

Concept Symposium 2018 Governing Megaprojects – Why, What and How

Cost Estimation in Equinor; Adapting to Markets in Change

Succeeding the oil price drop in 2015, the recovery period has brought some significant changes to the mindset for how Equinor evaluate project development costs. The industry has gone through a journey from being extremely profitable, via marginal, to conditionally profitable. Cost estimation and benchmarking has gained increased internal interest as decision makers and project team members are obliged to push improvements, "knowing their numbers" and increase competitiveness of projects.

The name change to "Equinor" in May 2018 finally came after sharpening of the company strategy and the strategic intent, along with revision of the company values. "Collaboration" is key for future success, also when it comes to establishment of cost and weight estimates for the next generation portfolio.

How can cost estimation keep up with ever-changing markets and project framing in a long-term O&G business; still delivering expected values for future decision making?



Øystein Holth
Manager, Estimation
Equinor, Technology, Projects and Drilling,
Early Phase
Norway

The Concept Symposia on Project Governance

The Norwegian Ministry of Finance and the Concept Research Program hosts every second year a symposium on project Governance. Project governance, in brief, is concerned about investments and their outcome and long-term effects. In view of the problem at hand, the aim is to ensure that the best conceptual solution is chosen, that resources are used efficiently and anticipated effects realized. Resource persons from ministries, governmental agencies, academia, international organizations, and industry are invited. In order to facilitate professional exchange and direct communication between participants, the number of individuals is restricted. The aim is to initiate further international cooperation and research on important issues related to project governance.



Facility cost estimation in Equinor

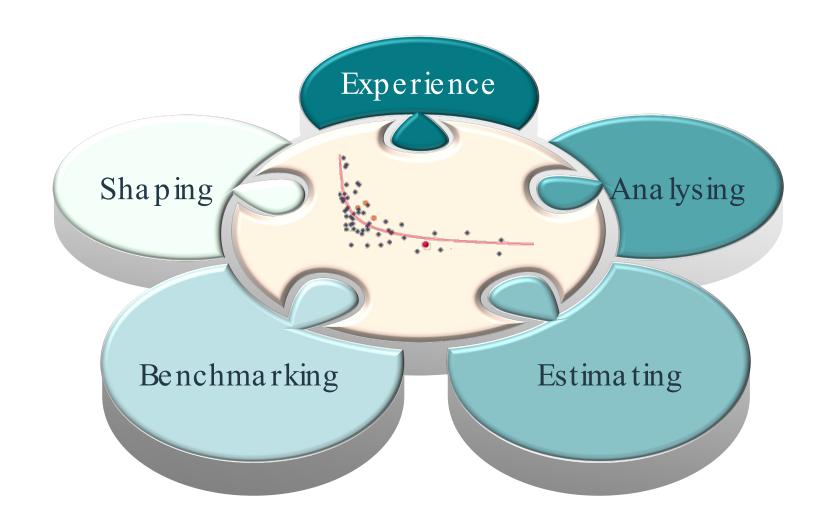
Adapting to markets in change

Øystein Holth, Manager Early Phase Estimation, Equinor



Early phase Estimation

- Investment and operation costs (CAPEX/OPEX)
- Weight
- Experience data
- Risk analyses
- Competence and resources

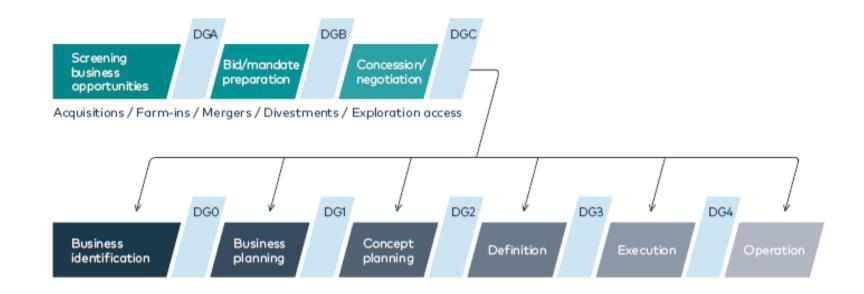


Always safe, high value and low carbon



Capital Value Process

- Stepwise maturation of the business case
- Decision gates and QC before entering next phase.
- Estimation deliveries in each decision gate up to execution



The Capital Value Process

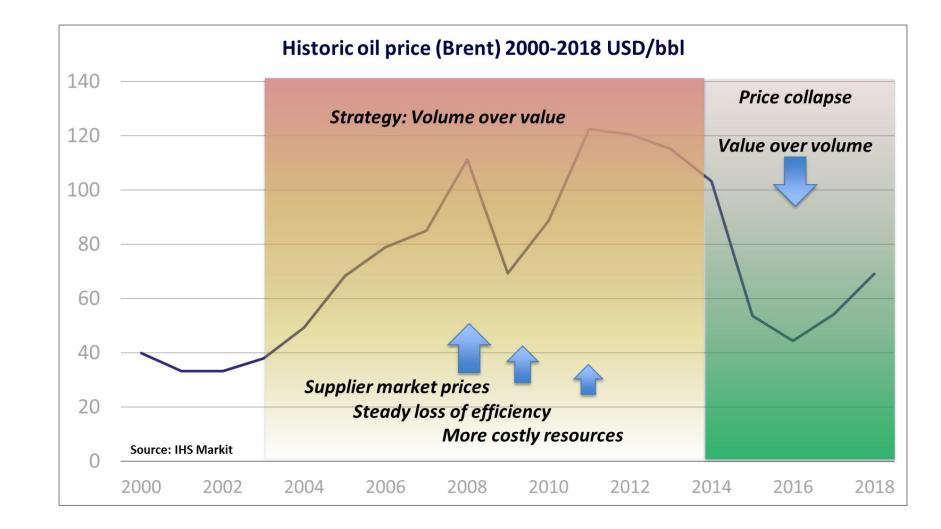
The Capital Value Process is a structured approach to developing a project.

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The O&G industry transition

- Tightness of oil market;
 the main cost driver
- 2003-2014: Supply costs driven by tightness of supplier markets and weaker project efficiency
- 20 14- Strategic shift to value based business.
 Market downturn and efficiency gains





Continuous improvement and lasting changes

- · Simplification in what we build and how we build
- Perfect well / Perfect project setting ambitious targets
- Design to value design to carbon





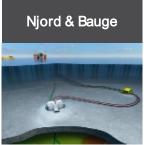
Competitive concept Subsea on slim legs.



Break-even

14 USD/bbl

Integrated contracts. Simplified design.



Break-even

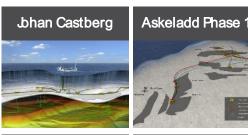
24 USD/bbl

Reuse of existing installations.



Break-even below 20 USD/bbl

Simplifications & copying.



Snorre Expansion Troll Phase 3





Volume weighted break-even

16 USD/ bbl

Design to value, standardisation and synergies across the portfolio.

NCS

Brazil

Canada

Tanzania

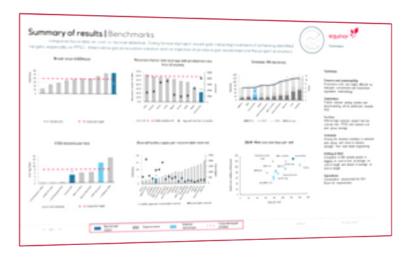
Concept optimisation.

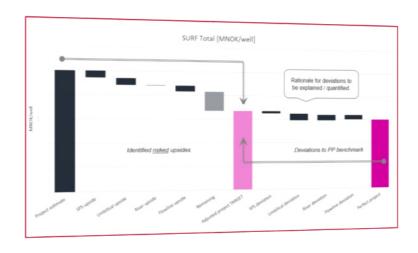
2013



Communcation in focus - continous improvement

- Improved benchmarking
- Perfect Project / Perfect Well
- Target estimates
- Business case thinking
- Financial KPIs







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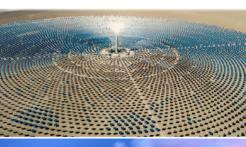
Changes for estimation?

- Sustainable market?
- Technology?
- Digitalisation?
- Scope optimisation!



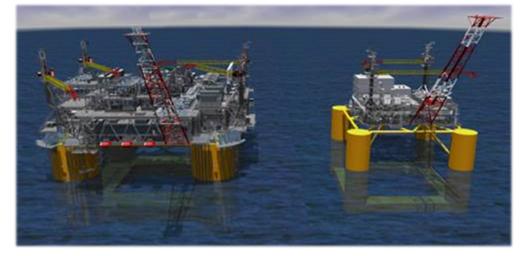














Way forward

- A tonne of steel is still a tonne of steel
- Impact of project execution models
- Changing terms and conditions based on geographical location



Continued effort to deliver <u>expected estimates</u>

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Facility cost estimation in Equinor; adapting to markets in change Øystein Holth, Manager Early Phase Estimation, Equinor © Equinor ASA

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