natural bed-fellow for the IPI model, with the waiver of claims within the Alliance and a waiver of sub-rogation rights by insurers.
- Hence IPI is essential for unfettered progression to BIM Level 3.

*“To enable the full potential of Level 3 BIM, collaborative, integrated teams, full transparency and shared liabilities are key components. Integrated Project Insurance will be a key enabler to realising this ambition.”*

*Mark Bew,  
Chairman of Government BIM Task Group  
Stephen Bamforth,  
Chief Executive, Griffiths & Armour*

### 9.3 Project Bank Accounts

- PBAs have been a pre-requisite of the IPI model as promoted by Government.
- The Alliance principles and the peer culture are reinforced by a mechanism that ensures each member receives the month's payment simultaneously.
- The PBA facilitates the participation of SMEs.
- In the context of IPI the requirement for a PBA is a significant factor in the mitigation of insolvency risk, particularly of SMEs.
- The preferred approach is for the PBA to be set up by the client, with the lead project coordinator as co-signatory.

### 9.4 Government Soft Landings

- Soft Landings are an integral part of the process of proving readiness for beneficial operation, and are accommodated in the Alliance Contract.
- Gain-share formulae are able to be structured to focus the IPT's attention on zero defects and readiness for operation - key to the achievement of soft landings.

## 10.0 FREQUENTLY ASKED QUESTIONS

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**Q1: If the IPI model is a game-changer, does that mean it is riskier than other methods?**

**A1:** No. The IPI model is founded on best practices from leading demonstration projects which have already been proven to deliver superior value. Furthermore experience shows that much of this value is attributable to the independent monitors of these demonstrations who kept the team focussed and aligned. In adopting IPI the Client sets the agenda for best practice adoption and is rewarded with facilitation and risk assurance embedded in the product to provide this third party support from commencement to completion

**Q2: If IPI is so good why isn't everyone doing it?**

**A2:** There are several reasons people have not taken up IPI:

- Few want to be first to try something new: they are very happy to follow after the innovation has been proved. Many have taken this position, holding back because IPI challenges industry norms.
- Developer and infrastructure projects are too large for IPI: only projects in the £10 - £25m range are currently suitable to make the level of cover viable. (This will change once demonstration projects are complete and larger projects can be accommodated).
- The fact it is one of the three procurement methods in the Government Procurement Strategy means people do not think it is available and that it is reserved for special projects.
- Several projects have been declined for IPI: usually the procurement method is too advanced along a conflicting route, and/or there is too little time to change and induct teams. Another reason is that the parties were unprepared to change from the traditional lowest cost approach, and saw IPI as a longstop cover.
- Several projects where the client wanted IPI lost their funding.

**Q3: IPI sounds too good to be true - what's the catch?**

**A3:** There isn't one! If the team works truly collaboratively and policy inception can be recommended IPI is simple and promotes superior demonstration project outcomes, lower costs and lower risks. However, people have to be prepared to do something truly different and many think they are already doing it; when they realise how different it is, it is often too late.

**Q4: Will projects take longer under the IPI model?**

**A4:** No, they will take less time. There has to be engagement with the IPI model from the outset so as to ensure the business need and success criteria are soundly established, but thereafter major savings are made because of (i) the avoidance of design and pricing prior to award, (ii) parallel rather than sequential activity between designers and specialists, (iii) avoidance of re-engineering and re-tendering to achieve cost savings (iv) continual focus on the most efficient methods of delivery such as modularisation or off site fabrication and (v) incentivisation to get it right first time.

**Q5: Why can't IPI be bolted on to other familiar models?**

**A5:** This might be possible for frameworks procured on a basis compatible with IPI and allowing the necessary flexibility. Whilst there are common characteristics between the collaborative models, the IPI model is uncompromising about the need to share the collaborative culture and fairness throughout the supply chain, selecting on criteria consistent with the overall success criteria rather than on lowest price, and likewise to share with them the benefits of the risk assurance with all parties being equal (e.g. paid directly via a Project Bank Account).

**Q6: What motives do insurers have in giving the cost-overrun cover?**

**A6:** Insurers see liability-based insurance as an increasingly unattractive business proposition - as the recently announced withdrawal by Aviva from the PI market for SMEs indicates. Leading Professional Indemnity brokers Griffiths & Armour cite the statistic that for every £1 paid out on PI claims, £5 has gone on legal and forensic costs because of multiple insurances where blame and culpability are food for litigation.

With the partnership culture of IPI, insurers are aware of the risks through the IF/TIRA/FIRA, and have the opportunity to contribute their skills towards mitigation. The insurer covers all parties and gets sight of the whole risk on one particular project at inception, not piecemeal at the end of different projects when something goes wrong.

**Q7: How could a product with the extra facilities of IPI be cost neutral, or better?**

**A7:** Because the legal and forensic overburden is removed in favour of measures to minimise the risk of a claim arising. IPI insures the outcome, not the cause, and the heavy cost of professional indemnity insurance (which is dependent upon identifying and disentangling causes and apportioning blame and so liability) is avoided. The embedded facilities of the IF/TIRA/FIRA reduce the risk, and thereby also reduce the insurance premiums, including for latent defects

**Q8: Why would a team find it easier to be open and transparent under IPI?**

**A8:** There is no underlying reason to be anything else! Each partner's potential loss is limited to a finite sum and liabilities are known up front; they are all party to the same alliance principles, and are not penalised for being honest about issues and mistakes. In short, the need to "reach for the contract in the bottom drawer" in terms of covering issues when something goes wrong is negated.

Most other models make the supply side liable for costs in excess of the Guaranteed Maximum Price, and the motivation is therefore for each tier to tuck away contingencies wherever possible to minimise this risk.

**Q9: What is the basis of your challenge of making savings of up to 20% of cost?**

**A9:** The promoters of IPI and some 30 practices and firms across the supply side of the industry set the challenge of 15% - 20% savings by cutting process waste before Government published its objective of reducing costs by "up to 20%". Such savings have been made on the best exemplar projects.

**Q10: What guarantee is there that the target savings will be realized?**

**A10:** The savings built in to the target cost and forming the basis of the IPI cover will be locked-in at IPI inception, and so are guaranteed. Further savings will emerge during implementation as the benefits of integrated working work through, and with the incentive of the gain-share.

**Q11: What is the overriding purpose of the IPI model ?**

**A11:** The overriding purpose of the IPI model is to enable all participants to leave their silos and collaborate to the full as a lean integrated team, with a pre-requisite of a no blame/no claim agreement, leading to improvements in efficiency, elimination of waste, and greater financial certainty.

**Q12: Would paperwork really be reduced? Wouldn't the third party insurance regime tend to re-direct existing paperwork towards the assurer?**

**A12:** Insurers will adopt a light touch approach. SECO, the independent risk assurer from Belgium (appointed on the first pilot IPI project) reviews drawings etc. via the internet, and the culture is one of collaboration, not bureaucracy. It follows that BIM will ideally complement the independent review process. Traditionally most paperwork is retained to track activities to apportion or deflect blame; with a no blame/no claim agreement this paperwork is redundant.

**Q13: How does the obligation on professionals to have own PI sit with project insurance? Moving beyond a trial, how does the annual corporate basis of current PI arrangements sit with project insurance i.e. would the duplication in cost actually be difficult to drive out?**

**A13:** The Alliance Contract for the IPI model does not require professionals to maintain their own PI in respect of the project after the IPI policy is incepted. Fees earned on the IPI pilot project should not be declared under the consultants' own annual PI arrangements, so there will be no duplication of PI costs.

**Q14: Since annual organisation insurance is branded/discounted on turnover - as contractors don't know the volume of work that will need to be covered in an annual period - does this present a very real challenge in avoiding paying twice?**

**A14:** Again, turnover on IPI projects should not be included in contractors' declarations to insurers, and premiums can be adjusted retrospectively once actual turnovers are known. Brokers are part of the IPI team and are available to assist recovering unnecessary premiums from within the supply chain.

**Q15: Wouldn't it prove cheaper for Government to self-insure in order to avoid creating a potential headache where each insurer needs to be satisfied before design risk can be transferred to the supply chain? Preference would be to pay % into a portfolio risk pot, which could also be used to self-insure standard models enabled by BIM.**

**A15:** With self-insurance what would be the catalyst for full integration and collaboration - which is how IPI delivers value? There is no transfer as the whole team is collectively responsible for the whole project. The concept is however to have IPI in place across both the public and private sectors, and the best way to achieve this is through an engaged and efficient insurance industry.

**Q16:** How does IPI work for SMEs? Would this result in higher insurances?

**A16:** If a SME is selected to be a partner or supplier in the Alliance, he is covered by IPI which gives a superior cover to all Alliance members and suppliers alike. The 2.5% cost of IPI is fixed for the initial programme of IPI projects, and will not be adversely affected by SME participation. SMEs also have the protection of the Project Bank Account - which will improve the risk of insolvency in the eyes of insurers.

**Q17:** How can IPI help in projects where costs are already reduced?

**A17:** If, by inspired management, integrated collaborative processes are already being applied, the scope for the target savings of 15% - 20% (as compared with traditional “good practice”) will clearly be reduced. But the savings expected under the IPI Model are very wide-ranging, as indicated in Section 6, and many will not materialise without the no blame/no claim culture and unique IPI cover. Furthermore, many of the savings currently being demonstrated on projects relate to entirely different aspects, such as space optimisation, prefabrication and other more efficient constructional measures.

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Building Services Research and Information Association (BSRIA)

Specialist Engineering Contractors' (SEC) Group

Chartered Institution of Building Services Engineers (CIBSE)

Federation of Environmental Trade Associations (FETA)

Association for Consultancy and Engineering (ACE)

Association for the British Electrotechnical Industry (BEAMA)

### **Supporters of the IPI Model:**

AECOM, Architype, Arup, Bennetts Associates, Clifford Tee & Gale, Edward Cullinan, Faulkner Browns, Davis Langdon, Gifford , Hoare Lea, Jessop & Cook, Proximems, Sheppard Robson, Zisman Bowyer; Laing O'Rourke, Rider Levett Bucknall, Stepnell, Thomas Vale; Briggs & Forrester, Caunton Engineering, DSL, EMCOR Group UK, Lorne Stewart, MITIE Engineering, Munters, N G Bailey, Shepherd Engineering Services, Skanska Building Services, Spie Matthew Hall; Air Spiralo, Applied Energy Products, Calorex, Flakt Woods, Lindab, Marshalls, Nationwide Filter Co, SFL

### **Consortium for the Technology Strategy Board project "Delivering more for less under the IPI Model"**

Rider Levett Bucknall UK (lead partner)

Integrated Project Initiatives (originators of the IPI model)  
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## 12.0 GLOSSARY

### TERMS USED

<b>Advisory Team</b>	<b>Team of industry specialists drawn together at the earliest opportunity to assist the client in evaluating their needs</b>
<b>Alliance Contract</b>	<b>A collaborative “non-tiered” alliance contract between a client and the other members of an integrated team</b>
<b>Alliance Manager</b>	<b>The person appointed by, and responsible to, the Alliance Board for the general management and control of the delivery of the project on a day-to-day basis</b>
<b>Alliance</b>	<b>Combination of the industry Integrated Project Team (IPT) and client’s team working together for the duration of the project/programme</b>
<b>Elemental Cost Plan</b>	<b>Top down cost plan developed in open book fashion to determine what is achievable within the challenge investment target, what risks are identified and the allowances made for them</b>
<b>Expanded Core Team</b>	<b>Core team augmented by additional key members who provide specific skills, capabilities or expertise required to address evolving potential solutions</b>
<b>Facilitate</b>	<b>Nurture, challenge and navigate the team to successful delivery of the agreed outcomes, stripping out waste and inefficiency to deliver superior value</b>
<b>FIRA</b>	<b>Financial Independent Risk Assurer with a track record of financial risk evaluation</b>
<b>Functional Brief</b>	<b>Confirmation of the needs to be addressed stated in terms of functional requirements (e.g. spatial needs and adjacencies) and performance outcomes (e.g. time and cost) of the potential project/programme</b>
<b>Gain/Pain Share</b>	<b>Mechanism to identify and reward all key alliance members for effective collaborative management of the project/programme and its associated risks and benefits to successful conclusion</b>
<b>IF</b>	<b>Integration Facilitator with a track record of successful delivery in a collaborative environment</b>
<b>IPI</b>	<b>Integrated Project Insurance Product</b>
<b>IPI Brokers</b>	<b>Brokers authorised to act on behalf of the insurance market to offer the IPI product</b>
<b>IPI Policy Inception</b>	<b>Point at which the project/programme is covered retrospectively and going forward for all risks including financial loss to the full extent available under the IPI policy</b>
<b>IPT</b>	<b>Integrated Project Team assembled by the delivery industry to provide all the skills necessary to design and deliver the solution agreed</b>

<b>Project Bank Account</b>	<b>An account opened by the alliance in which the client will deposit payment against the open book evaluation, to be held in trust and progressed to all members of the project team without delay</b>
<b>Soft Landings</b>	<b>Supported handover in which the IPT monitors performance, supports problem/defects resolution, and engages with the operators to ensure a transitional handover to full operation</b>
<b>Strategic Brief</b>	<b>Statement of the high level needs to be addressed and the critical performance outcomes to be achieved</b>
<b>Success Criteria</b>	<b>Definition of the key measures which will constitute the successful achievement of the functional brief</b>
<b>Target Cost</b>	<b>Approved cost against which performance is measured, fixed fees and premiums are based and cost outcomes including gain/pain share allocation and insurance pay-out are derived</b>
<b>TIRA</b>	<b>Technical Independent Risk Assurer with a track record of technical risk evaluation</b>

## ACRONYMS

<b>BIM</b>	<b>Building Information Modelling/Management</b>
<b>OJEU</b>	<b>Official Journal of the European Union</b>
<b>PEP</b>	<b>Project Execution Plan</b>
<b>PI</b>	<b>Professional Indemnity</b>
<b>SME</b>	<b>Small and Medium sized Enterprise</b>
<b>TPDG</b>	<b>Trial Projects Delivery Group</b>
<b>TPSG</b>	<b>Trial Projects Support Group</b>



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