



APAVE INTERNATIONAL ENERGY

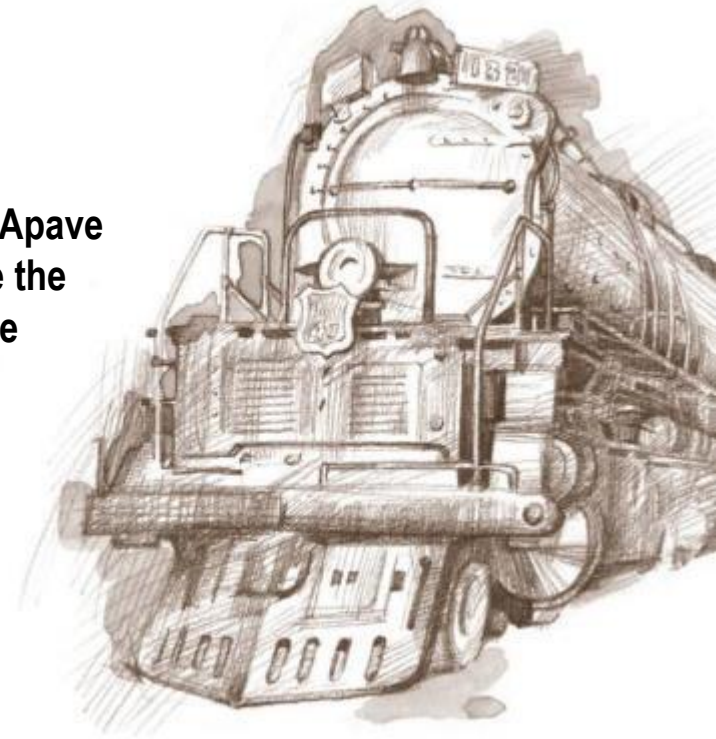


- 150 YEARS OF RISK MANAGEMENT EXPERTISE
- OVER 300,000 PEOPLE TRAINED

APAVE was founded in 1867 by the Industry owning and using Electric & Steam Devices within their production process to develop safety standards & inspection procedures, so as to ensure safe & reliable operational conditions of steam boilers.

150 years of risk management expertise

At the beginning of the XXth century, Apave skills expanded into all sectors where the safety of individuals, property and the environment was concerned



The risk management, the safety, quality & performance improvement are, today, the Apave's core expertise and business.

Turnover: € 837M



EBITDA: € 58M



Employees /Customers

11.700 Employees



Providing services to 200.000 customers



3.000 Employees over the world



300.000 people trained



Apave in France

130 agencies



170 training centers



34 laboratories and test centers



21 French subsidiaries and investments



Apave abroad

48 subsidiaries and investments abroad



53 establishments abroad



Inspection



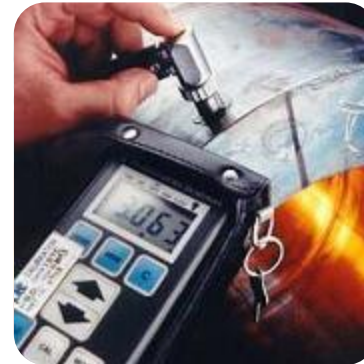
Civil Engineering



Training



Testing and
Measurement

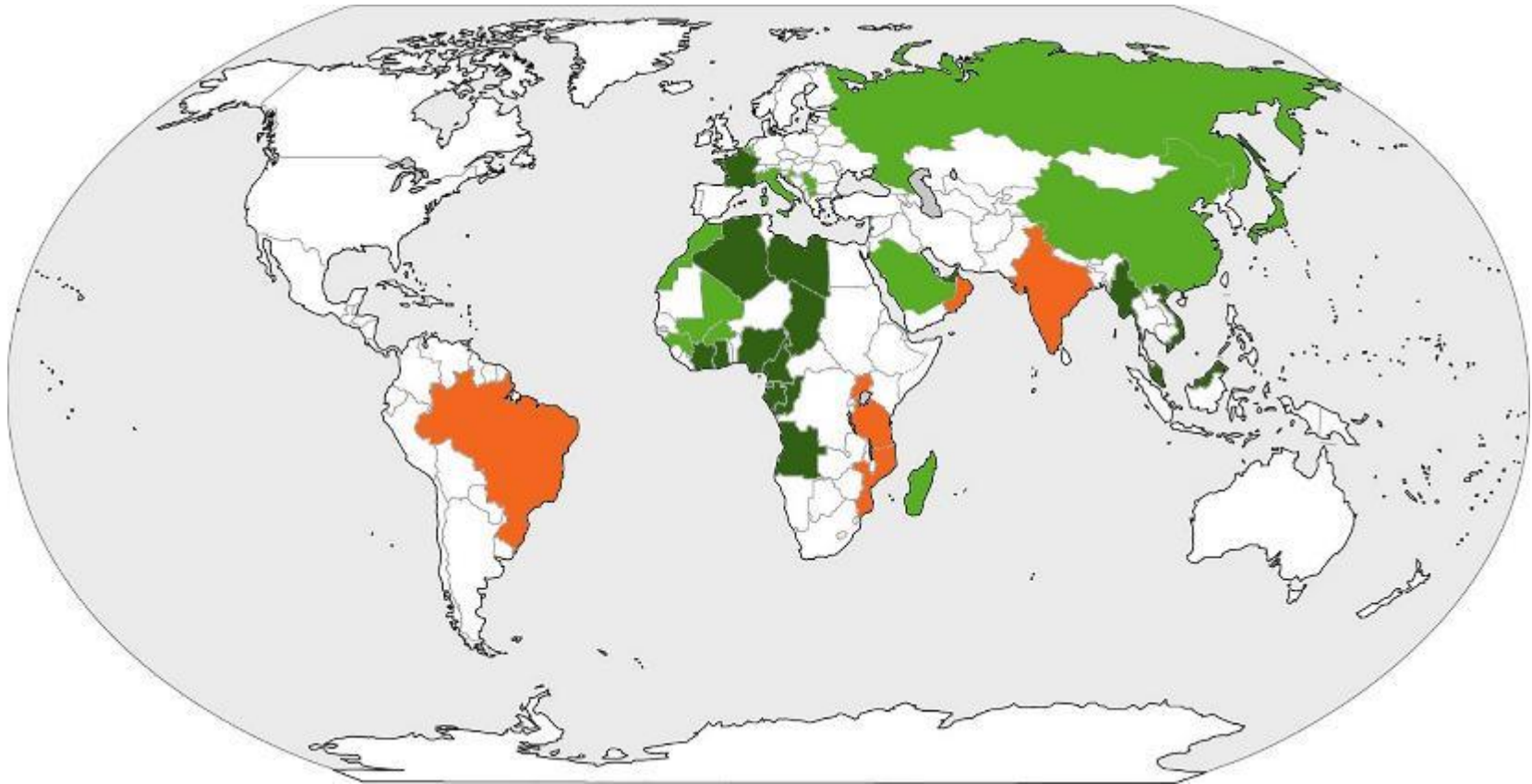


Consulting





...and all the expertise required to meet new quality and safety demands

An extensive international foot print



 BL Oil & Gas Active Subsidiaries

 APAVE Subsidiaries

 100% Owned Subsidiaries

- ✓ **African / Middle East Region**
Algeria, Angola, Burkina Faso, Cameroon, Chad, Congo, Equatorial Guinea, Gabon, Ghana, Ivory Coast, Lebanon, Libya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Nigeria, Oman, Qatar, Reunion Island, Senegal, Tunisia, Turkey, United Arab Emirates

- ✓ **Asian / Pacific Region**
Brunei, China, India, Japan, Malaysia, Myanmar, New Caledonia, Singapore, Vietnam

- ✓ **South American / West Indies Region**
Guadeloupe, Martinique

- ✓ **European Region**
Belgium, Croatia, Hungary, Italy, Macedonia, Monaco, Portugal, Serbia, Spain, Switzerland, United Kingdom

- ✓ **Subsidiaries**
Indonesia, Thailand (AETS: International Technical Assistance, Consulting)
Australia, Brazil (CERTIFER, Railway Consulting and Certification Services)

**Conventional and
Advanced NDT
Services**



**Inspection and
Calibration**



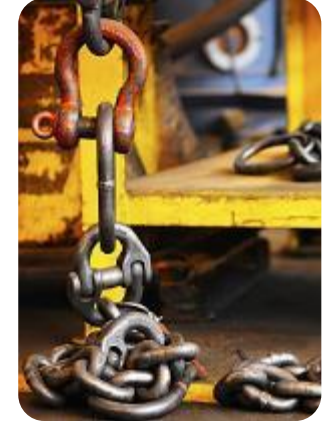
**Inspection of OCTG
Oil Country
Tubular Goods**



**Rope Access
Services**



**Inspection of
Lifting Equipment
and Machinery**



**Inspection of
Electrical Installations
(ATEX, CP, DCVG...)**



**RBI and Integrity
Assessment**



**Inspection of Offshore
Installations: FPSO,
MODU, Fixed Platforms**

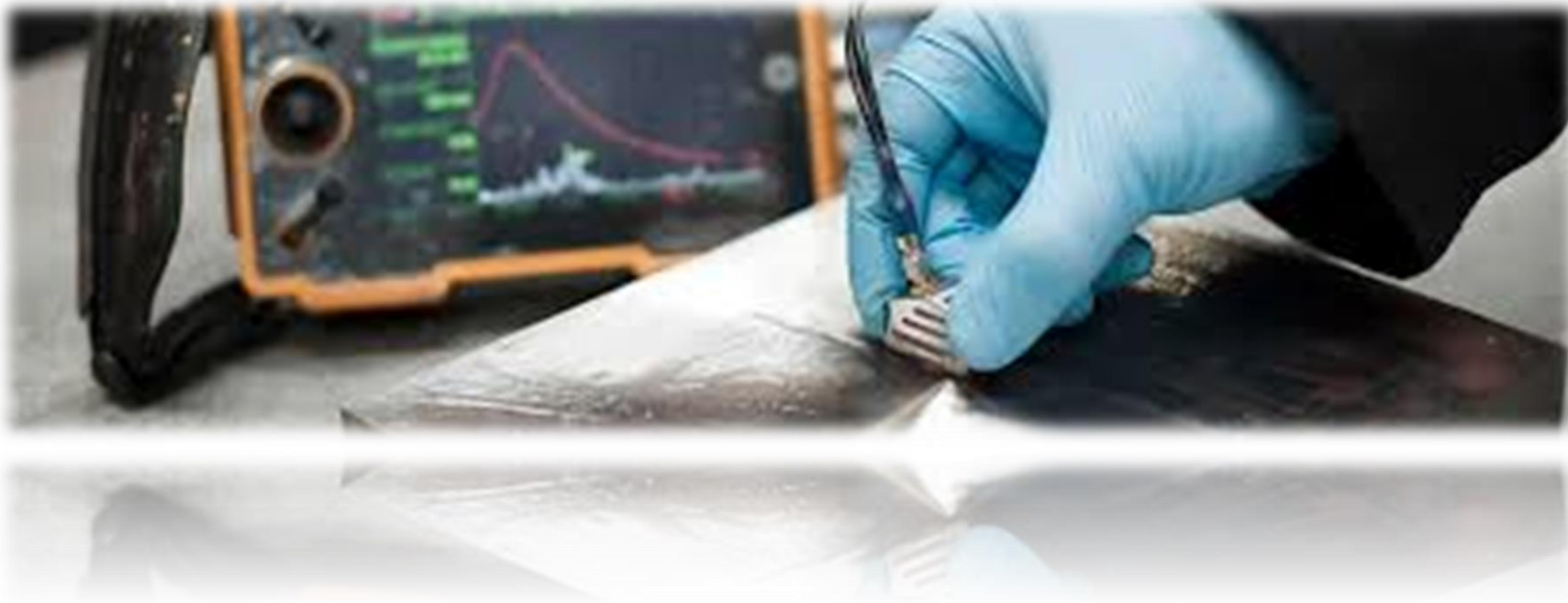


Training



**Painting and Blasting
Services**





Conventional In – Service/Manufacture phase Inspection services:

- Visual Inspection Services
- Radiography, Gamma/X-Ray
- Ultrasonic Testing Services
- Dye Penetrant Testing
- Magnetic Particle Testing
- Eddy-Current Testing Services
- Vacuum box welds testing
- Non-Destructive Testing Laboratory Services

Rigging Services

- Management of Rigging Lofts
- LOLER Competent persons
- Provision of Riggers for specialized Lifts
- L1 and L2 Riggers
- L3 and L4 OPITO certified for lifting plans



All APAVE Riggers are IRATA RA Certified



Cathodic protection

Periodical inspection - Technical assistance



Apave helps you in the monitoring and exploitation of Cathodic protection systems.

- Underground Corrosion control
- In field testing and measurement of impressed current and sacrificial anodes cathodic protection systems
- Stray current interference mitigation
- Monitoring cathodic protection system effectiveness and recordkeeping

RBI Benefits

The Benefits for operators conducting a Risk Based Inspection are as follows:

- Reducing financial cost for inspection and maintenance of the equipment up to **70%**
- Assets Life extension
- Reduce failures, specifically HSE and catastrophic ones
- Reduce unplanned downtime
- Balance long range improvements with quick wins
- Optimizing the costs and efforts in terms of avoiding
 - Regular, non-productive periods of shutdown
 - Non-efficient inspection programs
 - Un-necessary treatment of the equipment
 - Un-necessary maintenance of the equipment
- Determination of the risk of the equipment failure
- Determination of plant's equipment probability of failure (POF) and the consequences of that failure (COF)
- Providing all the data of plant's equipment into a manageable and computable e-form
- Allows perpetual monitoring of the status and integrity of the equipment

Other FPSO & Platform services

To support our inspection surveys we use rope access techniques which offer a safe and efficient alternative to traditional access methods such as rafting or scaffolding.

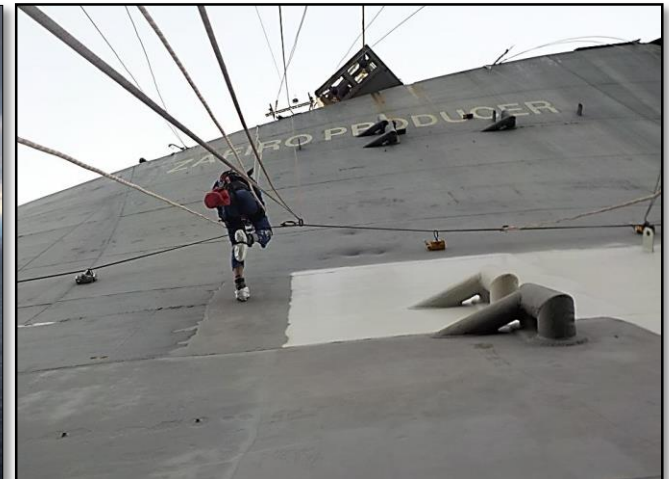
Below is an example of the services that can be provided whilst in dock, port or at sea.

- Lifting Equipment Surveys
- Dropped Object Surveys (DROPS)
- Pressure Relief Valve (PRV) Testing and Certification
- Non-Destructive Testing (OCTG and Advanced)
- Electrical Inspections
- API 4G Derrick Inspection
- Tilt Survey
- Safety and Survival Equipment Survey



Offshore Level I inspections (topside)

- General / Close Visual (Surveillance) Inspection (GVI/CVI)
- CP potential survey (platforms, risers, vessel internals)
- Process equipment external inspection
- Erosion corrosion site selection Corrosion safety (handrails, walkways, boat landings, etc.)
- Risers and supports inspection
- In-service paint inspection
- Structural survey
- Photo documentation



OFFSHORE COURSES

OPITO approved courses:

BOSIET, T-BOSIET, HUET, T-HUET,
FOET, T-FOET, IMIST



Other offshore courses

HERTM, H2S, HLO, HDA, TRANSPORT OF DANGEROUS GOODS BY SEA...more than 100 trainings.



O&G SPECIAL COURSES

- Dynamic Positioning Basic Course-DP Basic
- Dynamic Positioning Simulator Course-DP Simulator
- Basic Anchor Handling-Modul I
- Advanced Anchor Handling-Modul II
- IWCF Well Control
- Offshore Installation Manager-OIM-MOU
- Ballast Control Operator -BCO-MOU
- Barge Supervisor-BSUP-MOU
- Maintenance Supervisor-MSUP-MOU

