

Why Waste a Good Crisis?

By Karen Cherrill

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Karen has over 25 years' experience in the international engineering & construction industry. After graduating in chemical engineering and obtaining solid grounding in process design with Foster Wheeler, she gravitated towards project commercial and risk management. Karen worked with large Owner, PMC and EPC contractor organisations, directly managing teams delivering complex international projects in the oil and gas, petrochemical, power, industrial and utilities sectors. She is now a Director of Kingsfield Consulting, contributing technical leadership across the project life cycle, ranging from pre-contract risk strategies, delivery phase commercial management and avoiding contract disputes. She has gained a deep understanding of why



projects fail to meet their objectives and proactively helps her clients avoid these pitfalls. Karen's current interests are immersing herself in the fascinating world of complexity science, and finding ways to apply this pragmatically in the delivery of complex construction projects around the world.

I've just returned from a week's business trip to the Middle East, listening to our clients who are contractors designing and building large industrial plants in the region and beyond. They were very different conversations from the ones I was having even two years ago. Then the market was still booming, the oil price was over \$100 per barrel, commodity prices were holding their own and the region's capital spend was enormous. Contractors had huge backlogs of work, there were enough projects to go round and everyone was hiring. Today's oil price is less than \$40 per barrel and it would be a brave forecaster who would be prepared to state with any confidence that this will rise to \$100 levels in the medium term. The spend on capital projects, especially to support the region's growing infrastructure and power needs, is still massive by European standards; in Qatar alone there are \$282bn worth of projects underway or planned in 2016. But that ebullience has disappeared, contractors are cutting back in overheads and staff, owners are trying to work with budgets set at a time when their expected revenues were much higher, many projects are in distress or dispute as the parties get entrenched in trying to deliver results to their stakeholders – a very different picture.

At a recent conference, Thierry Pilenko, CEO of the global contractor Technip, stated that this was the worst crisis that the industry has faced for a generation and that everyone knew what they must do – drive down the costs, and not by 5 or 10% but by 30 or 40%! His suggestions were about creating a climate of creativity and innovation, letting go of old ways and standards, engaging in early collaboration from the supply chain, limiting the number of interfaces, but mostly importantly changing the behaviours of the people from the top to the coal face, likening this to the step change that Technip has made in safety. The sceptics amongst us, and those who have been around this loop many times before, may smile at the rhetoric but he is not the only voice calling the industry to action. A report by Morgan Stanley and BCG (1) last year concluded that "Big Oil still lacks a truly cost-conscious culture", referring to the need of the world's largest oil companies to change their business model. A change of mindset was a recurring theme amongst senior executives during my trip last week who cannot sustain getting squeezed for that extra few percent, as that is all that is left without radical change.



Qatargas - the world's largest liquefied natural gas (LNG) company

“Never let a good crisis go to waste.”

Winston Churchill

At Kingsfield, we're in the project business and full of admiration for the amazing and innovative industrial plants that our contractor clients build all over the world. We help these contractors think about, plan, deliver and make a profit on complex projects often in places where they haven't worked before, maybe using first of a kind technology, often in multi-cultural joint ventures and from many execution centres in different time zones. These are private rather than public projects; they don't have the luxurious timescales or seemingly elastic budgets which can pervade the public sector.

They are driven by the needs of stakeholders who expect rapid returns on their investment – and are often expected to be delivered at break-neck speed once the funds are sanctioned. In a fast track megaproject, there's no time to allow for patterns to emerge, no time for 'sense and respond' type strategies, and no time to step out to reflect and adapt. In fact they seem specifically designed to ignore the characteristics of complex systems.

But for me the real challenge is that any project team is only ever temporary; although its sole purpose is to deliver only one project, a supply chain of 1000s of vendors and subcontractors is not uncommon. After that everyone disbands and moves onto the next one. And the 'team' is usually made up of individuals from different companies, countries, and environments; who have different motivations and drivers. The excellent research done by ICCPM in their Research Paper RP3 (2) shows that the success factors for complex projects are tied to relationship management and collaboration.

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KC-PHO-008 Distillation Tower

When we try to draw a relational map with our project managers of all the parties involved and their relationships, a massive network of interconnectedness slaps you in the face – how am I supposed to ‘manage’ all of this?!

So where are we? The industry is in crisis. Significant cost savings need to be found by changing behaviours and a more equitable distribution of risks. Even now 65% of all megaprojects are failing (3). The supply chain cannot continue to be squeezed; parties need to make a reasonable profit and stay in business. The industry is calling for this step change; but it can only be achieved by acting on the growing research and experience about why complex projects fail and what we need to do differently.

Whilst readers of this journal may be familiar with complex adaptive systems and the significant body of research that surrounds them, as a practitioner I would have to say that the application of ideas of self-organisation, interrelatedness, adaptiveness and emergence seem a long way from the frantic and stressful environment of a typical megaproject. But I strongly believe that the pragmatic extrapolation of these concepts into reality will provide part of the solution to the radical change in behaviours that are being called for.

At Kingsfield, we are challenging the conventional notions of ‘command and control’ style leadership, using techniques like Future Search to create

mass engagement, using trending techniques and early warning flags to help respond with agility, facilitating scenario or ‘what if’ planning, and creating workshops for reflection – to name a few.

I can hear contractors shouting at me – it’s the owners that need to lead this charge, not us! We’re not at the top of the food chain! Yes, we can wait for and welcome enlightened owners and operators to be brave and invite us into their world. But if this doesn’t happen any time soon, and we’d like to keep our businesses profitable, we can also lead by example and enact some smart practices that may help us all to make this step change.

References

1. *“Big Oil: Toughen It Out, or Business Model Reboot” Morgan Stanley Research and Boston Consulting Group, 2015*
2. *ICCPM Research Project 3 Outcomes Paper: Contracting for Success in Complex Projects, December 2015*
3. *Industrial Megaprojects: Concepts, Strategies and Practices for Success, E W Mellow, 2011*