



- More than 75% of all the UKCS Field Development Projects undertaken failed to be delivered within their FID parameters.
- Most failures are due to non-technical issues.
- Project risk management is not highly valued by some Independent E&P Companies.

Which one was yours and why will the next one be better?

Field Development Projects

The Oil and Gas industry has undergone a few turbulent years. The industry operates in a landscape that is becoming increasingly volatile, uncertain, complex and ambiguous (VUCA). The downturn in the industry means uncertainty for all stakeholders. Having attended several conferences and events this year, we noticed one topic which was barely covered and yet, it is essential, project risk management. It is deemed to be one of the most important key elements of any investment in this industry.

Well planned and executed field development projects are essential for all stakeholders. The operators need the field development to be on time, to realise revenues from production, or to validate assets from exploration and appraisal. Drilling contractors rely on being drill ready to generate day rate income and cover OPEX (operational expenditure) as well as paying back CAPEX (capital expenditure). Investors and lenders rely heavily on the revenues and profits to service their debt and investment. Failing projects devastate financial performance for all the stakeholders and mars the industry's reputation.

The development of an oil and gas field costs millions of dollars and may require a long time (5-10 years) to be fully realized. As we all know, the field development phase is where value is added to the prospect. A well de-risked Field Development Plan (FDP) leads to a timely FID (Final Investment Decision) and within the projected budget.

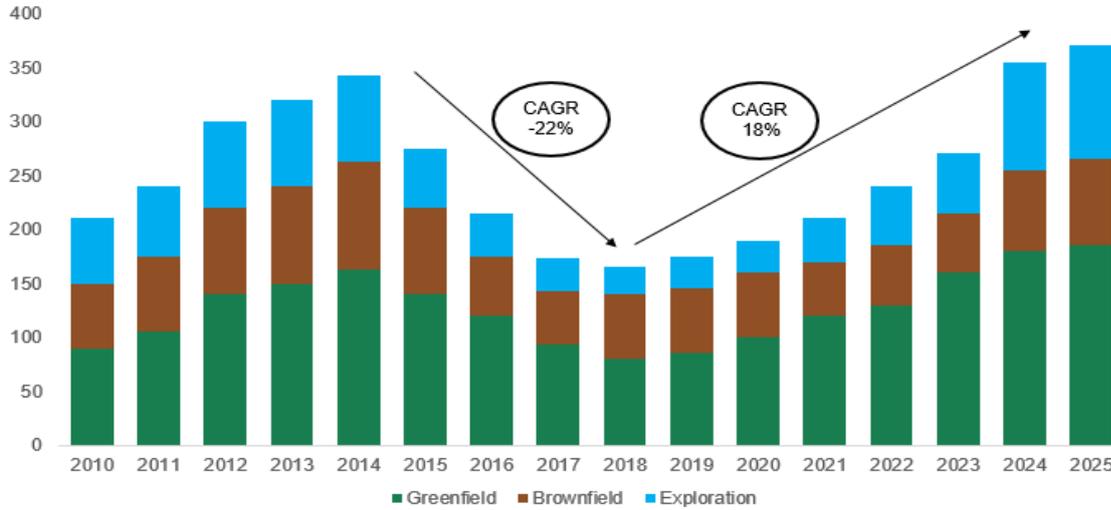
FDPs include the needed support for field optimization, and contain all activities and processes required to optimally develop a field. This key component is what differentiates projects and attract investors to the projects. It is of paramount importance not to minimise the importance of the economics and risk assessment of FDPs.

In 2013, we ran a research that looked at the quarterly results of 15 drilling contractors and the relationship between project delays and financial results. The results disclosed that nearly a third of the companies cited 'project delays' and 'start-up delays' as a reason for lower than forecast revenues.

Since First Oil has the biggest impact on funding and cash flow, when there are more project delays in the industry, it reduces the number of investors who would be willing to invest in the industry.

At the start of 2018, there were 104 delayed oil and gas projects waiting for investment approval, according to Rystad Energy. As *table 1* below shows, the global offshore investments have reduced since 2014 due to the low oil prices. Rystad Energy analysts believe that even though 2018 has the lowest investment level, it is also the year that marks an upward trend. However, it will take another seven years before global offshore investments reach pre- 2014 levels. These predictions, highlight that the challenges for independent operators to attract investors will continue for a long while.

Table 1: Global Offshore Investments (USD billion)



Source: Rystad Energy, Epeus Analysis

Based on our own analysis, explorers, especially small independent oil companies, are still struggling to find potential investors for their projects. The current oil prices and its uncertainties have made the struggle even harder than what it was pre-2014. How could explorers decrease the risk for investors? How could they make their proposition more appealing to investors?

The lack of financing could be attributed to misaligned objectives of the operators and investors. Some of the investors are interested on quick ROI (return on investments) projects, while most of the explorers have a long-range perspective. It could also be attributed to explorers who use too many technical jargons when they are pitching to investors. Lack of simplicity, risk identification and clear project plans make investors, not so keen to invest into exploration.

Reasons why projects fail

Some attributes that cause project failures are: being overly optimistic, aversion and a fear of failure, do-nothing culture, reliance on policies and procedures, and lack of trust.

According to the OGA (Oil and Gas Authority), since 2011 fewer than 25% of UKCS oil and gas projects have been delivered on time; with projects averaging 10 months' delay and coming in around 35% over budget. Smaller projects (less than £250 Million budget estimate range) were most likely to be delivered on or under budget. What's eye catching and eye watering is that not a single project over £250 million was delivered to the FID (i.e. they were all failures) - this is important to improve upon if the North Sea is to compete for project funding in the future.

Figure 1 below is an extract from the OGA report, *Lessons Learned from UKCS Oil and Gas Projects 2011-2016*. Looking at the FDP budget range of £500 Million to £1 Billion, all the completed projects were over budget, and three of the five in progress projects were reporting budget busts at the time of the OGA analysis. More than 75% of all the UKCS Field Development Projects undertaken failed to be delivered within their FID parameters.

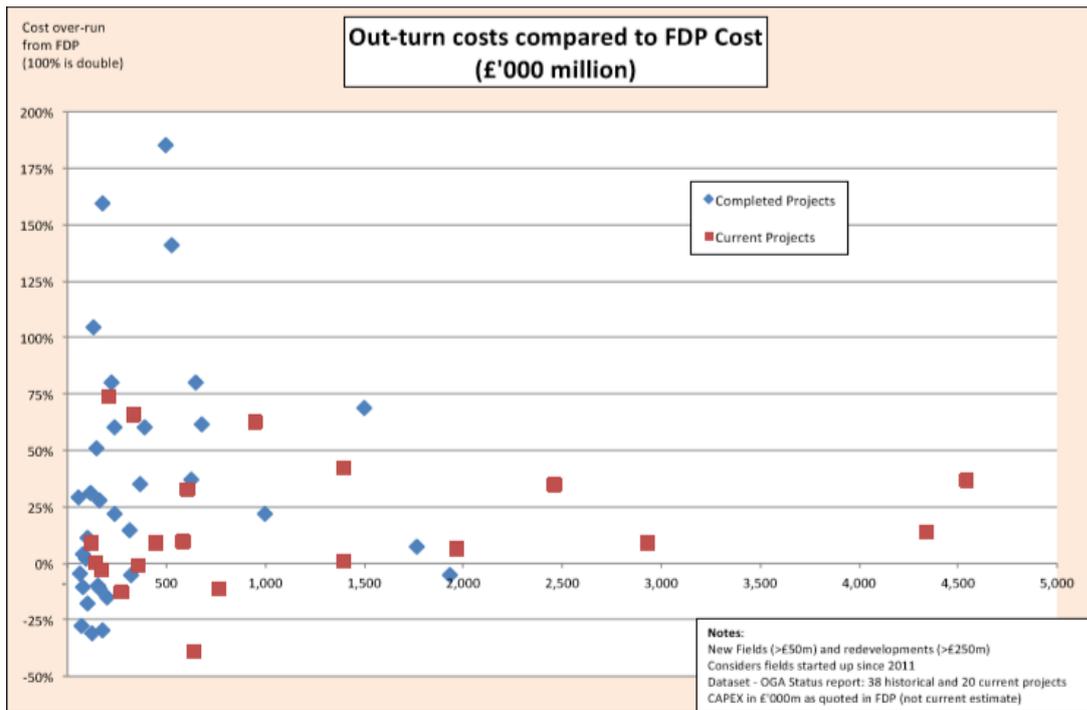


Figure 1. Out-turn Costs versus FDP Cost. (Source: OGA Lessons Learned Report)

The OGA reported lack of project management skills as the main reason for project failure and delay the oil and gas industry:

“is not necessarily ‘what’ was being built that greatly influenced the cost/schedule outcome of a project, but more ‘how’ the project was executed. Many of the reasons for deviation are non-technical in nature.”

We agree with this statement, and it reaffirms what we have been saying for the past 15 years. In most of our project rescue work, we have noticed that many independent E&P companies are comprised of subsurface executives - geologists and the like. Could there be correlation between the OGA findings of where the projects failed and the technical nature of the teams that manage the projects? The technical aspects are looked after but the risks and interface management aspects are not. Could it be that the management teams do not have the right tools, techniques, knowledge and experience to deliver? Yet, investors are investing in the management teams to deliver successful projects.

Since failure is due to softer issues, not the technical issues. Are we asking the right questions? Yet, evidence we see when we go review or rescue these projects, is that these soft issues are still not fully addressed.

Let’s play with some numbers and assume on average a FDP takes 5 years to be fully executed and each member of the management team has at least 30 years’ experience. It means in their whole career they would have been involved in six projects in total; and probably only three or four of them would be at the senior management level. What does this all mean in relation to the success rate? If we use the OGA ratio of one in four projects are delivered within the FID parameter. Then, it means that at most, each executive is likely involved in only one successful project. Is being involved in one successful project enough? This is an element of risk on its own. One project is not enough to capture all the lessons learned.

Our Findings

Summarized below are key insights gained from reviewing FDPs for some of our clients:

- Including the concept logic and risk profile such that the PEP (Project Execution Plan) becomes a highly credible external facing document and a powerful internal communication tool.
- Developing a simple, single overarching project process framework, which fits the culture, behaviour and needs of the Project.
- Designing team communication and engagement deliverables and events, which are focused on project goals and strategy.
- Increasing the accountability of project delivery.
- Keeping the project as simple as possible.
- Defining the overall interface management model for all project phases.
- Defining how the Project will be governed by the company Leadership, including the Investors role in this.
- Defining the project scope prior to project sanction.
- Clearly delineating between Project activities and company activities and how “Partners” who are also contractors on the Project fit in.
- Defining Company’s role and involvement in the Project phase that includes integration, commissioning, start up, handover and operations.
- Improving the co-operation between companies/stakeholders

A project’s strategies, approaches, plans and risks need to be formalised in writing and available to all relevant stakeholders. Project coordination, communication, integration, scheduling, risk and stakeholder management, control processes need to be fully developed and aligned. This would reduce the exposure to team disengagement and poor management performance.

Development of functional specifications and FEED (Front-end Engineering and Design) must be tightly controlled. The process needs to capture all the technical and HSSE (Health, Safety, Security and Environment) requirements of the well construction. Once completed, the FEED must not be allowed to exceed the functional specifications. Companies not rush sanction without completing a full and thorough due diligence across all project aspects. New technologies should be included in the contingencies plan because they can have significant and unexpected impact on schedule and cost

The impacts, cost and schedule, and risk from changes must be fully understood before implementation. If they are fully understood these impacts and risks can be managed. Otherwise, the reactive decision to the resulting negative effects can have serious repercussions by creating additional negative knock-on effects in the project.

Having worked on more than 200 projects, from project review, assurance to rescue, we know how critical it is to embed and capture lessons learned from other projects. This can only be achieved when companies implement a systematic approach and methodology in their projects.

Creating a Project Execution and Controls Plan (PECP) in readiness for project commencement; and adherence to it during execution will reduce or eliminate risk factors that give rise to project failure. It will help projects succeed on cost, scheduling, and quality parameters.

Until a robust project risk management approach is in place, the bridge between operators and investors will not be crossed easily.

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The Epeus Group

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