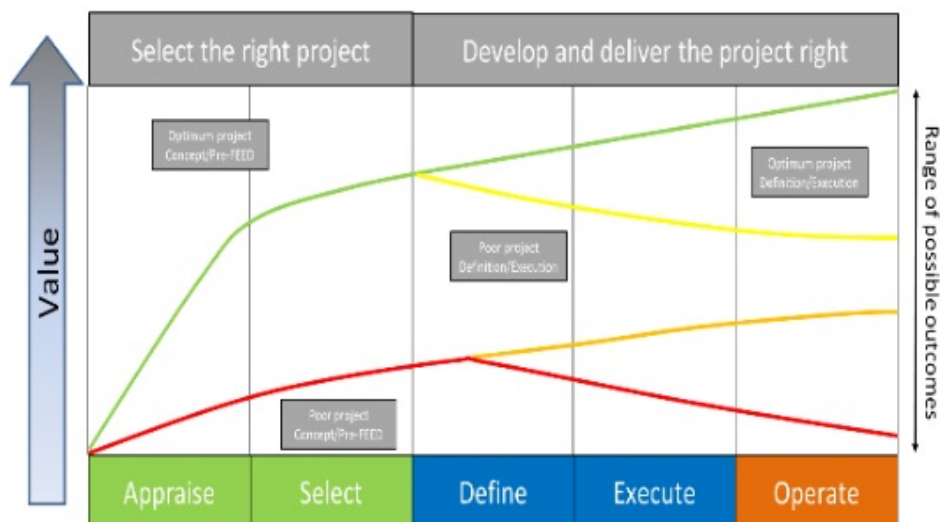




Cobra's field development teams identify early-phase technical solutions and generate order-of-magnitude cost estimates and high-level project master schedules.

Delving deeper into the field

Following on from the initial development stages, concept development looks to refine the opportunity further towards a viable solution. Using customer drivers we help you screen and select one or more concepts in the Select phase with further development into Pre-FEED. Alignment with your goals and drivers is a major part of our process here, ensuring that we identify the best solution to meet the needs of your investment. With our experience we are able to ask the right questions that not only guide the concept decisions but clarify and refine your drivers. Our conceptual studies allow our clients to move into the FEED stage with a larger engineering organisation but with Cobra available to assist as the clients engineering team.



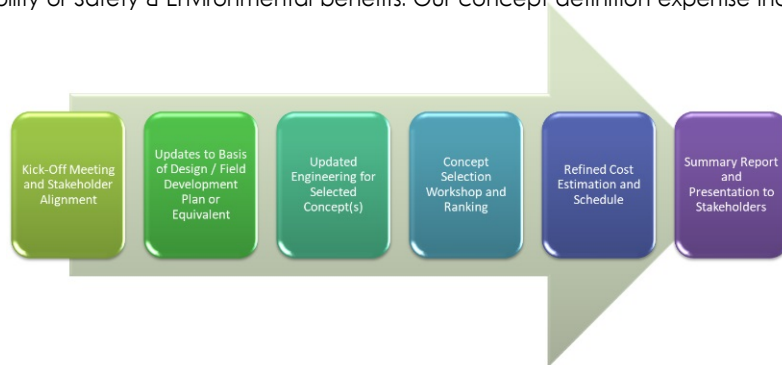
The early stages of concept definition have enormous influence on the direction and performance of the project. This is where the full power of our experience brings significant advantages, put simply, we know what works. The concept stage allows maximum flexibility to test ideas and generate optimum designs without extensive rework and importantly saves time and cost in later phases of projects. Having extensive experience from all phases from conceptual engineering through design, construction, commissioning and operations we apply the lessons learned to the conceptual study area meaning our solutions are well reasoned and rigorous with the entire client value chain considered.



Delivering capability

Our consultants understand the conceptual world delivering exceptional service. Our experience and offering is broad, innovative and sometimes frankly amazing. We bring novel but fit for purpose options to the forefront and help our clients add true value be that cost, schedule, operability or Safety & Environmental benefits. Our concept definition expertise includes the following:

- Concept Select/Pre-FEED
- Studies
- Onshore, Offshore & Subsea
- Greenfield & Brownfield
- Process & Facilities Design
- Flow Assurance & Pipeline Design
- Cost Estimation
- Schedule Development
- Constructability
- Operability
- De-commissioning



We know concept engineering, it's in the way we think and comes naturally to us. Our typical high level process for carrying out a Select study is shown below.

Typical conceptual activities that we undertake include:

- High Level or in-depth market evaluations;
- Country specific legislation & infrastructure;
- Assessment of drivers and selection criteria
- Analysis of competing or integration of developments;
- Establishment of project management systems and/or development decision gate processes;
- Concept Appraise and Select studies which include some of the following activities:
 - Option identification, screening and selection;
 - Selection and development
 - Defining solutions in greater detail
 - Engineering calculations and simulations
 - Development of Project Execution Plan and key project drivers;
 - Generic or specific field development concepts and reports;
 - Safety & Environmental reviews;
 - Risk reviews;
 - Order-of-magnitude cost estimates;
 - Early development schedules
 - Refined weight and cost estimates
- Scoping of further studies necessary to support the next phase of a development.

We have pride in our abilities, capabilities and social awareness and apply these in all of our Conceptual engineering activities.