



## SGS HEALTH & SAFETY SERVICES IN CONSTRUCTION AND MAINTENANCE SITES

WHEN YOU NEED TO BE SURE

**SGS**

- Our Group
- Our H&S Services
- Our H&S Services in construction and maintenance sites
- Our Tools
- Our Client Groups
- Case Studies
- References



**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

## 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

COMMODITIES

**1878**  
**ESTABLISHED**

**1878**

**ESTABLISHED IN  
ROUEN**

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

**MID 20<sup>TH</sup>  
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



**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**



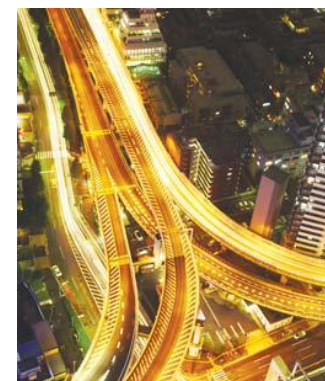
**TESTING,**  
**AUDITING AND**  
**TRAINING**  
SOLUTIONS



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

TESTING AND  
INSPECTION TO  
VERIFY RISK  
**PREVENTION**  
MEASURES

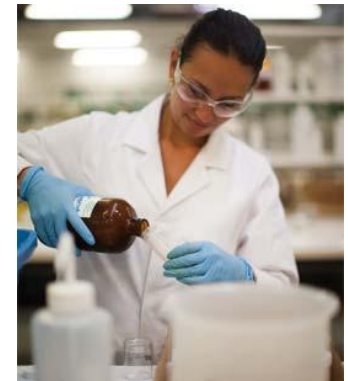
**COMPLIANCE** TO  
INTERNATIONAL  
RISK  
MANAGEMENT  
STANDARDS



**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**



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



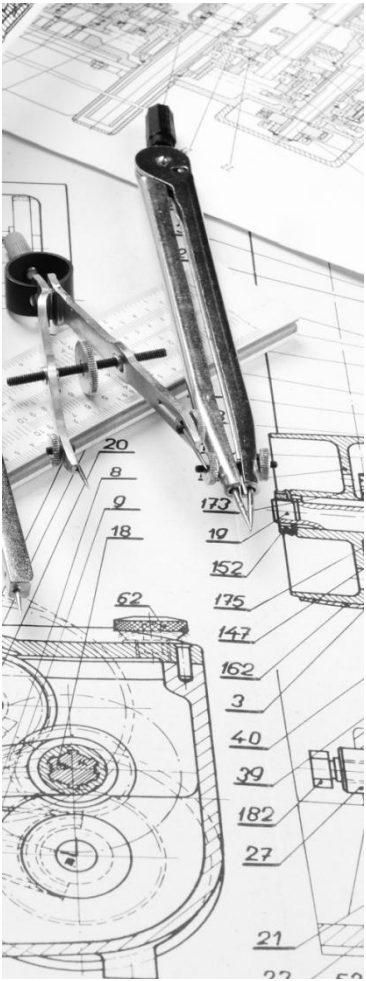
- Projects usually promoted by national or regional governments for which additional risks need to be considered
  - Specific procedures / regulations for the risk of being hit by a train, the risk of driving on runways in airports, the risk related to electric train lines, the risks from electric power 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

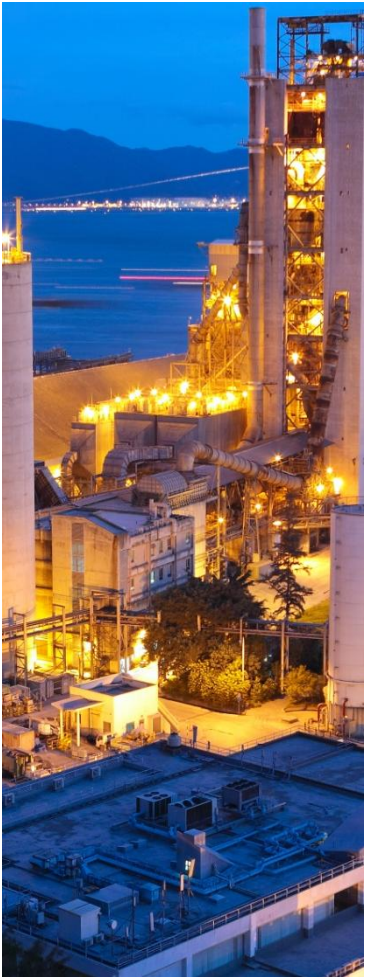


- SGS has participated as the Health & Safety coordinator in the construction of emblematic buildings and skyscrapers.
- These type of constructions are promoted by private clients and business groups for which specific risks need to be considered:
  - Specific procedures and geotechnics knowledge, working 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

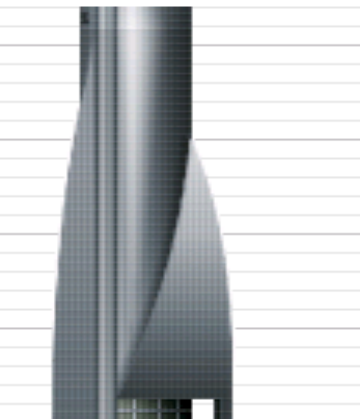
**Services:** H&S Services

- 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

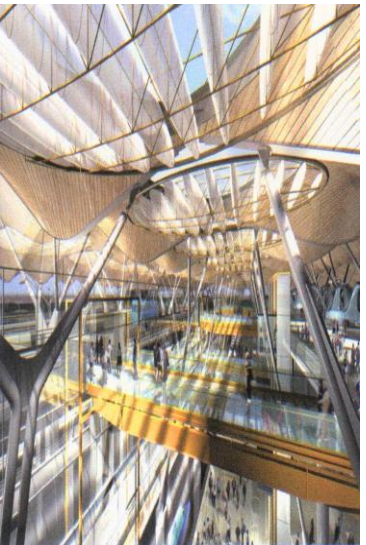
- 2 H&S Coordinator
- 1 H&S Assistants / Supervisors

### 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

[WWW.SGS.COM](http://WWW.SGS.COM)

WHEN YOU NEED TO BE SURE

