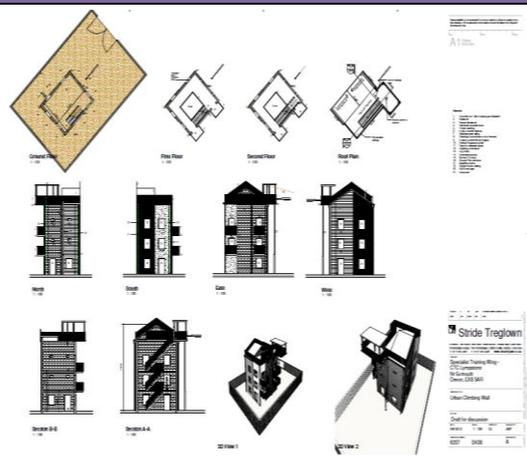


Trial project: RM Lympstone	New delivery model / procurement route: Integrated Project Insurance
Cost savings targeted: The Integrated Project Insurance (IPI) model targets cost savings of 15% - 20%. The Defence Infrastructure Organisation (DIO) will achieve value for money via full consideration of through-life costs, following which a capital cost saving target will be agreed.	
Other key benefits targeted: Fitness for the purpose defined in the brief: provision of the most operationally effective solution, meeting required programme milestones. Delivered by integrated collaborative working	

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	Award cost	Outturn cost

Trial project details	
Project title	Lympstone Commando Training Centre (CTC) Royal Marines (RM) Specialist Training Wing (Spec Wing)
Client department	Ministry of Defence (MoD) Defence Infrastructure Organisation (DIO)
Project value	Circa £8M (pre-saving)
Form of project	New Build. Specialist Training Wing Building; offices, classrooms, training and stores.
Independent facilitation and risk assurance	Integrated Project Initiatives, with: <ul style="list-style-type: none"> • technical risk assurance: SECO • financial risk assurance: Artelia
Alliance Members	To be appointed
Other key suppliers	To be appointed



typical urban climbing facility

Executive summary

The purpose of this project is to provide a new facility that will allow for the disparate elements of the Specialist Training Wing (Spec Wing) to conduct their discrete functions and training programme whilst under one roof. Other project objectives include the provision of synergies in training and operational command practices that will generate ongoing efficiencies.

The project forms part of the rationalisation and co-location programme under the Integrated Establishment Management Plan (IEMP) work being carried out at the Commando Training Centre Royal Marines (CTC RM), Lympstone. The Spec Wing accommodation is currently spread across CTC in substandard, unfit for purpose and under scaled facilities. These facilities have become impossible to support and maintain due to their age and are rapidly being out grown by the unit's requirement to deliver Specialist Military Training to support CTC RM's core operational output.

This project was a late entrant into the Cabinet Office's Pilot Project Delivery Programme, and is planned to be delivered under the Integrated Project Insurance Model which involves innovation in procurement, contract, insurance, culture and process. It is accordingly supported by a Technology Strategy Board project 101345 under "Rethinking the Build Process" – delivering more for less under the IPI Model.

Project Summary

This purpose of this project is the creation of the Commando Training Centre's (CTC) Specialist Training Wing (Spec Wing, a bespoke and unified Training, Operations, Stores and Armoury Command Facility to maximise Operational Training Output. This is intended to be a new facility which will allow for the disparate elements of the Spec Wing to conduct their discrete functions and training programme whilst under one roof, providing synergy in training and operational command practices, and offering greater training and working efficiency. Spec Wing accommodation is to be of an appropriate standard and scale to meet the operational requirements of the functions, replacing the existing substandard and under scaled facilities and supporting simple and efficient maintenance and upkeep of the accommodation, thus enabling the unit to deliver Specialist Military Training to support CTC RM's core operational training output.

Accommodation being consolidated includes specialist lecture facilities and training classrooms and associated armoury or other storage or display facilities for light and heavy weapons training, maintenance and repair functions, including mountain and urban climbing and survival; some of which require external access and/or facilities including field storage, together with command and training management and instructor office accommodation locker, rest and breakout rooms, showers and toilet facilities. External access for large delivery vehicles is required. Releasing existing accommodation replaced by the new Spec Wing will enable rationalisation of existing accommodation to take place realising further efficiencies from subsequent site rationalisation and accommodation revision or replacement.

This Spec Wing project was selected by the MOD as a trial of an "alliance" approach between the DIO, the delivery entity and the insurance underwriter using the Integrated Project Insurance Model for which pilot projects were sought under the Government Construction Strategy 2011. Integrated Project Initiatives is appointed to assist the DIO in delivering the STW under the IPI Model.

In parallel, a bid was made by a consortium, at the instigation of the promoters of the IPI Model, in response to the Technology Strategy Board's competition "Rethinking the Build Process" for a project entitled "Delivering more for less under the IPI Model", with headline deliverables of developing and testing a new Alliance Contract and IPI Policy, as well as updating and making "inter-active" the Integration Toolkit which sits on the website www.strategicforum.org.uk. This bid was successful.

Project Time line

- Initial introduction of the STW project to the Cabinet Office and IPI Ltd: April 2012
- Bid to the Technology Strategy Board: August 2012
- Acceptance of the IPI bid by the Technology Strategy Board: February 2013
- Appointment of Integrated Project Initiatives Ltd: March 2013

Future programme dates are subject to resolution of procurement issues and it is planned to publish early stage learning.

Key project features

- Integrated collaborative working assured
- An Alliance Contract that empowers the team
- Alliance owns solutions and outcomes
- Financial exposure capped to insured limit, client financially responsible in the unlikely event it exceeds this limit
- Outcomes insured – including overspend
- Affordable fitness for purpose
- Reduction in periods of design, construction and proving
- Efficiency gains whilst cutting process waste
- BIM - friendly
- SME – friendly

Client objectives and vision

The IPI procurement model has been selected because of its proposed ability to secure the best possible team for the project, based on their ability in both technical terms and the contribution they will make in terms of collaboration and innovation to give the “best for project” solution.

The Success Criteria for the project have been evolved in workshops with DIO management. The Strategic Brief is focussed on describing the need; beyond deciding on the option of a bespoke and unified facility in a designated space at CTC RM Lymington which must be fit for the purpose set out in the User Requirement Document (URD) the DIO has not prescribed solutions.

The Success Criteria include:

- Project outturn cost to be “Value for Money” – the project is to be delivered below the benchmarked investment target (and within the agreed target cost)
- New facilities are to be fully operational and free from substantial defects at acceptance and handover – end users can move in straight away and commence intended activities
- The urban climbing facility developed is appropriate to allow the intended training throughput to be achieved
- Zero disruption to the day to day operational training output and occasional ceremonial activity at CTC RM Lymington
- Excellent performance in reduction of health, safety and environmental accidents or incidents during construction for both suppliers and MOD staff – target: zero
- Acceptance and handover is achieved on time – as defined in the Project Execution Plan agreed at Main Gateway approval and IPI Policy inception
- New facilities are incorporated into the MOD’s ongoing estate management regime with ease – appropriate involvement with hard and soft facilities management functions on the site leads to a seamless “soft landings” transfer
- New facilities remain operable and maintainable for their whole life (25 years)

New procurement techniques and processes

Procurement

As the Spec Wing is the first intended official pilot IPI project for the “IPI model” under the Government’s Construction Strategy 2011, it was decided that procurement should be carried out in compliance with the European Union Defence and Security Public Contracts Regulations 2011, selecting the Most Economically Advantageous Tender (MEAT). Roll-out could then follow successful trial without having to revisit the procurement process.

The objective of the pilot project is to demonstrate the challenge put forward by the supporters of the IPI model that it would unlock the potential to achieve:

- a solution that is “fit for the defined purpose” as set out in the agreed strategic brief, and in accordance with the “success criteria” (e.g. quality, speed of completion)
- at a cost between 15% and 20% lower than the Investment Target based on “best practice” benchmarks from recent comparable projects.

Whilst the procurement approach described below has been evolved in workshop discussions with DIO project and commercial management, final DIO approval to proceed to procurement has not yet been given. In particular it must be confirmed by DIO that the proposed contract and structure of commercial relationships are in compliance with the European Union Defence Securities Procurement and Commercial Regulations (DSPCR). The approaches below are in accordance with the principles of the IPI model and are considered necessary to optimise the prospects of achieving the above benefits; but they should be regarded as “generic” and “unconfirmed” until the DIO has reviewed and approved both the procurement methodology and the proposed Alliance Contract.

Under the OJEU processes selection of the team must be made on a fair and open tendering process predicated on answers to objective questions that can be measured in order to be able to select the MEAT..

Under the IPI model the Alliance Members are selected at the outset to enter into an Alliance Contract (or “virtual company”). Expressions of Interest will be invited simultaneously under lots.

At both the Pre Qualification Questionnaire (PQQ) and the Invitation to Tender (ITT)/ Invitation to Negotiate (ITN) Stage applicants will be required to evidence their capability to deliver the services described as being within the scope of the lot for which they are applying; if they apply for more than one lot, they will be required to show their capability against each and against the advertised evaluation criteria for that lot.

Two ingredients of the IPI model remove traditional barriers to participation by SMEs:

- “Integrated Project Insurance” gives superior cover to all Alliance Members and all suppliers they engage, arranged by the Alliance
- A Project Bank Account, again arranged by the Alliance, ensures simultaneous, prompt and reliable payment.

Alliance Contract

The Alliance Contract is signed after a period of cultural and commercial alignment between the Client and the favoured Alliance Members. A charter of “Alliance principles” (taking ownership to act in good faith and collaboratively in a spirit of mutual trust and cooperation) is agreed, as is the commercial basis for a lean and collaborative structure (e.g. overhead sharing). Governance and related arrangements follow, covering

- the Alliance Board, comprising nominated representatives of the Employer and the other Members
- the Alliance Manager, appointed by the Alliance Board,
- Independent Facilitation
- Independent Technical and Financial Risk Assurance
- selection of an Integrated Project Team (“IPT”) from the Alliance Members and other key Suppliers

The heart of the Alliance Contract is the project process from selection through to proving, maintenance and potentially operation. There are three Phases:

Phase 1: project development: when the IPT pools its skills to create the best solution for the Client. This ends when the IPT’s project execution plan is accepted and the IPI policy is incepted

Phase 2: project delivery: when the IPT turns the solution into reality, realizing opportunities for improvement and minimising risks along the way. This phase ends with completion - when the latent defects section of the IPI policy will be incepted

Phase 3: operation, maintenance: this phase will embrace activities such as seasonal commissioning and may cover maintenance (and perhaps operation) for a designated period.

During Phase 1 the logistics of the Alliance Contract require there to be an orderly progression in document development, culminating in a suite of documents that confirm all necessary elements of the Alliance’s agreed commitment to the project. The sequence is broadly as below:

- Alliance Information and Data (including Strategic Brief, Investment Target and Success Criteria)
- Project Execution Plans
- Commercial Model (with gain-shares/pain-shares and their allocations between the Alliance Members)

The Alliance Members are paid on a cost-incurred basis to develop a delivery execution plan based on the best solution conceived, having regard to the Client's preferences and subject to affordability. The design solution and target cost put forward in the project execution plan and Commercial Model will be expected to (a) be "competitive" as compared with traditional programme timescales and cost benchmarks, and (b) identify potential opportunities for further savings and adequate allowance for risk, both technical and financial. The IPT chooses when the design has progressed sufficiently for the target cost to be tied down and the solution to be submitted; all the skills are in the IPT and there is no requirement for the detailed design to have been advanced or completed before Phase 2 commences. If and when agreement is reached and the IPI policy is incepted, Phase 2 can commence; but the Client has the option not to proceed with Phase 2 if for any other reason they are unable to do so.

Upon release of Phase 2, the development of the design, plant selections, procurement of specialist services and systems, inter-trades programming etc. are now within the control of the IPT. Contracts are entered into by Alliance Members with Suppliers in accordance with the agreed execution plan and contracting strategy approved by the Alliance Board. Full access to all activities is afforded to the Independent Facilitator and Risk Assurers – who will eventually have to give the project a "clean bill of health" before the Alliance Board confirms the project is "fit for the defined purpose" and completion is certified by the Alliance Manager. Gain-share or pain-share are calculated based on the agreed formulae in the Commercial Model (normally cost and time), and if the maximum pain-share is exceeded, a claim is made under the IPI policy for transfer of funds into the project bank account.

Upon completion of Phase 2 the cost overrun cover of the IPI policy closes out and Phase 3 starts, supported by the latent defects cover lasting 12 years.

Cost targets and savings

Track record

The extent of process and activity waste that can be eliminated has been established on a select few key exemplar projects, and the IPI Model was founded on the collaborative methods and experiences of these projects. Recorded savings of 15% - 20% on capital cost, up to 40% on time, with exceptional whole life performance have been achieved, notably on the "FUSION" projects for Glaxo Wellcome.

The innovations

The following innovations have been embedded into the IPI Model to underpin and better the outcomes already achieved:

- A "no blame/no claim" Alliance Contract which empowers the Alliance Members to deliver successful teamwork, without mandating contractual mechanisms that waste time and money – even the current "collaborative" forms of contract retain liability principles, and therefore fail to eradicate the "silos" in which each party has to operate, with the associated protectionist behaviours and costs
- Independent facilitation from client development of the strategic brief, through selection of the Alliance team, to completion and proving

- Independent risk assurance – to ensure that sufficient allowance is made in the proposed solution for the technical and financial risks of delivering a solution fit for the defined purpose as set out in the strategic brief, and to ensure that subsequent decisions are consistent with the agreed risk management strategy
- IPI cover against cost overrun – limiting each Alliance Member's potential loss to his share of maximum pain-share (which equates to the excess under the financial loss section of the IPI policy), freeing Alliance Members from uncertainty and removing the motivation to build in hidden contingencies
- Linked latent defects insurance – to obviate the need for liability-based professional indemnity insurance to be taken out by any party involved with the project, and make available funds to remedy a defect without the need to prove who is liable.

The savings

The following savings in time and cost are expected:

- As fitness for the defined purpose as set out in the Strategic Brief is independently assured and insured, in-house staffing to “man-mark” is not required
- Traditional enquiry documents – standard and particular specifications, drawings for tender purposes – and hierarchies of contracts, subcontracts, warranties and insurance policies are redundant
- Abortive estimating costs, recovered in overheads of successful tenders, are avoided
- Client calls for redesign by specialists to cut over-design costs in the enquiry documentation are avoided
- Specifications, drawings and letters usually caused by contractual demarcations, blame/claim and liability issues are obviated
- Duplication of roles between members of the team is avoided, and common tasks are shared
- Cost plans are free of protective contingencies
- Only changes in the Strategic Brief or other “Alliance Information” proposed by the Client, Success Criteria and other issues excluded from the IPI policy cover have to be tracked - “variations” to meet the brief are the internal concern of the Alliance
- Interim and final account issues and arguments are avoided, as the open-book cost is paid via a project bank account
- No blame/no claim agreement focuses on mitigating costs and achieving success, not excusing failure
- Disputes about the culprit for a latent defect are avoided, and do not prevent prompt remediation

Monitoring outcomes

The Academic Partner in our Technology Strategy Board project 101345 is the School of Construction Management and Engineering of the University of Reading who are responsible for monitoring the successes - and analysing the reasons for shortcomings - against defined deliverables. Apart from those already mentioned, these include:

- Use of an appropriate level of BIM to assist a fully integrated collaborative approach
- Critical review of codes and standards, and recording reasons why some inhibit innovation, sustainability, speed and efficiency
- Reviews of product selection, and whether criteria of whole life cost and sustainability are being applied
- Effectiveness of the Alliance Contract, IPI Policy and independent facilitation at engendering behavioural change and innovation

- Effectiveness of the independent risk assurance at engendering improvements in efficiency and risk management
- The role of leadership and incentives towards enabling the success criteria to be achieved in their priority

A wide range of expertise in support of these activities is available from the consortium for project 101345, for example the lead partner Rider Levett Bucknall and another industry partner, the Building Services Research and Information Association.

Draft guidance on the IPI Model

Guidance on the IPI Model is complementary to this case study, and is accessible at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/283331/IPI_Guidance.pdf

Of particular interest will be Section 9 which identifies the benefits the IPI Model is expected to bring for:

- The Client Group
- Lead Constructor/Project Manager
- Design Consultants
- Specialist Contractors
- Other supply chain members
- Insurers
- Funders
- The Local Community

For change to take off and become “Business as Usual”, there must be seen to be benefits for all parties involved. Taking Clients as an example, the benefits include solutions and outcomes that are affordable and fit for the purpose defined in the brief, independent assurance of technical and financial viability, an insurance that underwrites the agreed budget, and a “no fault” latent defects cover for 12 years.

Miscellaneous

Author

- This case study has been developed for Constructing Excellence by Martin Davis, as IPI Mentor, with invaluable assistance from his colleagues in Integrated Project Initiatives

in consultation with

- Stephanie Weller of the School of Construction Management and Engineering, University of Reading, and
- The Defence Infrastructure Organisation

Background: Trial projects programme

The Government Construction Strategy aims to change the relationship between clients and the entire supply chain within the industry. The trial projects perform a central role in delivering the Strategy's sustainable 15-20% reduction in costs and are currently testing 3 new procurement models (Cost Led Procurement; Integrated Project Insurance; Two Stage Open Book) that were proposed by industry and developed by a joint task group. Case study reports are therefore an output of monitoring the progress and outcomes of the trial projects. They are produced at four stages: Kick-off Meeting; Brief / Team Engagement; Decision to Build; Build and Occupy. Other case study reports can be found at: <https://www.gov.uk/government/publications/government-construction-strategy-trial-projects>.

For further information on the IPI Model, please contact:

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