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# PARTNERING: Contracting for the Future

Do I trust you?

Do you care about me?

Do you share my commitment  
to excellence?

**R**unning a mile, for many Americans, would be considered a substantial athletic achievement. Running a 26.2-mile marathon would probably seem to most to be an impossible, or at least upper limit, physical achievement. If I were to ask you to seriously consider the possibility of doubling that achievement, you might suggest that I have my head examined. What we have in this instance is a paradigm that limits our vision of achievable physical skills. It might surprise you to learn that the Tarahumaran tribe of Indians in Mexico annually engages in a 70-mile run to cleanse their bodies. You see, they were never told that the human body could not store that much energy or that the joints of our legs could not withstand such a shock, or that our heart could not pump at an elevated rate for such a sustained period of time. This paradigm, or perceived universal law, blocks our vision.

In 1968, the Swiss dominated the watch market with 65 percent of all watches sold, and they made 80 percent of the profits. Within 10 years, the Swiss' market share had fallen to 10 percent, and 50,000 of their 65,000 watch-makers become unemployed. The advent of the electronic quartz watch, with

its superior accuracy, low maintenance, and low cost, made the Swiss watch movement an inferior product. Why didn't the Swiss react and join the quartz revolution? You see, they had a paradigm that said mechanical movements were better. Ironically, the Swiss developed the quartz watch. Seeing no meaningful marketplace for such an unorthodox timepiece, they sold the design. As a result, the Japanese now dominate the watch market.

And so it goes for virtually every new discovery or quantum development. We have individual paradigms that preclude us from considering many alternatives.

The world of contracting is challenged by many problems such as:

- poor communications,
- adversarial contractual language,
- cost overruns,
- continuity from project to project,
- extended schedules,
- poor-quality work, and
- change-order negotiations.

In too many cases, the work is not performed in the most cost-effective manner. By one estimate, the cost of waste due to rework in the US construction industry alone exceeds 17 billion dollars annually. To strengthen our competitive position in the world economy,

we must continually strive to improve our procedures, our working relationships, our cost effectiveness, and our performance. We owners and contractors must change to respond to the needs of the marketplace. We must provide the environments for and capitalize on the synergies that will result from owners, vendors, and contractors working together. In short, we must shatter our contracting paradigms and find new methods to improve our quality.

**T**he Construction Industry Institute (CII) was organized 5 years ago by a group of industry leaders who shared the belief that the time had come to restore the cost effectiveness of the US construction industry and that it could be done. Today, CII is a leading national forum for research in the US construction industry, based at the University of Texas at Austin. Armed with the findings of the Business Roundtable's landmark Construction Industry Cost Effectiveness (CICE) Project, the Institute laid out a bold strategic plan to help the industry carry out the CICE recommendations and to study new areas that offer promise to the overall objectives of the industry.

The Institute recognized that one of the significant problems common to all industry in the US is contracting and the associated adversarial relationships "it" creates. Isn't "it" a paradigm? Accordingly, the Institute formed a 20-man task force in 1988 to determine the benefits and risks, economic and other, of partnering, and to develop methods for implementing such.

**B**ased on our Task Force's studies to date, partnering has been defined as "a long-term commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant's resources. The relationship is based upon team building, trust, dedication to common goals, and an understanding of

**Partnering is not a quick-fix remedy. The very foundation for partnering — a long-term relationship — necessitates trust, good planning, patience, and persistence.**

each other's individual expectations and values. Expected benefits include improved efficiency and cost effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services."

Departing from the clinical definition, partnering is simply a relationship wherein:

- all seek win-win solutions;
- value is placed on long-term relationships;
- trust and openness are norms;
- an environment for profit exists;
- all are encouraged to openly address any problem;
- all understand that neither benefits from exploitation of the other;
- innovation is encouraged; and
- each partner is aware of the other's needs, concerns, and objectives and is interested in helping its partner achieve such.

Some of the companies that have entered into partnering relationships include:

Proctor & Gamble/Fluor-Daniel  
Dupont/Fluor-Daniel  
Dupont/Day Engineering  
Scott Paper/Day Engineering  
Union Carbide/Bechtel  
Shell/Bechtel  
Shell/S.I.P. Engineering  
Great Northern Nekoosa/RUST International  
General Foods/RUST International

In the partnering relationships we have studied, we have found the following:

- The duration of the relationship is at least 4 years, with provisions for extension.
- The scope of services performed encompasses a broad spectrum of engineering and sometimes construction services from conceptual development and planning to detail design, procurement, expediting, construction, and commissioning.
- The employees involved in the part-

nering activities are predominantly located in one area or building. Most typically, the location is the contractor's home office in order to capitalize on its broad base of additional support personnel and expertise, when needed. In many respects the partnering arrangement resembles a task force or even a separate business division with a vice president presiding.

- The employees involved in the relationship are predominantly employees of the contractor. A core group of employees consisting of from one to a few owner representatives and 5 to 10 contractor representatives is established to manage the group and would remain employed even if the workload were to reach a very low level.

**T**he primary thrust behind partnering is the improvement of quality in our production of goods and services. Any mechanism that promotes trust and encourages communications over the long term will help create an environment for quality improvement. This environment, coupled with commitments to excellence from senior management within both organizations, will provide fertile ground to capitalize on the synergies of an open and trusting relationship.

In addition to specifically improving quality, we have identified a number of other reasons why owners might want to initiate a partnering relationship, including:

1. *Lack of Personnel* — Many organizations find themselves in a situation where their needs for engineering and construction services far exceed their in-house capacity. Although a logical reaction is to subcontract one's needs, this alternative may not be most cost-effective as it takes in-house resources to identify the scope

of work, to qualify a group of potential subcontractors, to evaluate and select the best subcontractor, to negotiate a contract, and then to educate the subcontractor in your procedures and standards. Awarding a number of subcontracts takes considerable effort and requires a considerable amount of attention through the conduct of the work. This approach additionally burdens the owner with the responsibility of accurately defining the proper scope in a timely manner, of developing an optimal plan, and of selecting the proper subcontractor and negotiating change orders. Partnering can dramatically decrease these burdens on the owner's organization.

2. *In-House Skills Renewal Not Occurring* — Many organizations find themselves in a position where budget considerations preclude their ability to effectively train new personnel and to retain or recruit specialists whose skills are not needed on a full-time basis. Accordingly, they need to look to subcontractors for expertise. With partnering, the repetitive selection process is eliminated, and specialists can be made available on an as-needed basis without the overhead burden of permanent employees.

3. *Optimal Project Planning* — The greatest ability to influence the cost of a project occurs during the earliest phases, with diminishing opportunities during detailed design and later phases, as shown in Figure 1. A partnering arrangement minimizes this problem as the team is in place from the moment the concept is conceived. The experience of the team members working together, their knowledge of the owner's business, their ability to readily assemble without an inquiry and negotiation process, and the synergies of the partner's complementary skills, all occurring in the embryonic stage of a project's life cycle, provide a dramatic beneficial influence on cost. See Figure 1.

4. *Emergency Response Capability* — The ability to respond to a problem is much less without an organization in place that is knowledgeable of your needs, procedures, processes, and personnel. A partnering arrangement provides a ready group of trained professionals plus other resources of the parent organization.

5. *Improved Market Responsiveness* — A typical project's life-cycle personnel requirements can be graphically represented by a bell curve, as depicted in Figure 2. The most significant life-cycle schedule enhancements of a project are made in its early phases. The potential for shortening a schedule is greatly enhanced with a team of trained partnering personnel working in an environment conducive to innovation, sharing, and cooperation.

6. *Cost Reduction* — The maintenance of a complement of trained engineering and construction personnel fully capable of effectively responding to a fluctuating business environment is an expensive luxury few owners can justify. The alternative—awarding multiple contracts—is additionally expensive when you consider the costs of extended project life cycles; the cost of inquiring,

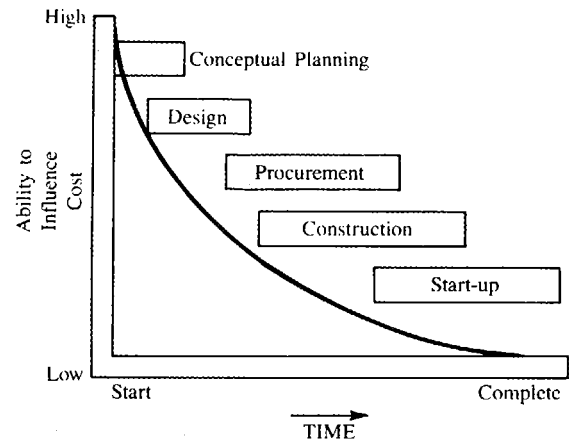


FIGURE 1 — COST INFLUENCE CURVE

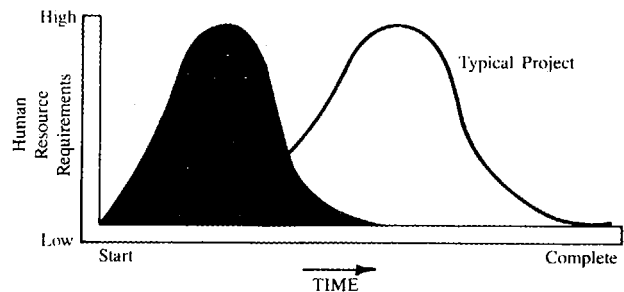


FIGURE 2 — PARTNERING INFLUENCE

evaluating, and negotiating contracts; and the risks associated with inadequate scope definition.

Additionally, we have looked at partnering from the contractor's perspective and have identified the following reasons why a contractor might want to enter a partnering arrangement:

1. *Long-Term Workload* — The security of a long-term workload allows the contractor to better allocate resources. Additionally, it frees the contractor to concentrate more of its time on quality issues and less on marketing tasks.

2. *Focus on Quality Management* — The time the contractor's management saves on marketing can be focused on the improvement of its products and services. This enhanced focus helps the partner as well as the contractor's organization. In the long-term, the cost of supplying the goods and services will be reduced, which benefits all involved.
3. *Association with Recognized Industry Leaders* — The ability to associate with a recognized industry leader is attractive to a contractor from a marketing standpoint. The contractor will also prosper from the skills that its employees will be able to develop, which will aid the contractor in marketing other work.
4. *Improved Employee Attitudes* — The engineering and construction industry is characteristically plagued with dramatic employment swings commensurate with the investment environment of the economy. The ability to plan work over a longer time frame with a partner minimizes a large degree of job security concerns and allows the employees to be happier and more productive team members. The breadth of employment opportunities in a partnering arrangement also tends to improve employee morale. Accordingly, the potential for further reducing costs via more satisfied and productive employees is significant.

**P**artnering is not for every owner. Accordingly, the following suggestions have been developed to identify conditions conducive to partnering from the owner's perspective:

1. The owner's need must be real. Whether its need is to improve quality, to reduce overhead, to be able to respond better to fluctuating labor requirements, to employ skills not available in-house, to overcome the lack of skills renewal within its organization, or to be able to respond more expeditiously to the marketplace, just to name a few, the owner must be able to clearly define

an objective.

2. The owner must be willing to change. Partnering involves a cultural change that requires the organization to change, to open up to outsiders, and to share goals, strengths, and weaknesses. Owners must have the perseverance to develop a relationship that capitalizes on the synergies of a partnership, recognizing that there will be numerous obstacles to remove.
3. The owner must possess the ability to transfer some of its responsibilities to the partnership. As a basic premise for partnering is trust, the owner must be able to trust the partnership to handle a broader range of responsibilities that might include planning, accounting, process development, scheduling, construction management, etc.
4. The owner must have a commitment from its executive ranks to the partnering concept and must buy in to the need for cultural changes to obtain optimal effectiveness. Management must be willing to accept the challenges of selling the concept, addressing the resistance, implementing structural changes, sharing confidential information, and nurturing the process.
5. The owner's requirement to maintain and/or enhance work quality is not essential to partnering, but the desire for such is conducive to an effective relationship. The process of improving quality necessitates dedication to a goal, feedback for improvement, and a cooperative environment for change, all of which are essential ingredients for partnering.
6. The owner's need to effectively respond to emergency situations can be more readily accomplished via partnering by tapping the resources of the contractor's parent organization. Such resources can be employed without recruiting, bidding, procurement, or negotiating encumbrances.
7. The owner's desire to focus on overall results rather than strictly a singular component, such as engineering cost, lends itself well to partnering. Every project must address real-world capital cost,

operating cost, and schedule pressures. Partnering enhances the dialogue between the owner and the contractor to more openly and effectively weigh these alternatives, thereby improving the likelihood of an optimal decision. For example, on a schedule-driven project, the owner may confer with its partner and consciously decide to reduce the financial constraints on engineering or the approval constraints on purchasing, to minimize the implementation time.

8. The owner's desire to focus on the needs of its customer is best met via partnering as the whole culture of the partnership focuses on the satisfaction of the other's needs. The classical division of responsibilities between an owner, an engineer, and one or more contractors structures the parties for protectionism rather than a mutual focus on the customer.

From the contractor's perspective, the following conditions are conducive to partnering:

1. The contractor's need to provide itself with a long-term workload lends itself to partnering. As the optimal benefits of the relationship are best met in advanced phases of the learning curve, it is essential that the life-cycle of a partnering relationship be at least 4 years.
2. The contractor's need to optimize the allocation of resources and to formulate long-range plans is best met by a long-term relationship that accompanies a partnering relationship. The long-term allocation of resources also minimizes the percentage of time expended on marketing by key talents and concentrates their efforts on productive results to satisfy the owner's needs.
3. The contractor's desire to participate with an owner in its project planning and estimating phases is conducive to a partnering relationship. The contractor's perspective can be most beneficial in the early phases of a project when the plans are being formulated, because the ability to effect meaningful change geometrically decreases with time. The contractor can, with time, become more

proactive and valuable to the owner as it understands more completely the business, the priorities, and the problems faced by the owner.

4. The contractor's desire to improve the attitude of its employees can be addressed via partnering. As the nature of the contracting business is cyclical, many employees become preoccupied with job security and lose their focus on the important challenge of serving the needs of the owner. A long-term relationship tends to temper such concerns and maximizes the efficiency of the employee for the mutual benefit of the contractor and the owner.
5. Partnering can provide a contractor's employees with new and varied professional opportunities and career paths. The trust in the relationship allows the contractor's employees to become more exposed to business cycles and priorities and, in turn, more valuable to both the contractor and the owner. The breadth and diversity of the partnership's functions opens additional avenues of career advancement for the contractor's employees. These opportunities tend to improve employee satisfaction, which benefits both the contractor and the owner.
6. The long-term aspect of partnering lessens the contractor's requirements for, and the costs associated with, marketing. This adjustment in priorities shifts the focus from developing new markets to better serving the partnering arrangement, which is beneficial to both the contractor and the owner.
7. A focus on quality management by the contractor is better served by the partnering culture as the emphasis for the team is to perform the right job, on time, the first time, every time. The contractor's organization intangibly benefits also from the osmotic benefit of an owner/contractor team practicing the full gamut of quality management and the process of quality improvement.

**A** partnering questionnaire was developed and issued to 7 owners

and 11 contractors who were known to be involved in partnering agreements, to solicit their perspective on partnering. It was interesting that there was little disagreement between the owners and the contractors that both quality and performance would improve. A summary of the results is presented in Table 1.

The survey participants were also asked to qualify their cost-improvement expectations. As the survey was based on responses drawn from partnering experiences as opposed to theory, it is interesting to note the similarity of the owner's responses to the contractor's, as summarized in Table 2.

**TABLE 1 — EFFECT OF PARTNERING ON QUALITY AND PERFORMANCE**

Statement	Percent Agreement	
	Contractor	Owner
Project schedules will be more dependable.	91	86
There will be fewer engineering errors and omissions.	91	100
Safety will improve in terms of:		
a) frequency ration.	73	43
b) severity ration.	73	43
Constructability will improve.	100	71
Resource planning will improve.	100	100
Innovation will improve overall project performance.	91	100

**TABLE 2 — COST OF PARTNERING**

Project	Percent Cost Change	
	Contractor	Owner
Overall Cost	-5	-5
Owner Cost	-11	-10
Contractor Profit	+4	+9
Project Schedule	-5	-6

Preliminary findings of the Task Force are:

- Partnering arrangements to date are employed in limited cases. Most are for engineering, but some are for engineering and construction.
- There is a great deal of industry interest in partnering.
- Both owners and contractors feel that schedules will be improved and that cost will be reduced with partnering.
- We, as an industry, have a long way to go.
- The partnering concept is so new that long-term results are not supportable by facts.
- Partnering takes time to develop and is, therefore, not a quick fix.
- Partnering requires a cultural change or a paradigm shift.
- Partnering requires a commitment from top management.

- The primary driving forces for partnering arrangements are improved quality, lower life-cycle cost, and lower fixed-resource requirements.
- Partnering is a quantum advancement beyond even an "evergreen" contracting approach.
- Improvements in safety, quality, profitability, resource planning, market responsiveness, and innovation are achievable with partnering.

Partnering is not for everyone. We recognize that some corporate cultures are not yet ready to explore a contracting paradigm shift. To some, the partnering concept will appear to be too risky, and many roadblocks will be cited. To others, our present situation will be rationalized as optimal. Until the top management of an owner's organization is committed to developing the environment for achieving the benefits of

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Reader Response Number 501

partnering, it should not be attempted.

So as to not leave you with the perception that partnering is a utopia, we have explored the next logical evolution and predict that partnering will be challenged by:

- complacency over the long haul,
- employee feelings of stagnation,
- the effective integration of corporate cultures and values, and
- the maintenance of a primary focus on quality and customer rather than the mechanics of the partnership.

As most things of value in life require hard work, these challenges can be met as they represent a small price to pay for a quantum improvement in our approach to business.

Partnering is not a quick-fix remedy. The very foundation for partnering — a long-term relationship — necessitates trust, good planning, patience, and persistence. It requires that we focus on the big picture, our competitive posture in the world economy in the future. It furthermore requires that we identify a partner with whom

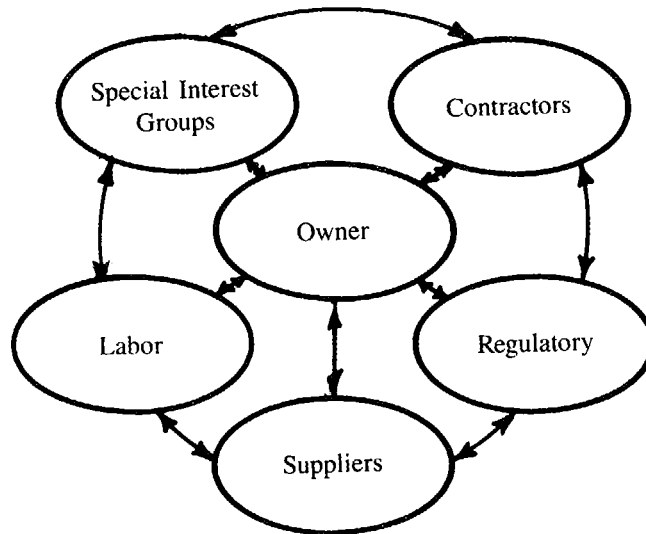


FIGURE 3 —  
FLOW DIAGRAM OF PARTNERING APPLICATIONS

we can answer "yes" to each of the following questions:

- Do I trust you?
- Do you share my commitment to excellence?
- Do you care about me?

We have been studying and evaluating the benefits of partnering between an owner and a contractor. Are the principles we have discussed limited simply to this aspect of business? If partnering can enhance the production of quality products and services, what are its application limitations? We believe that the application of these principles to suppliers, labor, regulatory agencies, and special interest groups is just as viable and that the rewards are bountiful. (See Figure 3).

**I**s your organization interested in improving the quality of its goods and services, your cost of manufacturing, or your marketplace responsiveness? If you can shatter your organization's contracting paradigm, perhaps partnering is for you.



*Scott T. Baker is director of energy projects for RUST International Corporation in Birmingham, Alabama. A graduate of Auburn University as a mechanical engineer, Baker is a registered professional engineer, a certified project management professional, a registered contractor in South Carolina, and a member of TAPPA and ASME. Presently serving on CII's Partnering Task Force, Baker has spoken on partnering to numerous business and professional organizations. For further information, contact Scott Baker at RUST International, PO Box 101, Birmingham, AL 35201-0101.*