

## SERVICES TO THE OIL & GAS INDUSTRIES

SAXUM provides a wide range of engineering services for the Oil & Gas industries, including scoping and feasibility studies, trade-off analyses, conceptual, basic and detailed engineering. Our engineering capabilities encompass all technical disciplines including civil & structural, mechanical & piping, and electrical, instrumentation & control engineering.



SCOPING STUDIES,

FEASIBILITY STUDIES,

TRADE-OFF ANALYSIS,

CONCEPTUAL ENGINEERING,

BASIC ENGINEERING,

EXTENDED BASIC ENGINEERING,

DETAILED ENGINEERING

CAPEX AND OPEX ANALYSIS,

PROJECT MANAGEMENT

CONSTRUCTION MANAGEMENT

PROJECT CONTROL

PROCUREMENT

SAXUM's Engineering Team uses the most efficient and comprehensive computational software for developing engineering designs in full 3D environments, allowing accurate integration between the designs of all different technical disciplines. SAXUM's engineering approach to projects of the Oil & Gas industries focuses on constructability aspects and added value engineering through cost-effective designs.

Our assigned engineering team in each project of the Oil & Gas industry is complemented and, moreover, coordinated by highly specialized teams for Project Managers, Project Controllers and QA/QC Supervisors. Furthermore, SAXUM's Procurement and Construction Management services provides the direction, regulation and supervision of Oil & Gas projects from early development to its completion. Our Construction Management team follows the most efficient methods, construction strategies and budgeting. The team is composed by multidisciplinary professionals to allow the coordination of all involved disciplines including safety, supervision, quality, contracts follow-up, administration, commissioning, etc.

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### SAXUM'S MULTIDISCIPLINE ENGINEERING SERVICES TO THE OIL AND GAS PRODUCTION AND PROCESSING INDUSTRY ARE THE FOLLOWING:

- CIVIL AND STRUCTURAL ENGINEERING,
- COST AND SCHEDULE ESTIMATION,
- ELECTRICAL, INSTRUMENTATION AND CONTROL ENGINEERING,
- MECHANICAL AND PIPING ENGINEERING,
- PROCESS ENGINEERING,
- RISK, SAFETY, AND ENVIRONMENTAL ENGINEERING
- EQUIPMENT DIMENSIONING,
- BIDD OF MATERIALS
- CAPEX AND OPEX

### OUR CONSULTANCY SERVICES SPAN GREENFIELD AND BROWNFIELD DEVELOPMENTS AND INCLUDE:

- Advisory services – subsurface and surface facilities expertise, including reservoir characterisation, geological modelling and simulation.
- Asset and facilities support – integrity, asset enhancement and modifications.
- Dynamic simulation and transient analysis.
- Flow assurance.
- Complex finite element analyses such as fracking simulation for shell-oil and shell-gas.
- Stress analysis.
- Soil/rock mechanical feature evaluations.
- Non-linear finite element analysis of porous materials and failure behavior.
- Integrated field development planning – feasibility, concept, pre-FEED.
- Late life asset management – production enhancement, concept studies, structural and marine assurance, cost estimating.
- Operations support and production enhancement/production technology chemistry
- Process technology and studies – upstream, midstream, and downstream support across oil production and processing, gas production, sour gas, gas monetisation and refining.
- Renewables – offshore wind, fixed and floating facilities.
- Subsea and pipelines engineering.
- Vibration analysis and acoustic engineering.
- Complex offshore structural analysis and fatigue / life extension assessment.
- Structural damage/pathology evaluations and development of optimal solutions designs.

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### WE ADD VALUE THROUGHOUT OUR EXTENSIVE EXPERIENCE IN ENGINEERING SOLUTIONS AND PROJECT MANAGEMENT FOR THE INDUSTRY

#### SAXUM'S EPCM SERVICES FOR THE INDUSTRY INCLUDES:

- COMPLETE ENGINEERING DESIGNS, FROM CONCEPT TO DETAILED ENGINEERING,
- ISSUING OF BID PACKAGES FOR EQUIPMENT, SERVICES, SOILS MOVEMENT, PERFORATIONS, AND CONSTRUCTION/ERECTION WORKS,
- FOLLOW UP OF BIDDERS QUESTIONS AND REQUEST FOR INFORMATION,
- CONTRACTS ISSUING AND LEGAL DISCUSSIONS WITH BIDDERS,
- ASSISTANCE/SUPPORT NEGOTIATIONS WITH BIDDERS UNTIL CONTRACTS SIGNATURE,
- LOGISTIC AND EXPEDITING SERVICES,
- CONSTRUCTION MANAGEMENT,
- SITE SUPERVISIONS OF ALL ACTIVITIES ON SITE,
- HEALTH, SAFETY AND ENVIRONMENTAL
- COMMISSIONING,
- START-UP,
- CONTRACTS FOLLOW-UP,
- QA/QC