

BILFINGER SE



BILFINGER

OIL AND GAS PROJECTS: WE MAKE IT WORK

FROM ENGINEERING AND TECHNOLOGY TO FABRICATION, CONSTRUCTION AND MAINTENANCE



OIL AND GAS PROJECTS: WE MAKE IT WORK

Bilfinger's project execution capabilities cover the entire lifecycle of oil and gas infrastructure. Whether we are talking about upstream treatment facilities, midstream pipelines and compression stations, downstream LNG distribution units or storage tank terminals – Bilfinger assumes responsibility for design, procurement and fabrication as well as construction. We also take care of the subsequent maintenance of your assets. The Bilfinger concept for full project responsibility ranges from technical advisory services to mechanical completion and commissioning, including specific technologies for gas processing.



Building on a strong reputation for excellent service in the international oil and gas industry, Bilfinger is keen to take on assignments for a wide range of project sizes, supported by in-house piping and module fabrication facilities and a comprehensive network of service delivery points. Our high-end process control systems ensure safe and reliable operation of your plants. From our corporate headquarters in Germany, we have now established a strong track-record in projects with clients around the world.



SMART PRODUCTS

FOR A CLEAN ENVIRONMENT AND ENHANCED EFFICIENCY

GAS TREATMENT PLANTS

With a truly international footprint, broad expertise in the oil and gas market and a variety of technologies and services, Bilfinger brings added value to infrastructure projects. With over 40 years of gas processing experience, our solutions fit small and medium size projects in the entire gas value chain. Bilfinger is the perfect partner for developing and executing projects such as gas field development, gas processing plants, compression stations and underground storage.

Our technology portfolio includes competences and know-how in various processes, covering water and hydrocarbon dew-point adjustment, sulfur and mercury removal, CO₂ removal and multiphase separation. As a one-stop-shop, Bilfinger offers all services necessary from planning, engineering, procurement, fabrication to construction and commissioning of new and existing plants. We build proprietary equipment in our own production facilities, ensuring highest quality levels that minimize your risks related to scheduling, cost and labor

SMALL SCALE LNG PLANTS

Because it produces fewer emissions than diesel or heavy fuel oil, LNG has untapped potential in both land and sea transportation. Since the increase in LNG demand is often geographically scattered and not always close to large producers or distribution networks, it is increasingly important that LNG is produced locally in a smaller capacity. This is known as Small Scale LNG (SSLNG).

Bilfinger and a well-known technology partner have teamed up to offer our customers a complete solution for SSLNG plants. Our technology and proprietary cryogenic equipment has been successfully deployed for decades.

With our SSLNG model, various gas sources can be used to produce LNG. We offer complete supply solutions from the natural gas source to the end user, including pre-treatment of gas and natural gas liquefaction technology, LNG trailer loading stations and LCNG/LNG refueling stations. Bilfinger has developed a pre-engineered process solution and a modularized design to achieve the shortest delivery time with minimum construction work onsite.



OIL & GAS PIPELINES

Whether you are operating in a remote area with extreme weather condition or in an existing complex pipeline infrastructure, Bilfinger provides you with services for greenfield or brownfield pipeline projects. Our services range from concept engineering and consultancy to complete EPFC solutions including commissioning. They are provided both as standalone offerings or integrated services.

For more than 50 years, we have been close to our key customers in Europe and the Middle East, providing them access to our multidisciplinary pipeline project experts and local expertise supplemented by our own fabrication capabilities. Our world-class process control systems have earned a strong reputation in the industry, supporting some of the most challenging pipeline projects such as the Nord Stream pipeline.

STORAGE TANKS & TERMINALS

Design, construction and maintenance of tanks and terminals demand significant investment and the involvement of many stakeholders. In order to help our customers make the right decisions within the given time frame and budget, we can simulate entire projects from the beginning.

Bilfinger has comprehensive in-house resources and capabilities to design and engineer storage tanks and complete terminals. We can develop a complete digital tank terminal in 3D (design), 4D (planning), 5D (costs), 6D (sustainability) and 7D (maintenance impact).

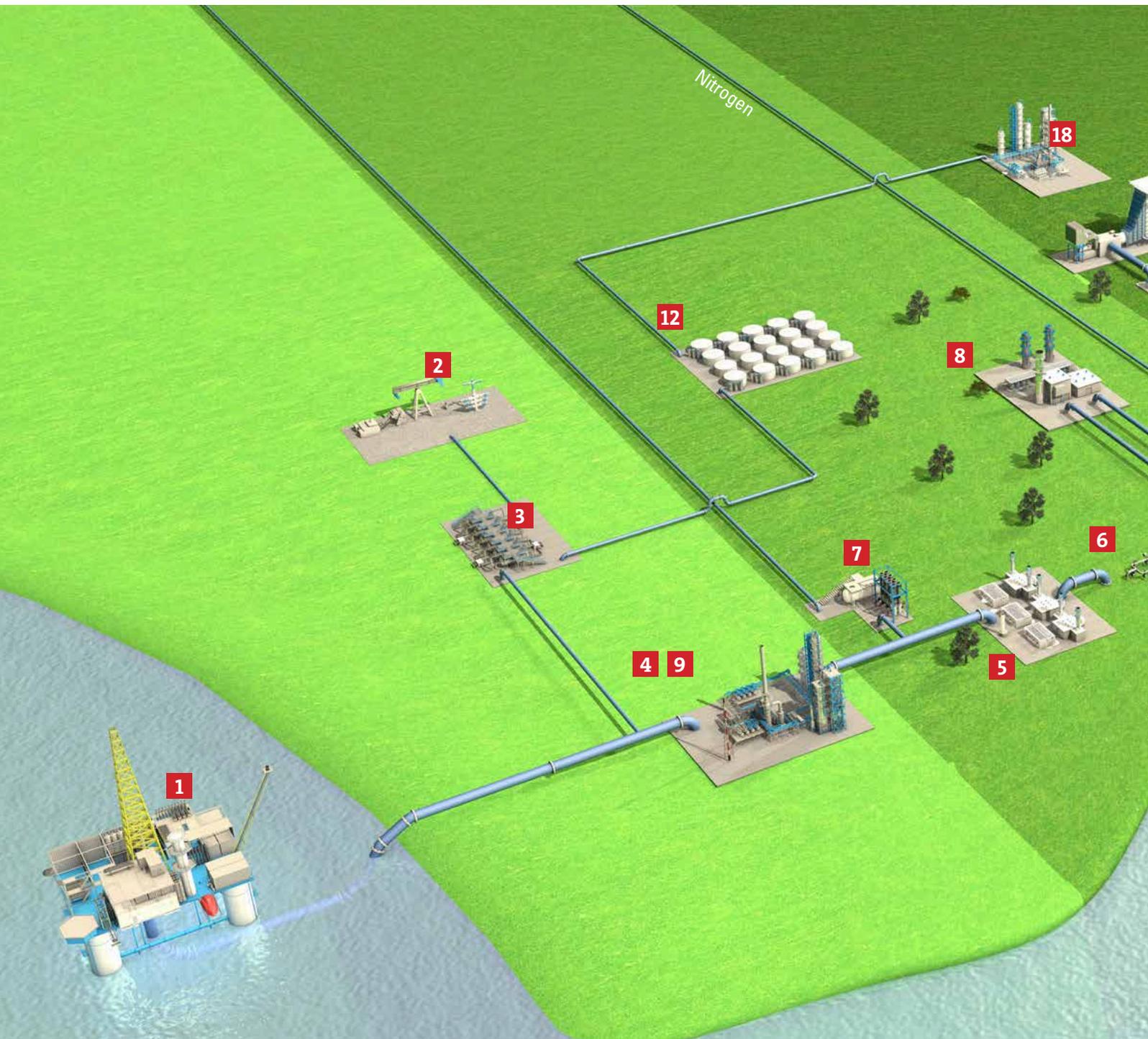
OIL & GAS FUELS CONDITIONING

Bilfinger is one of the world's leading providers of fuel processing facilities for oil and gas-fired turbines in power plants. In our scope of supply, we are responsible for customer-specific engineering and purchasing of components as well as for manufacturing, delivery, construction and commissioning of fuel processing plants.

The full range of our services, including maintenance, is provided from a single source. This approach guarantees the highest quality at the lowest costs while simultaneously reducing interfaces to a minimum. Bilfinger has more than 60 years of experience in the planning and delivery of process plant components, with installation of systems in over 50 countries around the world.

SERVICES ALONG THE OIL & GAS VALUE CHAIN

Integrated solutions for project execution covering the entire life cycle from engineering and technology to fabrication, construction and maintenance.



UPSTREAM:

- 1 Upstream E&P offshore well
- 2 Upstream E&P onshore well
- 3 Gas-oil separation plant
- 4 Gas processing plant

MIDSTREAM:

- 5 Compression station
- 6 Metering station
- 7 Deodorizing unit
- 8 Underground storage & gas treatment
- 9 Gas treatment
- 10 Odorizing unit
- 11 LNG import terminal, regasification & storage tanks
- 12 Storage tanks
- 13 Blending station

DOWNSTREAM:

- 14 Fuelgas conditioning & gas station
- 15 Gas pipeline system
- 16 SSLNG liquefaction and storage
- 17 Biogas production
- 18 Refinery
- 19 Power plant



LIFE CYCLE VIEW

Integrated solutions for project execution covering the entire life cycle from engineering and technology to fabrication, construction and maintenance.

1. PROJECT CONSULTANCY

A distinguishing element in the Bilfinger offering is the company's project consultancy competence. In the concept phase of oil and gas projects, our feasibility studies and concept selections are critical factors when it comes to project scoping and investment decisions – for both green- and brownfield projects. Bilfinger has developed a proprietary plant engineering management system called BIM and has been using it for over 20 years. BIM can also be applied for the concept phase as it provides valuable input for the commercial assessment of an investment. It can also be integrated easily with major software solutions such as "COMOS".

3. PROCUREMENT/FABRICATION

Bilfinger runs its own workshops. We fabricate piping, steel structures and modular skids. We also provide the required fabrication planning, quality control and inspection services. Bilfinger is renowned for its special welding skills and can perform remote control orbital welding as well as welding work on piping systems with high wall thickness. While integrated in the company's international procurement system, Bilfinger has regional staff located close to our customers and their supply base. Procuring both on behalf of customers and for our own fabrication needs has led to extensive knowledge of the equipment manufacturers' networks and expertise in negotiating cost-efficient supplies.

Project
Consultancy

Engineering

Procurement/
Fabrication

Construction/
Commissioning/
Startup

2. ENGINEERING

Bilfinger has been in engineering for many decades. Our offering covers all engineering disciplines, such as process design and P&ID development, detailed engineering and 3D CAD model completion, equipment sizing as well as inquiry specifications. We organize international integrated engineering teams to offer tailor-made solutions for our customers. Our engineering backbone is the BIM system, providing workflow and document management for each individual engineering phase.

4. CONSTRUCTION/COMMISSIONING/ STARTUP

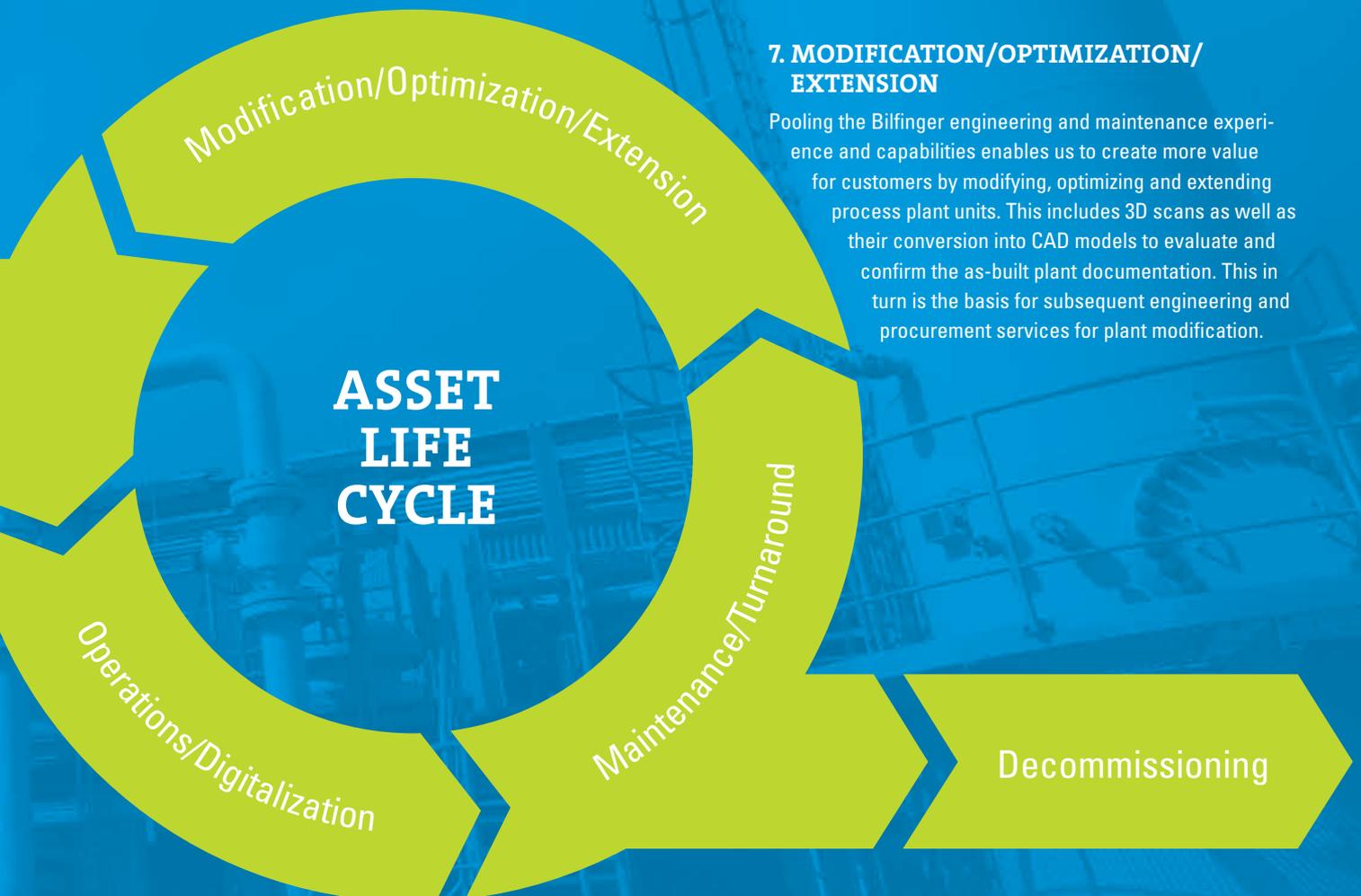
Bilfinger has extensive construction capabilities through its regional entities. We perform construction for green- and brownfield projects in any commercial arrangement through our subcontracting or direct-hire model. We also provide commissioning and startup teams that work closely together with the operation team of the customer. If required, they are complemented with our maintenance colleagues and process experts from our engineering units.

6. MAINTENANCE/TURNAROUND

As a leading services provider, Bilfinger is the partner of choice for maintenance services for many well-known companies. And to ensure that all customers benefit equally from our services, we have brought together and carefully structured the comprehensive expertise we have gained over the course of several decades. We also provide maintenance services for offshore assets.

7. MODIFICATION/OPTIMIZATION/EXTENSION

Pooling the Bilfinger engineering and maintenance experience and capabilities enables us to create more value for customers by modifying, optimizing and extending process plant units. This includes 3D scans as well as their conversion into CAD models to evaluate and confirm the as-built plant documentation. This in turn is the basis for subsequent engineering and procurement services for plant modification.



5. OPERATIONS/DIGITALIZATION

Bilfinger transforms smart plants to learning plants. Our digital Bilfinger Connected Asset Performance (BCAP) solution reduces production and maintenance costs and increases the Overall Equipment Effectiveness (OEE) significantly. BCAP connects data from engineering, operations and maintenance on a cloud-based platform. The visualization and analysis of these previously isolated data silos and up-to-date

data analytics methods provide completely new insights. Thanks to our broad industrial expertise and experience at different industries of the whole asset lifecycle, we are able to evaluate the various solutions to improve operation and maintenance options arising from such analyses and support implementation of the appropriate measures.



WE ARE BILFINGER

We offer international engineering and local maintenance. Our portfolio covers the entire value chain from consulting, engineering, manufacturing, assembly to maintenance, plant expansion as well as turnarounds. It also includes environmental technologies and digital applications. We increase the efficiency of assets, ensure a high level of availability and reduce maintenance costs.

BILFINGER AT A GLANCE

Our organization along two complementary business segments enables us to accompany our customers along the entire life cycle of their assets: the capex side is covered by our Engineering & Technologies (E&T) segment, while our Maintenance, Modifications & Operations (MMO) segment addresses the opex side. Within E&T, we develop, construct and expand industrial plants. Within MMO, we assume responsibility for industrial maintenance. And while the MMO segment offers its services locally in four core regions, E&T is a project and technology business with an international setup.



Oil & Gas



Chemicals &
Petrochemicals



Energy &
Utilities



Pharmaceuticals
& Biopharma



Metallurgy



Cement

We have a particular focus on six industries:

Oil & Gas, Chemicals & Petrochemicals, Energy & Utilities, Pharmaceuticals & Biopharma, Metallurgy, and Cement. Our 36,000 employees ensure that our customers can focus on what they can do best: their core business.

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**WE
MAKE
IDEAS
WORK**