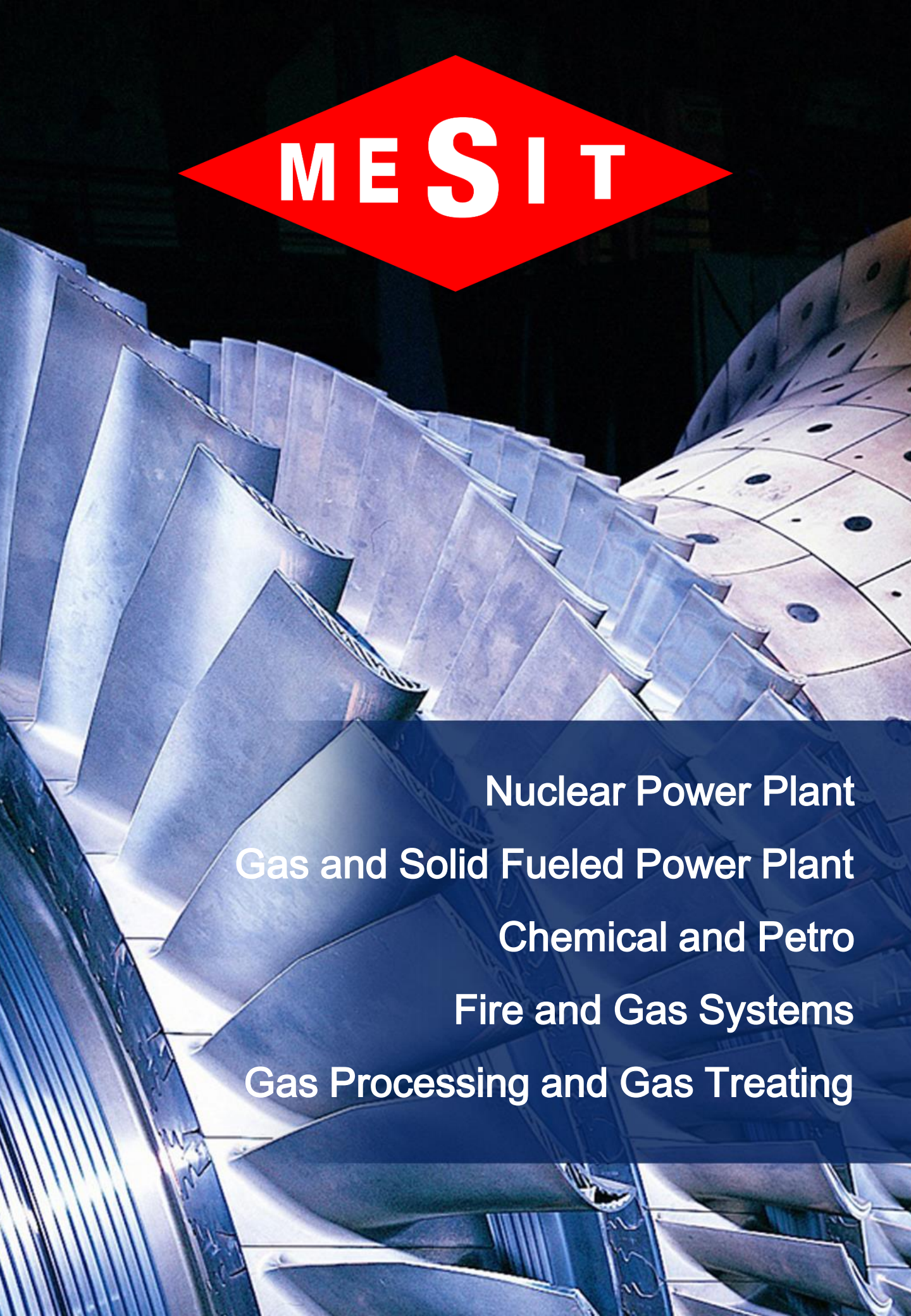




MESIT



Nuclear Power Plant
Gas and Solid Fueled Power Plant
Chemical and Petro
Fire and Gas Systems
Gas Processing and Gas Treating

Company profile

Mesit is an engineering and construction company developed from an experienced specialist group, established since 1970, to offer a set of engineering services tailored to cover the needs of a wide range of industrial applications. Our Business Sectors are: oil/gas and petrochemical, manufacturing, energy and infrastructures.

Mesit is particularly devoted to complement its production with services assisting the Customer with the world-wide production interchangeability to the desired level. The success obtained is mainly due to our extremely flexible organisation and a production line looking at the nuclear equipment and standardisation as to the guide to an optimised quality and technological development, to be then offered to the whole Construction and Process industry.



Products

Mesit executes complex Engineering, Procurement, Construction (EPC), installation (EPCI) and Maintenance projects for commercial and government Clients in remote and challenging locations all around the world. Whether Clients want to invest in oil and gas facilities, power plants to meet global demand, or refurbishment of aging infrastructure, they call on Mesit to deliver solutions to meet their capital-investment requirements. We also product several Instrumentation Components for the Process Automation. Analogic and digital sensors for temperature, pressure, flow and level as:

- Multipoint thermocouples for Reactor
- Flow elements and Venturi tube
- Flow nozzle and Flow meters
- Multistage Restriction Orifices
- Metering System
- Control network
- Level gauges and PC gauging system
- Heating system
- Instrumentation cables
- Signal cables
- Special application cables
- Detection and fire extinguishing system
- Loading arms
- Retrofit for Turbo gas for electrical and compression stations
- Electrical equipment
- Tanks Boilers Silos and Heat Exchangers
- Pipelines Skid Manufacturing Outsourcings
- Measurement Process Control Valves
- SCADA Systems
- DCS Systems



Client Markets

The company provides a full range of integrated services to the global oil and gas production and processing industries. We serve the upstream, downstream and integrated petrochemicals markets. Our knowledge includes consulting and design-build of new facilities, refineries, or offshore facilities; as well as retrofit and plant-betterment services.

It's a small world so you can ask our references to ENI, Saipem, Snamprogetti, AGIP and ENEL (Italy), Sonatrach, Sonahess, ENIP, NAFTEC (SH Aval) and Sonelgaz (SPE), EN GTP, Mittal (Algeria), Slovenske Elektrarne (Slovenia), Exxon, Fluor, and Foster Wheeler (USA), QAFCO and QATOFIN (Qatar), SNC Lavalin (Canada), ARAMCO (Saudi Arabia), ADNOC and GASCO (Emirates), NIOC (Iran).



Power

Our expertise includes consulting and design-build of new facilities, refineries, pipelines or offshore facilities; as well as retrofit and plant-betterment services. With a global execution platform and 24/7 capabilities, Mesit performs work in remote and difficult locations around the world.

Chemical and Petro

Mesit and CCRI execute chemicals and petrochemicals projects around the world, providing project management and process-technology solutions that span the lifecycle of a facility.

Gas Processing

Our extensive gas-related project experience includes: LNG Liquefaction and regasification; Gas Treatment; NGL Recovery and Fractionation; Unconventional Gas Production; CO₂, Nitrogen and Acid Gas Compression Systems, Enhanced Oil Recovery, and Reservoir Pressure Maintenance; Gas Compression Systems for Transportation, Underground Storage, and Reservoir Pressure Maintenance.

Fire and Gas

Our expertise in F&G installation includes: Fire & Gas Protection Products & Systems; Flame & Gas Detectors – Control Cards & Panels; Safety Automation Products & Systems; Evacuation Management Products & Systems; Emergency & Process Shutdown Systems (ESD); Instruments & Control Panels; Water based system; Gas based system; Foam & dry Chemical system; Equipment and skids; Pumping system.

Worldwide references

- ALGERIA
- SAUDI ARABIA
- ARGENTINE
- AUSTRIA
- BELGIUM
- BOSNIA
- BRAZIL
- BULGARIA
- CANADA
- CROATIA
- EGYPT
- EMIRATES
- ESTONIA
- FRANCE
- GERMANY
- ENGLAND
- GREECE
- INDIA
- IRAN
- ITALY
- KAZAKHISTAN
- KUWAIT
- LIBYA
- LITHUANIA
- HOLLAND
- PAKISTAN
- POLAND
- PORTUGAL
- QATAR
- ROMANIA
- RUSSIA
- SPAIN
- SWEDEN
- USA



Power

Mesit designs, provides and maintains power plants using a variety of fuel sources including gas, nuclear, oil and coal. Our technicians understand the complex compliance requirements to bring new power plant construction on line and to meet clean-air mandates. Mesit execution excellence and proven expertise ensure that our Client's projects are delivered on time and within budget.

Mesit and his CCRI engineering staff have spent their careers executing power plant engineering and power plant construction projects. Whether building a 1,230-megawatt gas power project in the desert of Algeria or providing environmental compliance solutions to meet government regulations in a crowded city area in Italy, Mesit has the global reach and expertise to execute challenging and complex power projects.



Gas Fueled

During the last decade we have designed, constructed and commissioned many gas-fueled power generating plants around the world. We are the EPC and commissioning contractor for gas-fired generation.

Solid Fueled

By using proven pre-engineered references power plant designs and collaborative tools we can deliver solid fueled power plants system controls.

Nuclear

We have an extensive experience in nuclear industry to assist Clients in developing all the control system of the next generation of nuclear power

Services

Mesit provides operations, maintenance, power plant construction, capital improvements, environmental and particulate control retrofits, and transmission and distribution services to the power generating industry.

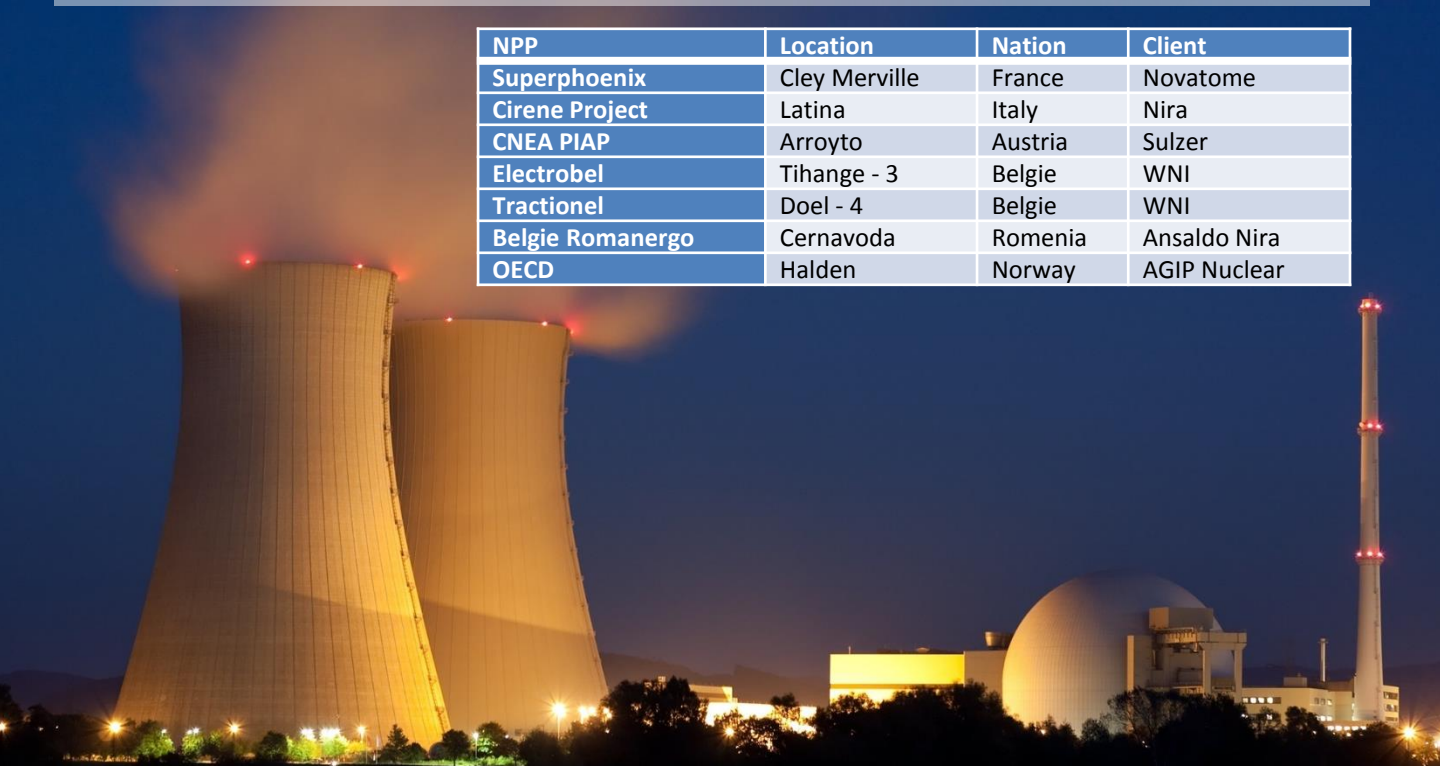
Nuclear Power Plant

For the past 50 years Mesit, and most recently CCRI, have provided EPC and maintenance services to the nuclear industry. Our team participates to several research programs like Fregene Project at Casaccia in Rome with ENEA, the leading agency for applied nuclear in Italy. While most R&D is focused on decommissioning and wastes, basic research has continued in order to maintain the nuclear option.

For AMN, Fiat and SNIA Techint we supplied Monte Brasimone's ENEA PEC (Fuel Element Test Reactor), an experimental sodium cooled fast reactor. It represents one of the major Italian contribution to the Fast Breeder Reactor Research and Development Program in Europe. For ENEL through Ansaldo we have supplied Trino Vercellese Westinghouse pressurized water reactor (PWR) also known as the Enrico Fermi Nuclear Power Plant and the Montalto di Castro nuclear power station consisting of two BWR units each of 982 MWe.

Our multipoint thermocouples are measuring the core temperature of four VVER 440/V-213 pressurized water reactors units of the Mochovce NPP in the south of Slovakia. Each Mochovce NPP unit generates over 3,000 GWh of electricity annually, which represents approximately 11% of Slovakia's electricity consumption. The other Nuclear Power Plants where we are involved are shown under.

NPP	Location	Nation	Client
Superphoenix	Cley Merville	France	Novatome
Cirene Project	Latina	Italy	Nira
CNEA PIAP	Arroyto	Austria	Sulzer
Electrobel	Tihange - 3	Belgie	WNI
Tractionel	Doel - 4	Belgie	WNI
Belgie Romanergo	Cernavoda	Romenia	Ansaldo Nira
OECD	Halden	Norway	AGIP Nuclear



Chemical and Petrochemical

Mesit executes complex engineering, procurement, construction (EPC) and maintenance projects for the chemical and petrochemical applications. The company provides a full range of integrated services to the global oil and gas production and processing industries. We serve the upstream, downstream and integrated petrochemical markets.

Our expertise includes consulting and design-build of new facilities, refineries, pipelines or offshore facilities; as well as retrofit and plant-betterment services. With a global execution platform and 24/7 capabilities, Mesit performs work in remote and difficult locations around the world. Mesit and CCIR execute chemical and petrochemical projects around the world, providing project management and process-technology solutions that span the lifecycle of a facility.



Gas Processing and Gas Treating

Mesit EPC and management services for gas processing and gas treating projects include feasibility studies through detailed design, permitting, construction, training, program management and initial operation.

Mesit has a long and successful history of working with all the major technology providers of gas processing and gas treating technology.

Our extensive gas-related project experience includes:

- LNG Liquefaction and LNG Regasification
- Gas Treatment
- Gas measurement
- Gas separation
- Gas filtration
- NGL Recovery and Fractionation
- Unconventional Gas Production
- CO₂, Nitrogen, and Acid Gas Compression Systems for Sequestration, Enhanced Oil Recovery, and Reservoir Pressure Maintenance
- Gas Compression Systems for Transportation,
- Underground Storage, and Reservoir
- Pressure Maintenance



Fire and Gas System

Fire and Gas systems are tools for safeguarding process plants and production facilities that handle flammable and toxic materials. We assist our clients in the design, implementation and testing of these systems our service. include assistance in all phases of the fire and gas system lifecycle based on our unparalleled expertise, process knowledge and overall risk analysis capabilities including:

- Fire and Gas Protection Products and Systems
- Flame and Gas Detectors
- Control Cards and Panels
- Safety Automation Products and Systems
- Evacuation Management Products and Systems
- Emergency and Process Shutdown Systems (ESD)
- Instruments and Control Panels
- Water based system
- Gas based system
- Foam and dry Chemical system
- Equipment and skids
- Pumping system



Services

Mesit presence in Europe, North Africa, Middle East gives Clients the confidence that we can deliver complex, logistically challenging projects in every part of the world. With a very specialized workforce deployed on projects in 42 countries and 24/7 project-execution capabilities, Mesit has the expertise to deliver projects with the quality and safety, its Clients expect.

Engineering and Design

Mesit performs traditional and advanced engineering specialties, as well as conceptual and detailed design for various projects in diverse industries for Clients worldwide.

Procurement

Mesit's global procurement organization promotes project cost controls and schedule certainty by managing the purchase and delivery of materials, equipment, and services for Clients worldwide.

Fabrication

Mesit provides self-perform and subcontractor fabrication solutions to Clients in diverse industries around the world.

Construction

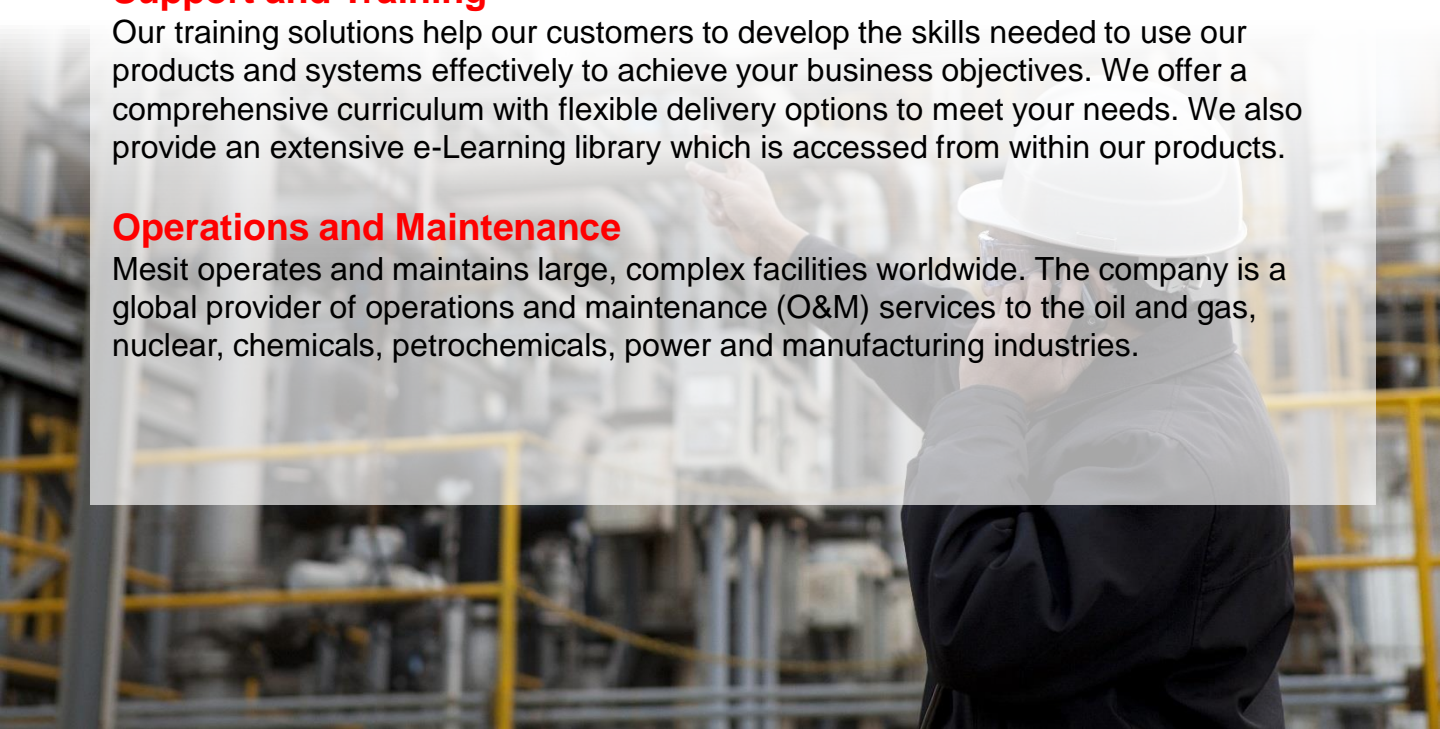
Mesit has an experienced, global construction workforce committed to HSE excellence to build projects around the world using proven construction technologies and systems.

Support and Training

Our training solutions help our customers to develop the skills needed to use our products and systems effectively to achieve your business objectives. We offer a comprehensive curriculum with flexible delivery options to meet your needs. We also provide an extensive e-Learning library which is accessed from within our products.

Operations and Maintenance

Mesit operates and maintains large, complex facilities worldwide. The company is a global provider of operations and maintenance (O&M) services to the oil and gas, nuclear, chemicals, petrochemicals, power and manufacturing industries.



Engineering and Design

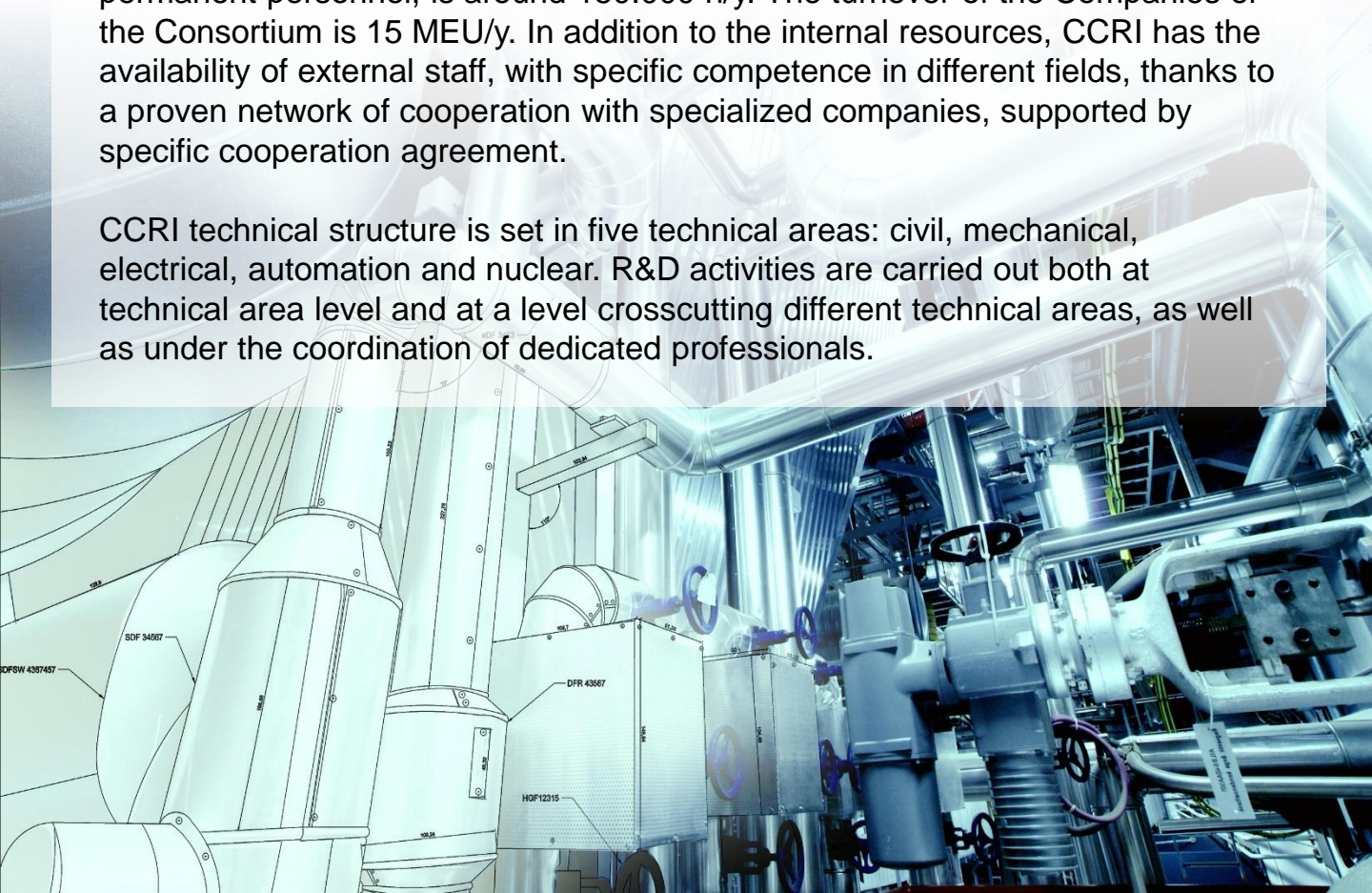
Mesit and CCRI research and technological development and advanced services typically operate in cooperation agreements with leading companies, with the aim at Tackling national and international markets also with the development of innovative products.

Mesit and his engineering partner CCRI perform traditional and advanced engineering specialties and detailed design for various projects for their worldwide Clients including traditional disciplines, architectural, civil, electrical, mechanical, piping, and structural engineering including simulation, integrated automation processes, and interactive 3D and 4D modeling.

CCRI main field of activity are: Nuclear Power Plants as decommissioning, power plant design and innovative development; Process, Steel working, Power Plants, Chemical process plants and Renewable energy plants; Advanced Mechanical componets and system as remote handling, automotive, aerospace, etc.

The CCRI stable manpower includes 110 highly skilled technicians, mainly PhDs and engineers. The basic engineering production capacity, based on the permanent personnel, is around 150.000 h/y. The turnover of the Companies of the Consortium is 15 MEU/y. In addition to the internal resources, CCRI has the availability of external staff, with specific competence in different fields, thanks to a proven network of cooperation with specialized companies, supported by specific cooperation agreement.

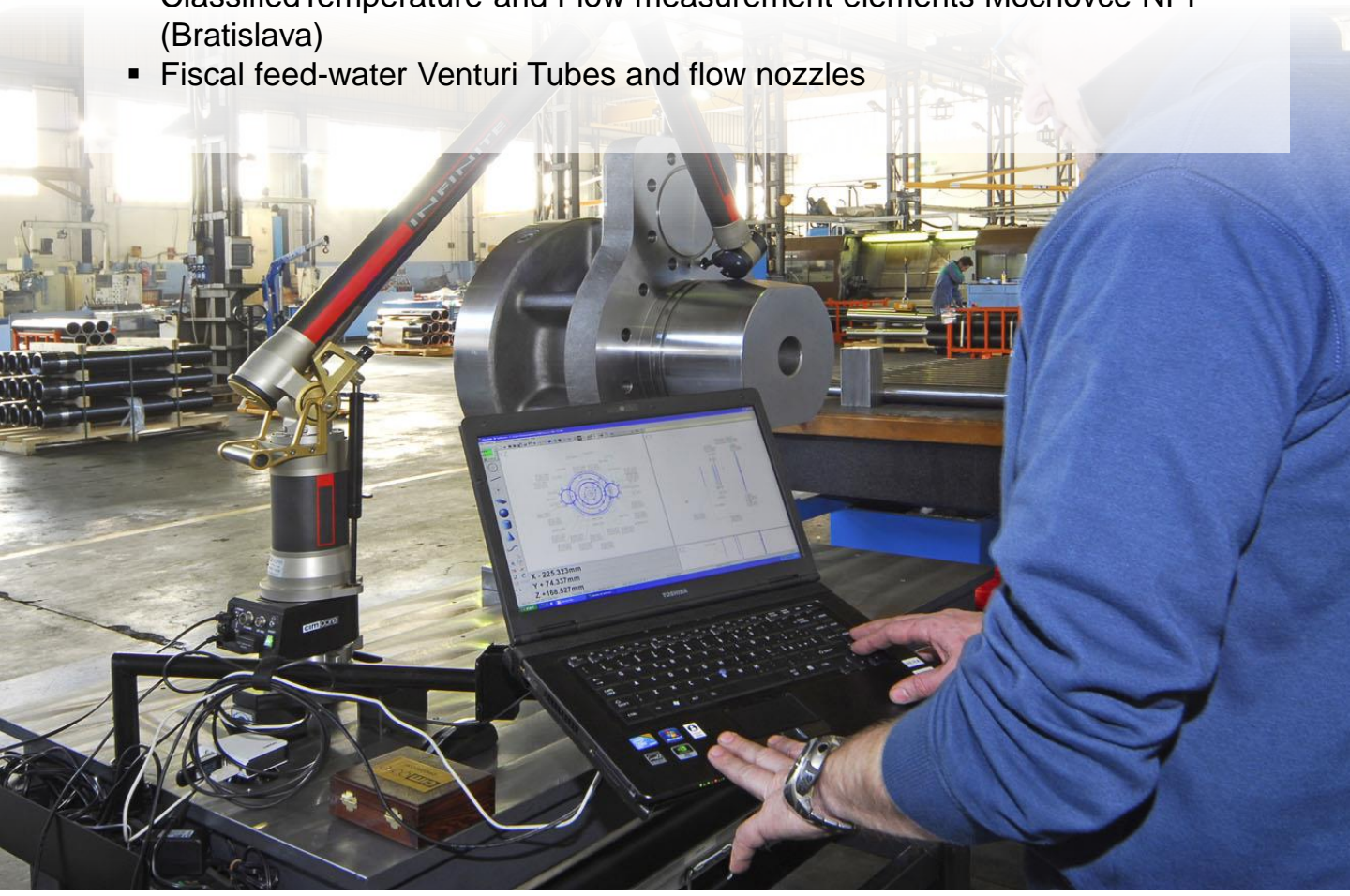
CCRI technical structure is set in five technical areas: civil, mechanical, electrical, automation and nuclear. R&D activities are carried out both at technical area level and at a level crosscutting different technical areas, as well as under the coordination of dedicated professionals.



Qualifications

MESIT has a huge certifications quality assurance starting from Bureau Veritas, Cotecna Geneve and SGS Lloyds-RINA Register.

- ISO 9001:2008 Ed.
- CE 97/23/EC (PED)
- CE 94/9/EC (ATEX)
- SOA 10080/23/00
- In core Thermocouples and Thermoelements system design, manufacturing and installation certification Cl.1 and IEEE 323 for NPP
- Thermocouples and Heating Cables irradiation test (1000 Mrad) at the PEC Experimental Reactor part of the Super-Phoenix Project (Brasimone-ENEA)
- Design, Engineering calculations and Stress Analysis Reports According to ASME III NB (Cl. 1 components) Doel IV and Tihange III (Belgium), Cernavoda (Romania)
- Calibration
- Welding 5F-6G in compliance with ASME IX on nuclear reactors Doel IV and Tihange III
- Classified Temperature and Flow measurement elements Mochovce NPP (Bratislava)
- Fiscal feed-water Venturi Tubes and flow nozzles



Our Projects



Siirtec Nigi Portovaya Gazprom Compression station (Russia, 2014)

The project, located near Vyborg (Russia) involved the construction of a compressor station part of the Gryazovets-Vyborg gas trunkline. In this project are involved Rolls-Royce (GPUs) and Siirtec Nigi (GTU design and construction). The station is the starting point for gas supplies through the North Stream gas pipeline and secures gas transmission over 1.200 km. The Portovaya station has a 366-MW capacity and a 220-atmosphere absolute pressure with eight gas-pumping units (GPUs) - six with a 52-MW capacity and two with a 27-MW capacity.



Saipem/Chyoda Arzew Sonatrach LNG (Algeria, 2014)

Sonatrach awarded Saipem, in a joint venture with Chiyoda, the lump sum turnkey contract for the new Arzew LNG Train (GL3Z) project. The contract encompassed the EPC (engineering, procurement and construction) of a single-train gas liquefaction (LNG) plant, with a capacity of 4.7 million tons of LNG per annum, constructed near the Algerian city of Arzew, about 400 km west of Algiers. We supplied Saipem that was named for the first time as the main contractor of a large gas liquefaction (LNG) plant, asserting its reputation as an integrated player, capable of managing large and complex turnkey projects in the high tech market of the LNG sector.



Saipem/Huyndai Mesaieed QAFCO Fertilizer 5 & 6 urea exp. project (Algeria, 2013)

EPC contract for QAFCO-6 expansion project was signed between QAFCO, Saipem and Hyundai's joint venture. A complete plant, with a design capacity of 3,800 MTPD of urea. A Complete urea granules storage with a capacity of 175,000 metric tons and handling material system with a capacity of 1,000 MTPH of urea granules. Thus far, QAFCO has become the world's largest single site urea producer after the inauguration of its 4th expansion of QAFCO-4 in April 2004. QAFCO-6 project will increase the company's annual production capacity to 5.6 million metric tons.



ENEL Mochovce Nuclear Power Plant (Slovakia, 2013)

In the south of Slovakia, between the towns of Nitra and Levice, are located four VVER 440/V-213 pressurised water reactors units of the Mochovce NPP. Units 3 and 4 generate over 3,000 GWh of electricity annually, which represents approximately 11% of Slovakia's electricity consumption. Mesit supplied his incore multipoint thermocouple system designed, manufactured and installed the first time in the 80s at the Belgium's third generation nuclear power station of Doel IV and Tihange III. The thermocouples are all class 1E following IEEE 323.



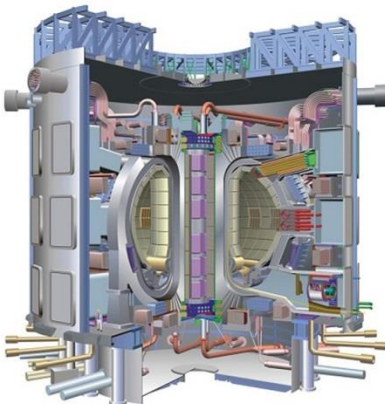
Sonatrach In Amenas Gas Turbine (Algeria, 2010)

In Amenas is the largest wet gas development project in Algeria with four primary gas fields in the Illizi Basin in the south-eastern part of the country. The In Amenas Gas Project, located close to the Libyan border in the Sahara desert, around 1,300km away from city Algiers, commenced its production in the 2006. Mesit provided the EPCI of a complete power plant and a 8.2 MW Turbo alternator.



Saipem Canada/SNC-Lavalin Fort Mc Murray Canadian Natural Resources (Canada, 2006)

Saipem Canada Inc., and its joint venture partner, SNC-Lavalin, have been awarded a lump sum contract by Canadian Natural Resources Limited (Canadian Natural) to provide engineering, procurement and construction management services for the Horizon Oil Sands Project – Secondary Upgrader Project. The Secondary Upgrader, consisting of three hydro treaters, will process 110,000 barrels/day of feedstock from the Primary Upgrader into synthetic crude components.



ENEA Fuel Element Test Reactor

In Italy, for AM and SNIA Techint we have supplied Monte Brasimone's ENEA PEC (Fuel Element Test Reactor), an experimental sodium cooled fast reactor. It represents one of the major Italian contribution to the Fast Breeder Reactor Research and Development Program in Europe. The safety criteria adopted as design bases for the PEC reactor provide all the measures needed to reject in the area of residual risk the severe accidents leading to a loss of integrity of the containment barriers.



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