

3



IPT Workbook 3

Core team: create and screen strategic solutions

- Home
- TheToolkit Guide**
- Integrated Supply Chain
- Integrated Project Team
- What's new

At a glance

3.0 Form the core team	3.9 Inform the team
3.1a For occasional clients of the construction industry	3.10 Interactive development of the Strategic Brief – collectively explore the business needs to enable clarification of the project objectives
3.1b For regular clients of the construction industry	3.11 Feedback objectives - to confirm understanding
3.2 Select and appoint appropriate alliances/ partners	3.12 Create a robust precedence-based decision-making process for the development of strategic solutions
3.3 Select internal partners	3.13 Identify strategic solutions
3.4 Agree core values and principles	3.14 Managing expectations
3.5 Define roles and responsibilities	3.15 Reconfirm selection and prioritisation of value criteria
3.6 Agree processes to resolve issues	3.16 Identify potential solutions
3.7 Agree remuneration strategy	3.17 Screen solutions against value
3.8 Appoint partners	3.18 Determine which solutions to take forward

Workbook

Step	Process	Culture and activities	Tools and techniques
3.0	<p>Form the core team</p> <p>An Integrated Project Team should be formed that allows all parties to have the opportunity to contribute. Individuals who are like-minded should be brought together with the client as early as reasonably possible to form the core team.</p> <p>The core team should appoint appropriately</p>	<p><i>Identifying external partners</i></p> <p>In order for the integrated project process to achieve its potential, everyone must be fully committed and supportive of each other, with every member empowered to contribute and assist other members. Each person becomes an integrated part of the team, with the same overall goals and objectives. Individual company politics and procedures must be put in</p>	<ul style="list-style-type: none"> The Building Down Barriers Toolkit (especially Tool C1- Forming Supply Clusters and Appointing Cluster Leaders). The Seven Pillars of Partnering by Bennett, J & Jayes, S, published by Thomas Telford Publishing for Reading Construction Forum tel 0207 665 2464 The Construction Industry Council's Project Team Partnering Guide The BSRIA Partnering table

represent:

- the breadth of the process (e.g. all clusters)
- the length of the process (e.g. facilities management).

thereby accommodating subsequent expansion into the complete IPT.

the background, as these may hinder the progress and success of the collaborative project.

Team members should come from various disciplines, such as:

- owners
- designers
- managers
- specialist trades
- user representatives
- company advisers
- administration
- production
- health and welfare
- procurement
- legal
- cost adviser
- safety
- planners/schedulers
- occupiers
- maintainers
- manufacturers.

(application guide 23/2002)



Trusting the Team, Reading Construction Forum 1998, ISBN 0704905035

3.1
a

For occasional clients of the construction industry

Appoint an independent client adviser if you do not have in-house all the skills to be actively involved in the creation of a project

The successful adviser should be a committed advocate with a track record for integrated working under a collaborative culture, as being the route to 'best value'. An adviser can be sourced from any organisation at any level in the industry within any discipline. However, where they are drawn from a group or company likely to be involved at later stages, they should only be appointed where they are able to demonstrate their independence either organisationally or through personal values and integrity.

A simple consultancy agreement. This should in particular:

- effectively second the adviser to the client's organisation
- require independence, i.e. agreement not to participate with any other partner, cluster etc in the IPT
- define duration and basis of remuneration



The *Accelerating Change* Report by the **Strategic Forum for Construction** defines the role of the client adviser and contains more information on the role of the adviser and the extent of their advice

a1

Prequalify and shortlist alliances or individual partners with most appropriate track

Alliances/partners should be selected according to their suitability to carry out the work in question. All interested parties should



Constructionline is the UK's largest register of pre-qualified construction services. It streamlines procedures by supplying the construction industry and its clients with a single national

record for this particular project (see 3.2)

be involved in the selection process, to ensure collective ownership of the decisions and 'buy in'. This should include consulting on a rolling basis with appointed partners on the suitability of others yet to be selected.

pre-qualification scheme.

**3.1
b For regular clients of the Construction Industry**

b1 Pre-qualify alliances or individual partners with most appropriate track record for your range of projects

Where possible, external partners should be chosen from an approved pool. This should be sized to allow repeat business, so that the benefits of reduced learning curves are gained and continuous improvements can be achieved. At the same time, people are not kept hanging on without a realistic chance of regular work. The list should also:

For a generic pre-qualification form and guide see **Chainlink Resources**.

b2 Create pool of pre-qualified alliances/partners appropriate to the range and quantity of your annual spend in construction

- cover as many areas of regular activity as possible to aid business continuity
- be categorised for capabilities and value of work
- have reserves to enable replacement or addition, as necessary
- be reviewed on a regular basis for pool size, categorisation and performance of nominees
- be configured as a common database, available to all who participate.

b3 For maximum benefit enter into Framework Agreements with pool members to minimise future commercial delays

Framework Agreement: this should in particular define

- scope of activities covered
- duration
- core values

- basis of remuneration

For a generic framework agreement and guide see **Chainlink Resources**.

Back to 'At a glance'

3.2 All Clients: Select and appoint the most appropriate alliances/partners for the project

Identify the necessary skills needed to establish the principles of the project e.g.:

- designing
- constructing
- manufacturing
- assembling
- supplying
- measuring
- training
- coaching
- health and welfare
- facilitating
- mentoring
- installing
- testing
- operating
- maintaining
- planning
- managing
- costing
- safety awareness






Selection criteria

Not everyone is able to adapt to an integrated approach and experience has demonstrated the importance of selecting team members carefully. This applies to the selection of individual practitioners as much as it does to corporate partners for a particular project. It is important that selection is on the basis of merit, so that partners are chosen who are best suited to the project in mind and have the right approach to undertake it.

In addition to the normal acceptance criteria for selection, such as experience, location, safety record and available resources, there are a number of areas for consideration, which are key to success in an IPT environment. Potential partners should show that they are able to meet these criteria before they can be selected:

- accepts and supports the need to do things differently
- has experience of working in a collaborative team environment
- shows a flexible and supportive managerial approach
- devolves decision-making to individuals most appropriate
- applies IPT or similar principles to own

Guidance on Selection Criteria can be found in:

	Building Down Barriers Toolkit - Tool A2, Selecting a Prime Contractor .
	The CBP website has a Supply Chain Management self- assessment diagnostic tool.
	CIC guide <i>Selecting the team</i> .
	Construction Industry Board: <i>Partnering in the Team</i> CIB/Thomas Telford, 1997. ISBN 0-7277-2551-3 (view at amazon.co.uk).
	<i>A Model Project Pact</i> CIB, 1999.
	<i>Selecting Contractors by Value</i> CIRIA, 1998. ISBN 0-86017-491-3 (view at amazon.co.uk).
	<i>Selecting Consultants for the team: Balancing Quality and Price</i> CIB/ Thomas Telford, 1996 ISBN 0-7277-2543-2 (view at amazon.co.uk).

Forms of contract that dictate obligations and procedures which are incompatible with the way in which the IPT wishes to collaborate (so as to add maximum value and cut out maximum waste) should be avoided. Modern Forms of contract designed to promote collaboration and empowerment, such as the NEC and PPC2000 series, may be considered sufficiently accommodating. An indication of an even more innovative approach is, however, available in a **Model Form of Agreement** for an Integrated Project Team – a chronologically structured template with guidance notes for the IPT alongside, designed to facilitate incorporation of agreements progressively reached in accordance with the processes and prompts of this Toolkit. The IPT should also consider appointing one sole lawyer to assist in the formulation and servicing of the eventual Agreement. The advantages of these contractual innovations have to be proved

supply chain

on forthcoming Demonstration Projects.

- is willing to work open-book, disclosing overhead and profit to achieve maximum value for minimum expenditure
- has the ability and systems to work in a collaborative financial environment
- has demonstrated the ability to perform in a continually evolving environment
- exhibits the ability and desire to contribute to the overall project
- supports the allocation of work to the most appropriate partner or individual
- respects other people's diverse capabilities and backgrounds.

For the IPT to fulfil its potential, those involved must be fully committed to and supportive of it and of each other. Each prospective alliance/partner must ensure suitable people are available for secondment to the IPT. The following characteristics should therefore be regarded as highly desirable in team members:

These can be found in one or a range of partners, but a key principle is that the core team should be able to represent the clusters likely to be required in support of the project with no

- approachable and confident team player
- high level of integrity and sincerity
- self-motivated and self-disciplined
- willing and able to contribute to the

duplication of skills

overall project

- shows commitment and enthusiasm for working openly
- Values working collaboratively
- already applying collaborative principles to existing activities
- willing to adapt to changing circumstances
- enjoys and responds positively to being challenged
- has the courage to do things differently
- enjoys being creative
- has the courage and honesty to state the facts
- can empower others to take responsibility and make decisions
- will support and challenge others to develop and make choices
- prepared to adapt behaviour for the benefit of the project and team
- relaxed and able to put others at ease.

The selection process should be directed towards appointing alliances or individual partners who are able to create 'best value-added' and who understand the importance of adopting the principles of financial transparency, through willingly working 'open- book'. Those firms which are most capable, experienced and motivated to meet or better the criteria for your particular project should be the ones you select.

Historically, appointments have been made on lowest cost grounds, even under two-stage tendering where

lowest overheads and profit have been secured. Whilst this approach is 'safe and easy' for procurement professionals to demonstrate their expertise, experience shows the resulting lowest cost at commencement rarely, if ever, translates into the best solution in terms of value and quality at the end, and frequently takes more time and effort to deliver outcomes both late and over budget.

'Best value-added' is most likely to be achieved by matching resource capabilities to the objectives, and by selecting those who expect to perform and who willingly seek ways of matching rewards to individual, or better still, team performance. If the wrong partners with the wrong skills, experience and motivation are appointed, this will lead to missed opportunities, critical errors of judgement and a culture of excuses and arguments. Furthermore, low profit expectations are likely to be a sign of habitual poor performance and/or adversarial commercialism. To find the right partners requires research, interactive selection and sound judgement. It is false economy to overlook this, misunderstanding that the question is not whether the cost of any resource is high or low, but whether the resource is appropriate for the activities in mind.

[Back to 'At a glance'](#)

3.3 Select internal Partners

Identifying internal partners

The principles of selecting internal partners should be similar to those in **3.2**. Individuals who display the



The **Partnerships with People** website allows users to find out how the best companies share their goals with their people, share roles, share learning, create a team effort, and share information.

appropriate attributes should form the basis of the internal team. No matter how much the external partners wish to collaborate, the in-house group must create the environment in which the collaborative culture can thrive, or it will die.





3.4 Agree core values and principles

Behaviours and values

A key stage in forming the IPT is the process of exploring and agreeing the culture which underpins the collaborative team. All parties should understand the culture under which they come together, the core values and key behaviours which will be adopted by all team members and the principles which will be applied to the project. It is recommended that these should be embodied in a Team Charter which may be best developed in a facilitated workshop environment. Examples of appropriate values are:

- **Fairness** Fair treatment and reward for all parties.
- **Unity** A single team with common aims and values, focused on delivery of clearly understood objectives, for the benefit of all.
- **Seamless** No barriers between team members. All are responsible and willing and take action on behalf of the whole team.
- **Initiative** Everyone contributing to the creation of the best solutions. Decision-making delegated to people closest to the problem.

Codes of conduct, in particular "no blame culture" Team Charter

	Rethinking Construction respect for people toolkit provides information on factors to be considered.
	Fusion website

- **Openness** Honest and open communication by every member of the team at all times.
- **No blame** Trusting the team to do what it believes is best to achieve the objectives. Resolving problems without recrimination.

3.5 Define roles and responsibilities

Roles

Everyone should understand what part they are to play in the early stages of establishing the team and the project and that each individual has an equal opportunity to contribute. The roles and responsibilities of all parties should be agreed. It may be helpful/necessary for a facilitator or meeting leader to be selected to manage the process. Agreeing roles will ensure that everyone takes ownership and feels able to carry out their duties willingly. Roles should be developed with the following aims:



- They should not be dictated
- People should feel comfortable with their duties
- Each individual should be treated with respect
- Appropriate skills should be used in specific tasks
- Workloads should be attainable
- Everyone should understand and commit to the roles
- Duplication should be avoided
- Effective liaison with both internal and external parties (e.g.

Roles and responsibilities of the project team, e.g.:

- Scope for which each partner is to be primarily responsible.
- Allocation and updating of cost plan.
- Maintenance/updating of programme.
- Letting, control and management of third- party contracts.
- Health and safety compliance.
- Co-ordination points/Gateways with peers.
- Initiation of, and authority for, innovation and change.

Project leadership, i.e.

- pre-determined or by consensus
- responsibilities.

	<p>Rethinking Construction's Respect for People toolkit provides information on factors to be considered.</p>
	<p>The CBP website has a Director's Briefing on Leadership containing information on leading a successful team. Other tools relating to leadership can also be found on this website.</p>

statutory
authorities) needs to
be assured

Although an activity may be the key responsibility of one party, it is the duty of all who are involved to ensure that the project moves forward within the understood constraints.

It is vital that leadership roles are also identified and clearly understood. Whilst the objective of an IPT is collaborative, it doesn't follow that all decisions will be made by consensus.


Back to 'At a glance'

3.6 Agree processes to resolve issues

The time to decide what to do about problems is when there are no problems to solve. A clearly defined process, which has been agreed by all parties in advance, will greatly improve the resolution of issues if they arise at any time in the project. These problems may come in the form of misunderstandings, disagreements or even disputes.

Dispute resolution procedures, and safeguards for:

- exclusion of a partner
- termination of the project.

 The **Centre for Effective Dispute Resolution** has been established to encourage and develop mediation and other cost-effective dispute resolution and prevention techniques.

3.7 Agree remuneration strategy




Levels of overhead and profit for this stage should be agreed at the onset. Appropriate levels will be influenced by the following:

- Risk.
- Specialism.
- Availability.
- Benefit.

Basis of remuneration, covering

- definition of payroll cost of staff
- agreed percentages for (a) overhead and (b) profit for each partner.

Refer to The **Building Down Barriers Toolkit**:

	Tool A5 setting Incentives and Share Saving Schemes.
	Tool A6 Applying Risk Management in Practice.
	Tool C5 Getting Started with Collaborative Costing.

Once the client and partners know that by adopting IPT principles they are financially secure, they can focus on the project itself and how they can best contribute to it.

3.8 Appoint partners


By selecting all the parties as early as possible, the

The partners, i.e.:

skills and capabilities required can be utilised when they are needed. The team can ensure that views are canvassed and appropriate decisions made when they are necessary. Development can run as a bow wave ahead of implementation, with the team agreeing what information they require and when. Opportunities for improvement and innovation can be exploited when they arise, subject to them being achievable within the programme and budget.

With all partners being involved as early as possible in the process, many right from the start, much greater focus and ownership of common goals and objectives are provided, enabling value judgements to be made by all. The outcome is a better end product, being delivered earlier for a lower cost, with everyone benefiting from a rewarding and enjoyable experience.

- the senior person offering the commitment
- his/her organisation.

 The CBP website has a **Supply Chain Management self- assessment diagnostic tool**.

Back to 'At a glance'

3.9 Inform the team

The whole team should be collectively assembled to interrogate, review and discuss the Strategic Brief.

 *Briefing the Team* CIB/Thomas Telford 1997. ISBN 0-7277-2540-8 (**view at amazon.co.uk**)


3.10 Interactive development of the Strategic Brief – collectively explore the business needs to enable clarification of the project objectives

The focus of the team must be to translate this brief into working objectives for the project.

- These objectives should respond to the brief and address:
- The purpose of the project, its goals and objectives.
- How the business needs will be satisfied.

Strategic Brief, goals and objectives, eg

- updated value criteria
- reconfirmation of their priorities
- definition as to how performance will be measured.

 The **KPI Zone website** gives information on performance measurement and setting targets.

- The outcomes/ deliverables which will define success.
- Performance measures which track progress and confirm satisfactory completion.
- Health, safety, welfare and environmental targets.

The team should also consider ambitions and aspirations beyond project delivery e.g.:

- Opportunity for continued commercial alignment/clustering.
- Development opportunities for organisations and individuals.
- Desire for cultural change.
- Attitudes towards introduction of new practices and procedures.

The objectives will not be platitudes; they will be such that performance against them can be measured.

3.11 Feedback objectives – to confirm understanding

Feedback project objectives, defined by the team, to seek confirmation from the client that the business needs have been correctly understood.

3.12 Create a robust precedence-based decision-making process for the development of strategic solutions

Task-focused teams are very good at activity and less good at standing back and taking a holistic view of the steps which need to be taken. Consequently, decisions are sometimes taken at inappropriate times, frequently too early in the process and often to a greater level of detail



The Handbook of Supply Chain Management - the essentials has guidance on sequencing of Gateway decisions. Available from the **CIRIA website** (publications).



The **OGC Gateway Process** examines a project at critical stages in its lifecycle to provide assurance that it can progress successfully to the next stage.

than is necessary. This leads to reappraisal, reworking and wastage of time and resources.

An essential part of a truly collaborative process is to utilise the skills of the team members/clusters to determine and map out the Gateway decisions and the sequence in which they need to be made. There must be absolute clarity on what needs to be decided and who needs to be involved, and how this can be achieved without compromising the values, methods and processes that have already been agreed, including those associated with health, safety and welfare.

Once a Gateway decision has been made at the appropriate stage it should not be reconsidered.

Agreed sequence of Gateway decisions.

3.13 Identify strategic solutions

The team should begin by considering all potential solutions, no matter how outlandish these appear. Often inspirational advancement comes from directions which people with closed minds are all too readily reject. However, balancing this, the team must ensure that realism is applied as early as possible. There is no benefit to any team member, especially the client, in allowing solutions to develop which cannot be delivered in the timeframe or within the budget or which will require the introduction of untried technology when absolute certainty is required.



The **Collaborative Working Centre/ Rethinking Construction** training module on Collaborative Design, Planning and Costing is relevant here.

3.14 Managing expectations

Discarding valueless methods

There is no room in a collaborative project for methods and approaches from the past that fail to add value. If it is clear that

a practice does not add value, it should be discarded, just as anything that is appropriate should be adopted if it does add value – whether or not the idea has been borrowed from another individual, group, company or industry.

3.15 Reconfirm selection and prioritisation of value criteria

Value review

The Value criteria and their priority should be re-visited to ensure they remain appropriate in the light of any new developments. The following are some considerations which may be reviewed:

- operational functionality
- safety (in construction, operation and maintenance)
- quality or sustainability
- reliability
- maintainability
- cost in use
- speed or certainty of completion
- capital cost

An outline budget will have been set by a client department, in order to get things started. It is then necessary for the team to study that budget and agree whether it can meet the need or, indeed, whether it more than meets it. This should happen collectively and at an early stage, so that everybody understands the budget criteria that are being applied to the project.

To assist in arriving at, or reviewing, such budgets on an objective basis, the industry and its clients should have access to data

Value criteria – update, i.e.

- those selected
- their order of priority
- how performance will be measured.

for different types of facilities that reflect world-class performance. This data will not just relate to capital cost, but also operating cost, completion times, reliability performance, etc.

Back to 'At a glance'

3.16 Identify potential solutions

The rolling brief and objectives should be 'brainstormed' in an informal environment and with the help of a facilitator, and their viability and imponderables openly discussed between both external and internal representatives. This will enable a range of strategic options to be identified.



The Building Down Barriers Toolkit Tool C2- **Value Engineering in Practice** gives information on the application of value engineering in an integrated team.

Diverse skills within the team enhance the project, providing opportunities and identifying new directions, while exploring ideas. It is essential to explore ideas right through the project and especially in the early stages. The more radical of these often lead to fundamental changes or improvements in the process, so it is necessary to consider them at an appropriate level and for as much time as required.

Sometimes, ideas can be discarded quite quickly and the team should not be frightened of throwing something out that later proves to be a valuable idea. Such decisions can only be taken on the basis of information that is available at the time.

For further information on brainstorming and associated techniques:



Mind Tools website



DTI From Quality to Excellence website

3.17 Screen solutions against value

Once a range of potential opportunities has been created, they need to be reviewed against the value criteria to select those with the greatest likelihood of successful delivery.

3.18 Determine which solutions to take forward

An appropriate number of opportunities should be selected from the shortlist, which provides realistic alternatives but minimises their number.

[back to top](#)

[Using the Toolkit](#) | [Site structure](#) | [Site map](#) | [About the SFC](#) | [About the Toolkit](#) | [Acknowledgements](#)
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