



Studi Tecnologie Progetti S.p.A.
Engineering & Contractor

30 Years in Oil, Gas & Petrochemicals

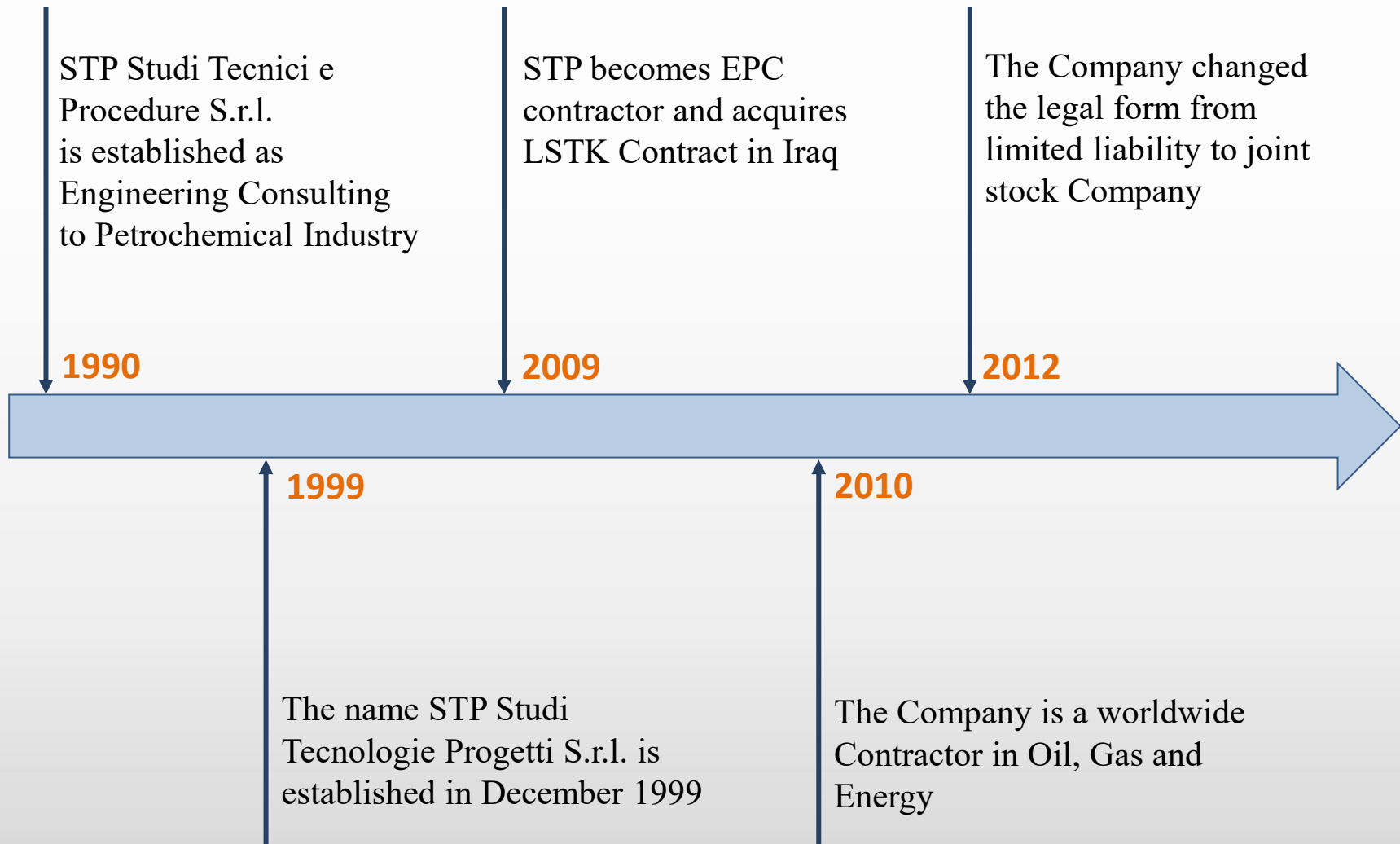


COMPANY HIGHLIGHTS

30th
YEAR
ANNIVERSARY

- S.T.P. Studi Tecnologie Progetti S.p.A. is a General Contractor operating worldwide for EP, EPC, EPCM and Integrated Projects implementation to Oil Refining, Gas Processing, Petrochemicals, Chemicals and Pharmaceuticals, Power Industry.
- STP provides full integrated services for Feasibility Studies, FEED, EPC, EPCM, PMC Projects including technology and financing facility.
- The Company provides proprietary technology and know how for Refinery Upgrading, Gas Treatment, Lube Oil Plants, Used lube oil Rerefining and Chemicals distillation.
- The Company maintains high standards for safety, quality and environment protection to manage projects within budget and schedule.
- The Company is staffed by highly qualified personnel, with extensive background and consolidated experience in the execution of industrial projects.





History

30 years of global experience

Target Industries

Oil & Gas, Lubricants, Petrochemicals, Chemicals & Pharmaceuticals, Power

Track Record

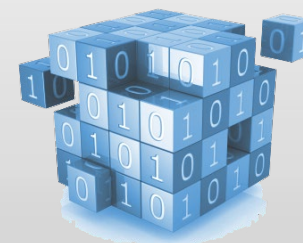
A successful standing of more than 200 projects worldwide through affordable and reliable state of the art technologies.

QA/QC policy and HSE priority

Member of EFCA, ANIMP and AIDIC, Engineering Association
Registered Contractor at major Oil Companies
ISO 9001/2015 Certification by Bureau Veritas and HSE commitment

Head Quarter

Rome, Italy





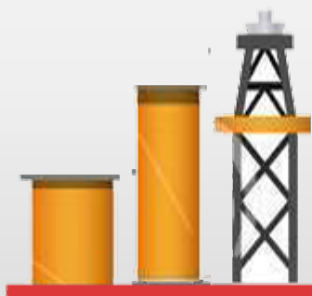
**PETROCHEMICALS
CHEMICALS**



LUBRICANTS & RE-REFINING



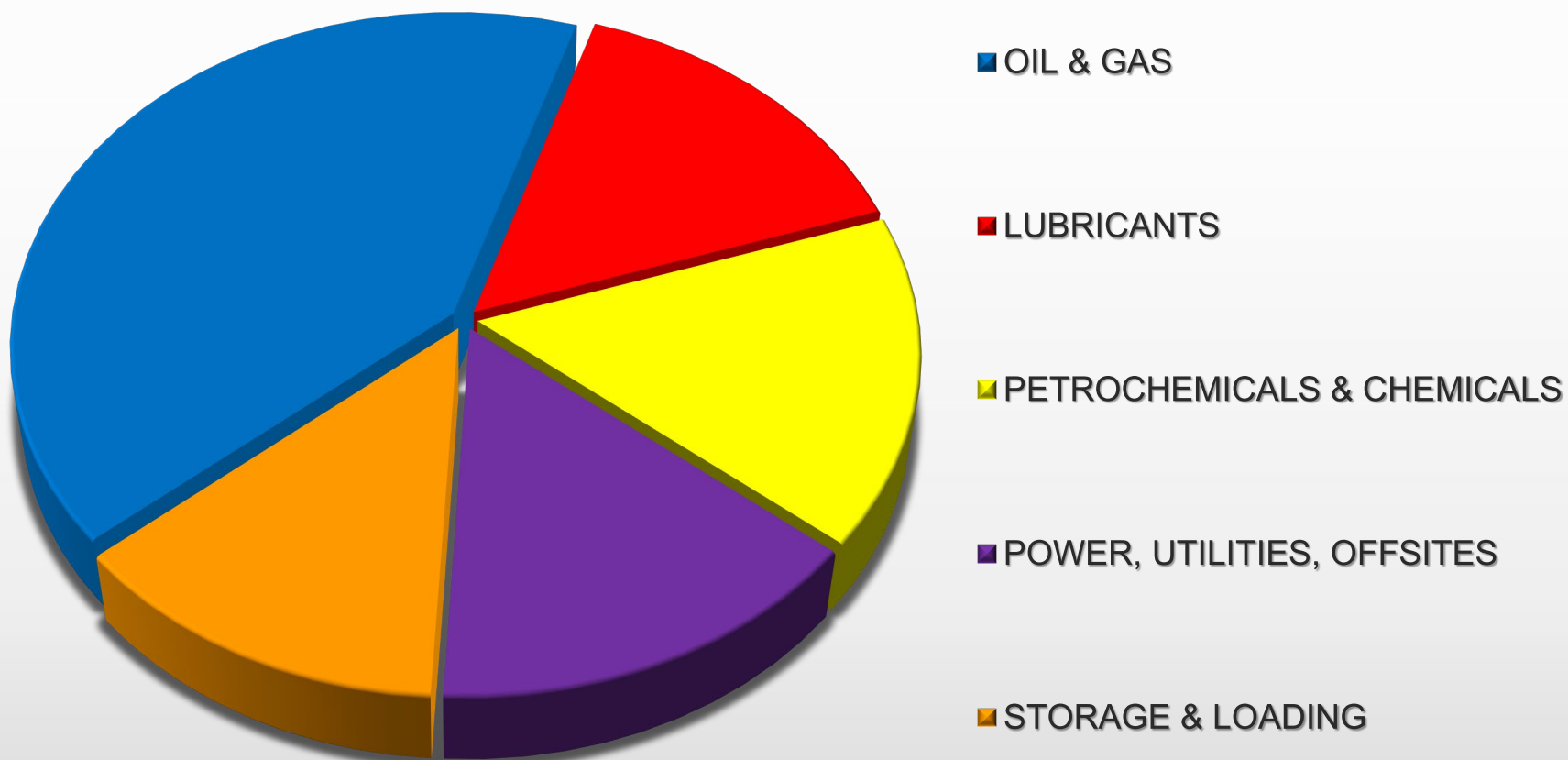
OIL & GAS



**POWER UTILITIES
& OFFSITES**



**DISMANTLING
& RELOCATION**





OIL & GAS

- Oil Refining Units :
 - Crude and Vacuum Distillation
 - Hydrotreating & Hydrodesulphurization
 - Gasoline enhancing
 - Isomerization and Cat Reformer
 - FCC
 - Visbreaking
 - Asphalt Blowing
- Gas Processing & Treatment

LUBRICANTS

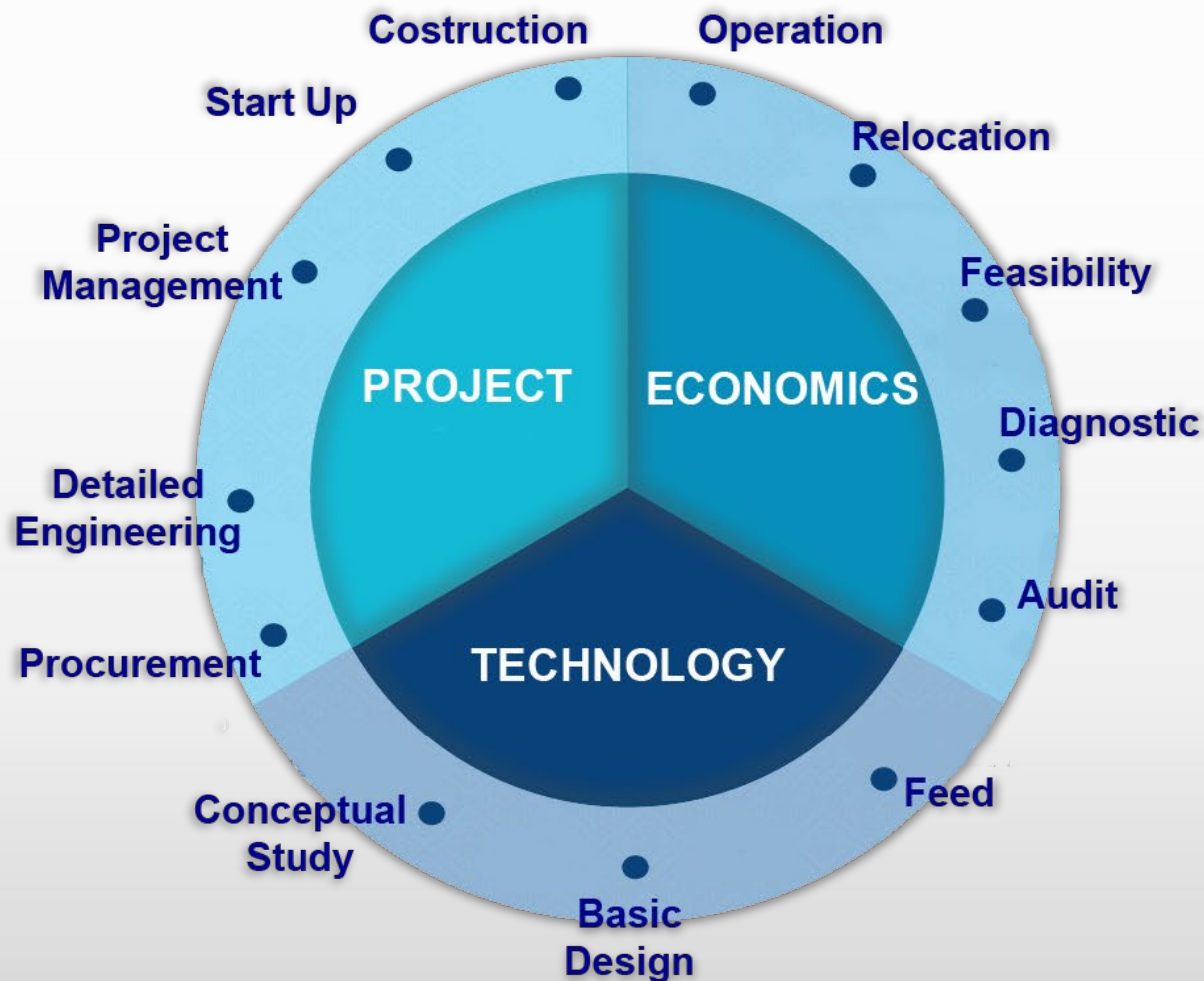
- Lube Oil Production
- Blending and Packaging
- Used Lube Oil Rerefining

POWER / UTILITIES / OFFSITES

- Power Plants
- Utility and Offsite Facilities
- Storage and Loading

PETROCHEMICALS / CHEMICALS

- Aromatics Plants
- Ethylene Plant
- Chemical Units
- Metal Recovery from WEEE
- Pharmaceutical Production Modules



S.T.P. longstanding experience and references in Oil Refining Project is based on the following skills:

- Full knowledge and optimization of Refinery processes
- Mastership of open art not licensed Refinery Units and close working with Process Licensors
- Set up and guidance in the selection of Refinery scheme
- Refinery revamping and upgrading for capacity increase and improvement of conversion, products yield, products quality, energy saving

Other Company's expertises are in the following areas:

- CDU – VDU integration, Preflash, Heat recovery pinch optimization
- Low DP structured packing and stripping steam saving at CDU/VDU
- Deisopentanizer to recover i-C₅ and prepare feed to Isomerization
- Stripping and filtration of CLO from FCC settler pro Carbon Black specification
- Gasoil HDS to 10 ppm Sulphur content
- Vacuum tower on VBU bottom pro VGO to FCC
- Flare gas recovery to Fuel gas
- Provision of suitable solvent for Refinery gas cleaning
- Replacing NMP/Furfural extraction & MEK Dewaxing by Hydrocracker in Lube Oil Plant
- Automation of in-line Mogas and in-line Lube Oil blending



S.T.P. capabilities and references in Gas industry include:

- Gas pipelines
- Gas compression stations
- Gas underground storage
- Gas processing and treatment (Cleaning, Drying, Turboexpander)



S.T.P. capabilities in the Gas Industry also include LPG recovery from Natural Gas and LPG Storage.

S.T.P. references have been broaden in the recent years through long tem cooperation with Snam Rete Gas S.p.A. (ENI Group) Italian Company of gas transmission to provide PMC Engineering Services, Safety organization and Site Management Services to Gas Projects .

Some outlines of these last projects are given below:

- Gas compression station (4 x 20 MW upgraded turbo-compressors + 2 x 30 MW new turbo-compressors) – Messina, Italy
- Gas underground storage and compression station (2 x 10 MW turbo-compressors) – Sabbioncello, Italy
- Grass-root gas compression station (3 x 15 MW turbo-compressors) – Sergnano, Italy
- Upgrading and relocation of gas pipelines, ranging from 4” to 36” size, length 25 Km, Pressure up to 75 bar – North of Italy

S.T.P. has longstanding experience in Lubricants Plants for production of base oils Group II / III and Finishing Lubricants Blending and Packaging.

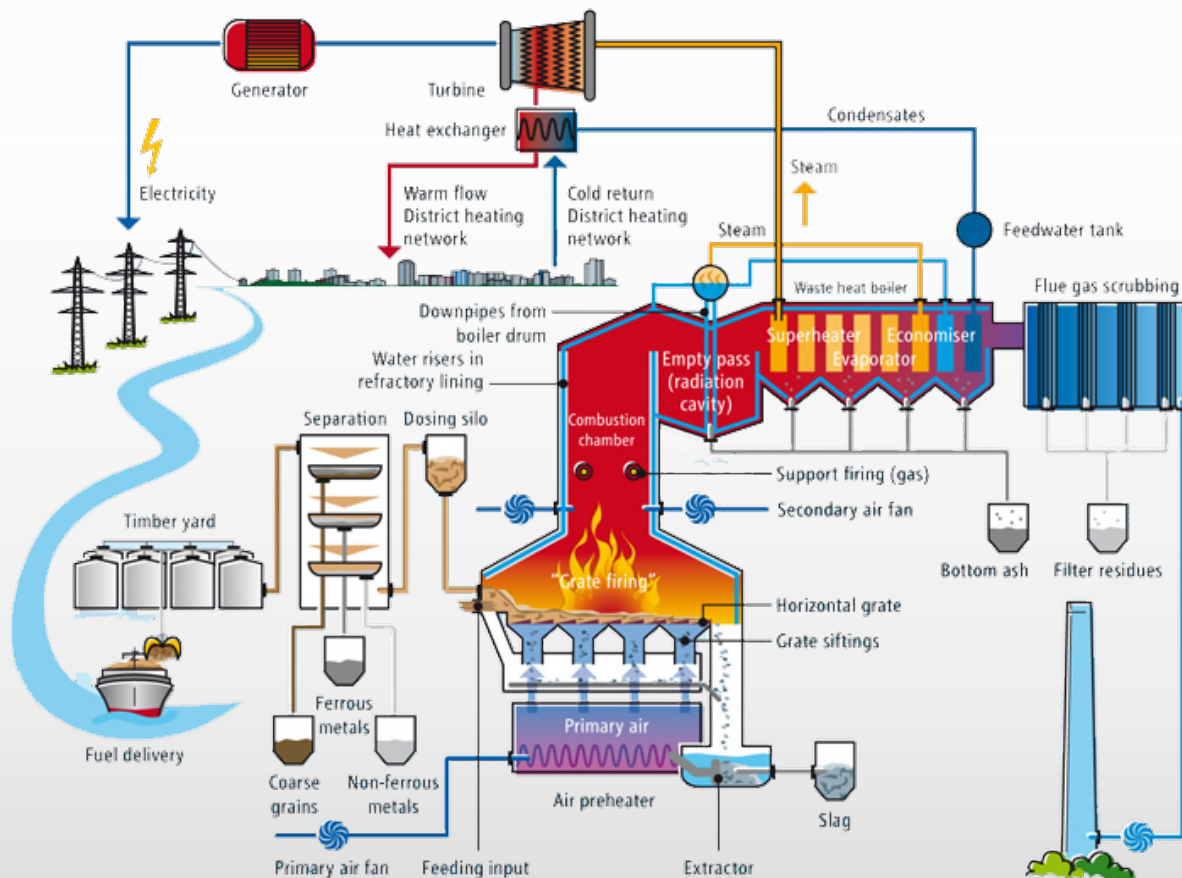
S.T.P. is providing the last generation Used lube oil Re-refining Process based on High Vacuum Distillation with Film Evaporator to produce base oils according to market specifications.

S.T.P. business area includes power and cogeneration plants up to 50 MW.

Renewable sources, biomass and RDF (Residue Derived Fuel) in particular, are the proposed technology alternative to oil & gas.

It is an ethical commitment, aimed to decreasing the green-house effect and feeding industrial and agricultural plants, buildings, commercial centers, with Power generation and Thermal energy (heat and refrigeration).

Such a commitment will combine the protection of the environment with the production of useful energy and heat.



S.T.P. capabilities and expertise in metals recovery from WEEE include:

- Recovery of precious metals (Gold, Platinum, Silver, Palladium) from electronic cards and Printed Circuit Boards by hydrometallurgical technology
- Depollution and decontamination of industrial wastes for environment protection
- Plant capacity ranging from 500 to 5,000 tons/year of raw material
- Highly attractive plant economics (EBITDA, ROI, Payback)



S.T.P. provides Customers with Feasibility Studies, FEED, EPC, EPCM and PMC services either stand-alone or fully integrated as appropriate.

S.T.P. scope in Projects implementation includes:

GENERAL STUDIES

- Feasibility studies
- Process optimization
- Revamping, expansion and debottlenecking
- Environmental impact evaluation, Risk analysis, HAZOP, Safety Report



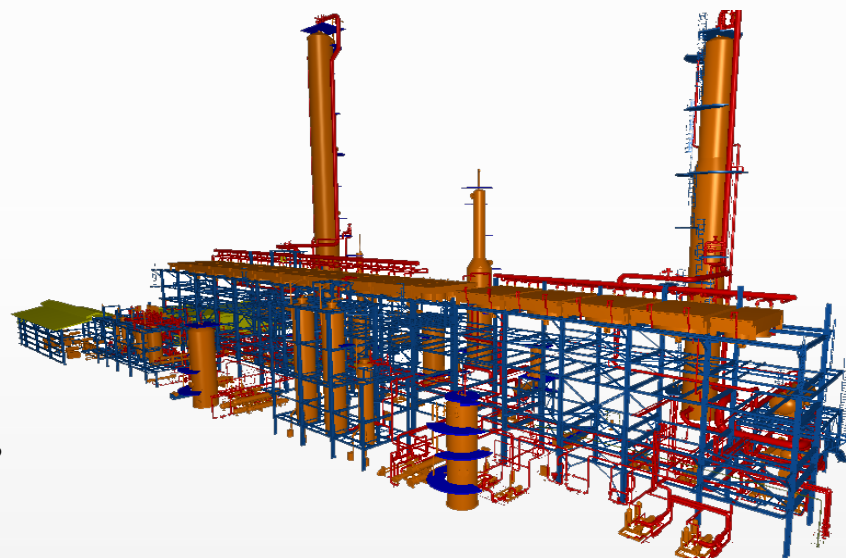
PROJECT MANAGEMENT SERVICES

- Project Management
- Project Planning and Control
- Document Management System



ENGINEERING SERVICES

- Process Engineering
- Basic Engineering
- FEED
- Detailed Engineering (Mechanical, Machinery, Fired Heaters, Civil & Structures, Piping, Electrical, Instrumentation & Automation)
- Constructability Engineering



GLOBAL PROCUREMENT SERVICES

- Requisitioning
- Purchasing
- Expediting
- Inspection and shipping coordination



EPC AND EPCM PROJECTS

- Supply of equipment and material
- Construction and erection works
- Plant precommissioning and start up
- Training of personnel
- Maintenance services
- Technical assistance
- Plants dismantling & relocation
- Financing facility



- STP is having available a brand new system of E-Procurement backed-up with Blockchain routines (powered by ORACLE), which enables to deal effectively with Suppliers and Construction Subcontractors, aiming to improve rapidness, possibility of direct negotiations and fast receipt of offers at the due date.
- This new platform enhances indeed transparency and allows reducing time-to-market offering to Clients a better service.
- Basically, the software is based on an agile interface with external stakeholders, providing them with the opportunity to periodically update their profiles and their potential offerings. The interaction with STP ecosystem is significantly enhanced and is a two-ways highway.
- Blockchain will furthermore allow Suppliers to count on a traceable and quicker interaction with STP and Clients to have access to significant and secured data whenever necessary.
- As STP is moving towards a shift in the business model, including even the Construction phase, this platform allows to proper select and monitor how Suppliers and Subcontractors work and how they stick to the required high level standards of quality, reliability and safety.

- The E-Procurement Platform is based on four main areas:
 - how to deal with Suppliers and Construction Subcontractors selection
 - how to issue a RFQ to the Suppliers and Construction Subcontractors
 - how to process and select the most proper offers
 - how to issue a quotation to the Clients
- The Blockchain system we will use (powered by Oracle) will allow each Stakeholder, with no possibility of alterations, to know the status of their activities, the level of rating and traceability of their interactions.
- In each of these sections the software routines offer guidelines providing with all the necessary data about each potential counterpart, reducing significantly any waste of time. Of course all these data to be processed will be requested to STP ecosystem, but this interaction will allow to better perform tasks and duties.
- The system manage a significant amount of data, counting on wise extraction routines so to properly bring to the attention of the decision makers only the more necessary information.
- The data base is constantly updated and ranked, according to the necessary sorting drivers.
- STP is also working for phase 2 o the Process Platform, envisaging to include within the Blockchain environment not only the Process & Delivery phases, but even the Operation & Management activities.

PROCESS DESIGN

Process simulation	ASPENTECH HYSYS V8.4 CHEMCAD 5.2.0
Sweetening plant simulation	ASPEN HYSYS AMINE
Hydraulic calculation	L SIZE 1.03 (*)
Process line list	PUMA 5
Steam Network calculation	GATECYCLE
Flare/Blow down calculation	ASPEN FLARE SYSTEM ANALYZER CHEMCAD 5.4



EQUIPMENT SIZING

Equipment Process sizing	D SPEC (*)
Vessel process calculation	DRUM (*)
Pump calculation	P SPEC (*)

HEAT TRANSFER

Heat integration	AUTOPINCH (*)
Thermal rating calculation	ASPEN HTFS+ V8.4
Air cooler calculation	ASPEN AIR COOLER EXCH.

TOWER DESIGN

Towers Trays and internals	SULPACK 3.1 KG TOWER 5.1
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(*) In house software

ENGINEERING DESIGN

3D Plant Modeling

2D Design

Structural Design

Piping stress and flexibility analysis

PVHE Mechanical Design

Piping material management

Control valves calculation

Flow element calculation

Electrical design

Electric motor design

Lighting system design

Cables calculation and MTO/BOQ

CADMATIC 6.1.4

AVEVA PDMS 12.1

AUTOCAD 2013

SAP IV

TRIFLEX , CAESAR II

ASPEN HTFS TEAM 2006

MT-VESS

PUMA 5

QUICK SIZE 3.5

ISO FLOW

DOC WIN 2.1

I-PROJECT 3.0

ETAP 16

EXTEEM

DRIVE SIZE

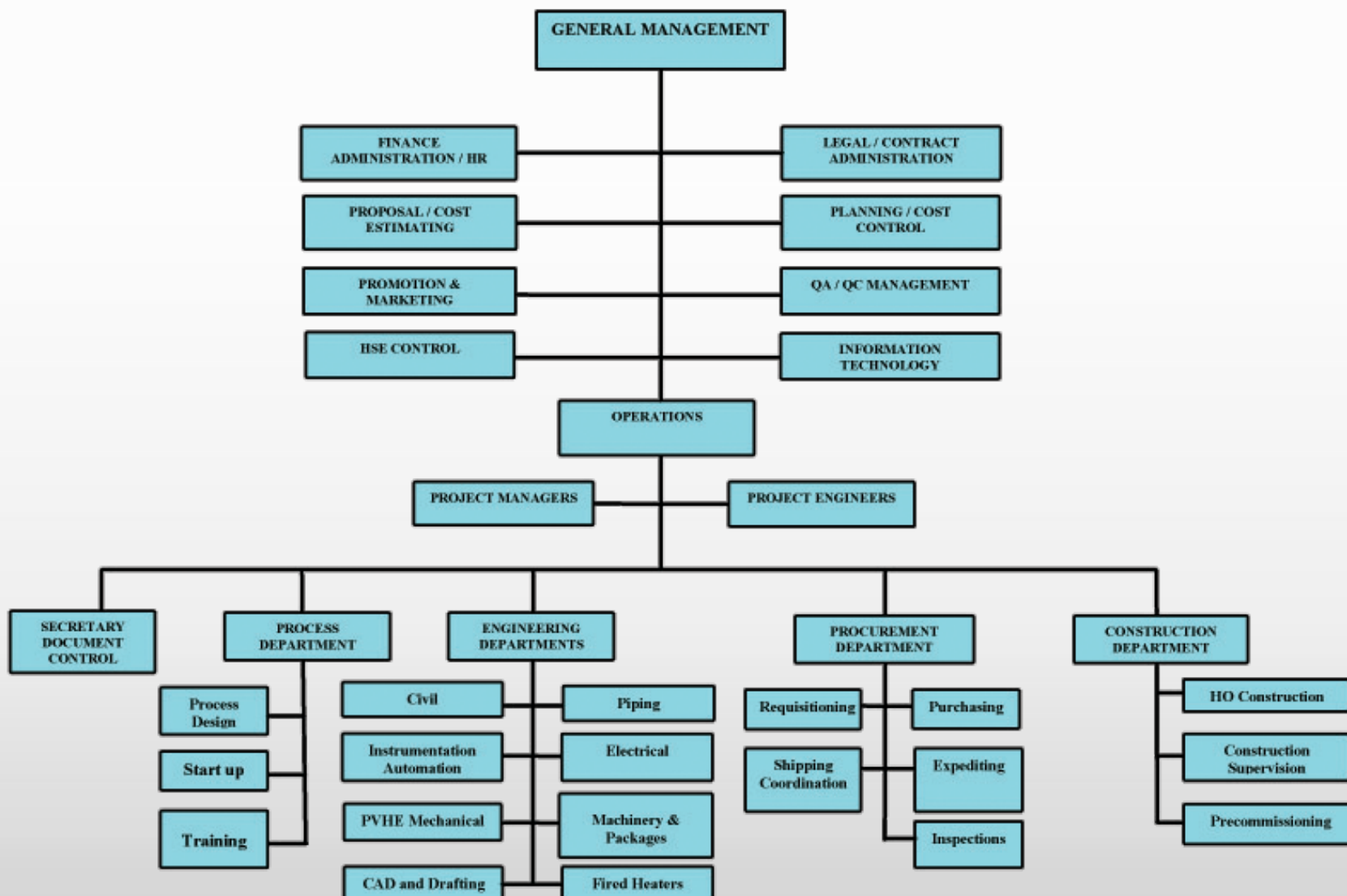
CALCULUX

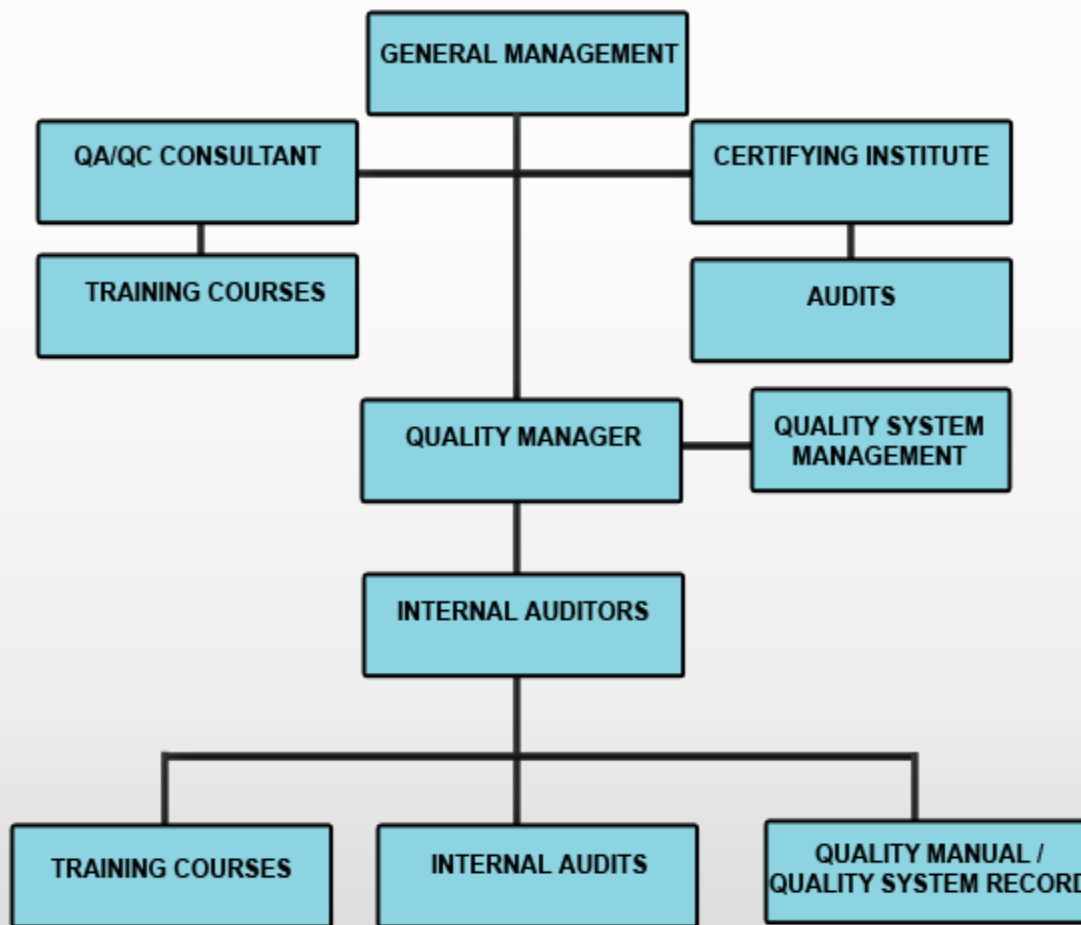
DIALUX

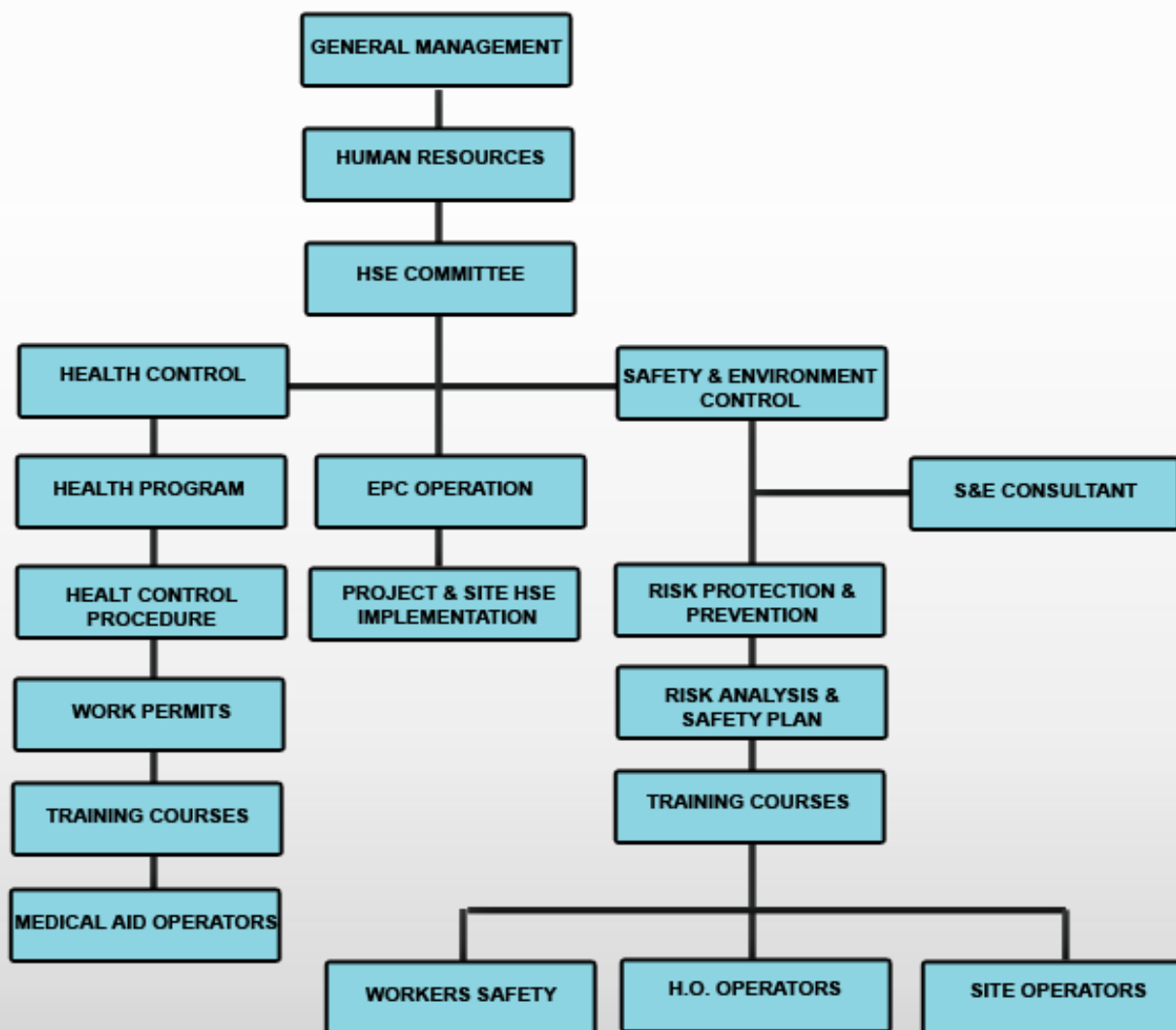
JDC 3.0

BTICINO TSYSTEM 5.0











**BUREAU
VERITAS**

**BUREAU VERITAS
Certification**



S.T.P. STUDI TECNOLOGIE PROGETTI SPA

Registered and Operative Site:
Piazzale Ezio Tarantelli, 97 – 00144 ROMA (RM) - ITALY

*Bureau Veritas Italia spa certify that the Management System of the
above organisation has been audited and found to be in accordance
with the requirements of the management system standards detailed below*

Standard

ISO 9001:2015

Scope of certification

General Contractor for engineering, procurement and construction for
the implementation of industrial plants in the sector of oil & gas,
petrolchemical, energy and industrial plants in general.

EA Sector(s): 18, 34

Certification cycle start date: 23 May 2017

Subject to the continued satisfactory operation of the organization's Management
System, this certificate expires on: 30 May 2020

Original certification date: 01 June 2011

Certificate No. IT239546

Version N.2

Revision date: 08 August 2018



ANDREA FILIPPI – Local Technical Manager

Certification body address:

Bureau Veritas Italia spa, Viale Monza, 347, 20126 Milano, Italia

Further clarifications regarding the scope of this certificate and the applicability of the
management system requirements may be obtained by consulting the organization.
To check this certificate validity please refer to the website
<http://www.bureauveritas.it/certificate>



SGS N° 028A SGE N° 009H
SGA N° 0080 EMAS N° 004P
PES N° 0089 CEN N° 0080
SCL N° 018P SIF N° 0080
PERS N° 0081 SSI N° 0135
PES N° 018C

Members degli Accordi di Mutuo Riconoscimento EA e JAF
Signatory of EA and JAF mutual Recognition Agreements







OIL REFINING

Selected References



Project: 45 m³/h Amine Regeneration Package
Chavar, Iran

Contract: EP

Year: 2016



Project: Upgradation Project
Karachi Refinery, Pakistan

Contract: FEED and ITB documents

Year: 2013



Project: 40 m³/h In line Lube Oil Blending
Daura Refinery, Baghdad - Iraq

Contract: EPC

Year: 2016 Completed



CLIENT: MINISTRY OF OIL MIDLAND REFINERIES COMPANY

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Project: 13,000 BPSD Light Naphtha Splitter
Daura Refinery, Baghdad - Iraq

Contract: EPC

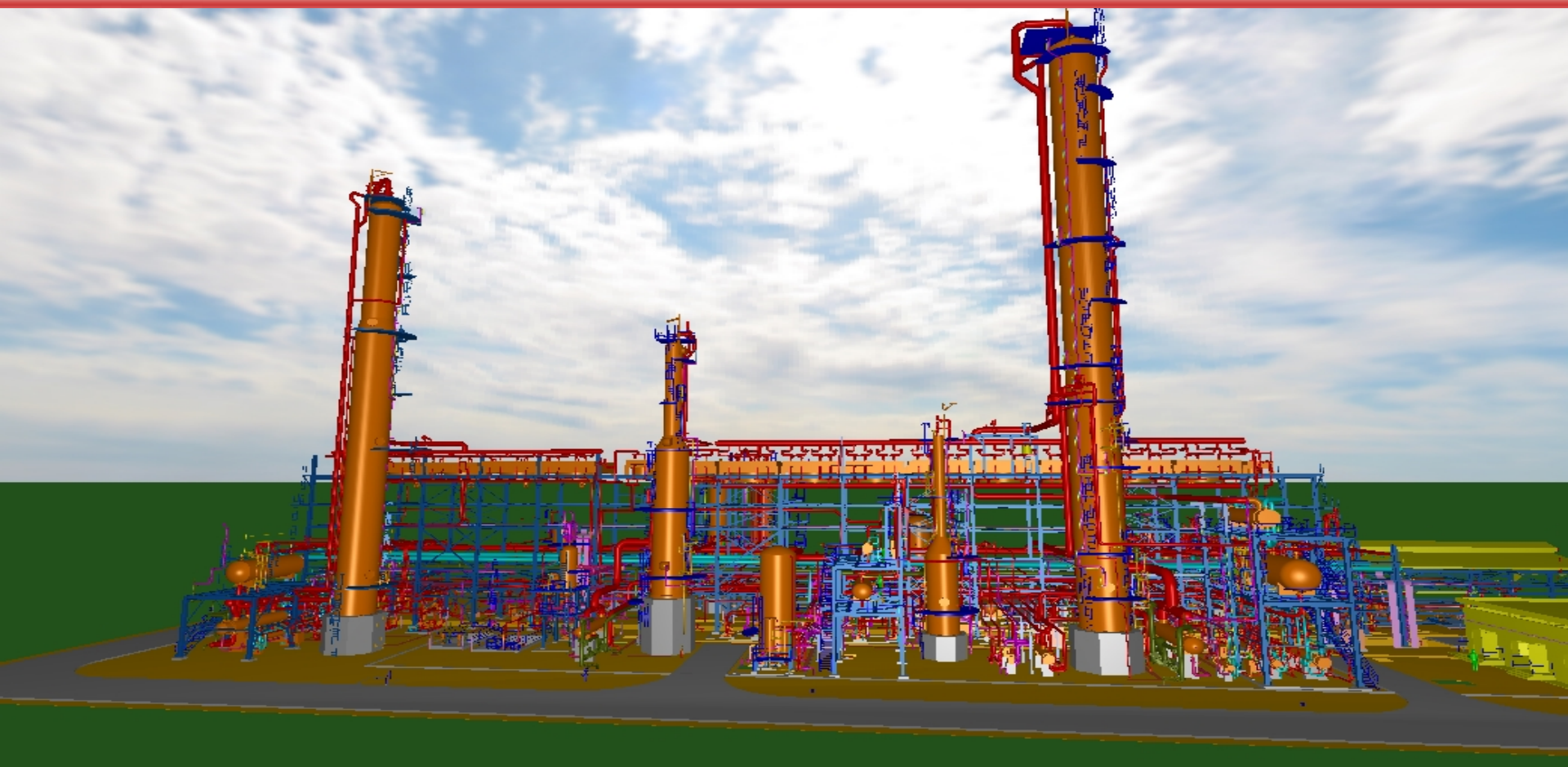
Year: 2016 Completed



Project: 10,000 BPSD PENEX DIH Isomerization
Daura Refinery, Baghdad - Iraq

Contract: EPC

Year: 2016 Completed



Project: 60,000 BPSD Refinery
Benghazi, Libya

Contract: FEED documents

Year: 2013



Project: 53,000 BPSD CDU & VDU Revamping
Karachi Refinery, Pakistan

Contract: FEED documents

Year: 2013



Project: 200,000 BPSD Refinery
Haldia, West Bengal India

Contract: FEED documents

Year: 2011



Project: VDU and Asphalt Blowing Revamping
5,100 BPSD Arzew Refinery – Algeria
5,600 BPSD Skikda Refinery – Algeria

Contract: FEED documents

Year: 2010 Completed



Project: 280,000 Ton/y FCC CLO Fractionation
Sannazzaro Refinery, Italy

Contract: FEED documents

Year: 2006



Project: 17,000 m3 Jet Fuel Storage Revamping
Milazzo Refinery, Italy

Contract: EPC

Year: 2005



Project: 1,200 m³/h Mogas Blending
Milazzo Refinery, Italy

Contract: FEED documents

Year: 2004



Project: 110,000 BPSD CDU Revamping / 45,000 BPSD VDU Revamping **Contract:** FEED documents **Year:** 2003
Livorno Refinery, Italy



Project: 1,100,000 Ton/y Gasoline Splitter & Deisopentanizer
Taranto, Italy

Contract: FEED documents

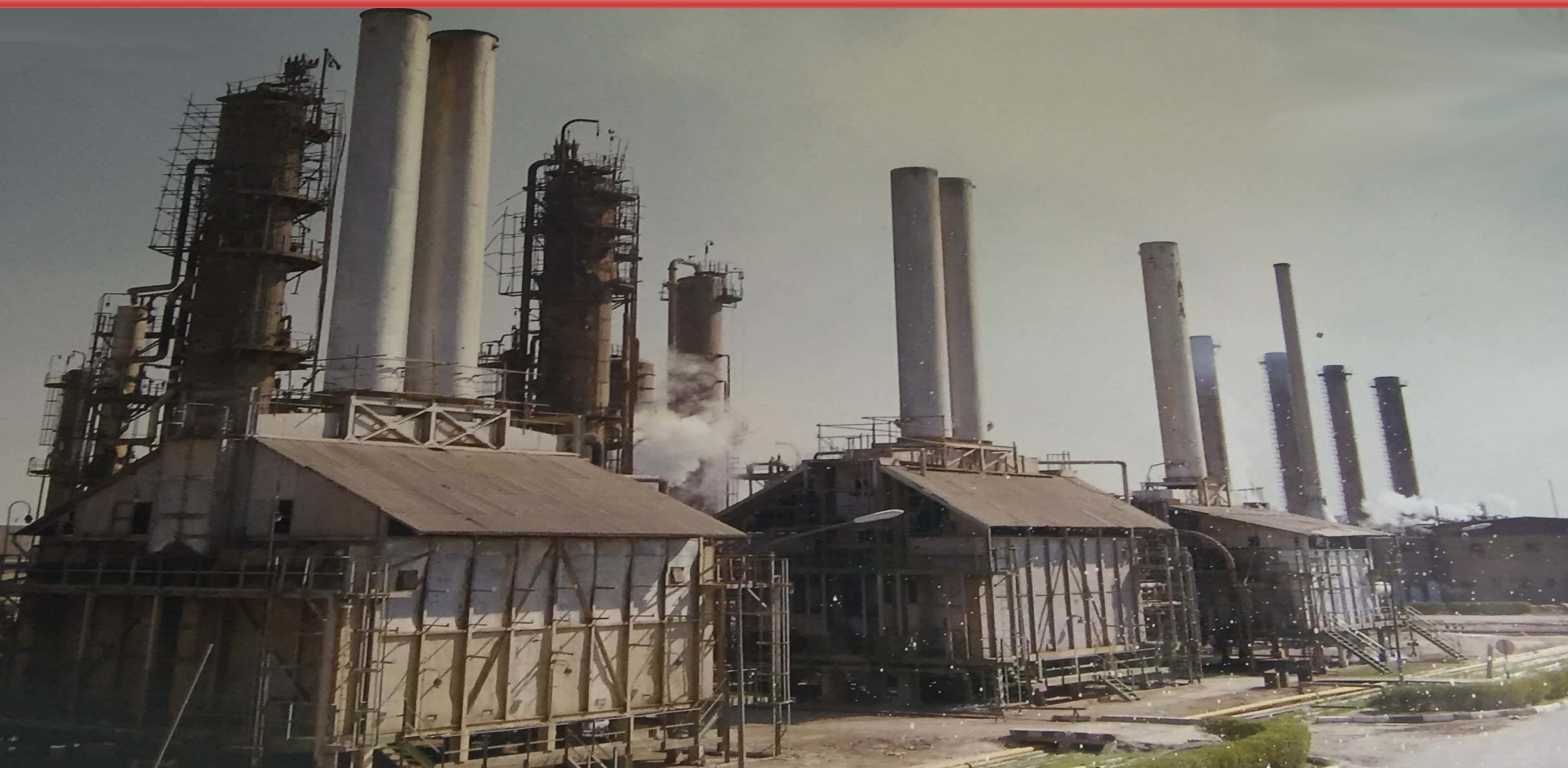
Year: 2002



Project: 40,000 Ton/y Gasoline Rerun Unit
Sannazzaro Refinery, Italy

Contract: FEED documents

Year: 2002



Project: Crude Heaters and Boilers Revamping
Daura Refinery, Baghdad - Iraq

Contract: FEED documents

Year: 2000



Project: 35,000 BPSD FCC Unit
Corinth, Greece

Contract: Detailed Engineering

Year: 2000



Project: 50,000 BPSD CDU N. 3 & 4 Revamping
Alexandria, Egypt

Contract: FEED documents

Year: 1998



Project: 40,000 BPSD Crude Heater Revamping
Biserta, Tunisia

Contract: FEED documents

Year: 1999



Project: 200,000 Ton/y Soft Wax Recovery
Alexandria, Egypt

Contract: EPCM

Year: 1998 Completed



Project: 40,000 Ton/y Lube Oil Blending
Nola, Italy

Contract: EPC

Year: 1997 Completed



Project: 100,000 Ton/y Benzene Hydrogenation (UOP)
Rome Refinery, Italy

Contract: EPCM

Year: 1995 Completed



GAS PROCESSING

Selected References



Project: Gas compression station 4 x 25 MW
Upgraded turbo compressors, Messina, Italy

Project: Gas compression station 2 x 30 MW turbo
compressors, Messina, Italy

Contract: PMC Engineering Services, Safety organization, Site Management Services

Year:



Project: Gas underground storage and compression station 2 x 10 MW turbo compressors, Sabbioncello, Italy

Contract: Engineering Supervision and Site Management Services

Year:



Project: Upgrading and relocation of 4" to 36" gas pipelines, 25 Km length, 75 bar pressure – North of Italy

Contract: Design check and Site management including safety organization

Year:



Project: 600,000 Nm³/d Gas Treatment
Candela Gas Field, Italy

Contract: EPCM

Year: 2006 Completed



Project: 3.0 M Nm³/d Natural Gas Processing
Gazaciak, Turkmenistan

Contract: EPCM

Year: 1995 Completed



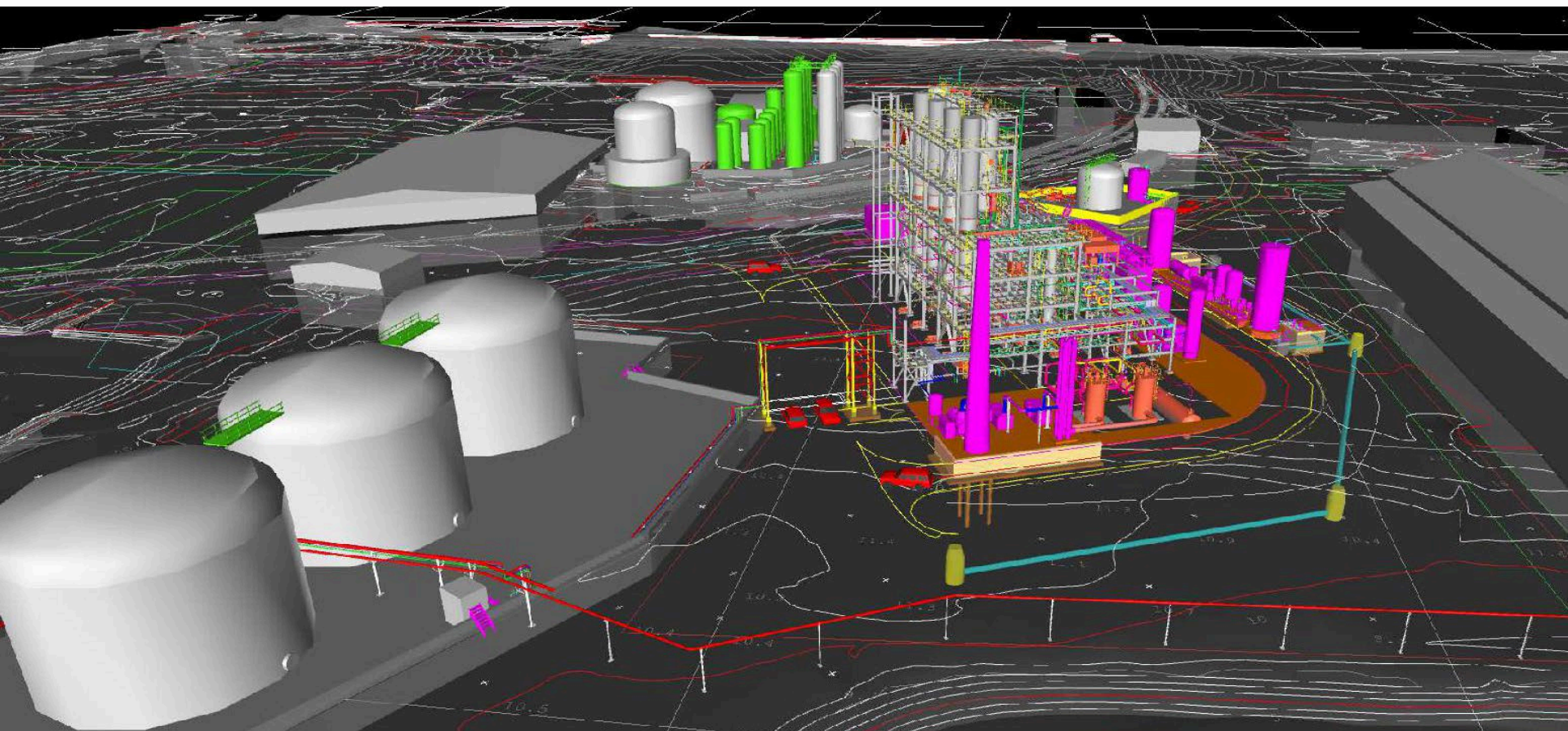
LUBRICANTS Selected References



Project: 60,000 T/y Waste Lube Oil Re-refining
Klaipeda, Lithuania

Contract: EPCM

Year: Ongoing



Project: 2.500 BPSD Used Motor Oil Recycling Unit
Baltimore, USA

Contract: FEED

Year: 2020



Project: 150.000 T/y Used Lube Oil Rerefining
Russia

Contract: EPCM

Year: Ongoing



Project: 60,000 T/y Used Lube Oil Re-refining
St. Hyacinthe, Quebec

Contract: EPCM

Year: 2013 Completed



Project: 120,000 T/y Used Lube Oil Re-refining
Gonfreville l'Orcher, France

Contract: EPC

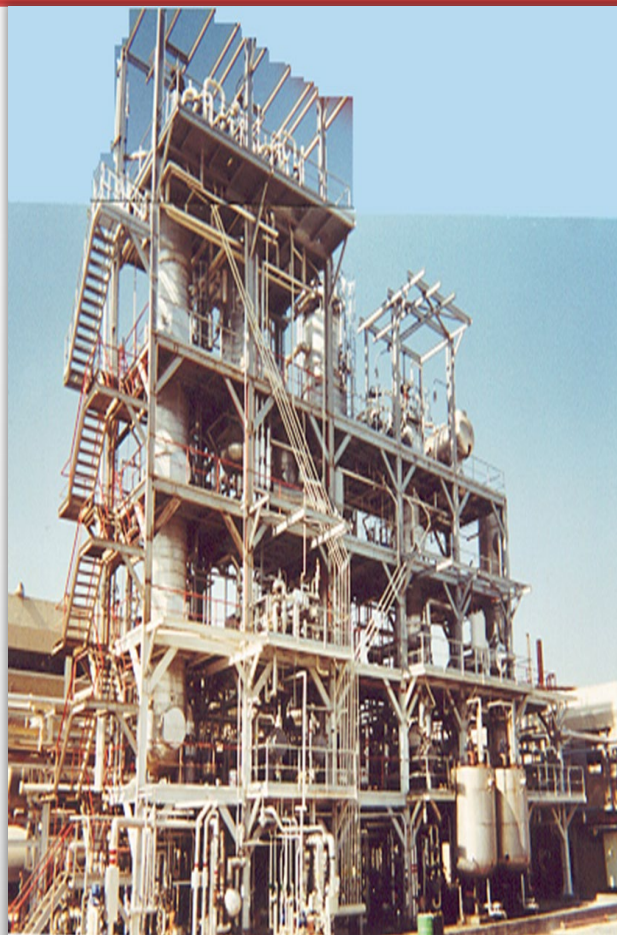
Year: 2012 Completed



Project: 30,000 T/y Used Lube Oil Re-refining
Nola, Italy

Contract: EPC

Year: 2007 Completed



Project: 27,000 Ton/y Used Lube Oil Re-refining
Ahmadi, Kuwait

Contract: EPC

Year: 2000 Completed



Project: 20,000 Ton/y Used Lube Oil Re-refining
Bizerte, Tunisie

Contract: EPC

Year: 1999 Completed

CLIENT: GROUPO LWART

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Project: 60,000 T/y Used Lube Oil Re-refining
Lencois Paulista – Brazil

Contract: FEED documents

Year: 1996



Project: 30,000 Ton/y Lube Oil Fractionation
Napoli, Italy

Contract: EPC

Year: 1995 Completed



Project: 16,000 Ton/y Used Lube Oil Re-refining
Bizerte, Tunisie

Contract: EPC

Year: 1989



Project: 25,000 Ton/y Used Lube Oil Re-refining
Aspropyrgos, Greece

Contract: EPC

Year: 1985



PETROCHEMICALS & CHEMICALS

Selected References



Project: Ethylene Recovery Unit
Sanandaj, Iran

Contract: EPCM

Year: 2013



Project: Aromatics Plant Relocation
KRC Naples Refinery, Italy

Contract: EPC

Year: 2008



Project: Irbesartan Pharmaceutical Plant
Swords, Ireland

Contract: EPCM

Year: 2000 Completed



Project: Fenilglicine Expansion
Colleferro, Italy

Contract: EPCM

Year: 2000



Project: Solvent Recovery Unit
Sermoneta, Italy

Contract: EPCM

Year: 1996 Completed



Project: 10 m³/hr Sour Water Stripper
Sermoneta, Italy

Contract: EPCM

Year: 1995 Completed



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Engineering & Contractor

CONTACT US

HOME OFFICE

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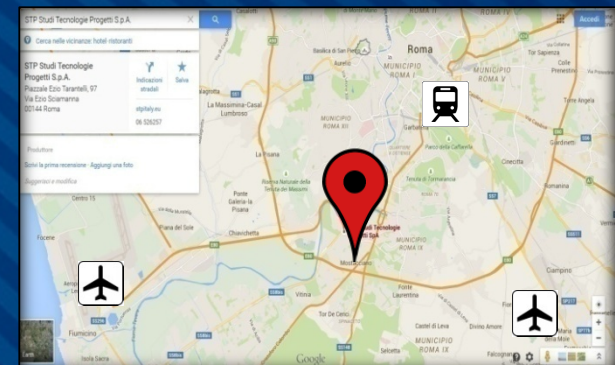
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Thank you for your attention