



1 of 2 DOCUMENTS

Copyright 2003 American Arbitration Association
Dispute Resolution Journal

May, 2003 - July, 2003

SECTION: FEATURE; Construction; Vol. 58, No. 2; Pg. 36

LENGTH: 5265 words

TITLE: An Agenda for Collaborative Working Arrangements: The Role of Partnering and Alliancing in the U.K.

NAME: By Alan Ledger

BIO: The author is a divisional director of Mott MacDonald, a U.K.-based consulting firm whose North American business is led by its subsidiary Hatch Mott MacDonald Group. The author worked extensively with Railtrack and the London Underground, as well as with the oil and gas industry. He assisted Railtrack with project management of the Eurostar gauge clearances beyond London, the Thameslink 2000, National Track Renewal and the West Coast Route Modernization programs. The views expressed in this paper are personal and do not necessarily reflect the views of Mott MacDonald or its clients. This article is an outgrowth of a paper presented at a rail industry conference in London, in May 2000.

HIGHLIGHT:

Collaborative working arrangements break down established barriers to success and facilitate the creation of a culture of trust, open communications, feedback, and a desire for continuous improvement. This can help achieve a dispute-free project.

TEXT:

This article is about "collaborative working" arrangements as they are used in the U.K., where the term encompasses both "partnering" and "alliancing." Partnering describes a cooperative relationship between the owner of a project and a single supplier or contractor, whereas alliancing describes a collaborative relationship between the owner and multiple suppliers or contractors.

Under collaborative working relationships, the key stakeholders unite with a common purpose to complete a successful project and they change the traditional contractual and organizational framework of the contract to facilitate this goal.

Under traditional contracting, suppliers and contractors compete for contracts based on price. When contractors and suppliers are selected based on the lowest bid, they can end up working for inadequate profit margins. Accordingly, they may have insufficient resources to perform the job adequately, let alone to improve the quality of their products and services, such as by hiring more qualified personnel, or investing in new equipment or training. To produce a positive margin they may deliver the minimum product or services under the terms of the contract, seek payment for extra work, and/or squeeze subcontractors on their profit margins. The motivation to do the minimum creates a need for extensive insurance coverage.

To create a high level of cost certainty, owners seek to limit their financial risk by transferring as much risk as

possible to the supply chain, without regard to who is best placed to manage it. Thus, under traditional contracting, the parties agree to discharge their contractual obligations to the other or pay the financial consequences of failure (such as being sued or having to pay liquidated damages). This places the parties in an adversarial position. The misalignment of objectives that results encourages self-protection, the desire to take defensive positions, and attacks on the other party's shortcomings. Claims and disputes usually follow.

However, contracting under a collaborative working arrangement changes this equation. In this situation, the owner and the alliancing partners jointly share risk. This breaks down the established barriers to success and facilitates the creation of a culture of trust, open communication, feedback, and a desire for continuous improvement. Improved communications at points where the partners interact leads to cooperation rather than suspicion, joint discussion of problems and their root causes, and the exploration of joint solutions. This allows for more informed decisions to be made based on what is best for the project, not just for one stakeholder. As a result, claims are avoided because difficulties are ironed out in a cooperative, collaborative way.

Collaborative working arrangements should financially reward success (gainshare) and penalize failure (painshare). Rewards should be linked to achieving or bettering business-critical goals covering.

- . safety
- . schedule
- . revenue
- . asset availability
- . production loss
- . maintenance and operating costs, and
- . capital costs.

In addition, rewards should be cascaded down to subcontractors whose performance contribute to the achievement of collaborative goals.

Partnering seeks to achieve both a reduction in the overall cost and an increase in suppliers' profitability. This is achieved by avoiding premium pricing of unmanageable risk, stripping out waste and "man-for-man marking," and integrating management teams.

Because there is trust and open communication between the alliance partners, the owner can reduce costs by downsizing its own project teams, particularly in the areas of procurement, contract administration and insurance.

By concentrating effort on project "deliverables," partnering encourages innovation and the development of solutions that provide the owner with better value in terms of "whole-life" costs and benefits.

Partnering also facilitates the development of supply-chain strategies that can encourage the modernization of packaging and purchasing arrangements, help suppliers reduce the number of contracts let, and facilitate the integration of procurement.

Results of Partnering

Collaborative working arrangements can be established for a specific project (project partnering) or as a long-term alliance for a series of projects or an entire investment program (strategic partnering). Research by the Reading Construction Forum (a U.K. all-industry research organization attached to the University of Reading) indicates that project partnering in the U.K.'s commercial property market has reduced capital costs by up to 10%, while strategic partnering has produced savings of up to 30%. Moreover, second generation strategic partnering can reduce capital costs by up to 50%.

The U.K. North Sea offshore oil and gas industry has used alliancing arrangements to advantage, saving up to 25% of capital cost. However, that experience was not all positive. One problem was that the entire focus was on controlling

capital spending and the delivery schedule, and not enough attention was paid to the operational phase--that is, what happens after construction is complete. The lesson to be learned is that collaborative strategies should always be "life-cycle"-based, so that benefits are obtained before, during and after the project is completed.

Several U.K. companies have obtained continuous improvement through strategic partnering with a particular contractor. BAA, owner of Heathrow and other airports, saved 15% on the cost of runway and apron construction since it was privatized. Sainsbury's, a leading supermarket chain, reduced its build time for new stores from 30 weeks to between 18 and 20 weeks. As a result, it saved about 30% of costs. Whitbread P.L.C., which operates hotels, restaurants and health clubs throughout the U.K., reduced the cost of developing inns and restaurants by 19%. Gazeley Properties reduced the cost of developing distribution centers by 36% over the course of nine years.

It must be acknowledged that some of the benefits could be available using traditional procurement methods. Nevertheless, it is clear that collaborative working arrangements strongly promote efficiency, innovation, creativity, and better integration of functions.

Background

Collaborative working arrangements were pioneered in the U.S. defense industry as a means of avoiding disputes. They were first imported into the U.K. by petrochemical giant BP, P.L.C. The aim was to avoid disputes and reduce escalating cost, which had plagued the North Sea offshore oil and gas industry. England's aviation, food, retail and water industries began to experiment with partnering largely out of necessity. That is to say, they were experiencing falling revenues and/or, intense competition, which created a need to complete projects more efficiently and without claims.

Combating the Effects of Traditional Contracting

Under traditional contracting arrangements, the parties are motivated to protect themselves. Communication between them is kept to a minimum in order to avoid admissions and potential liability. There is no incentive to innovate or take risks. When things go wrong, as they often do, nobody admits failure. Instead, the parties take defensive positions and attack each other's shortcomings in order to avoid liability. Each seeks to demonstrate that the other party is in default. The result is a series of "lawyer" letters, often followed by arbitration or litigation.

Because traditional contracting arrangements are conflict-ridden, they cause relationships to deteriorate. Even if the relationship survives the first project and the parties work together again, the party that still feels aggrieved will be sure to retaliate first, repeating the cycle of conflict, which will ultimately cause their relationship to end.

The problem with traditional contracting is that the root causes of cost overruns and schedule delays (such as change orders or shortages of skilled labor) are not addressed. Opportunities to involve contractors in the early plans are lost and the project tends to be engineered to death by the owner and its consultants. For traditional contracting to produce a successful project, the owner must know exactly what it wants at the time of contracting so that future change orders are kept to a minimum. However, on many types of projects, particularly major infrastructure projects, it is often difficult to achieve this level of knowledge at the time contracts are let. Because the owner's needs or the operational environment may change, the contractual obligations the parties earlier assumed can be difficult to meet.

Another problem with traditional contracting is that the key stakeholders (the owner and contractor, and perhaps key suppliers and others) develop a "silo" mentality. That is to say, they work strictly within their own functional boundaries and don't seek to share knowledge. This is buoyed up by mistrust at points where they must interact with each other. Having a silo mentality clearly does not facilitate a good relationship.

Specific Benefits of Collaborative Working

Empowerment. When the key stakeholders have a collaborative working arrangement in place, their team members are empowered and driven to complete a successful project, which leads to more efficiency, innovation, and less waste and duplication. As a result, everyone can concentrate on meeting the goals of the project.

Early award. Collaborative working facilitates the early award of construction contracts because it puts the participants on the same page with a single agenda. Consequently, suppliers and contractors can have input into the design and the delivery schedule before detailed engineering plans are complete. They can help identify risk and suggest how it can be managed, reduced or eliminated. Their input also can increase the "buildability" of a project and reduce the risk that inadequate time will be allotted for milestones and completion. Early letting of contracts also enables the advantages of long lead procurements to be transferred to the contractor.

Improved communications and problem-solving skills. The stakeholders are encouraged to learn how to communicate with each other and share information about the project and any problems that may arise. With these communications skills, when a problem surfaces, they will be able to analyze its fundamental cause and effect and jointly resolve it in the mutual best interests of the project. The results can lead to a project delivered on time within or under budget, with no claims.

Less resource constraints. In traditional contracting arrangements, each layer of management oversees the performance of the layer below it in the project's hierarchy (man-for-man working). But in partnering and alliancing, integrated, co-located, multifunctional project teams are established and empowered to meet the project goals. All stakeholders are represented on these teams. Thus, collaborative arrangements can facilitate more efficient use of qualified technical and management personnel and other limited human resources as the owner removes man-for-man marking and downsizes its own project team.

Reduced risk. Because risk is jointly evaluated and more fairly allocated, and because all stakeholders are represented, the alliance does not take on unmanageable risk. Moreover, contractors and suppliers tend to come up with more realistic schedules, resources and pricing on partnered and allied projects. The financial rewards of collaborative working arrangements--controlled or lowered costs and increased profitability--can fund additional investment, research, new technology and training, all of which will enable further efficiencies to be made.

How Collaborative Working Is Done

Feasibility stage. Once the owner has decided that a collaborative approach should be taken on a project, it will seek bids from a variety of contractors. But first, during this stage known as the "feasibility stage," the owner has a number of tasks to perform. They include preliminary work (in advance of contract award) on:

- . identifying risks and opportunities,
- . ranking risks in terms of likelihood of occurrence and severity of impact,
- . recording risks in risk registers,
- . allocating risk between the alliance and the owner (owner-retained risk),
- . developing a plan to mitigate risk using previous best practices, and
- . developing a risk management system throughout the project life-cycle of the project and providing dedicated risk managers. Risk analysis is needed at key stages of a project, and particularly prior to bidding and during the "project definition" stage. Risks can be analyzed and quantified using stochastic modelling techniques and specialized software.

The owner also needs to determine its overall target cost. In order to establish the right target cost, it must know what assets it has and what they cost to maintain, renew and upgrade. Next, the owner has to judge the relative strength of each bidder's proposal. There is always a right price for a job and a low bid may ultimately be as unsatisfactory as one that is too high. The objective must be to establish the right price and allow the contractor to earn a profit from his efforts. Database software that automatically captures cost data during the administration of contracts and provides low-level and rolled-up historical cost data for estimating activities can facilitate this process.

Invitation to bid. At the end of the feasibility phase, the owner will invite certain contractors to submit bids based on "reimbursable target-cost contracting." This benefits the owner because contractors will submit "indicative target costs" in a competitive environment. These costs are built on fixed and variable costs relating to the project, its facilities, design, project and construction management, the method of construction, labor, plant, materials, and subcontractors and contractors (including their overhead and desired rate of profit).

Analyzing the bids. The bidders' proposals will be measured against the owner's own figures and risk analysis. The owner will also determine whether a contractor's objectives are aligned with its own, and whether the cultural values of the contractor and the behavior displayed by his team suggest a high-level commitment consistent with the partnering philosophy.

Where the scope of the work cannot be properly defined or the operational environment in which the work will be carried out is difficult, it will be necessary to establish "baseline" assumptions about scope, specification, access and schedule. This will enable bidders to submit first-stage, indicative target costs on a level playing field. Otherwise, each bidder will make his own assumptions and bids will be extremely difficult, if not impossible, to evaluate.

During stage 1 of the bidding process, the owner selects the preferred bidder, who then enters into a project development agreement with the owner. This is a consultancy-style service contract with a memorandum of understanding to set out collaborative objectives. In this agreement, the owner agrees to reimburse the contractor's costs and the parties memorialize their understanding that they intend to negotiate a further collaborative agreement. (The preferred bidder's costs are rolled into the target cost.)

The owner and the contractor then jointly make changes to the baseline assumptions and assess the impact of these changes on the target cost; they also mitigate risk and exploit opportunities where possible. Then they firm up the requirements for the process and include any residual risk in the target cost.

The Contract. Collaborative projects are best structured to include both a construction agreement and an overarching partnering or alliance agreement.

During stage 1, the owner and the selected bidder negotiate the construction agreement on fair terms and conditions that are compatible with collaborative working. The construction agreement should provide for reimbursable, agreed target costs. In the U.K., the NEC n1 or IChemE Green Book n2 standard forms of contract are commonly used. The detailed terms of this agreement are beyond the scope of this article. However, it should contain (in addition to the target costs, schedule, milestones and other "key performance indicators" (KPIs)), provisions clarifying the circumstances under which target cost and milestones will be adjusted, overheads will be audited and agreed to annually (or fixed percentages applied), and gainshare arrangements will reward the contractor for excellence. In addition, payment of profit and gainshare could be linked to achievement of key milestones. These arrangements create further incentives for the contractor to perform on schedule and reduce costs.

The construction contract should also allocate the liabilities and obligations of the parties based on who is best able to bear the risk and the size of the contingency in target costs (derived from the agreed risk analysis). It also should clarify whether the costs relating to correction of defects will be reimbursed or debited from the contractor's account. It is consistent with partnering principles to provide for reimbursement of such costs if the defect is disclosed and a quality system is properly operated.

The owner and contractor also negotiate the collaborative agreement. Having a separate agreement for the partnering effort allows flexibility when there is a need to introduce new stakeholders (partners) or expel partners who are unable to adapt to the partnering environment.

The collaborative agreement overlays the construction contract (setting aside the adversarial provisions, like damages and claims), and incorporates collaborative working provisions that should include:

- . the joint commercial purpose and objectives (including "no claims"),

- . a mechanism for joint decision making and dispute resolution through a partnering or alliance board (formed of representatives of all alliance partners) based on the best solution for the benefit of the project as a whole to achieving the joint objectives,
- . the agreed culture, desired behavior, and collaborative processes for developing and delivery of the project,
- . KPIs and arrangements for the partnering or alliance board to measure performance,
- . how the project team will be structured and resourced (using the "best athlete" principle),
- . the allocation and sharing of liabilities and responsibilities between the parties,
- . a painshare/gainshare mechanism, which is commonly based on the measurement of performance against predetermined targets and KPIs, and the achievement of schedule milestones, n3 and
- . a mechanism stating what will happen if there is failure to collaborate. In that event the full provisions of the construction contract would be reapplied from day 1, or from the date the failure mechanism was activated (the usual arrangement). The commercial implications of failure should motivate all alliance partners to make the partnering arrangements work.

Both agreements are executed n4 at the end of stage 1. The project then moves into the second stage.

Team-building efforts. At the beginning of stage 1, the owner convenes a conference to discuss the project and obtain the support of the contractor and its team. The work should be packaged into larger multifunctional design and construction contracts to provide the maximum opportunity for the contractor to deliver efficiencies. This also has the effect of internalizing functional interfaces and reducing conflict.

The parties meet for team-building workshops, which normally take place away from the project. The workshops are led by independent facilitators with experience in collaborative working arrangements that have been successful. At the workshops, the participants undergo training designed to teach the benefits of teamwork over individual action. They also work together to identify common goals and define the values that the culture of the participating organizations should reflect (*e.g.*, respect, trust, honesty, open communications, delivering on promises, being mutually supportive and cooperative, listening attentively, keeping an open mind, being fair-minded, reliable, consistent, responsible, and willing to challenge accepted practice, having a can-do mentality, making proactive decisions, promoting creativity and innovation, taking pride in a job well done, and recognizing achievement). Once these are agreed upon, the workshop participants formalize the main objectives and values in a "statement of purpose" or "mission statement." This statement is distributed to all stakeholders at all levels of the project. This way, all of the participants in the project will know the criteria by which their success will be judged. Many organizations hang the mission statement on the wall at the project site, but that is not enough; it is action that counts.

Changing the culture. The most important and perhaps most difficult task of collaborative working is changing the culture in the organizations of the key stakeholders so that each is committed to completing a successful project and to the partnering values. These values do not just mean that people have to be nice to each other. They mean that people need to do more to earn each other's trust and respect. Finding solutions when it is easier to retreat behind the barricades and driving for continual improvement are hard work.

The commitment to the values of collaborative working must be obtained from the executives at the very top of the hierarchy of each stakeholder organization. Without their full commitment, the collaborative values cannot filter down through the chain of command to team members at the project site. If management is only half-hearted (or uninterested) about the alliancing effort, the collaborative efforts of the people within the alliance will be undermined.

It is not easy to change the hearts and minds of people used to traditional adversarial methods. While many individuals will embrace collaborative working, some will be unable to change and thus will become an impediment to completing the project. These individuals will have to be replaced.

Making cultural changes takes work. Early team-building workshops are not enough to achieve cultural change but

they do help start the process along. There should be continual reinforcing, coaching and monitoring during the project until it is completed. Management can also use survey questionnaires, annual performance reviews and independent research to gather information to assess whether the culture has changed and by how much.

Other Factors Affecting Collaborative Working

A number of other factors may affect the success of collaborative working. One factor is the maturity of the parties' commercial relationship. An owner who has comparatively immature commercial relationships with contractors and suppliers may not achieve the same level of savings from collaborative working as other who have longstanding good collaborative relationships. Another factor that may have an effect is the number of contractors and suppliers needed for the project. Lower savings may be achievable when the project involves multiple suppliers and contractors, rather than a single large multidisciplined vendor who has all the facilities, equipment, resources, skills and competencies necessary to deliver an investment program. The potential for standardization is another element that can influence the success of collaborative working arrangements. A project or investment program that offers considerable opportunities for standardization may lead to greater benefits through collaborative working.

In addition, it should be noted that greater savings can be achieved from strategic alliancing at the investment program level, when compared to alliancing on a project-by-project basis because the size of the investment program can create critical mass.

Potential Detriments

As noted above, in collaborative working arrangements, the owner and its alliance partners jointly share the project risks. As a result, the owner will be drawn into new areas of risk than under traditional contracting arrangements. Thus, liability and insurance issues need to be addressed when a partnering or alliancing arrangement is formed. To protect against additional risks, the owner may take out Contractors' All Risks Public Liability and Professional Indemnity Insurance policies in favor of the owner and all alliance partners (including the contractor).

Cooperative working arrangements do not replace normal project controls. Sometimes, project teams mistakenly assume that the absence of "lawyer" letters and self-protection means they don't need to bother with control of change orders and written instructions which, of course, is not the case. Projects still need to be professionally managed and if the scope of work, budget, schedule, risk and documentation are not properly controlled, the project will be destined for failure whatever the procurement route.

The owner needs to have "value management" procedures in place to ensure delivery of performance at optimum cost and at the best value for the money. During key stages of a project--particularly before bidding and contract award, and during implementation--the owner should organize value management workshops to discuss the planning, feasibility, design and implementation of the project. At these workshops, management can review the purpose of the project; the owner's business objectives; whether the scope, design, construction materials, components and other aspects of the project will deliver the required functionality; and identify any constraints that would create an obstacle to successful completion. These workshops are the perfect setting to brainstorm alternative solutions, assess likely "whole-life" costs and benefits, determine if there is a need for further action and agree on what the course of future action should be.

In addition, the owner should make sure that the contractor puts in place adequate procedures to ensure the health and safety of project team members.

Objectives of Stakeholders

A goal of collaborative working arrangements is to identify and align the objectives of all stakeholders. An owner's objectives will be to:

- . enhance revenue,
- . reduce maintenance and operating costs,
- . reduce losses,
- . optimize the time within which aging assets are replaced,
- . reduce safety risks to contractors and the public, and
- . increase satisfaction of stakeholders, which, depending on the industry, could include, in addition to key contractors and suppliers, shareholders, funding institutions, management, unions, local governments, regulatory bodies, the community, environmentalists and others.

Depending upon the circumstances, a contractor or supplier could have the following objectives:

- . to survive in a competitive industry,
- . to earn an adequate level of profit and recover overhead,
- . to attain stability or growth by securing future work,
- . to increase shareholder wealth,
- . to satisfy stakeholders (such as customer needs),
- . to use resources in its possession,
- . to diversify and acquire new skills, competencies or resources, and
- . to create further work opportunities.

In addition, the objectives of other stakeholders must be taken into consideration. For example, shareholders will want a fair return on their investment; environmentalists might want to protect the environment and rare species of fauna and flora; communities might want to preserve local heritage sites and promote local employment; and local governments might want to regenerate local economies or improve social inclusion.

The alliance of stakeholders must be based on common objectives. If the objectives are not shared, the project is heading for trouble. For example, an owner whose primary objectives are maximizing shareholder wealth and satisfying other stakeholders' aspirations should not partner with a contractor who is teetering on the edge of insolvency and whose objectives center on survival and short-term liquidity. The reverse would also be true.

An owner would prefer to work with contractors that:

- . understand the industry the owner is in and want to add value to it,
- . are profitable,
- . are committed to improvement,
- . invest in innovation and develop their skills and competencies,
- . seek long-term relationships with their customers, and
- . are dedicated to providing the owner with what it needs, rather than what the contractor has available.

Having a customer focus should be an important criterion in selecting alliance partners.

Conclusion

The construction industry needs to rethink the way in which capital projects are developed and delivered if it is to enable its customers to cope with ever-increasing competition, regulatory pressures and cost. Cooperative relationships are an effective means of mitigating cost and schedule overruns and the unproductive adversarial means of resolving disputes inherent in traditional contracting. All parts of the industry have a mutual interest in making collaborative working arrangements work.

Partnering and alliancing arrangements deliver benefits to owners by aligning objectives, creating a culture of trust and openness, promoting joint decision making, and continual improvement.

Contractors and supplies who are able to adapt to the new commercial, contractual and organizational framework of

collaborative working will see a sustainable improvement in profitability since they will share in the benefits of a successful project. In addition, they will be able to develop long-term commercial relationships with owners.

The emergence of collaborative working represents a threat to those who prepare and administer traditional, adversarial contracts because their services involve a cost with no intrinsic value. But owners and contractors alike will need help preparing and administering new collaborative relationships if the benefits of these arrangements are to be realized. Thus, the move toward partnering and alliancing represents an opportunity for those with the vision to exploit it.

What Values Are Collaborative?

There are numerous potential collaborative values that the stakeholders can identify. Some of the obvious ones include

- * respect, trust and honesty
- * open communications
- * delivering on promises
- * being mutually supportive and cooperative
- * listening attentively
- * being fair-minded
- * being responsible and consistent
- * being willing to challenge accepted practices
- * having a can-do mentality
- * being proactive
- * promoting creativity and innovation
- * taking pride in a job well done, and
- * recognizing achievement.

n1 The New Engineering Contract issued by the Institution of Civil Engineering.

n2 The Institution of Chemical Engineering "Green Book" reimbursable- cost form of contract.

n3 Payment of gainshare is normally approved by the partnering or alliance board.

n4 Subcontracts should be let on similar collaborative arrangements to the main contract. Otherwise, adversarial behavior on key subcontract activities could defeat the overall strategy and the full benefits from alliancing will be lost.