



# Feasibility Studies

The KBC Feasibility Study Solutions provide flexible conceptual engineering services for both Process Plant Revamps and Grass Roots Facilities.

Our TotalSite Methodology ensures a holistic and coherent project development strategy, which carries a clear understanding of the cost/benefit implications of the project assumptions and decisions. This methodology comprises the following elements:

### Step 1: Data Gathering and Basis Definition

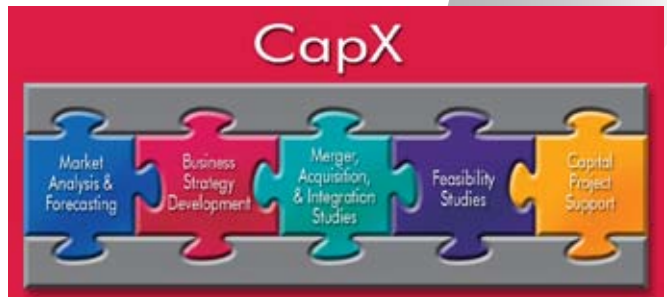
- Market Analysis and Forecasting
- Future Product Specification Requirements
- Regulatory Environment
- Historical Operating Rates and Plant Reliability
- Existing Capital Investment Plans

### Step 2: Base Case Development

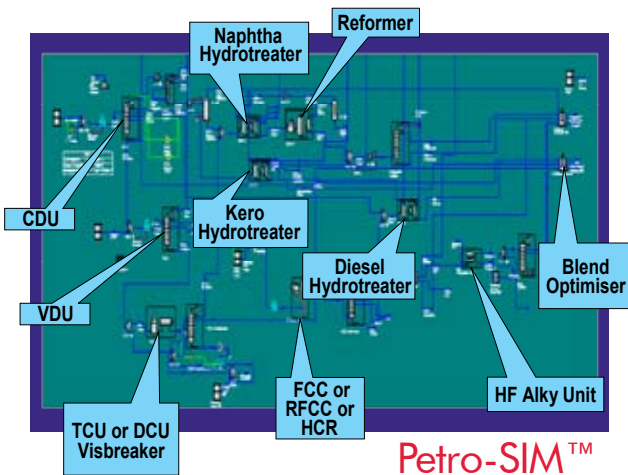
- Accurate Representation of Existing Facilities
- Clear Definition of Required Feedstock and Production Flexibility

### Step 3: Evaluation and Optimisation of Potential Investment Options

- Analysing Potential Investment Options within Site-wide Context
- Rigorous Site-wide Simulation Modelling
- Technical, Operational, and Mechanical Practicality
- Financial Modelling
- Target-setting for Energy and Utilities Consumption



TotalSite brings together the world-leading KBC site-wide rigorous simulation software, Petro-SIM™, with our in-house Process Technology expertise and extensive experience in capital project development. We deliver tailor-made, innovative designs that provide maximum feedstock and production flexibility, inherent energy efficiency and reliability with optimal, independent, technology selection to meet the forecast market requirements. In addition, we strive to focus on the needs of our clients. As KBC is completely independent of licensors, this helps us choose the proper configuration to maximise value-added – free of bias that might exist with other companies.



**Site-wide Holistic Approach**

**In-house Technology Knowledge and Expertise**

**Proven Track Record**

Our in-house expertise and rigorous simulation technology avoids the need to rely on process licensors for yield estimates, resulting in improved engineering efficiency and faster delivery of the Feasibility Study results.

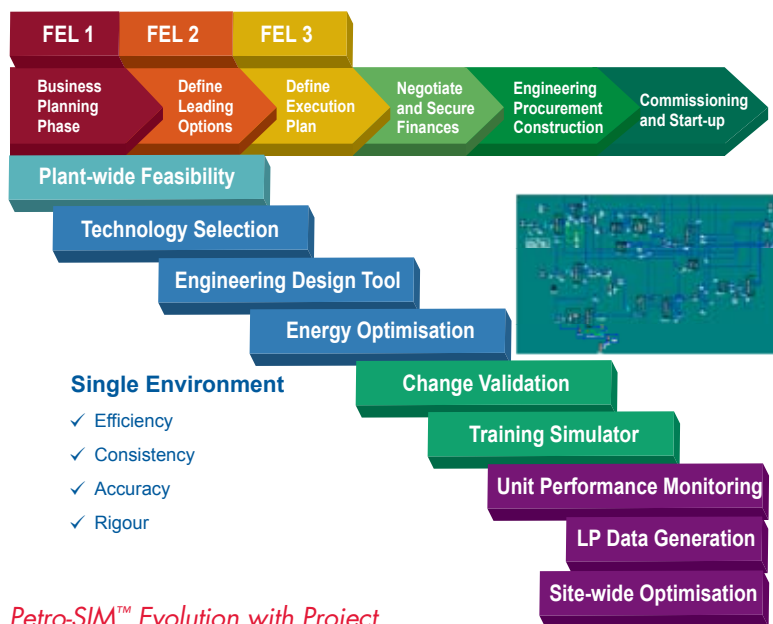
In combination with utilising synergies with any existing plant, KBC TotalSite projects achieve the highest possible Return-on-Capital Employed (ROCE), while complying with the most stringent environmental standards.

Examples of Feasibility Study assignments we have carried out for our global client base include:

- Optimisation of Existing Plant Prior to Investment
- Screening of Configuration Options and Selection of Optimum Configuration
- Screening and Assessment of Potential Investment Options
- Analysis of Environmental Impact
- Review of Process Technology as an Independent, Third-party
- Evaluation of New Feedstocks for Existing Plant
- Analysis of the Impact of Changing Product Quality Specifications or Environmental Legislation on Operations and Investment Plans

- Analysis of New Product Opportunities
- Development of New Plant Basis for Design or Detailed Project Definition
- Definition of Clear and Consistent Business Case for Investment
- Creation of Preliminary Construction Schedules
- Providing Support for Project Funding Negotiations with Investors or Partners
- Providing Support for Feedstock Supply and/or Product Off-take Negotiations

TotalSite Petro-SIM site-wide models are used to accelerate the subsequent phases of the capital development cycle, by providing a consistent medium for delivery of Basis of Design documents as input to licensor bid documents and for licensor evaluation and selection. Petro-SIM can also be used for development of Basic Engineering packages and for assembly of a very accurate virtual FEED model of the plant. Investment in a Petro-SIM model as part of the proposed investment during the Feasibility stage is estimated to cut 20-30% from the schedule of the Pre-FEED and FEED elements of the capital development cycle, which, if translated into earlier commissioning of the new asset, represents a significant increase in net present value.



*Petro-SIM™ Evolution with Project*

™ Petro-SIM is a trademark of KBC Advanced Technologies plc, and it is registered in various territories.

*KBC offers a comprehensive range of consulting, implementation, and training solutions to provide sustainable competitive advantage to our process industry clients worldwide.*



**DRIVING EXCELLENCE**

**OUR SERVICES INCLUDE:**

**CapX – Capital Excellence**

- Market Analysis & Forecasting
- Business Strategy Review
- Merger, Acquisition, & Integration Studies
- Feasibility Studies
- Capital Project Support

**OpX – Operational Excellence**

- Operational Planning
- Process Optimisation
- Energy
- HSE
- Reliability, Availability, & Maintenance
- Human Performance Improvement
- Software Solutions

*For more information, please visit [www.kbcat.com](http://www.kbcat.com), contact us at [salesinfo@kbcat.com](mailto:salesinfo@kbcat.com), or call*

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