Specifics of Managing Large, Complex Projects

in particular in the Offshore Construction Business

Project Value Delivery
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Specifics of Large, Complex Projects

• Most of us are used to day-trekking

• How much do you prepare?

• Like most people you decide the day before + minimal preparation
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- Day-trekking = 500 to 1,000m height difference in a day
- No big deal...
- What’s then the deal to do 3 or 4 times the same?
- Is it just a matter of doing more of the same?
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• Everest base camp: 5,150m

• Everest 8,848 m

• Only 3,700m...

• “Bye bye honey, I’ll just climb the Everest tomorrow...”
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• What is the difference between day-trekking and climbing Mt Everest?
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Running a Successful Large, Complex Projects Company is fundamentally different from running a Successful Simple Projects Company.
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Contents

- What is a Large, Complex Project?
- Convergence process
- Survival
- Organization
- Systems
- Conclusion
What is a Large, Complex Project?

About size and complexity, and the offshore industry
What is a Large, Complex Project?

• What is complexity?

Unpredictability...
What is a Large, Complex Project?

- **Complex System = System with many independent components and strong interactions**

Afghanistan Stability / COIN Dynamics
What is a Large, Complex Project?
In the Offshore Construction Industry

• In the Offshore Construction Industry
  – Complex ~ EPIC project
    • Sizeable Complex Procurement & Fabrication & related engineering (30, 40%+ of revenue)
  – Large ~ 300 MUSD+

• Risk ownership varies
  – lump-sum projects = risk & opportunity with Contractor = higher potential margins
What is a Large, Complex Project? In the Offshore Construction Industry

Simple Project
- Project Management
- Engineering
- Simple Procurement
- Fabrication
- Logistics
- Offshore operations

Complex Project
- Project Management
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- Simple Procurement
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What is a Large, Complex Projects in the Offshore Construction Industry

- **Business Benefits of Large, Complex Projects**
  - Leverage revenue / asset base
  - Lump sum – higher potential margins
  - Multi-year predictable activity / revenue / cash
  - Market premium & market leverage
  - Increased organization capabilities allows to tackle new developments
What is a Large, Complex Projects In the Offshore Construction Industry

• MINDSET ISSUE

• How do you recognize easily a company which mindset is one of Simple Projects?
What is a Large, Complex Projects in the Offshore Construction Industry

• Answer:
  
  A company where people only speak of Vessels and Assets
  
  • A company where people only speak of Vessels and Assets....
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Convergence process
The Key To Successful Large, Complex Projects
Convergence process

Simple Project

Complex Project
Convergence process

Project Performance Driver
(or, what kills a project)

Simple project

Efficiency

±10%

Potential upside/downside

Large project

Convergence

+20%

- 30, -50, -100%
Convergence process

• For Complex Projects, the focus of project management needs to be on convergence
  – Main driver: avoid standby of project & major assets
  – Project management is geared on timely delivery of all required deliverables
  – This might require investment = additional cost upfront

• Very different project management focus & process than Simple Projects

• Read our White Paper on the Fallacies of conventional scheduling & the way to implement the convergence process
Convergence process

• **Real life examples**
  – Africa, 2006: Contractor loses 20M USD direct cost (60M USD indirect cost) for being late on a 0.5M USD item in a 800M USD contract
    • Delay impacted First Oil: huge organizational disruption
    • Loses next contract with same Client
  – Numerous examples of lump sum projects finishing at cost x2 or x3
Survival

• With a Large, Complex Project, the very survival of the Contractor company is at stake.

Mt Everest claimed 219 lives... so far
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Organization

Large, Complex Projects Require Specific Organization Patterns
Organization

• **An integrated team**
  – Geographically regrouped
  – Team effectiveness

• **Direct report to top management**

• **Functions support project**
  – Resourcing
  – Processes and tools
• An experienced Project Manager of Simple Projects is not necessarily suitable to lead a Complex Project
  – Different skills required

• Would you hire this guy to help you to the top of the Everest?
Organization

- Different skills required also for Supply Chain Management
- Engineering
• PVD recommends that Complex Projects be executed in a different Business Unit than Simple Projects

  – Complex Projects have different drivers compared to Simple Projects

  – It is a consistent mistake to try to manage both types of projects in the same organizational structure, with the same processes
Specifcics of Large, Complex Projects

Section 5

Systems

Large, Complex Projects Require Another Realm Of System Capabilities
Systems

- Large project = large number of parameters to control
• Manual systems are overwhelmed, high error rate
• Need to:
  – manage inter-office remote work, remote sites
  – guarantee data correctness and accurate reporting
  – have sound forecast over project span
• **What systems?**
  - Document control & Correspondence control
  - Cost control (different from accounting)
  - Commitments
    - SCM
    - Logistics
    - Travel, HR
    - Timesheets
  - Scheduling & convergence planning

Read our White Paper on the setup of right systems and infrastructure
Systems

- **What Investment?**
  - **NOT JUST ASSETS!!**
  - Systems: 2-5 M USD
  - People
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Conclusion

Large Complex Projects Transformation: Hard and Rewarding
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On average, people spend more than 1 year to prepare for an Everest climb.

IT TAKES TIME TO BE READY!!
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With the right process the success & reliability rate increase dramatically.

More than 3,000 people have made it to the Everest today.

Reliable project delivery can be done!
Specifics of Large, Complex Projects

• To tackle Large, Complex Projects
  – Transform the organization and its mindset / focus
    • Corporate and governance level
    • Project leadership level
  – **Invest** in the right tools, processes and people

• It is possible to do it with the right process, organization and tools

• It takes effort and practice

• It pays off
Specifics of Large, Complex Projects

- **PVD recommendations**
  - It is an investment over several years. Are you ready for it?
  - Change the organization’s mindset first
  - Change the organization structure: specific B.U. and career path for Complex Projects
  - Implement specific Processes for Complex Projects in particular in scheduling & convergence
  - Implement appropriate Systems that can also be used for other activities
Specifics of Large, Complex Projects

- Welcome to the top!

AIM HIGH

The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it.

Michelangelo
THANK YOU!

We Empower Organizations
To be Reliably Successful in Executing Large, Complex Projects

Discover more on
www.ProjectValueDelivery.com
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Project Soft Power

Unleashing Value from Your Large, Complex Projects

Systems

- Intercultural leadership
- Project Coaching
- Project Control and Reporting
- Project Startup support
- Support systems integration
- Remote sites integration
- Organizational maturity

Processes

- Team effectiveness
- Leadership development
- Project Recovery
- Advanced project training
- Project Health Check
- Advanced risk management
- Convergence planning

Project Control and Reporting
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