FOCUSING THE PROGRAM, PROJECTS AND TEAMS
PART B: ESTABLISHING THE TEAM – IS IT EVER TOO EARLY OR EVER TOO LATE?

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*This paper is part of a quartet (in conjunction with Mike Adams, Martyn Phillips and Scot McClintock) that addresses the whole spectrum using Value Management to effectively manage business programs and projects through developing strategic choice and defining project direction, building and maintaining effective partnerships through trust and teamwork, and optimising and controlling project value, resources and schedule. It was presented to the **39th SAVE International Conference** at San Antonio, Texas on Tuesday 29th June 1999.*

Michael Thompson is a Chartered Engineer with more than 32 years of experience in the construction industry, gained in the United Kingdom, in the Near East, in the Middle East and in the Far East. For the first 30 years of his professional career, he worked in the water industry for a major engineering consultancy. He was involved in the design and project management of several large international schemes prior to taking on the Project Management of the first Partnering Scheme in the Water Industry in the United Kingdom, at Pennington in Hampshire. Following this very successful scheme, he set up his own consultancy, focussed specifically at improving the way in which the construction industry goes about developing and achieving its finished products, so that the Client gets what he really needs. He runs workshops which promote the team approach (rather than the traditional confrontational approach) to project management, incorporating all that is necessary to achieve "Best Practice". He has trained more than 90 construction teams to this end in the United Kingdom, and these form the basis of this paper.

ABSTRACT

This paper explores the Team Approach to Project Management with reference to Strategic and Project Partnering / Alignment, drawing on case histories.

Setting up the Program or Project so that the controls are in place is important if the essential management tools, including Value Management, Risk Management, Quality, Health and Safety and Environmental Management are to be brought in at the right time and for maximum benefit.

The author demonstrates that it is never too early or too late to apply this to Programs or Projects.

INTRODUCTION

"Of course, I have always worked like this, in a team".

How often has this been said at Team Building and Partnering workshops? The fact is that most of us have worked as teams, but usually in the confines of our own organisations. Rarely in the Construction Industry have we worked as a single team drawn from several different organisations, not until recently, that is.

A HISTORY OF WAR

In the United Kingdom, for a period of thirty years or more, there has been a traditional distrust by Clients and Consultants alike towards Contractors. The Contractor was considered to be a wily fellow who was out to cheat at the slightest opportunity, something that "professionals" such as Consultants could never do. Or could they? Similar attitudes prevailed elsewhere in the world. For the United Kingdom, there was the equivalent to a "war" in the construction industry which during the late 1980s and early 1990s peaked in unpleasantness, leaving many in the engineering world to wonder whether it was really worth continuing, or to find another profession. Some moved on. During this period, when nearly always the lowest bid was accepted, particularly in the public sector, there were too many contractors seeking too little work. Ridiculously low priced bids

were being submitted to win the work, in the hope of recovering losses through claims.

Project team at the Imperial War Museum, London during reconstruction work

CONSTRUCTING THE TEAM

In 1993, the Thatcher Government invited Sir Michael Latham to review the situation and to determine whether it could be improved. There was cause for concern as budgets were being exceeded, sometimes by as much as 50% and more. Sir Michael published his report "Constructing the Team" in 1994. He he recommended a different approach to the way in which the Construction Industry worked together, involving trust. He identified thirteen principles that he considered should be followed, many of which were compatible with the newly introduced New Engineering Contract in the United Kingdom. Some of these principles were of a cultural nature, some of them were contractual.

The term "Partnering" was used, a concept which had been in use with success in other parts of the world including the United States and Australia.

"Partnering" is a term that means all manner of things to all manner of people. Though there are many Partnering projects in existence which have been successful, there have also been Partnering projects which have been less than successful. Such Partnerships have probably paid "lip service" to the principles of Partnering and not very convincingly. So what is Partnering?

One definition is

> *"A formal, co-operative relationship between stakeholders on a project in which a team attitude is established, the team works towards common goals, and team members have joint ownership in the project. There has to be mutual trust, open communication and a desire to have all members of the team win."*
>
> Montgomery Watson

Partnering is first and foremost a cultural thing with the contract falling in place behind it. This is something that the more contractual of us (and in particular, contract lawyers) find it difficult to understand. The culture is founded on trust.

RETHINKING CONSTRUCTION

In July 1998, Sir John Egan, Chairman of the Construction Task Force in the United Kingdom's Department of the Environment, Transport and the Regions (DETR) presented his report entitled "Rethinking Construction" to the Deputy Prime Minister, John Prescott.

This was a landmark report, following on from the work of Sir Michael Latham some four years before, putting some meat onto the bones of the Latham recommendations.

In particular, he set annual targets for the Sustained Improvement of the Construction Industry which the Industry should aim towards, citing examples where they were already being achieved:

Indicator	**Improvement per year**
Capital Cost All costs excluding land and finance	Reduce by 10%
Construction Time Time from client approval to practical completion	Reduce by 10%
Predictability Number of projects completed on time and within budget	Increase by 20%
Defects Reduction in number of defects on handover	Reduce by 20%
Accidents Reduction in the number of reportable accidents	Reduce by 20%
Productivity Increase in value added per head	Increase by 10%
Turnover and profits Turnover and profits of construction firms	Increase by 10%

Source: DETR "Rethinking Construction"

To many, these are ambitious targets, possibly unachievable. To many, used to the traditional methods by which projects are developed, designing in isolation of the contractor, appointing the contractor through strictly competitive bidding, they would seem to be impossible.

It is possible that they can only be achieved by working in a Team or Partnering culture (the cultures are one and the same thing). Egan, recognised the advantages of appointing contractors earlier in the design development process and of repetitive processes (Strategic Partnering) to build on the successes of a team from one year to the next, hence the Improvements per year.

BUILDING AND MAINTAINING EFFECTIVE PARTNERSHIPS

The Author of this paper has worked with more than 90 construction teams, training them in a relatively short period to work as a single team rather than as individual factions, fighting each other for the final honour!

They are asked to imagine that they are setting up a new (single) organisation, a "virtual company", which is lean, mean and efficient, and which to succeed will only be satisfied with a finished product that the Client really needs, of best value and preferably least cost. How do we achieve this?

The Single Organisation should recruit only the people it needs, so that there is no duplication of roles, and there are no gaps between roles. To this end, there would be only one Organisation Chart (not one for each organisation involved). Responsibilities are defined by the contracts in place, but roles need to be defined so that everyone is clear about what is expected of them.

There has to be effective communication between team members which forms a basis upon which trust between members can be established, and common objectives. A Team Charter is often developed to summarise the common objectives and to establish a mechanism by which the team's performance can be monitored throughout the project.

There must be a clear structure of leadership, not by a single individual but by a small group of individuals, set up by the team to drive the project. This is often called the Core Team (Figure 1).

There must be a clear understanding of what it is the team must do to be effective. To this end, they should be aware of the significance of the major project management considerations, including:

- Risk Management
- Value Management and Value Engineering
- Quality Management
- Health and Safety Management
- Environmental Management
- Time Management
- Cost Management.

There should be procedures in place to ensure that where appropriate, these management considerations are put into practice and not dropped as result of a lack of understanding about their significance to the project. To this end, small groups are often appointed by the Core Team to ensure they are followed

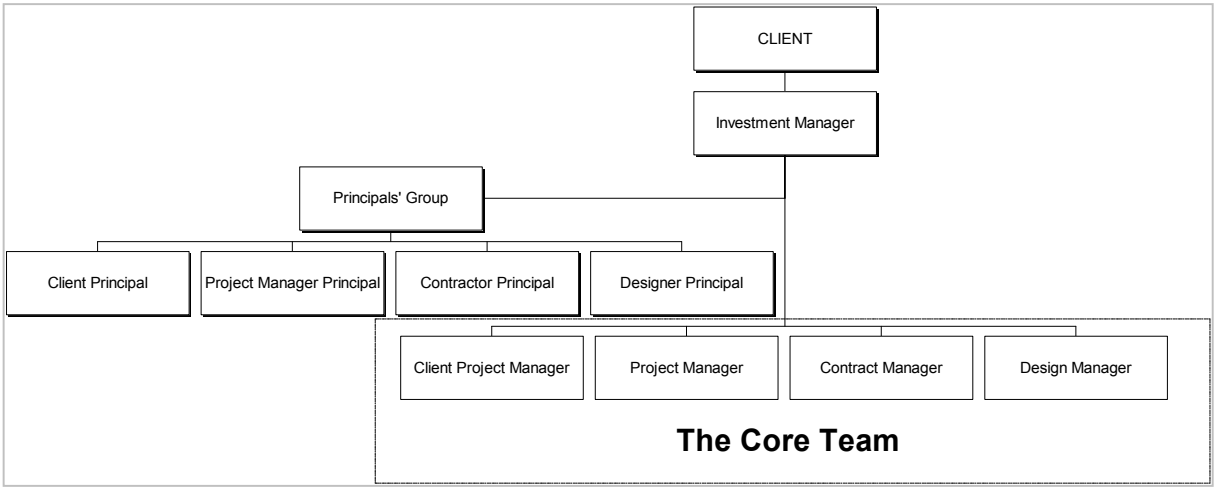

Figure 1 *-Typical structure for the Leadership of a team (used successfully at Pennington, UK, and subsequently elsewhere)*

through (similar to the principles of Project Alignment).
The Author recollects how during one Team and Management workshop, a team was asked to prepare a Risk Register. As time did not permit it to be finished during the workshop, the Project Manager was asked to complete the task within a defined period. Some three months later at a review workshop, the same team was asked where the Risk Register was. There was silence. Since the Project Manager was not present, his assistant was asked what had happened to it. His response was that he was sure that it had been done, but the information gathered could not be revealed to the rest of the team as it was "confidential"! What had happened to the trust? What had happened to the common objectives? What had happened to the communication?

As it happens, this particular team, after the initial hiatus, went on to complete the project successfully and in accordance with its own objectives.

BEST PRACTICE

Best Practice is a term that is used a considerable amount within the United Kingdom and elsewhere, particularly within the public sector. It is perhaps what we are all striving towards, but what is it?

If a person was asked to review all of the projects that he has worked on during his career and mark them between 1 *(for unsatisfactory)* and 5 *(for excellent, could not be bettered)*, for meeting the Client's needs exactly (in terms of quality, value, cost, safety etc.), where generally would they be marked? The answer tends to be around 3 or 4, with some projects being marked at 1 or 2, and some being marked at 5. It has to be asked why 5 cannot be achieved every time?

To achieve 5 every time would be to achieve "Best Practice". This should be the aim of all practitioners. It is, perhaps, the view of Value Managers that they do play their part in this respect. However, it needs the co-operation of all involved in a project, the Client, the Project Manager, the Designer, the Contractor and his Sub-contractors and Specialist Contractors, if there is to be a chance of success of achieving an excellent finished product every time.

TIMING

The Author's experience of establishing teams on projects has in the vast majority of cases been after the detailed design has been completed and contractors have been selected through a competitive bidding process. During the bidding process, most contractors would have looked at the designs presented to them and sought out ways to value engineer the project so that they can offer savings to the Client and hopefully have a financial advantage over their competitors.

Thus, full advantage of the team approach has not been realised, principally because one of the key players of the team has not been appointed early enough. There are reasons for this, particularly in the public sector, because of restrictions placed on the latter by the European Procurement Directive which requires a fair opportunity for all bidders within the European Community, and by Government requirements for competitive bidding.

The Egan Report "Rethinking Construction" suggests that competitive bidding should be replaced where possible by long term relationships based on clear measurement of performance and sustained improvements in quality and efficiency. This would enable contractors to be introduced to specific projects earlier, possibly as early as the Outline Design stage, so that formal Value Management and Risk Management procedures can be conducted to maximum benefit.

The following table gives a break down of the types of project or program for which Team and Management workshops have been run by the Author and the types of Client:

Type of Project/Program	**Type of Client**	**No.**
Water & Sewerage	Water Company	33
Building	Industry, Developers, Hotels, Universities, Sports or Football Clubs	27
Roads & Bridges	Public or Local Authority	25
Railways	Railway Authority	5
Rivers & Canals	Public Authority	4
Site Works	Industry, Local Authority	4
Power Stations	Industry	1
Total		**99**

The majority are projects rather than programs, programs representing about 5% of the total.

Of the projects tabled, some are still in progress at the time of writing.

The majority of the projects have had the team approach introduced by the Contractor. The majority of the programs have had the team approach introduced by the Client.

Three of the projects are known to have failed, resulting in the Contractor pulling off the job, either amicably or in dispute. All of these are building projects where the Client is a developer.

The reasoning for this appears to be one of incompatibility between the team culture and the culture of the developer client, which by its nature tends to be entrepreneurial and conflicting. This is not so with all developers though and there are well known examples of where developer projects have been partnered well.

The remaining projects have all succeeded to a degree, and in the majority of the cases, the teams have reported that the results are better than would have been achieved through traditional methods.

One of the most successful of the projects was where the team approach was introduced at a very late stage, approximately 80% of the way through the Construction Schedule, a delayed completion to the project would have had serious consequences for the Client both financially and in terms of public relations. This is discussed in more detail in Case History No. 3.

THE TEAM APPROACH AND SIZE OF PROJECT

There has been debate about the relevance of the team approach to the size of project. Of the more 90 projects that the Author has worked on, project size has ranged from £500,000 to approximately £200 million.

There has been nothing to suggest that any of these projects were too large or too small for the team approach. What is important, however, is that when the project team is being set up, and procedures are being put into place, the team thinks about the relevance of procedures in relation to the work involved to run them, and the extent to which they should be set up.

THE TEAM APPROACH AND CONTRACT

The majority of the projects in which the Author has been involved have been set up with a Team or Partnering Approach after the Contractor has been appointed, and therefore after the type of contract has been chosen.

In the majority of projects where this has happened, the type of contract has had little relevance, although it is acknowledged that there are better incentives for all concerned if the type of contract chosen is compatible with the Partnering or Team approach, e.g. cost plus type contracts where the Contractor is directly reimbursed for the work he undertakes.

There are incentives to a contractor, other than remunerative, for him wanting to provide his client with the finished product he needs, the not least being given the opportunity to be awarded additional work from a satisfied client.

In full partnering, where a compatible form of contract is used and there are rewards in addition, the rewards can be considered to be a bonus rather than a necessity in most cases.

CASE HISTORIES

The following case histories are examples of where the team approach has been introduced to a project

- At Outline Design Stage
- Immediately after the Contractor has been appointed at Bidding Stage, and
- Well into the Construction Stage.

The Author has had experience also where the team approach has been introduced successfully after construction has been completed, and when the Contractor and his Client are in a major dispute.

Case History No. 1

Sewage Treatment Works in Southern England
(Project Partnering from Outline Design Stage)

The Challenge
A new sewage treatment works had to be designed, constructed and commissioned within 21 months in order to comply with newly introduced effluent standards. The target cost was £12 million.

The site for the works, though identified, had not been purchased, and though planning consent had been obtained for an outline design, any significant changes to the design might lead to a repeat planning application.

The Action Taken
The Client decided to partner the project with a Project Manager, a Designer and a Contractor. Procurement, to be carried out towards the end of the outline design phase, was based on a schedule of

rates for each organisation, and an assessment of their suitability in terms of ability and culture.

Within a week of the appointment of the Project Manager, Designer and Contractor, an Alliancing / Partnering workshop was carried out, followed by a Value Management workshop (a split between a V1 and V2 workshop), during which the outline design of the works was reviewed by the entire team, including the Client's operations staff, in detail. A new outline design incorporating better value was established., taking account also of life cycle costing, and this was presented to and accepted by all. The whole value start to the project took three weeks of the facilitator's time.

Detailed design was carried out concurrently with the construction of the works, with regular Value Engineering reviews taking place to refine the design. Strategy studies of the most significant risks were undertaken, principally of the purchase of the site, planning consent, earthworks and commissioning. These enabled the team to guide the project through these risks at least cost.

The Outcome
The works was commissioned approximately two weeks ahead of schedule, and the out turn cost was approximately 5% less than the Target cost for the project.

Case History No. 2

Motorway Bridges Refurbishment
(Team approach introduced after the Contractor had been appointed at Bidding Stage)

The Challenge
A series of bridges on an existing motorway had to be improved structurally during the winter period without delay, but with deference to traffic and safety management on what is normally a busy motorway.

The Action Taken
The appointed Contractor proposed to the Client that a team approach should be introduced to the project.

A Team Building workshop was run at which key members of the team were present. During the workshop, the concept of working as a team appeared to be difficult for some participants to accept, in particular, those who were used to more traditional methods of project management. Nevertheless, Decision Making and Dispute Resolution Processes were established during the workshop as well as roles and responsibilities. Risk management was reviewed and how to achieve the required quality. The concept of establishing a single office for the team on site was not agreed, preference being to maintain the individual offices already set up for the Contractor and the Resident Engineer.

The Outcome
Relationships deteriorated on the site between the Contractor and the Resident Engineering staff.

Senior management of the organisations on the project decided that they were not going to allow the team to fail. They insisted on a single office on site, with the Resident Engineer's staff sharing the Contractor's facilities. Some changes to staff were made as well.

As a result of these positive actions by senior management, there was a significant improvement in relationships on site, turning the project around from a potential disaster to a success.

Case History No. 3

High School in Southern Scotland
(Team approach introduced 80% of the way through the Construction Stage)

The Challenge
Construction of the School commenced in 1996 and was due to be completed by August 1998 in time for acceptance of children for the new school year. The contract sum was approximately £4 million, to be spent during a scheduled period of 30 months. By about month 24, only £2 million had been spent and with less than 6 months of the contract to run, there were well founded fears that the school would not be completed on time.

The Action Taken
The main contractor discussed the situation with his Client and it was agreed, even at that late stage, 80% of the way through the project, to introduce a team approach into the project, and a Team Building workshop was run. During the workshop, a better understanding was established between the organisations involved and of the problems that were causing the delay to the construction works. Having established what the problems were, the team resolved to overcome them and to achieve completion of the school by the date when the children were to start their new year.

The key issues were:

- How to improve the availability of staff resources so that information flow to the site could keep pace with a revised schedule
- How the desired quality could be maintained
- How trust could be maintained between team members
- How procedures could be improved
- How the school could be commissioned and handed over to the Client in an acceptable and timely manner.

To improve the staff resources, the Contractor supplied architectural support to the Client, thereby improving the information flow. This enabled the Contractor to improve the progress of his construction work in return.

The Outcome

Against all odds, the Contractor was able to hand over the school sufficiently completed to the Client so that by the planned date in August 1998, the school was able to open its doors safely to the children. This was carried out despite the scepticism of the local press until the day of the opening of the school. There was an increased cost to the project as a result of the actions taken, but this was considered to be lower than what it would have cost to house the children elsewhere until the school was usable. If action had been taken very much earlier, the additional cost involved would probably have been very much less significant. Nevertheless, this project was considered to be a resounding success in view of of what might have happened otherwise, if the team approach had not been used.

CONCLUSIONS

Whereas, it is better to establish the team as early as possible within a program or project, perhaps, as soon as an outline design is being formulated, evidence presented in this paper suggests that it is never too early and it is never too late.

There is better scope for achieving "Best Practice" if the team approach is introduced earlier rather than later, as this opens up the opportunity for the timely management of value and risk, and increases the chances of the Client getting the finished product that he really needs.

It is suggested that whatever the timing of introducing the team approach and whatever the form of contract that is used, most important of all is that it is up to the team itself to make the project work. Perhaps this is why, in the author's experience of over 90 project teams, it appears that less than 5% have failed so far.

With the team approach being introduced to more and more programs and projects, let us hope that practice will continue to improve so that the targets suggested by Sir John Egan will become the norm, rather than the exception.

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