

# Increasing Efficiency of all Operations: Getting More by Targeting Less

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- Why to Optimise?
    - Reduce CAPEX and OPEX
    - Maximise revenues
  
  - When & Where to Optimise
    - **Project Phases**; feasibility, concept, FEED, Detailed Engineering
    - **Operations Phase**; Operability, availability, Maintenance & Commercial

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- Study Methodologies & Tools
    - Structured Concept Studies through Option ID, Coarse Screening, Option Definition and Option Screening
    - Building Blocks, Scenarios, Strategy, Driver, Constraints, Reference Case
  - Building Blocks Categories:
    - Reservoir
    - Environmental (energy efficiency)
    - Safety
    - Technology (Digital Solutions, R&D and New Technology Development, Technology Management & Strategies)
    - Cost
    - Production Chemistry & Flow Assurance
    - Schedule and Timing
    - Potential Risks
    - Flexibility

- Operability
- Availability (Facilities & Equipment)
- Production Optimisation (Integrated Production Modelling – Use of Digital Applications)
- Reduce OPEX & Management of Plant Maintenance
- Supply Chain

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- Are we currently implementing optimization strategies in different projects and operational phases? If so, which areas are we focusing on the most? What are the critical categories that, when optimized, generate the highest value?
  - What types of solutions and tools are we currently utilizing? Are they efficient and cost-effective?
  - What are the gaps in terms of necessary technologies and solutions that would enable a higher level of optimization during project and operational phases?
  - Are targeted R&D activities recognized and adopted as key enablers for developing advanced optimization solutions within the industry? Are E&P companies adequately equipped with R&D departments to achieve these objectives?
  - Given the current agile technology development environment within high-tech companies and service providers, is the current structure of PhD programs suitable for addressing the applied research needs of the oil and gas industry? What actions can be taken to align research programs in universities with industry expectations and provide flexibility to accommodate the rapidly evolving technological landscape?
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- An open area platform that allows E&P companies to share project data, expertise, and lessons learned is considered highly advantageous for optimizing the design and operation of new developments.
  - Uncertainty management and risk-based methodologies are applicable not only to small and marginal field developments but also to CCS (Carbon Capture and Storage) projects.
  - Experience transfer within an organization and across the industry is a critical area for research and knowledge enhancement.
  - While optimization efforts typically occur within individual departments or silos, it is crucial to adopt an integrated approach that considers the broader perspective.
  - The development of solutions that facilitate easy searching and access to relevant data and lessons learned from previous projects is recognized as a key enabler for maximizing the value creation of projects.
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