

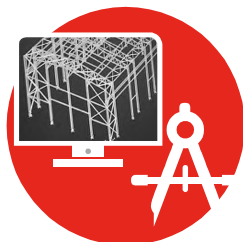
A black and white photograph of two industrial workers in full protective suits, including helmets with headlamps and respirators. They are standing on a metal platform or scaffolding, surrounded by large industrial pipes and structures. A large, semi-transparent pink triangle is overlaid on the left side of the image, pointing towards the center.

Energy Maintenance & Production Services



Range of activities along asset life cycle

CAPEX



OPEX



Operation & Maintenance

Maintenance
Inspection Engineering

Shutdown & Turnaround

Local Construction Services /
Fabric Maintenance

Well Production Services

Energy Maintenance & Production Services

Bonatti's business unit Energy Maintenance & Production Services provides a wide range of activities, aimed to:

- Reduce asset life cycle costs in compliance with integrity goals
- Production enhancement

Support is given all along the production process: from wellhead to O&G treatment plant on-shore and off-shore sites.

Bonatti aim is to provide turn-key solutions in the form of global contract based on full logistic means, necessary technical assets, technical support and permanent skilled staff, including proper local content strategies and training support wherever necessary.

Energy Maintenance & Production Services operates by means of a "full responsibility approach" and a wide range of technical solutions for any customer operational needs, such as:

ASSET MANAGEMENT

OPERATION & MAINTENANCE
GENERAL MAINTENANCE SERVICES
ASSISTANCE TO OPERATION
ROTATING EQUIPMENT MAINTENANCE
INSTALLATION & COMMISSIONING
MAINTENANCE AND INSPECTION ENGINEERING
CMMMS

SHUT DOWN & TURNAROUND

PLANNING AND SCHEDULING
SUPERVISION & COORDINATION
EXECUTION
PRECOMMISSIONING
REVAMPING

LOCAL CONSTRUCTION SERVICES

FABRIC MAINTENANCE
MODIFICATIONS, IMPROVEMENTS AND DEBOTTLENECKING

WELL PRODUCTION SERVICES

MULTIPHASE PUMPING SYSTEMS
WATER INJECTION
GAS STORAGE AND GAS BOOSTING
SALT DILUTION, DESALTING AND CHEMICAL INJECTION

ENERGY MAINTENANCE & PRODUCTION SERVICES ACTIVITY IS DRIVEN BY CORPORATE "PIONEER ATTITUDE" TO EXPLORE NEW OPPORTUNITIES AND BUSINESS FOLLOWING OUR CLIENT'S NEEDS, TROUBLESHOOTING AND LESSON LEARNED.

OUR VISION FOR INNOVATION IS BASED ON OPTIMIZING KNOW HOW CAPITALIZATION AND ON INVESTMENTS IN NEW COMPETENCIES SKILLS.



• Partnering approach with our clients:

- dedicated site structure with dedicated teamwork
- in site HSE methodology with local training center and daily toolboxes
- planning for activities and material for brown field operation (HAZOP, SIMOPS, job card)
- risk / reward contractual scheme

Bonatti specific know-how in operating in remote location and under extreme environments can guarantee a prompt mobilization and successful results wherever our customers operate.

Our organization is able to organize all necessary logistics and support facilities in the proximity of customers assets and to provide them with the required services where and when needed.

• Full responsibility approach to projects and services:

- from design to execution leveraging on a strong logistic presence and technical HQ support engineered solution (EPC) for equipments and packages revamping, upgrade and improvements

DCS / control systems integrations (Bonatti subsidiary Carlo Gavazzi Impianti as technological leader)

- subcontractor evaluation, qualification and management
- main vendors and OEM collaboration and partnership

• New techniques & methodologies:

- informatic tools for planning, maintenance and reporting CMMMS maintenance philosophy (BMMS); software planning quality control and documentation control software management
- intelligent O&M 3D models
- multiphase pumping system

• New shutdown techniques & approach:

- plant SD & turnaround procedure definition
- production enhancement
- hydro testing (re-usable polyurethane gasket)
- chemical cleaning & vessels purging and degassing system
- waste disposal and transportation (using inflatable pillows)
- artificial lifting



6,500

EMPLOYEES
WORLDWIDE

4

continents

75
years in
Energy
Industry



R e v e n u e s :
2020

8 9 7
MILLION EURO

1,500

dedicated people
in 7 countries

OUR FLEET
50 MULTIPHASE
PUMPING SYSTEMS
30 water/chemical
injection skids

allowed an average production of
150,000
BARRELS OF OIL
280 MMscf/d OF GAS

*as of end 2021

HSE

Bonatti's primary purpose is to run projects with the highest HSE standards. Continuous training ensures that staff are up-to-date with the latest HSE standards and regulations.

Bonatti's HSE culture is communicated top-down, from top management to workers on site.

The core element of our HSE Policy states:

"All Bonatti's employees and the employees of our subcontractors are entitled to, and indeed have the responsibility to stop work if they feel that such work is being performed under unsafe or potentially hazardous conditions."



Quality

Bonatti's goal is the constant performance improvement in accordance with the ISO 9000 regulations, which currently represent the state of the art in the field.

Bonatti is certified in accordance with:

- ISO 9001 quality management system
- ISO 45001 health & safety management system
- ISO 14001 environmental management system
- ISO 3834-2 welding management system
- SA8000 voluntary standard

The latest developed in-company mechatronic welding system Bonatti ROB.E 10:01 is the result of a process of research and study carried out in the field for over 25 years.



Our local approach



WORKFORCE

As a multi-national company with a local culture, we are committed to reducing the current 10% expats working locally to under 5% in the next 3 years.

We are dedicated to recruiting and training the workforce locally, and to partnering with universities and educational institutions to help drive the local economy. We aim to create a highly engaging, motivating environment offering targeted training and growth programmes focusing on individuals' needs and goals.

Our ultimate aim is to achieve high local retention rates and to secure the best services and support.

LOCAL PARTNERS

To compete effectively on the global energy market and to sustain local communities, it is important to source goods and services locally, without ever compromising on quality, delivery, timing or costs.

Our strict supplier selection and monitoring procedure

ensures every supplier meets our business requirements. Moreover, our tendering and procurement procedures ensure local companies are treated equitably during the bid process.

Our goal is to create a solid network of local partners who comply with our stringent qualification procedures and add value to our client's assets.

COMMUNITY

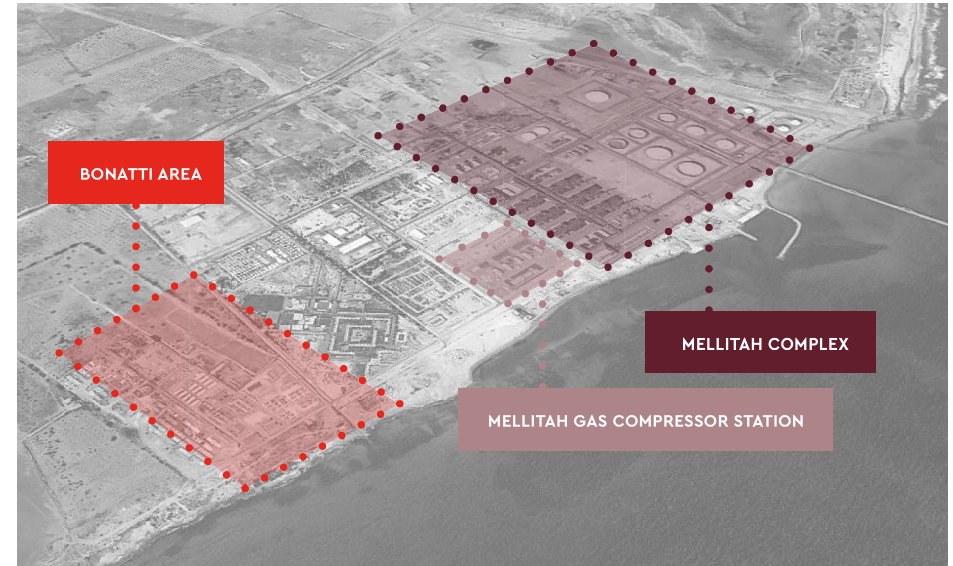
We are committed to understanding the social and environmental impact of our activities, so as to achieve mutually beneficial coexistence with the communities in the countries where we operate.

Our strong local rooting consolidates our presence, with positive consequences both for business and for the local communities.

We conduct our activities in full respect of the cultural, religious and ethnic traditions of the local communities, with the aim of contributing to the improvement of the socio-economic conditions of the territory in which we operate.



MELLITAH, LIBYA CASE HISTORY



The Mellitah Complex is one of the largest gas treatment plants in the world. It is located about 100 km west of Tripoli on the Mediterranean seashore.

Mellitah Oil & Gas B.V. operates two sections:

- Wafa Coastal Oil Plant (treats crude oil from Wafa Desert field and Sabratha Platform)
- NC41 Gas Plant (treats gas from Wafa Desert field and Sabratha Platform).

NC41 AND WAFAS COASTAL PLANT CAN PRODUCE ABOUT 11 BSCM/YEAR OF GAS AND ABOUT 120,000 BPD OF OIL

The crude oil is loaded into tankers via the Jetty and the SBM terminal.

Gas from Sabratha Platform, after being treated to remove H₂S, and the gas from the Wafa Desert field are compressed in the GreenStream compression station and sent to Sicily through a 600 km sub-sea pipeline.

THE COMPLEX DELIVERS 30,000,000 SCM OF GAS TO ITALY DAILY

BONATTI LOGISTIC BASE:

Living & operation yard for all activities within the Mellitah Complex:

- capacity for more than 600 people
- warehouse and storage yard for materials
- workshop for pre-fabrication activities
- equipment and tooling availability
- offices & HSE training facilities

MELLITAH COMPLEX (MELLITAH OIL&GAS):

General maintenance service & NC 41 assistance to operation:

- long term relationship:
 - service activities after being involved in the construction phase
 - GMS: from 2006
- partnering approach:
 - client & contractor maintenance team fully integrated
 - training plan for local resources fully integrated in the SoW
- risk / reward: contractor performance measured on KPI
- the General Maintenance Service contract for the Mellitah Complex has been renewed during 2013

MELLITAH GAS COMPRESSOR STATION (Greenstream):

Maintenance service & assistance to operation:

- long term relationship:
 - global service after having built the station
- partnering approach:
 - client & contractor station team fully integrated
 - OEM remote assistance managed directly by contractor
- risk / reward: contractor performance measured on KPI
- Global Service provided since 2004



MELLITAH, BEST PRACTICES AND RESULTS

Due to providing operation & maintenance services to all the assets of the Mellitah area (from oil & gas treatment to compression station), we have developed the following figures as best practices and results:

- enhanced partnership with client
- full commitment on production availability, plant efficiency and total safety
- shared maintenance model and technology for the whole complex
- enhanced emergency response in terms of resources, special tools and equipment
- maintenance planning optimization, comparing activities in different areas
- shared planning of shutdown timing and efforts targeting to reduce "non production days"
- flawless service execution leveraging O&M, area acquainted know how, and integration of technological support partners
- overall cost optimization
- local content improvement
- experience maximization to reduce MTBF and O&M MTTR management

HASSI MESSAOUD, ALGERIA BUSINESS MODEL



Hassi Messaoud is the most important oil field in Algeria. The basin is located 900 km south from the Mediterranean coast and 300 km east from the Tunisian boarder.

Hassi Messaoud produces 65% (corresponding to 17 millions of tonnes) of Algerian oil production. The "Base Bonatti" located in Hassi Messaoud represents a focal point for all our oil & gas activities in Algeria.

It provides the following services and equipments for all Bonatti Algerian construction sites:

- contract and project management
- field service activities
- maintenance activities
- tools and equipments for the work execution
- material management
- logistic support and coordination
- routine, failure, accident, and reports
- subcontractor coordination
- material handling, customs clearance, and warehouse service
- pre-fabrication workshop

BONATTI LOGISTIC BASE:

Hassi Messaoud Complex, living & operation yard:

- total surface: 16,500 sqm
- lodging surface: 8,000 sqm
- capacity: more than 60 people
- industrial surface: 9,000 sqm
- offices: 900 sqm
- pre-fabrication workshop: 650 sqm
- Well Production Services workshop: 400 sqm
- mechanical workshop: 300 sqm
- open yard: 300 sqm
- warehouse: 300 m2



HASSI MESSAOU, BEST PRACTICES AND RESULTS

Due to our well established presence in Hassi Messaoud in terms of logistic assets, equipment and resources, we have developed the following figures as best practices and results:

- enhanced partnership with clients,
- commitment on production increase, equipment availability and total safety
- share petroleum & production experiences and approach
- enhance emergency response in terms of resources, special tools and equipment
- create a center of excellence for production equipment, maintenance optimization and spare parts management
- create a center of excellence for pre-fabrication (mechanical and civil) activities to be centralized for all construction sites of the Country
- target an overall costs optimization for Country operations



ASSET MANAGEMENT

Main operation & maintenance activities:

- Global Maintenance Service
- integrated O&M (utilities, power plants)
- equipment installation, maintenance and upgrade
- upgrading or revamping projects on existing systems
- technical support and assistance
- rotating equipment installation, maintenance and upgrade
- commissioning and start-up services
- maintenance inspection and engineering
- training
- technical assistance
- customized MMMS
- intelligent O&M 3D models

The company's aim is to offer an integrated service that, by starting from the analysis phase, develops an on-site maintenance and management design capable to optimize plant production.



MAINTENANCE INSPECTION ENGINEERING

As in-house capability grown from the various general and global service contracts, and with close cooperation with external technical partners, Bonatti is able to provide to clients, CMMS installation, plant residual life calculation, asset data collection and maintenance engineering services.

CMMS ACTIVITIES

- CMMS installation (Coswin7i, Infor-EAM, APIPRO, Maximo)
- CMMS data collection and start up
- CMMS upgrade (IT and maintenance engineering activities)

MAINTENANCE ENGINEERING ACTIVITIES

- stock analysis (ABC curve calculation, economical and technical reorder level calculation)
- maintenance and inspection plan elaboration
- MEL elaboration
- BOM elaboration
- SPIR elaboration
- material coding
- KPIs definition
- FMEA, FMECA, MAGEC- Hazop Analysis



SHUTDOWN & TURNAROUND

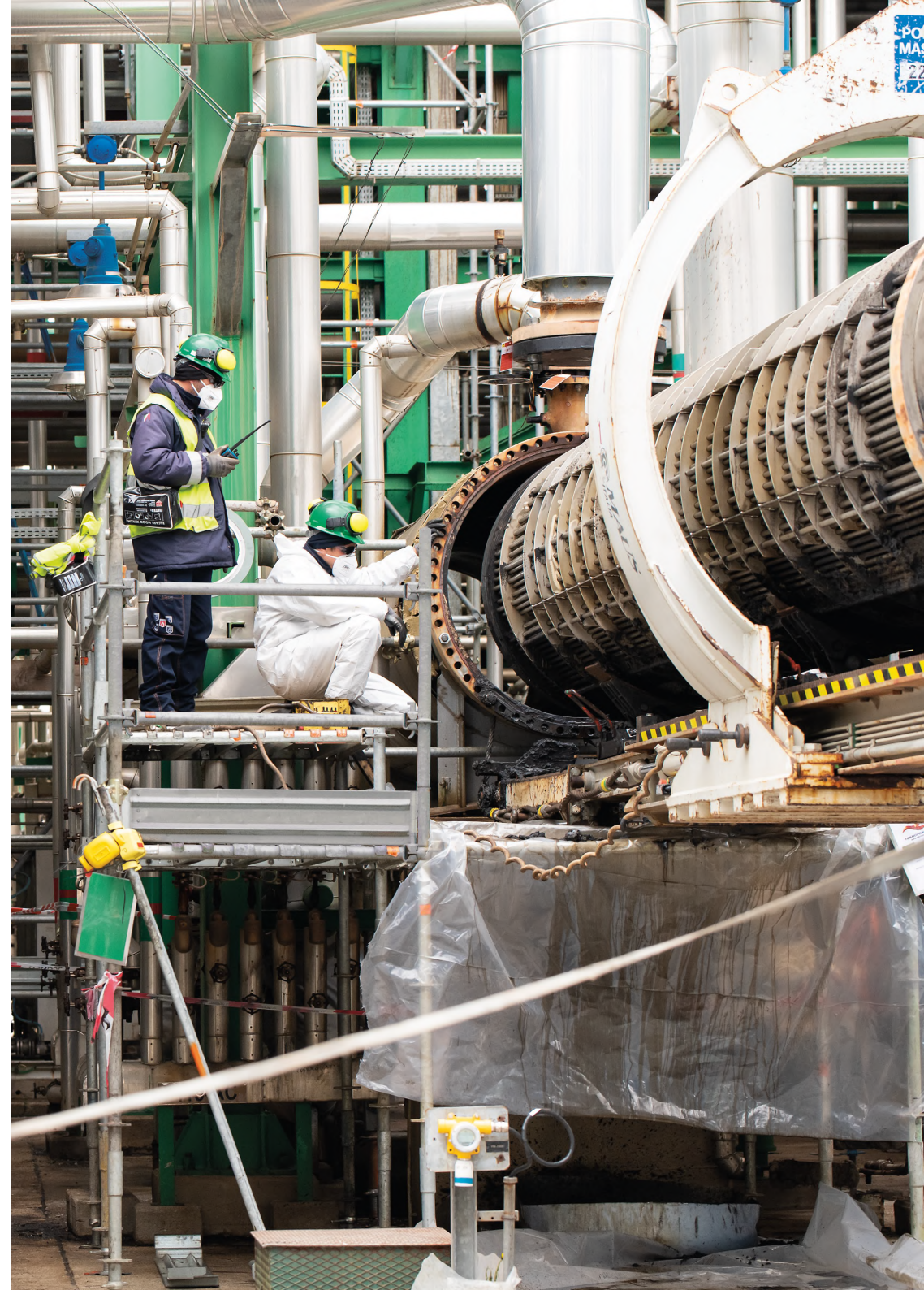
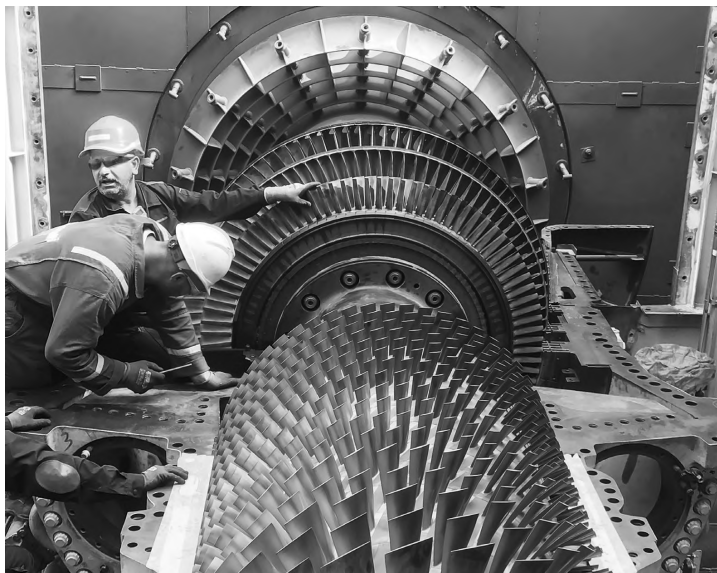
Shutdown is a complex activity that requires extensive planning and careful coordination of labor and materials.

These periodic circumstances allow the plants to ensure safe operations, stay competitive, and meet government regulations.

Bonatti, recognized as best-in-class provider for turnaround services, fully understand customer's needs to optimize turnaround and modification projects to ensure timely delivery within budget and full compliance with the highest QHSE standards.

Bonatti can provide the full range of services:

- scope definition, estimation planning and scheduling
- procurement & logistic
- supervision and staffing
- complete execution
- cost and technical reporting





LOCAL CONSTRUCTION SERVICES

Minor and major construction works during plant OPEX have different technical and HSE constraints compared to CAPEX phase and require a specific organization and experience.

Here below a basic list of construction activities Bonatti can provide:

- fabric maintenance
- improvement & modification
- flowlines and trunklines
- tie-in
- general services for supply and logistics
- emergency intervention
- revamping

Engineering support and procurement services are available from HQ, should this be required by the customer by EPC contractual scheme.



WELL PRODUCTION SERVICES

Our Well Production Service unit is offering more than 15 years experience in providing rental solutions to on-shore operators demanding fast-track increase of production.

The main services are:

- Multiphase pumping
- Water Injection
- Salt dilution and chemical injection
- Gas storage and boosting

The "BOO - Build-Own-Operate" model we propose allows customer to shift from capital expenditure towards operational costs, adding gross production and ensuring a positive cash-flow. Moreover, such approach, fully "skin in the game", facilitates the creation of an actual partnership, contributing to further production enhancement.

By a perfect combination of EPC-skills and O&M-expertise, Bonatti WPS provides fast, reliable, safe and zero-environmental-impact solutions to meet client expectations along the various phases of the service: from conceptual design and selection of the most suitable application, through fast mobilization and start-up on site, up to a 24/7 assistance for a top performance and for an immediate response in case of any problem during the operations.



WATCH
THE VIDEO



BERKINE: MULTIPHASE PUMPING SYSTEM

OUR CLIENTS

Agip KCO
Agoco
Akakus Oil Operations
Eni
First Calgary Petroleum
Gazprom Neft Badra
General Electric
Greenstream
Groupement Berkine
Groupement Sonatrach Agip
Exxonmobil
In Salah Gas
KPO – Karachaganak Petroleum Operating
Lukoil
Mabruk Oil Co.
Mellitah Oil & Gas
OMV Petrom
Pertamina
Repsol
Saudi Aramco
Sirte Oil
Sonatrach
Sasol
TCO – Tengizchevroil
Total
Veba Oil Operations
Waha Oil Company
Wintershall

www.bonatti.it

2022

|