Leading Extreme Projects
Strategy, Risk and Resilience in Practice

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Imagine a Project Manager leading a Consortium for an integrated gas field program in the Peruvian Rain Forest. A program that includes construction of an energy site in the Americas that involves Peruvians, Argentines, Swedes, and Americans. It is a huge program in the Peruvian rainforest requiring a complex logistic operation carried out by three different consortia on a tight schedule, and in demanding topography. It includes new infrastructure, ocean shipping, port operations, ground transportation, aerial operations, and river barging. It also includes indigenous communities, politics, drug trafficking exposure, and "shining path" events (Shining Path is a brutal Maoist political group in Peru).

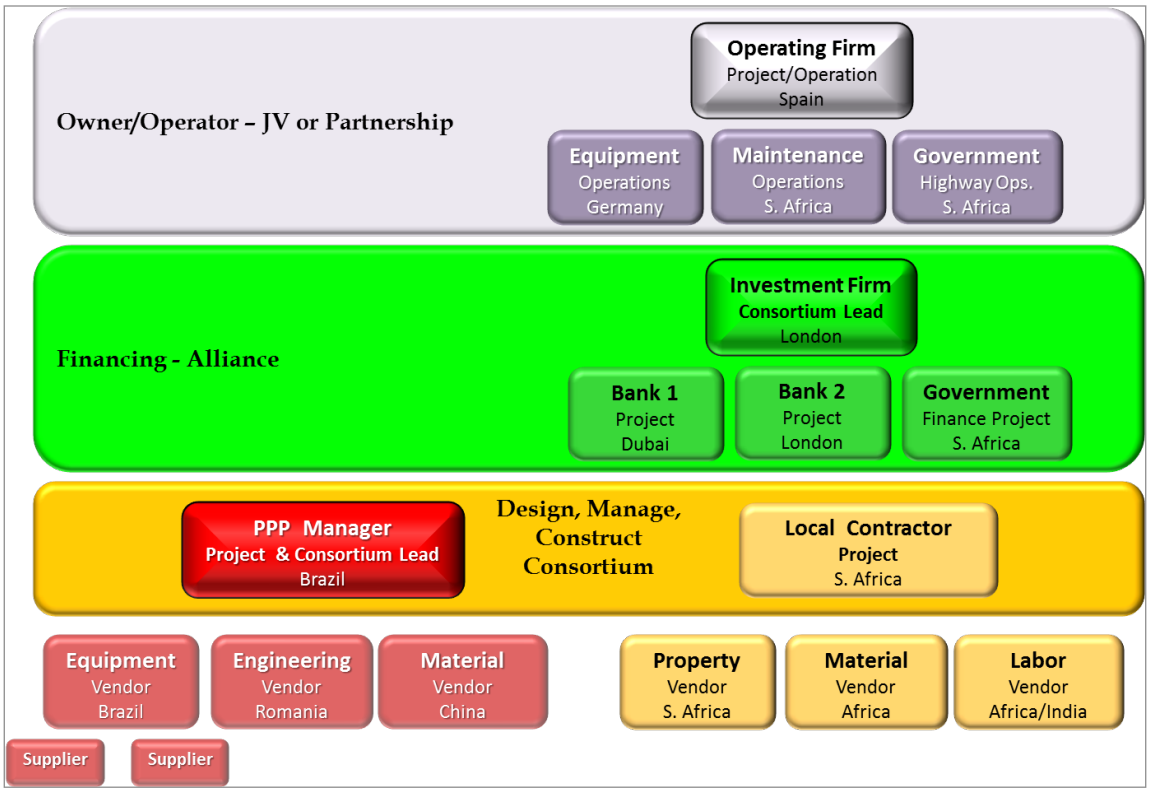
All of these elements are components of Corporate Social Responsibility (CSR), and they play an important role in all projects, especially global ones. People have discussed and debated ethics for thousands of years, and the relationship between capitalism and socialism. Needless to say, the debate continues and there are as many visions of CSR as there are people. For example, the USA passed the Foreign Corrupt Practices Act, which forbids bribing a foreign official. If an organization is found guilty, the CEO goes to jail, in theory. But, a criminal offense in the USA is an accounting issue in Germany where bribes were, at one time, a tax deduction. Thus the rules and the application of the rules vary widely, and the rules in the Peruvian rain forest are far more flexible than in the Western world. Can you imagine leading such an endeavor?

In a new work, the authors use Case Studies to demonstrate what was actually done on a number of extreme projects such as the one described above, to illustrate the challenges, and to recommend steps that can be taken to help diminish the impact upon future projects. We have explained and developed the structure of each Case Study in detail but the names of the actual participants have been changed. By extreme projects we mean those conducted in demanding physical, political, multi-cultural, multi-country, multi-organizational global environments, and were often the operational windows turn out to be as tight as they are unpredictable. Or as Cockburn and Smith write in this issue, VUCA projects that are volatile, uncertain, complex, and ambiguous. The Case Studies include the Americas, Africa, and Asia, and cover the extractive industries portion of the author's experience as well as transportation infrastructure-related projects. Examples of issues, which the authors have encountered, often, in all sectors of our global economy includes:

- JV or alliance partners with different goals and objectives
- Suppliers and vendors with questionable ethics and hidden agendas
- The importance of effective logistics
- The need for political fluency and competence
- The need for cultural fluency and competence
- The need for strong leadership

- The need for multidisciplinary teams, and interdisciplinary leadership
- The importance of principled leadership
- A strong understanding of local communities and societies
- A lack of infrastructure
- A lack of operational monitoring and financial control
- Poor communications
- A lack of concern for the environment

We consider it critically important to lead projects from conceptualization, through design and construction, and into operations, utilizing what we call Collaborative Project Enterprises (CPE's). A CPE is naturally constructed of diverse interdisciplinary teams with a variety of organizational goals. The following figure shows a normal sort of CPE for a global infrastructure project. The CPE leader, what is shown as the Public Private Partnership (PPP) Manager, represents the organization that is ultimately responsible to the customer, or in this case the public, for the successful planning, design, construction, commissioning, and operation for the asset.



It is easy to imagine that the goals of the Equipment vendor from Brazil would have a short-term transactional goal of making a profit on the work, and any long-term interests would only occur if they saw the possibility of long-term repeat sales. The PPP Manager on the other hand would have a long-term goal of ensuring customer satisfaction not only or this project, but also for similar projects for other customers. Our experience is that reputation, or brand value, is a spectacularly important asset for global organizations such as this one. Similar considerations exist for the financial group. The Dubai Bank may have a short term need for profitability, where the government of South Africa would likely be concerned about the long-term sustainability for the endeavor.

The CPE leader is such cases has little contractual authority over most if not all of the organizations shown. In fact often we see written agreements specifically preclude

communications between organizations. Thus the challenge is to inspire the desire for people to follow because of the characteristics, and behavior of the leader. This is not hypothetical, we have seen people pull together such diverse teams and lead them toward a common goal as if they were members of the same organization, the enterprise portion of CPE. Lead as if it were a temporary project organization.

Many have written about the importance of considering the "business case" when initiating a project, and of transferring the project to operations when the asset is completed. But, from experience, this is problematic as seldom is knowledge passed from business, to PM, to operations effectively, if at all. In fact, we spend much of our time in corporate education trying to help people bridge this gap. And, all three components must be integrated on extreme global projects. If this is not done the risks are magnified, rather than mitigated, in environments that are fluid in the best of circumstances.

These Case Studies describe projects in extractive industries, where many of the risks are different from the medical, finance, and IT sectors, while many of the issues are common. One easy example is the failure to adequately consider the long-term implications of the product life-cycle throughout the project. Many, perhaps most, of the extreme projects show the damage that short-term thinking and planning can have on global projects. If short-term quarterly financial metrics drive behavior on projects that may have a product life-cycle of decades to develop, plan, execute, and operate, bad decisions proliferate. The authors have seen this in all sectors, not just extractive industries. We continue to describe, graphically for our customers, how important operational thinking is during the planning and construction of physical facilities.

Finding a leader for a CPE is not easy. Extreme projects are a mixture of interdisciplinary skills, politics, cross-cultural conflicts, language barriers, social issues, and often safety. Projects in Columbia while the FARC were still operating required that walls had to be built around the project site, protected by para-military 24/7. People coming to work were carried in by helicopter, for it was too dangerous to use ground transport. So safety is often a significant issue, and an understanding of the conditions in the country. Or think about logistics in Africa where local "toll gates" are frequent and potentially hostile for trucking. Imagine the skill sets that are needed for a leader. Technical competence is a good thing to have, but is easily overshadowed by the environment in which the project is being undertaken.

Experience identifies ways to offset the existing gaps between technical skills and the hostility of a remote spot. This may be based on cultural compatibility between the expats and the locals, even if planning and training are seriously considered well in advance. A cultural match is as relevant as the type of technology to make a project work despite the fact that too often it is regarded as a secondary aspect. Many executives worldwide tend to erroneously underestimate its importance as its symptoms never come up at an early stage. Examples on this sort of gap leading projects to face inefficiencies and deal with corruption practices turn out to be very vivid in a silver mining project case study in northern Argentina, a bi-oceanic logistic corridor case study between Europe and South America, and an operations audit case study in the Peruvian rainforest on the oil & gas sector.

Cultural matching is a great motivator and works beautifully in terms of team-work as in a Canadian Arctic coastal and inland navigation-focused project, as well as an iron ore mining project in Cameroon. These two project settings offer significant contrasts in physical restrictions, tight operational windows, and cultural differences. It is amaz-

ing to see, in the 21st century, that well reputed and knowledgeable global corporations keep on making the very same operational mistakes over and over without realizing that the secret, in the authors' experience, lies more in an early identification of the subtle details that are often hidden in a project consultation process. Like a gold mine project in Costa Rica, or a preliminary social task aimed at achieving a social license to operate on a gold mining project in Bolivia. Even more so than what is supposed to be a finance-based solid corporate strategy.

A number of projects in Brazil that we participated in, clearly demonstrate some sort of divorce between those making decisions at the top of the organization, and the ones in charge of executing the strategies on the field. The operational challenges are too often so formidable that projects run aground, and their executives fade away without even having the chance to learn something they might make good use of in the future. Conversely, a gold mine project in Guyana provides a good example of the way operational barriers may be overcome by trial and error. Far from ideal, it may work in extreme settings if the field personnel learn to adapt, and the top management to learn from their initial limited vision.

We suggest in a global economy that a CPE leader must be curious, open-minded, compassionate, adaptable, and able to inspire the desire of the CPE stakeholders to follow her or him. It is simply not possible to write, or enforce, contracts that construct the collaborations that must occur for a project to be successful. In fact, simply defining a common definition of success will challenge the weak of heart. 80 to 90% of the skills needed are interpersonal in nature, not technical, and not process. Process is important, for if properly done it will create enough time to permit the CPE leader to focus on the other issues. Such a person also needs to be accomplished at negotiations, and at dealing with conflict. On all projects, not just extreme ones, there will be conflicts and changes. A CPE leader can build trust and collaboration by showing how to deal with the problems, fairly and humanely. Most importantly, a long-term view is essential. People like Jeff Immelt have turned away from the distraction of quarterly metrics, for good reason in our view. We, hopefully, add another voice to this chorus.