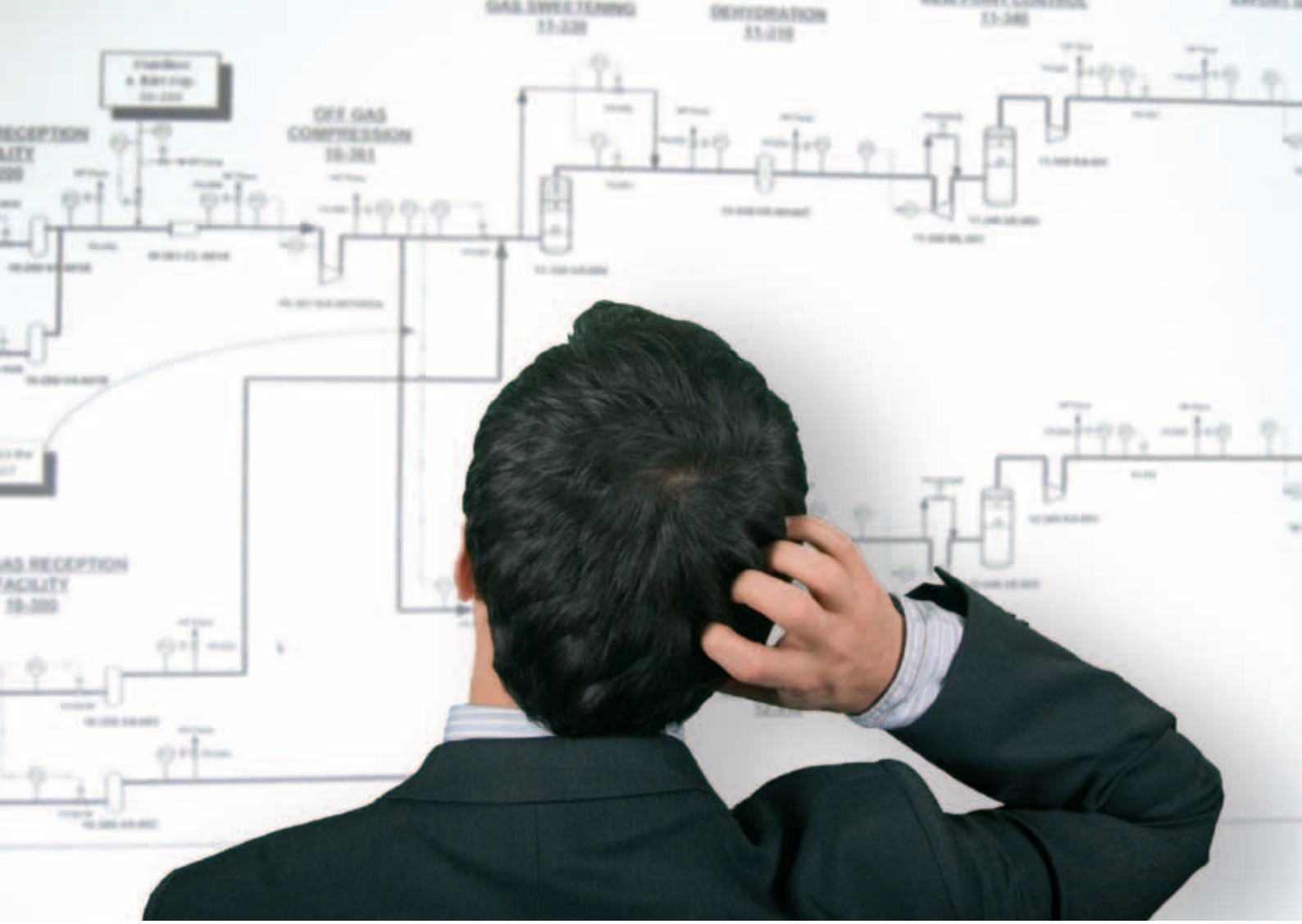

ALL RISKS ARE OBVIOUS WHEN YOU KNOW WHAT TO LOOK FOR

PROJECT FINANCE SERVICES

RISK MANAGEMENT SOLUTIONS FOR BANKS, EQUITY FUNDS, SPONSORS AND INVESTORS

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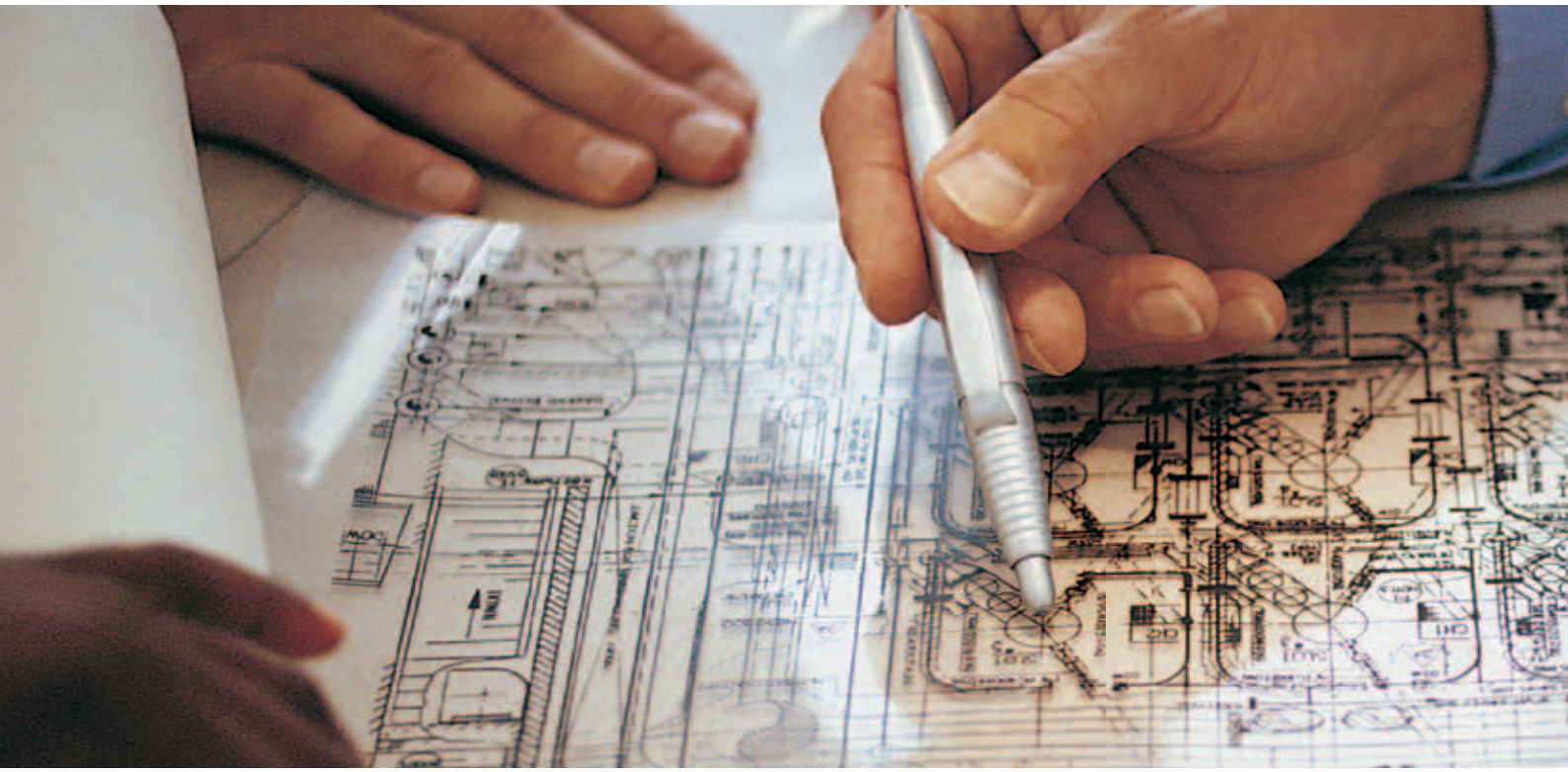


ARE YOU AWARE OF YOUR PROJECT RISK?

IS THE PROJECT FEASIBLE?

WHAT IS THE PROJECT IMPACT?

DOES THE PROJECT MEET ENVIRONMENTAL AND SOCIAL STANDARDS?

ARE THE PROJECT COSTS REALISTIC?

WHAT IS THE REAL PROJECT STATUS?

WHERE IS THE PROJECT MONEY SPENT?

WILL THE PROJECT BE PROFITABLE?

WILL THE PROJECT BE COMPLETED ON SCHEDULE?

WILL THE PROJECT MEET OPERATIONAL REQUIREMENTS?

HOW DO YOU MANAGE THESE RISKS?

Before deciding to sponsor or invest in a project you need to factor in all risks that might jeopardize its success.

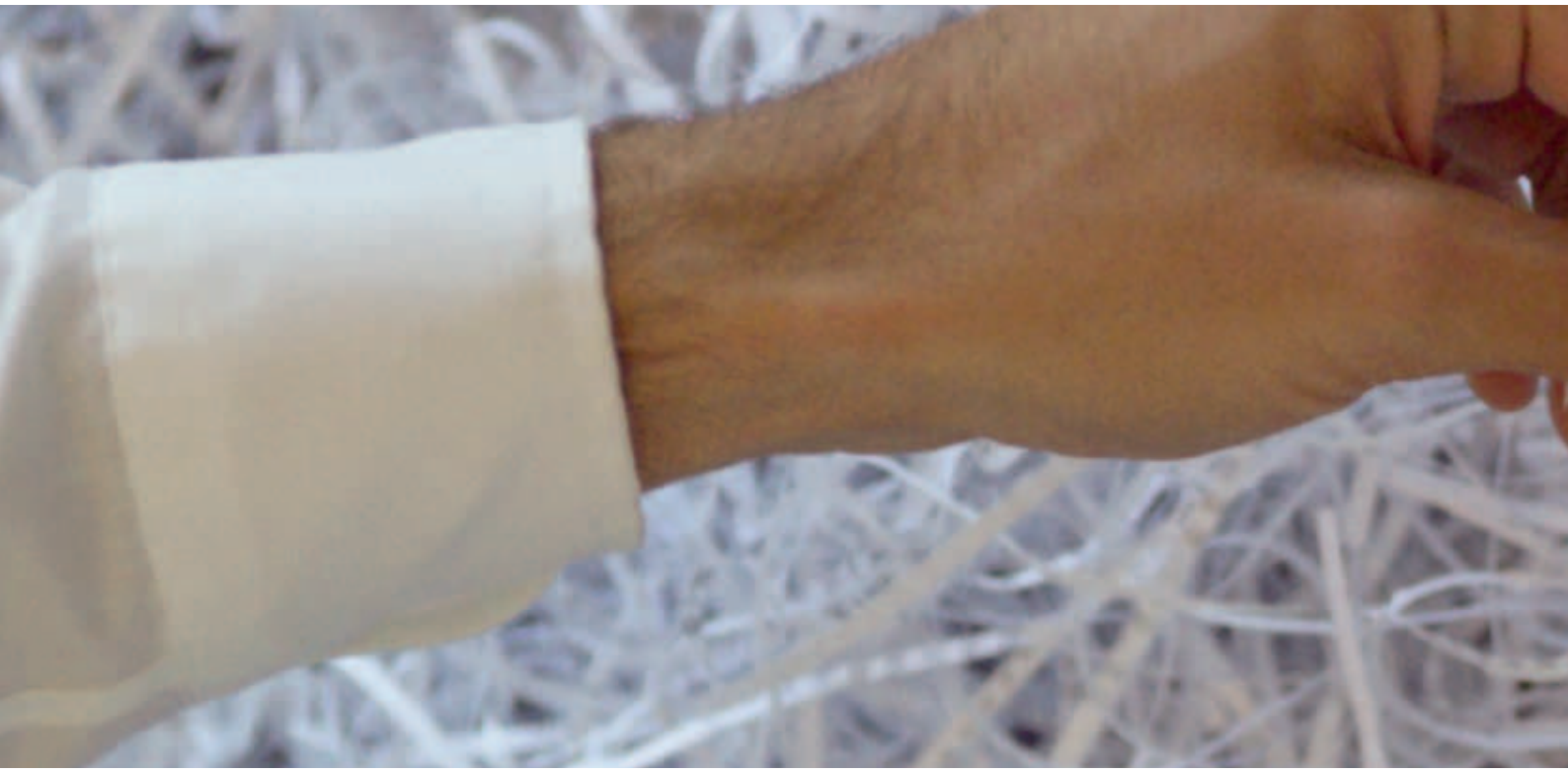
Some risks are hard to manage and require robust protective and corrective mechanisms to mitigate them, such as insurance, currency hedging, contractual arrangements, contingency funds and lines of credit. These risks typically include

- **LEGAL RISKS**
  contractor insolvency, breach of contract
- **MARKET & POLITICAL RISKS**
  price and currency fluctuation, legal system change, civil commotion, war, terrorism
- **OTHER RISKS**
  natural disaster, fire, force majeure

However, some risks are well within your control and can be managed if you use the relevant and adequate preventive tools, such as due diligence, technical review and verification. These risks typically include

- **TECHNICAL & OPERATIONAL RISKS**
  faulty design, materials or workmanship, construction or supplier performance
- **ENVIRONMENTAL & SOCIAL RISKS**
  pollution, impact on landscape, labour conditions, health, safety, security, land acquisition, biodiversity, conservation
- **ECONOMIC RISKS**
  cost of construction, supplies, operations or maintenance

Ironically, these are the risks that cause the majority of cost overruns and delays, yet can be easily prevented.



SOLUTIONS FOR YOUR PROJECT FINANCE NEEDS

THROUGHOUT THE PROJECT LIFECYCLE, ACROSS INDUSTRY SEGMENTS, WORLDWIDE

PROJECT LIFECYCLE	DEVELOPMENT DESIGN	APPRAISAL APPROVAL
SERVICES		
TECHNICAL OPERATIONAL	■ Pre-feasibility studies ■ Testing and optimisation ■ Design and engineering review ■ Tender support ■ Site assessment ■ Regulatory compliance	■ Feasibility studies ■ Technical due diligence ■ Site visit ■ Regulatory compliance
ENVIRONMENTAL SOCIAL	■ Environmental impact assessment ■ Tender support ■ Regulatory compliance	■ Equator principles independent review ■ Environmental due diligence
ECONOMIC	■ Economic feasibility ■ O&M economic models ■ Price/cost evaluation	■ Economic due diligence ■ O&M economic models ■ Price/cost evaluation

ENGINEERING, PROCUREMENT, CONSTRUCTION (EPC)	OPERATION & MAINTENANCE (O&M)
■ Project management ■ Project monitoring ■ Manufacturing inspection ■ Installation inspection ■ Regulatory compliance ■ Project management systems ■ Commissioning monitoring ■ Project certification	■ Operational monitoring ■ Regulatory compliance
■ Equator principles monitoring ■ Health, safety and environment	■ Equator principles monitoring ■ Health, safety and environment
■ Cost review	■ Cost review

TECHNICAL & OPERATIONAL RISKS

ENERGY & INFRASTRUCTURE PROJECTS

With over 10,000 engineers and technical experts worldwide, SGS has the global expertise and proven track record needed to deliver services to energy, infrastructure and utility projects. SGS services help investors and sponsors manage project risks by providing independent expert advice and opinions, including

PRE-FEASIBILITY STUDIES

- Design and engineering study
- Site visit
- Tender support
- Specification review
- Support selection of suppliers and subcontractors
- Permit and license review

TECHNICAL DUE DILIGENCE

- Design and engineering review
- Site assessment
- Technical contract evaluation
- Specification verification
- Supplier and subcontractor qualification review
- Permit and license review

PROJECT MANAGEMENT

- Construction supervision
- Budget control
- Accounts review
- Procurement support
- Project experts on-site
- Project management systems

PROJECT MONITORING

- Milestone monitoring
- Schedule review
- Cost review
- Quality review
- Site visits and progress reports

MANUFACTURING INSPECTION

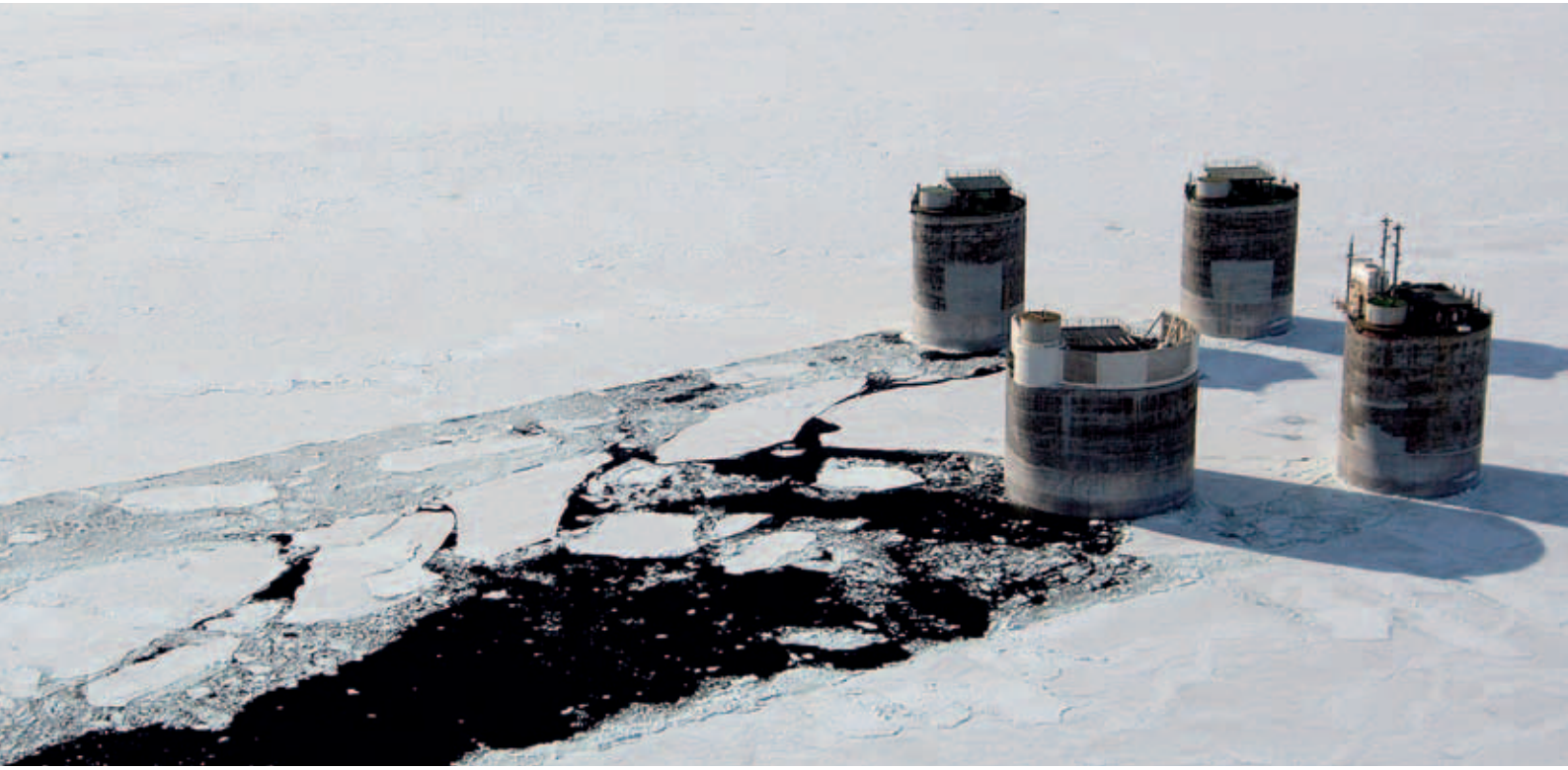
- Quality control during manufacture
- Verification of documentation related to materials and components
- Supervision of acceptance trials at production and/or procurement
- Loading and unloading supervision
- Product certification

INSTALLATION INSPECTION

- Site supervision in accordance with legal construction requirements
- Continuous contractor supervision
- Non-destructive testing supervision
- As-built documentation

COMMISSIONING INSPECTION

- Initial start-up and testing procedures verification
- Trial start-up supervision
- Test result evaluation
- Start-up and final commissioning supervision
- Installation certificate issuance
- Final acceptance certificate



OIL & GAS PROJECTS

SGS has experience in applications across the full life cycle of oil and gas assets, from prospect assessment and identification in the exploration phase, to green field development planning and operation, to mature field optimisation. SGS experts have the capability to clearly, identify and quantify risks and uncertainties associated with all phases of the life cycle of an Exploration & Production (E&P) asset, and propose optimised solutions and actions to mitigate such risks.

RESOURCES/RESERVES TECHNICAL AUDITS

- Identify and assess assets based on geological, seismic, well production, CAPEX and OPEX data reports
- Validate/calculate Oil and Gas In-Place volumes (STOIIP and GIIP) of assets
- Validate/calculate technical production profiles and Resources/Reserves as per petroleum industry rules and guidelines (i.e. SEC, PRMS, NI51-101, UKLA)
- Validate/calculate development and operating cost profiles
- Perform economic evaluations, provide assets valuations
- Asset value assurance
  - Equity (re)determination
  - Data Rooms – A&D
- Risk assessment

DUE DILIGENCE

- Review and assess viability and sustainability of CAPEX programs
- Review Field Development Plan (FDP) and Minimum Work Programs (MWP)
- Review reserves report
- Perform conformance checks of well drilling and evaluation results
- Peer review

EXPLORATION STUDIES (UNDISCOVERED PROSPECTS AND LEADS)

- Regional review & play definition
- Seismic interpretation and seismic inversion
- Prospect identification & evaluation
- License application support

DEVELOPMENT STUDIES (GREEN FIELD)

- Development screening, development planning
- Conceptual engineering
- Reservoir geological modelling
- Dynamic reservoir simulation
- Well design & technology

PRODUCTION STUDIES (BROWN FIELD)

- Re-development or infill development opportunities
- Screening, feasibility, pilot and full-field project for Enhanced Oil Recovery (EOR)
- Reservoir monitoring and management
- Field operations incl. well testing
- Geomechanics

STORAGE AND "UNCONVENTIONAL" RESOURCES TECHNICAL ASSISTANCE

- Carbon Capture and Sequestration (CCS)
- Underground Gas Storage (UGS) projects
- Underground Coal Gasification (UCG)
- Coal-Bed Methane (CBM)
- Shale gas
- Tight gas

TECHNICAL & OPERATIONAL RISKS

MINERALS PROJECTS

Across the minerals sector, SGS is known to have a proven track record for providing bankable exploration, mining and metallurgy services to projects globally. We have industry leading expertise to help you address ore variability (spatial risk), metallurgy and plant design, water and power use as well as CAPEX and OPEX requirements. SGS has the objective and independent means to assist you optimise your project planning and execution.

EXPLORATION AND RESOURCE DEVELOPMENT

- Project management and drill program supervision
- Geochemical testing for 80+ elements
- SGS Geometallurgical Framework to assist with domain definition and sampling
- Orebody modelling and resource calculations
- Geotechnical baseline studies

PRE-FEASIBILITY STUDIES

- SGS Geometallurgical Framework to create and populate block models with grade, metallurgical, environmental and geotechnical data
- Metallurgical flowsheet development and testing, geometallurgy
- Acid rock drainage testing
- High Definition Mineralogy
- NI43 101 and JORC Technical Report writing or audit

FEASIBILITY STUDIES

- Bankable pilot plant testing
- SGS Geometallurgy Framework to support economic evaluation of process and mine planning, modelling and optimisation
- Mine closure and rehabilitation planning
- Production of market samples

TECHNICAL DUE DILIGENCE

- Plant design, efficiency and operation audits
- Review of business plan and financial models
- Review of construction and commercial agreements

CONSTRUCTION SUPPORT

- Project management and reporting
- Procurement support

COMMISSIONING SUPPORT

- Metallurgical start-up support and training
- Project experts on-site
- Optimisation and definition of KPIs for plant operation

PRODUCTION SUPPORT

- On-site laboratories
- Production forecasting and planning
- Metallurgical accounting
- Process control and advanced systems
- Plant debottlenecking, optimisation and audits
- Toll milling support, smelter support, industrial product recycling

AGRICULTURAL PROJECTS

SGS has over 130 years of experience in the agricultural sector. This, combined with our extensive network of experts and the use of the latest technology related to precision farming, crop studies and commodity testing, enables us to add value to your projects. For investors and sponsors, it is essential to understand and evaluate the implications on their projects of growing crops in specific regions, soil and weather conditions and water availability. SGS services include

FEASIBILITY STUDY AND MARKET RESEARCH

- Data gathering, processing and reporting
- Market estimation and assessment
- Evaluation of trends influencing the project
- Mapping of a project's clients and competitors
- Market risk assessment

PROJECT DEVELOPMENT ASSISTANCE

- Field assessment, e.g. identify and quantify the available agricultural land suitable for the project
- Schedule evaluation by identifying and describing key milestones
- Propose management team by benchmarking with similar projects
- Evaluate and estimate pest/weed controls and fertilisation requirements
- Identify, evaluate and estimate the costs of equipment and service suppliers

PROJECT REVIEW AND DUE DILIGENCE

- Agricultural development plan review
- Site assessment, including water supply, soil conditions, etc.
- Review of development schedules
- Contractor and supplier qualification review
- Review and comment on the extent, quality and costs of activities performed
- Permit and license review

PROJECT MANAGEMENT

- Development plan for soil preparation, fertility management, planting, maintenance of the fields, etc.
- Budget control
- Procurement support
- Management team on-site
- Project management systems

PROJECT MONITORING

- Milestone monitoring
- Equipment and service cost evaluations
- Inspection of the quality and quantity of inputs acquired by the project
- Site visits and progress reports

ENVIRONMENTAL & SOCIAL RISKS

Environmental and social issues have become as important to a project as financial, legal and technical ones. For investors and sponsors these risks can impact not only project cost and return on investment, but also their reputation. SGS has a proven track record in addressing these issues in a wide range of industry segments.

ENVIRONMENTAL SERVICES

- Environmental impact assessment
- Environmental due diligence
- Emission monitoring
- Field investigations, sampling and monitoring
- Compliance review, i.e. regulations or permits
- Health and safety monitoring and management
- Independent project review
- Independent project monitoring

EQUATOR PRINCIPLES

The Equator Principles are a set of guidelines, promoted by the IFC that address the environmental and social issues associated with major projects. Over 70 banks and financial institutions have voluntarily adopted the Equator Principles. They provide an effective project finance social and environmental risk management tool, through the incorporation of IFC Performance Standards.

The principles are as follows

1: Review and categorisation
2: Social and environmental assessment
3: Applicable social and environmental standards
4: Action plan and management system
5: Consultation and disclosure
6: Grievance mechanism
7: Independent review
8: Covenants
9: Independent monitoring and reporting
10: EPFI Reporting.

SGS can provide

- Environmental and social assessment to sponsors (as per Principle 2)
- Independent review for banks (as per Principles 7)
- Independent monitoring and reporting (as per Principles 9)
- Gap analysis of environmental management systems
- Equator Principles training

CERTIFICATION SERVICES

SGS continue to offer audit, certification, assessment and training services once projects are fully operational against the requirements of

- ISO 14001 (Environmental Management Systems)
- ISO 9001 (Quality Management Systems)
- BS EN 16001 (Energy Management Systems)
- OHSAS 18001 (Occupational Health and Safety)
- Global Reporting Initiative (GRI) and AA 1000 Assurance Standards (Sustainability Report Assurance)
- SA 800 (Social Accountability)
- BS 25999 (Business Continuity)
- Forest Product Chain of Custody certification
- Audits against customised criteria

ECONOMIC RISKS

SGS can combine our technical and economic expertise to understand the implications of technical issues and risk on the financial profile of a project, including financial close, payment schedules, IRR. From a technical point of view, we can deliver the following services

DUE DILIGENCE

- Review estimated costs, budget and financial model and identify possible cost overruns
- Review insurance and performance bond coverage, penalties and liquidated damages
- Evaluate the provisions by comparison with the costs of similar projects
- Comparison of construction and operational costs with similar projects
- Evaluate the operational costs, capacity and availability of the project's facilities
- Review of project schedule and evaluate the impact of possible delays
- Documentary verification of price of main suppliers and equipment, using prevailing market price methodology
- Conduct a technical validation of the economic model
- Evaluate the project competitiveness in the context of local or regional market
- Provide input for various development scenarios in the economic models

PROJECT MONITORING

- Gap analysis of actual construction costs against budget
- Identify cost overruns
- Review schedule and impact of delays on the project cost
- Report and suggest corrective actions, in case of cost overruns

OPERATIONS & MAINTENANCE

- Gap analysis of actual operational costs against budget
- Identify cost overruns and reduction/ loss in productive capacity
- Identify maintenance requirements that may have an impact on production downtimes and subsequent impact on operating costs
- Report and suggest corrective actions, in case of cost overruns or revenue losses

SGS IS THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY. SGS IS RECOGNISED AS THE GLOBAL BENCHMARK FOR QUALITY AND INTEGRITY. WITH MORE THAN 67,000 EMPLOYEES, SGS OPERATES A NETWORK OF OVER 1,250 OFFICES AND LABORATORIES AROUND THE WORLD.

CONTACT US

WWW.SGS.COM/PROJECTFINANCE OR PROJECTFINANCE@SGS.COM

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WHEN YOU NEED TO BE SURE

SGS