

# Integrated Working

**Integrate***(defn)*: Combination *(parts)* into whole; bring or come into equal membership of society. **Integration** *(noun)*



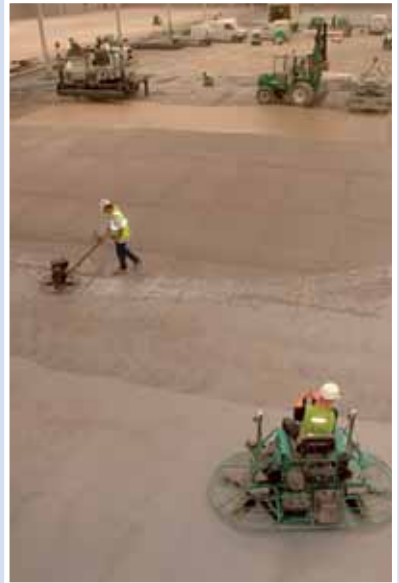
## What is Integrated Working?

There are many definitions of what constitutes 'integrated working' as its features vary from one project to another; however, the key to all integration is open and effective communication between those involved at every stage of the project.

### The Benefits of Integrated Working

The advantages to clients of integrated working are often obvious (e.g. quick and effective resolution of any problems that may arise, greater control over all stages and aspects of the project); however, there are also many advantages for Specialist Contractors.

- Financial benefits of being aware of the progress of a project as a result of involvement at all stages
- The ability to contribute at the **design and planning** stage to avoid problems arising at later stages of the project
- More time and a better environment to resolve problems which may arise during the planning and construction stage
- A fairer **allocation of risk** – including risks relating to finance, safety, design etc.
- An increased likelihood of **repeat business** with the client, leading to increased financial security
- The ability to negotiate **better payment terms** with the client/contractor due to the established relationship between the parties involved in integration.



*"I've certainly seen the benefits and I like the idea of the early involvement of specialists. We also achieved cost savings by discussing the issues early on in the project."*

Main Contractor

# Finding out more



Many projects apply one or more aspects of integrated working; however, for the term integrated working to apply to a project, all of the following must be involved.

## An Open Environment

The participants in an integrated team should feel that they are operating in an environment where they are comfortable that any suggestions or disclosures on their part will be valued and not used against them. A key aspect is recognition by all parties of the importance of cash flow (getting paid) within the supply chain.

## Early Involvement

What constitutes 'early' will vary from trade to trade; however, it should include an invitation to become involved in the project prior to issuing tender documents in order to have an input into design, methodology etc.

## Shared Values

Members of the supply chain should have shared values and agendas e.g. 'value adding' not 'least cost', and recognition for innovative contributions. They should also be comfortable that each makes a profit commensurate with the 'investment' made in the project.

## Risk Management

Supply chain integration can be destroyed by the insistence of one participant on allocating unreasonable or unquantifiable risks on another participant. Risks should be quantified, where possible, and allocated to the party best able to manage them.

## Repeat Business

A good measure of supply chain integration is the amount of work carried out with the same client using the above principles.

There is often a misconception of the relationship between integrated working and repeat business. Repeat business is both a major benefit and useful measure of integration for most Specialist Contractors; however, it is important to remember that repeat business in itself does not constitute integrated working!



## Types of Integration

There are two main types of integration recognised within the construction industry: integrated supply chains and integrated project teams.

### Integrated Supply Chain

A supply chain is made up of all the parties responsible for delivering a specific product or service. Parties in an integrated supply chain should be accustomed to working together as part of a fully linked chain. Specialist Contractors are often involved in, or are at the head of, integrated supply chains, in which the link between those in the supply chain is linear — i.e. the integration is between the immediate supplier and client/customer of each business in the chain.

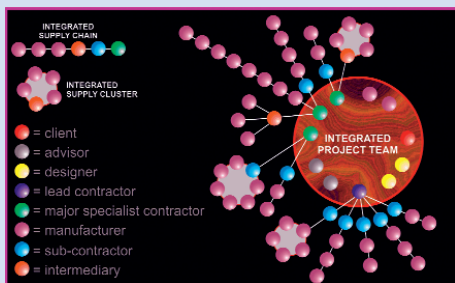
### Integrated Project Team

Integrated project teams can be made up of more than one integrated supply chain and other mini integrated project teams, and the integration of each business within the project is with **all** the other businesses within the integrated project.

According to the Strategic Forum for Construction, an integrated project team is:

- *a single team focused on a common set of goals and objectives delivering benefit for all concerned*
- *a team so seamless, that it appears to operate as if it were a company in its own right*
- *a team, with no apparent boundaries, in which all the members have the same opportunity to contribute and all the skills and capabilities on offer can be utilised to maximum effect.”*

The following illustration, from the Strategic Forum for Construction website, shows different types of integrated working practices:



### Partnering and Integrated Working

There is often some confusion regarding the distinction between partnering and integrated working. Whilst there are a number of common factors, the difference is that partnering can be a one-off for individual projects whilst effective integrated working is based on strategic and repetitive partnering — in other words, integrated supply chains being used for numerous projects.

# Case Study 1

## Trafalgar Square



### The issues

In the re-paving of Trafalgar Square a huge amount (22,000m<sup>2</sup>) of bespoke Yorkstone was required. Key issues included:

- fulfilling the order
- finding some of the very large slabs specified
- delivering and storing the stone
- laying the slabs in the right sequence.

### The integrated working solutions

- The Yorkstone supplier was engaged at the beginning of the project, which satisfied the main contractor that the quality and quantity of stone required could be obtained.
- The supplier was able to begin setting aside the large slabs, which were not easily obtained.
- The paving contractor was engaged shortly afterwards and visited the supplier's factory to fully understand the complexity of quarrying, cutting and finishing the stone for this particular project.
- The main contractor provided information early on to enable the advance cutting of the stone.
- The paving contractor implemented an IT labelling system, barcoding each stone to show where it went in the ground.
- In addition, the paving contractor offered local off-site storage facilities assisting in the carefully planned delivery schedule.

### The benefits

The early involvement of both the supplier and paving contractor meant substantial benefits were realized by all the parties on the project:

- The high volume of Yorkstone was able to be procured in time to meet the project's needs.
- The complexity of the job was understood by all, enabling a laying plan and schedule to be implemented which helped minimise waste.
- Using the paving contractor's storage facilities enabled the delivery schedule to be met.
- Any problems were dealt with by the whole team due to the good working relationship that had developed.
- Careful planning and anticipation of the issues resulted in the programme on this high profile project being met.
- Minimising waste, meeting the programme, dealing with any problems early and effectively kept the cost of the project to a minimum.

Courtesy of *Building Success*  
Construction Products Association





## Getting Involved

It is recognised that for an integrated project team to come together and work effectively, the client must take the lead in determining that the project will use integrated supply chains. However, you, as a Specialist Contractor, can implement integrated working by following good practice and realizing the benefits of integration for your business and that of your supply chain.

### Encourage an open environment

- Ensure your sub-contractors and suppliers are aware that they can raise potential problems relating to the project with a view to finding a solution without fear of exclusion from current or future projects.
- Set up a system within your business to ensure that you pay your sub-contractors and suppliers within agreed payment terms.

### Bring in sub-contractors and suppliers at an early stage

- On receipt of an invitation to tender for a project, identify which of your sub-contractors you need to liaise with in order to identify risks and specific techniques and materials relevant to the project, and then speak to them about the issues.
- Encourage your suppliers and sub-contractors to identify those who should be in their supply chain for a project and ensure their early involvement.

### Reward those who develop solutions

- When a sub-contractor provides a solution for a problem, make sure it gets the credit and is rewarded for it.
- Ensure that the financial reward for each member of the team is commensurate to its 'investment' in the project.

### Allocate risks to those best placed to manage them

- Pay your suppliers and sub-contractors on time to ensure that they can pay their suppliers and sub-contractors on time.
- Use the expertise of your specialists by seeking their input into aspects of the project relating to their specialism.

### Be a provider of repeat business

- Develop a list of preferred suppliers and sub-contractors.
- Review the list, adding and removing names based on their reliability, and ability and willingness to participate in the problem-solving process of projects.

# Reaping the Benefits



There are many potential benefits of integrated working and these can be converted into actual benefits by:

- Promoting the benefits of integrated working to clients and contractors in terms of shorter programme time, increased efficiency and better working relationships with all those involved in the project
- Making clients and contractors aware that you and your integrated supply chain can contribute to the design and planning stage
- Highlighting the ability of your integrated chain to foresee and resolve potential problems quicker
- Promoting the fact that disputes with your suppliers and sub-contractors are rare because of your method of operation i.e. integrated working.

All the above benefits can be highlighted in your marketing literature and when discussing future projects with clients and contractors.

## Making It Happen

Due to the level of expertise required for many projects involving Specialist Contractors, a number of businesses are already involved, at least to some extent, in integrated working.

When there is effective integrated working on a project, it is not just the Specialist Contractor or the main contractor or the client or the supplier who benefits, but *all* the parties involved ... so get out there and make it happen.

NSCC is a member of



## Warning!

Early involvement and repeat business are important aspects of integrated working; however, it is important to ensure that participants do not fall foul of rules on free competition.

You should be careful not to stray into any discussions that might lead to the sharing of information on proposed pricing, or to the possibility of sharing markets or colluding with each other when engaging in tenders for prospective contracts.



## Case Study 2 Woolgate Exchange

### The issues

Substantial piling was required on Woolgate Exchange, a city centre project with a confined site in an area of historical interest with noise restrictions in place. Key issues included:

- Piling whilst demolition was in progress
- The fact that the existing foundations were still in place
- Agreeing pile positions with archaeologists
- The restriction of the use of certain types of equipment due to site boundaries.

### The integrated working solutions

- The piling contractor was involved during the pre-project planning stage and was able to identify key problem areas and solutions to resolve them.
- The client allocated sufficient time to allow the piling contractor to design and price the piling works and address the problem areas
- Prior to any work commencing, the piling contractor produced 'clash drawings' showing where new piles were likely to clash with existing foundations
- Areas that were difficult to access were considered individually and the appropriate equipment identified and scheduled into the work programme
- Noise restrictions were reviewed, compared against the noise output of the different types of piling equipment and the noisier elements of the work then planned accordingly.

### The benefits

The early involvement of the piling contractor meant that problem areas were identified at the outset and the work planned to address these problems in the most effective way:

- The piling sequence avoided the areas of demolition work allowing the different elements of the work to be segregated on site
- Anticipating the clash between new and old foundations led to a **30% cost saving** on the piling element of the project
- Identifying problem areas early on provided the client with greater cost and risk certainty and avoided variations
- Planning the noise output of the works maintained good relations between the client and surrounding businesses.

Courtesy of Stent Foundations Ltd

# Stent

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