



SGS HEALTH & SAFETY SERVICES IN CONSTRUCTION AND MAINTENANCE SITES

WHEN YOU NEED TO BE SURE

SGS



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- Our H&S Services in construction and maintenance sites
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AT A GLANCE



N°1
WORLD LEADER

80,000
EMPLOYEES

1,650
OFFICES AND
LABORATORIES



13
GLOBAL
INDUSTRIES

**GLOBAL
SERVICE
LOCAL
EXPERTISE**

SGS GLOBAL EXPANSION

1878 Rouen, France
1913 Pan-Europe
1928 21 further global countries
1939 South America
1955 Africa Asia
1981 Expands to ex-USSR

1913
 Leader in grain inspection
 (21 million tons)

1915
 Headquarters moved from Paris to Geneva

1919
 Company named SGS

1946
 Inspection of European imports

1981
 Listed on the Swiss Stock Exchange

2013

ONE BRAND SERVING THE VALUE CHAIN GLOBALLY AND ACROSS INDUSTRIES

2001
 SGS rebranded

SGS INDUSTRY EXPANSION

1990
 Consumer Testing

1980
 Life Sciences
 Automotive Certification

1970
 Environmental

1960
 Oil & Gas
 Chemical
 Public Sector

1955
 Industrial Manufacturing

1939
 Mining

1878
 Agriculture & Food

MANUFACTURED GOODS AND SERVICES

1955

COMMODITIES

1878
 ESTABLISHED

SGS ORGANISATIONAL GROWTH

2013
CHF 5.8 BILLION
 total revenue
1,650 offices and laboratories
80,000 employees

1985
CHF 1.5 BILLION
 total revenue

1981
CHF 780 MILLION
 total revenue
180 offices and laboratories
10 675 employees

1913
45 offices and laboratories

1878

**ESTABLISHED IN
ROUEN**

Transformed grain trading in Europe with innovative agricultural inspection services and spread agricultural services around the world

**MID 20TH
CENTURY**

Diversified into inspection, testing and verification services across a variety of sectors including industrial, minerals, oil, gas, and chemicals

1981

Listed on the Swiss Stock Exchange

2013

Unrivalled reputation as the industry leader in finding solutions to the complex problems organisations face every day



VALUES



PASSION
INTEGRITY
ENTREPRENEURIALISM
INNOVATIVE SPIRIT





GLOBAL SERVICES TAILORED TO **INDIVIDUAL
INDUSTRIES**



**INSPECTION
TESTING
VERIFICATION
CERTIFICATION
TRAINING
CONSULTANCY
OUTSOURCING**

BUSINESS



QUALITY



SAFETY



REDUCED RISK

BENEFITS



EFFICIENCY



PRODUCTIVITY



SPEED TO MARKET



TRUST



SUSTAINABILITY

SGS

QUALITY



COMPLIANCE
WITH THE
LATEST
QUALITY
STANDARDS



INDEPENDENT
THIRD PARTY
INSPECTION



TESTING,
AUDITING AND
TRAINING
SOLUTIONS



INDEPENDENT
AND **IMPARTIAL**
SERVICES TO
IDENTIFY,
MANAGE AND
REDUCE RISK

TESTING AND
INSPECTION TO
VERIFY RISK
PREVENTION
MEASURES

COMPLIANCE TO
INTERNATIONAL
RISK
MANAGEMENT
STANDARDS



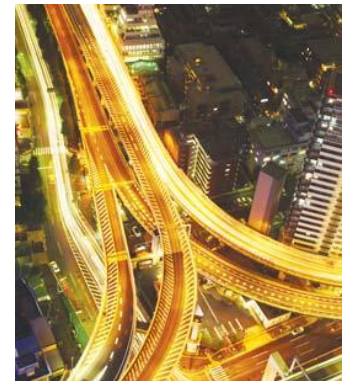
EFFICIENCY



**TAILORED
BUSINESS
SOLUTIONS** TO
IMPLEMENT
PROCESSES
AND SYSTEMS



**MAKING
BUSINESS
OPERATIONS
FASTER,
SIMPLER AND
MORE EFFICIENT**



**LOCAL EXPERTS
DRAW ON THE
GLOBAL
EXPERIENCE** OF
THE ENTIRE SGS
NETWORK



PRODUCTIVITY



ENSURING
PRODUCTIVITY
KEEPS PACE
WITH
DEVELOPMENTS

OUTSOURCING
WORLD-CLASS
PRODUCTIVITY
EXPERTS

FOCUSED
TRAINING TO
DEVELOP
SPECIALIST
SKILLS WITHIN
YOUR EXISTING
WORKFORCE



**AGRICULTURE
AND FOOD**



AUTOMOTIVE



CHEMICAL



CONSTRUCTION



**CONSUMER GOODS
AND RETAIL**



ENERGY

GLOBAL INDUSTRIES



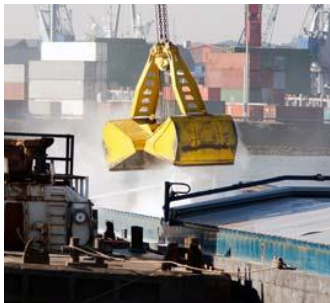
FINANCE



**INDUSTRIAL
MANUFACTURING**



LIFE SCIENCES



LOGISTICS



MINING



OIL AND GAS



PUBLIC SECTOR



SGS Industrial Services add value to our customers all over the world by supporting them in the management, design, production, logistics and operations of their assets.

WHEN YOU NEED TO BE SURE



OUR KEY MARKET SEGMENTS

Oil & Gas



Power & Utilities



Infrastructure & Building



Transportation, Equipment & Machinery



MARKET SECTORS, SUBSECTORS AND SERVICES

SUBSECTORS

Upstream

Midstream

Downstream

Conventional Power

Renewable Power

Nuclear Power

Transmission and Distribution

Infrastructure for Transport

Building

Water

Aerospace

Rail

Equipment and Machinery

SERVICES

Product Certification

Supply Chain Services

Material Testing

Technical Staffing Services

Asset Integrity Services

Non-Destructive Testing

Project Management Services

Health and Safety Services





- Industrial Safety
 - Process Safety
 - Risk identification / assessment / evaluation/ mitigation
 - Accident investigation, emergency response
- Occupational Health & Safety
 - Health (industrial hygiene) – chemical, physical and biological worker exposure
 - Health-noise, vibration, ventilation, asbestos, lighting
 - Safety-statutory lifting, fire and electrical safety
- H&S Management
 - OSHAS 18001 certification
 - Consultancy, audits, compliance
- Construction and maintenance safety
 - Construction site coordination and safety supervision
- H&S Training

CONSTRUCTION AND MAINTENANCE SAFETY SERVICES



- Customised Solutions: experience in a wide range of activities, from large constructions in Oil, Gas, Chemical and Petrochemical plants shutdowns, to maintenance turnaround (MTA) and industrial or civil construction projects.
- Construction Safety Services:
 - Field Supervision
 - Safety Coordination Services
 - Safety Plan Review
 - Audit for compliance with relevant laws and regulations
- Material provision to promote safety:
 - Helmet, equipment stickers to avoid inappropriate use
 - Safety and warning signs
 - Directional and hazard signs for construction sites and projects

CONSTRUCTION AND MAINTENANCE SAFETY INDUSTRIAL WORKS



- Oil & Gas and Power Generation requires dedicated expertise because of many specificities involved:
 - Risks not related to the activity itself, but to the environment and the site: noise, vibration, asbestos, chemical and carcinogen substances, etc.
 - Specific procedures and rules to be followed by anyone operating on the site: work permits, plant rules, emergency plan, high risk procedures, etc.
 - High relevance of risks of operation in confined spaces
 - All these aspects have to be managed by the safety coordinator / supervisor and included in the site safety plan, in addition to all the risks related (intrinsic) to the activity itself.

CONSTRUCTION AND MAINTENANCE SAFETY INFRASTRUCTURES



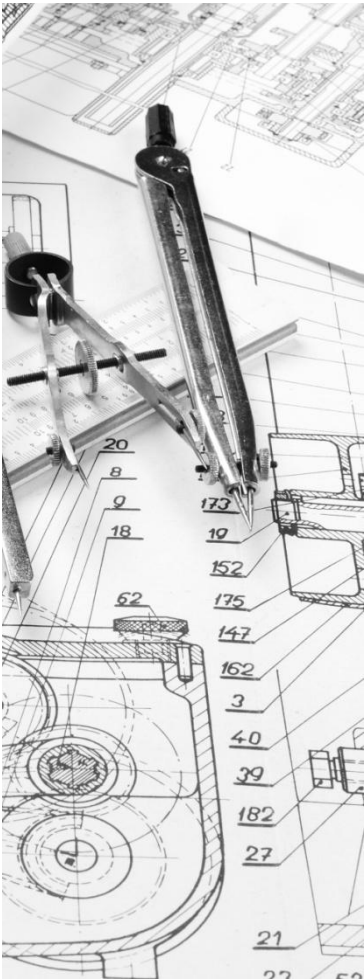
- Projects usually promoted by national or regional governments for which additional risks need to be considered
 - Specific procedures / regulations for the risk of being hit by a train, the risk of driving on runways in airports, the risk related to electric train lines, the risks from electric power lines, etc.
 - Coordination with government authorities, special permits, etc.
 - Specific work procedures (night time, in a tunnel without ventilation, dust, etc.)
 - Procedures for access / walking on site, specific signage and lighting systems
 - Knowledge about specific work procedures: SAAT / ATWS: Automatic Track Warning Systems, TPWS: Train Protection Warning System, UIC (International Union of Railways)

CONSTRUCTION AND MAINTENANCE SAFETY BUILDINGS



- SGS has participated as the Health & Safety coordinator in the construction of emblematic buildings and skyscrapers.
- These type of constructions are promoted by private clients and business groups for which specific risks need to be considered:
 - Specific procedures and geotechnics knowledge, working at height
 - Coordination of works to avoid crane collisions
 - Analysis of interferences between buildings under construction at the same location
 - Coordination and installation of large cranes in small spaces

OTHER ASSOCIATED SERVICES IN SITE SAFETY CONSTRUCTION



- Occupational Health & Safety
 - Specific risk assessment related to site activities (also involving external environments): noise, dust, asbestos, vibration, chemical agents
- Industrial Safety:
 - Fire fighting and fire prevention services
 - ATEX classification, explosion assessment and risk prevention
- H&S Training
 - Training and information regarding specific risks at the site for all operating companies
 - Training and information regarding activities in confined spaces
 - Delivery of courses for operational and management staff
- Health and Safety Management
 - Preconstruction / pre-start safety audits on site for the operating company's temporary facilities
- Other: industrial rescue team in case of emergencies



- Oil & Gas
- Power generation
- Logistic, Distribution & Transport
- Construction & Building
- Trade & Stores
- Hospital & other health related structures
- Automotive
- Food Industry
- Chemical & Pharmaceutical
- Mechanical, Metalurgical & Carpentry
- Maintenance & Industrial Services
- Paper Industry
- Renewable Energy
- Governments and public clients: airport, port, roads, railway, subway (infrastructure)

OUR CLIENTS



- Eni (O&G)
- Erg (O&G)
- Total (O&G)
- BP (O&G)
- GDF (Power Generation)
- Enel (Power Generation)
- Enipower (Power Generation)
- Alstom (Infrastructure)
- Erg Wind (Renewable Energy)
- Styron (Chemical)
- Foster Wheeler (Engineering)
- IBERDROLA (Power Generation)
- Repsol (O&G)
- ArcelorMittal (Iron and steel industry)
- Temmler (Pharmaceutical)
- SFIR (Sugar Production)
- Desigual (Textile)
- Inditex (Textile)
- Materis paint (Coating / Paints)
- Yara (Chemical / Fertilising)
- TRW (Automotive)
- Continental (Automotive)
- Glaxoklinesmith (Pharmaceutical)
- Knauf (Mining)
- Vestas (Renewable Energy)
- SolarPark (Renewable Energy)
- Bharat Aluminium Company (Aluminium Industry)



CASE STUDY – BUILDING OF A BRAND NEW OIL REFINERY– ITALY



Project: ENI EST – Eni Slurry Technology – Sannazzaro de' Burgondi (Pavia – NW Italy)

Client: ENI Italy

Services: H&S Services

- H&S field supervision, H&S coordination, H&S field safety design and planning, H&S training
- Periodical H&S audit to operating companies
- HSE report
- Security management (access to the site)
- Safety tools and promotional materials
- Total number of SGS technicians: 50, with a peak presence of: 30

Project description:

- Biggest O&G building project in Europe in the last decades - building of a new oil refinery and linking it with an existing one
- Total value of the project: €1 500 million, duration: ~36 months
- Total number of people involved: 10 000
- Daily presence on site (peak): 2 500
- Total number of involved construction companies: 300

CASE STUDY – ADRIATIC OFFSHORE LNG TERMINAL – SPAIN



Project: Concrete- gravity based structure with storage and regassification capacity in Algeciras, Spain

Client: AKER KVAERNER-ACCIONA

Services: H&S Services

- H&S Technical Assistance
- H&S Coordinator
- QA / QC
- H&S Training
- Permits and licensees review (assistance)
- Total number of SGS technicians: 3

Project description:

- Capacity: 8 million cubic metres per year
- Treatment of inlet gas and liquefaction
- Other facilities: marine equipment, mooring dolphins, export pipeline
- Size: 180 x 88m & 47m high,
- Total weight: 12 000 tons



CASE STUDY – REPLACEMENT OF LUBRICANT BLOW DOWN TORCH – ITALY



Project: Replacement of blow down system in Italy
Client: ENI Refining & Marketing – Livorno Oil Refinery
Services: H&S Services

- H&S field supervision, H&S coordination and H&S field safety design and planning for both demolition and replacement phases
- Daily presence of SGS safety coordinator
- H&S training
- Safety tools & promotional materials

Project description:

- Total amount (value) of the project: € 40 million
- Duration: 6 months



CASE STUDY – BUILDING OF WIND FARM – PERU



Project: Talara and Cupisnique wind farm projects in Peru

Client: VESTAS

Services: H&S Services

- Health and Safety supervision

Project description:

- The parks consist of 62 wind turbines of 1.8 MW Vestas V-100
- The first turbines have been installed in 2013
- The construction will continue for the next 10 years
- Duration: 1 year per park
- Total amount (value) of the project: \$95 millions
- Total number of people involved: 500



CASE STUDY – BUILDING OF PHOTOVOLTAIC SOLAR PLANT– PERU



Project: Photovoltaic solar plant construction in Tacna, Peru.

Client: SOLAPARK

Services: H&S Services

- Health and Safety inspections

Project description:

- Area: 121 hectares
- Rated power: 20 MW
- Estimated annual energy production: 50 000 MWh
- Power supply: 66 Kv to SE Heroes-
- Duration: ~ 24 months
- Total amount (value) of the project: \$98 million
- Total number of people involved: 400



CASE STUDY – COMMONWEALTH GAMES SHIVAJI & TALKATORA STADIUMS – INDIA



Project: Construction of 2 stadiums for Delhi's 2010 Commonwealth Games

Client: New Delhi Municipal Corporation

Services: H&S Services

- H&S supervisor
- Quality assurance / quality control for all works including electrical, fire-fighting & protection, HVAC, lifts, etc.
- QA / QC
- QHSE
- Schedule control
- Commissioning inspection

Project description:

- Shivaji: construction of an open hockey stadium with a capacity of 9400 seats.
- Talkatora: construction of an indoor boxing stadium with a capacity of 3035 seats.



CASE STUDY – BUILDING OF THE "MUTUA MADRILEÑA TOWER SKYSCRAPER" – SPAIN



Project: Construction of the Crystal Tower

Client: MUTUA MADRILEÑA

Services: H&S Services

- 2 H&S Coordinators
- 2 H&S Assistants / Supervisors

Project description:

- The Crystal Tower project was designed by architect Cesar Pelli. The professional work on this new Spanish architectural landmark has been developed in collaboration with the Madrid studio of Leon Ortiz Architects.
- Crystal Tower: 250 metres high, 52 floors, 1 206 parking spaces and 57 579 square metres. Its dome has the highest vertical garden in Europe (30 m) featuring a variety of trees and vegetation.
- Duration: 3 years
- Total amount (value) of the project: € 155million
- Daily presence on site (peak): 500



CASE STUDY – BUILDING OF THE SPACE TOWER SKYSCRAPER – SPAIN

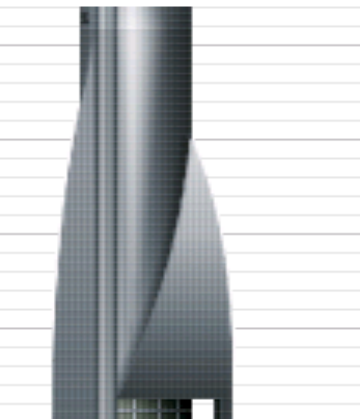


Project: Construction of the Space Tower
Client: INMOBILIARIA ESPACIO (Property Agency)
Services: H&S Services

- 2 H&S Coordinator
- 1 H&S Assistants / Supervisors

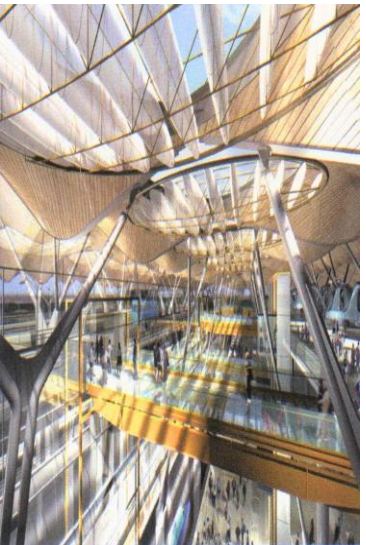
Project description:

- The Space Tower project was designed by Pei Cobb Freed & Partners, one of the most prestigious architectural firms worldwide
- Space Tower: the skyscraper is 235 metres high, 56 250 square metres, 57 floors above ground and six below ground, and houses more than 1 270 parking spaces.
- Duration: 3 years
- Total amount (value) of the projects: €90million
- Daily presence on site (peak): 400





CASE STUDY – BARAJAS AIRPORT (T4) CONSTRUCTION – SPAIN



Project: Extension of Madrid-Barajas Airport

Client: AENA (Government Administration - Public Tenders)

Services: H&S Services

- H&S Coordinator and Assistants
- H&S Supervisors.
- H&S Guards
- Administrative staff
- Security management (site access)
- Total number of SGS technicians involved: 45

Project description:

- 70 million passengers per year and 120 aircraft movements per hour.
- Duration: 4 years
- Total amount (value) of the projects: € 4 100 million
- Daily presence the on site (peak): 8 000 units



CASE STUDY – MUMBAI INTERNATIONAL AIRPORT – INDIA



Project: Development Construction of Mumbai Airport – Works: 3250 Million USD

Client: Mumbai International Airport PVT. LTD

Services: Project Management Consultancy for construction



- HSE services and periodic safety audits
- Supervision of civil works
- Inspection of incoming materials and field quality checks
- Verification of drawings, itps, vendor qaps and method statements
- Field inspection of civil, electrical, mechanical, fire fighting, HVAC...
- Witnessing of lab test inside and outside airport
- Factory and site acceptance tests
- Approximately 8 300 man days





CASE STUDY – RAILWAY MAINTENANCE (HIGH SPEED AND CONVENCIONAL SPEED) – SPAIN



Project: Railway maintenance

Client: ADIF – Railway Administration (prev. GIF)
Public Tender

Services: H&S Services

- H&S Coordinators
- H&S Assistants
- Total number of SGS technicians involved: 45

Project description:

- SGS revenue: €3,5 million
- Duration: 4 years

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WHEN YOU NEED TO BE SURE

