

Where energies make tomorrow ●

Technip Energies in Senegal

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TECHNIP
ENERGIES

A unique offering

Technip Energies is a leading technology and engineering company. With renowned expertise in LNG, hydrogen, ethylene, sustainable chemistry and CO₂ management, we play a key role in the development of strategic markets such as energy, energy derivatives, decarbonisation and circularity. Our two complementary business segments – Technologies, Products & Services (TPS) and Project Delivery – transform innovation into large-scale industrial solutions.

Driven by values of collaboration and executional excellence, our 17,000+ employees across 34 countries are committed to combining prosperity with sustainability to build a world that is designed to last.

ACTIVE ACROSS THE WHOLE VALUE CHAIN

PROJECT DELIVERY

- Project Management
- Engineering, Procurement and Construction
- Technology integration in complex projects
- Digital applications for project delivery, safe and profitable operations and maintenance
- Project Financing

TECHNOLOGY, PRODUCTS AND SERVICES

- Product technology and licensing
- Intellectual property, Loading Systems and Cybernetix
- Feasibility and concept studies, FEED
- Genesis consulting services, project management consultancy, selective commercial approach

MULTIPLE MARKETS

- LNG
- Hydrogen
- Carbon capture, utilisation and storage (CCUS)
- Downstream
- Sustainable fuels
- Circular economy
- Zero-carbon energies
- Industry
- Loading systems



EPC project management and delivery

Technip Energies delivers a range of services in engineering, procurement and construction supported by singular project management skills. We offer unrivalled expertise in the construction of refineries and integrated petrochemical complexes.

We develop our designs using highly advanced optimisation methods and techniques, including constructibility reviews, energy audits, HAZOP reviews, dynamic simulations and facility reliability analysis.

ENGINEERING

We deliver an extensive panel of engineering services including the concept and basic design phase, FEED services, robust costing estimates and optimised facility configuration.

PROCUREMENT

As a leading global player, we enjoy competitive procurement pricing through our team responsible for purchasing and order deliveries, inspection of incoming equipment and materials, logistics management, and the identification of new suppliers.

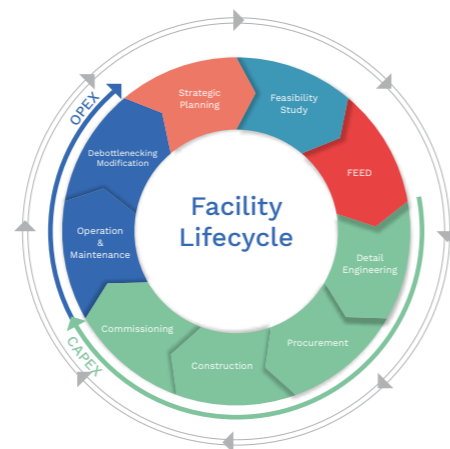
CONSTRUCTION

Our operational centres design and manage construction activities, affording us better knowledge of local markets. Our construction methods centre in Abu Dhabi provides supervision resources, support in developing construction methods and processes, while fostering long-term partnerships in construction activities.

PROJECT MANAGEMENT

For a number of decades, we have demonstrated our capacity to successfully manage all types and sizes of industrial projects around the world. Our experience ranges from project management consultancy services to turnkey executions for all types of contractual models.

“ Excellence in Project Management **”**



A preferred partner from the outset

Our skills come into play in the very first project phases to develop strategic investments solutions in refining and petrochemicals. We support clients in building their visions on solid technical and economic foundations.

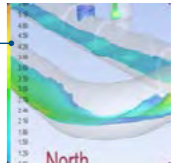
CONCEPT STUDIES & BASIC DESIGN

- Masterplans / de-bottlenecking / modernisation and expansion design work
- Processes, energies, offsite concept design
- Process unit design
- Technology appraisal, selection of leasing owners



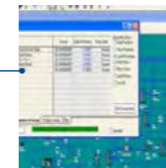
ADVANCED CALCULATIONS

- Static and dynamic process simulations / Power surge analysis
- Depressurisation studies
- Dynamic flow computation
- Special equipment design



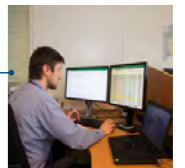
ENGINEERING SUPPORT SERVICES

- Reliability, availability and maintainability design
- Operator training simulator management
- Process training
- Temporary detachment of process engineers



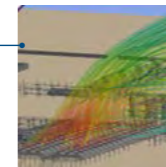
OPERATIONAL SUPPORT

- Commissioning / testing support
- Process repair
- Process support and rotation interval
- Operator advisory
- Process optimisation, optimised operations



HSE ENGINEERING SERVICES

- HSE review
- Modelling of hazardous phenomena / risk analysis
- Environmental and sanitary design
- Structural response and optimisation
- Investigation support for accidents and near-misses



TECHNICAL AUDITS

- Assessment of energy efficiency and performance
- Technical audits of facilities
- Environmental impact review and performance review
- Reasonable technical and technological due diligence



Supporting decarbonisation of our clients' activities

Drawing on our extensive technological, project management and EPC expertise, we are pushing boundaries and accelerating the transition to a low-carbon society. We support our clients' efforts in favour of carbon neutrality by providing solutions to tackle the triple energy challenge.

Strategic flexibility

Like architects, we adapt our approach to projects from energy source to final use.

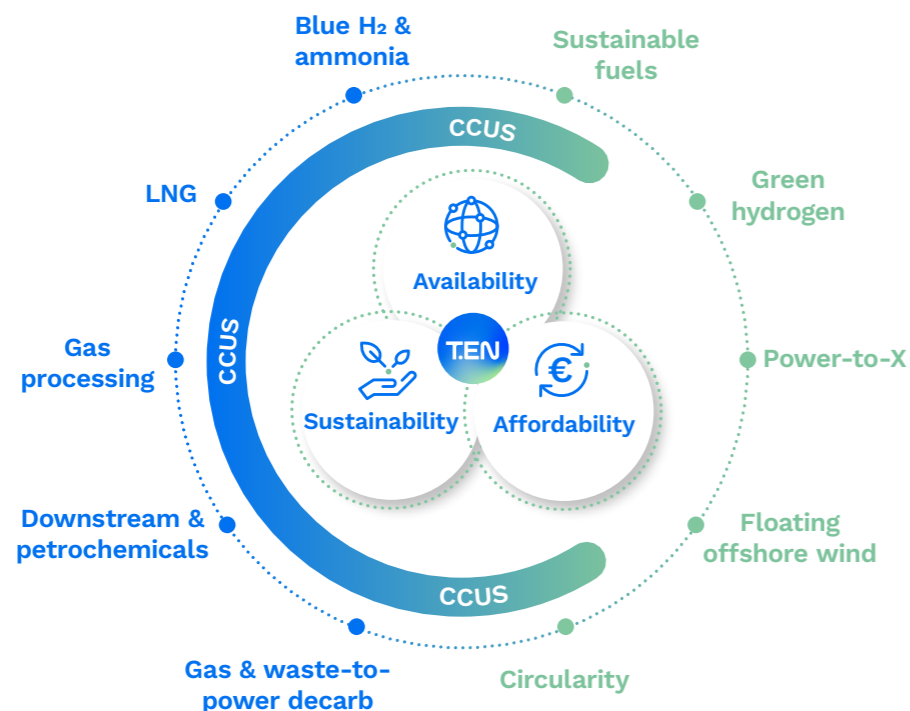
- Excellent energy molecule processing capabilities with all types of raw material

- We are technology focused. We integrate complex technologies, including proprietary solutions, to address each project's specificities and economic constraints.

Flawless execution

We employ an approved operating model, applicable to sustainable energy solutions.

“Leveraging our expertise to tackle current and emerging energy challenges.”



Renowned expertise in project execution in Senegal

Technip Energies in Senegal offers its clients extensive experience in onshore and offshore turnkey project execution.

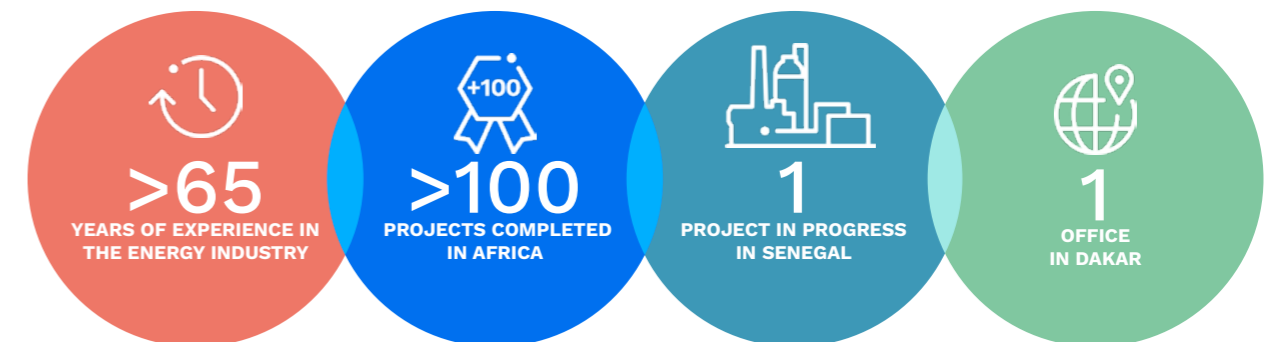
With over 65 years of experience in project execution notably in Africa, Technip Energies can satisfy the needs of all its clients in Senegal, proposing an integrated offering addressing the whole value chain from initial concept studies to the delivery of onshore and offshore turnkey projects.

We deliver the expertise required to complete your projects during the design phase or Engineering, Procurement and Construction management phases, and to support project financing.

Since 2017, Technip Energies has been active in Senegal to keep a watchful eye on current projects. We share the vision of Senegal for optimised management of energy resources. Technip Energies aims to assist Senegal in the execution of future projects, delivering expertise and



contributing to the development of local resources, notably through the transfer of knowledge and technologies as well as using Senegalese businesses and labour.



Our challenge: Local development

Technip Energies advocates domestic content, an essential factor in long-term development.

DIVERSE LOCAL PRESENCE

- SIES fertiliser plant, acid units for Industries Chimiques du Sénégal (ICS)
- BP Tortue FPSO
- SAR Refinery Phase 1: Modernisation & capacity expansion
- Afrig (mining company) - Scoping study and signature of a protocol agreement
- Woodside Sangomar: Operational support - Underwater systems integrity management

Firm commitment to national players

Our proactive approach in Senegal features a sustainable approach to growth and in this respect agreements were signed in 2018 with various local official stakeholders and private companies.

- Knowledge transfer
- Technology transfer
- Subcontracting
- Technical support
- Know-how transfer

• Knowledge transfer
• Technology transfer

• Subcontracting
• Technical support
• Know-how transfer

Emerging talent and expertise

In the course of our projects, we use Senegal contractors and labour. We implement initiatives to transfer knowledge, aiming to encourage the development of Senegalese resources by generating local talent and expertise. These initiatives strengthen the skills of local firms and enable the use of such resources in future projects.

Subcontracting and local labour

Our strategy for action in Senegal includes a variety of initiatives, which will strive to implement as much as possible:

- Assigning work contracts to Senegalese companies with local ownership
- Using Senegalese labour resources
- Supporting local players in developing their skills

Training

Training is a key component of our development activities in Senegal. These are especially reflected in our partnership with Senegal's National Institute of Oil and Gas (INPG) to build local expertise:

- Funding student bursaries
- Internships on our projects
- Integration of graduate engineers into our project teams

Our activities also include dedicated training and informative workshops for industry professionals.



The ACATBS project

Expanding capacity and adapting the SAR refinery to process Sangomar crude

KEY DETAILS

- **Client:** Société Africaine de Raffinage (SAR)
- **Date allocated:** 2019
- **Location:** Mbao, Senegal
- **Scope:** EPsCm
- **Delivery:** June 2022

The project involved adapting the SAR refinery to process crude from the future Sangomar oilfield. This required us to modernise several existing processing units and build new units to increase production capacity. Domestic content represented a **significant component** of this project through **subcontracting**, use of **local resources and training**. We were supported during the construction phase by Senegalese firms specialising in civil engineering, structural framework, pipework and mechanical assembly. Throughout their involvement with the project, local workers and subcontractors received on-the-job training in international standards.



Reconfigure

- Objective: Adapt the unit to address market needs
- Process Sangomar crude at 180 tonnes/hour and reduce oil imports



Preflash

- Aim: Increase processing capacity by 30%
- 1.2 to 1.5 m tonnes/year

QHSE

1.2 million hours with zero workplace accidents

DOMESTIC CONTENT

- 80% of contracts allocated to local providers
- 78% of labour contracted is local

Our CSR initiatives in Senegal

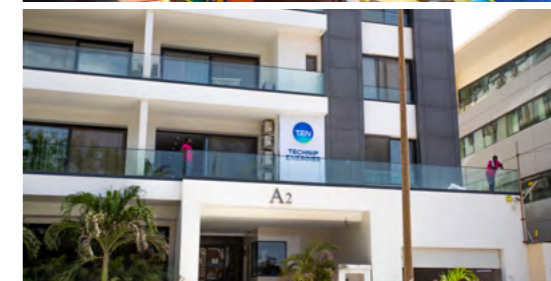
Technip Energies committed to supporting growth through long-term investment for education, skills development, job creation and support for local communities.

The Senegalese communities we work with are significant stakeholders and we endeavour to be a socially responsible business.

A sustainable CSR commitment

We deploy CSR initiatives to support sustainable development (in education, health, environmental protection), including:

- Covid-19: EUR 30,000 donated to two hospitals treating sufferers (funded by SAR project (ACATBS)).
- ASEDEME (children with mental impairments):
 - Contribution to the acquisition of a school bus to transport children
 - Support in adapting certain buildings
- INPG: Coverage of school bursaries
- INPG/ESP: Donation of 50 laptops for a technician training program



Our office in Dakar

The Technip Energies Senegal office opened in 2017.

- Immeuble A2, Route du King Fahd Palace, Dakar – Senegal
- 20 employees
- 95% Senegalese nationals
- Reference projects: Tortue FPSO currently under construction, and the SAR Phase I modernisation project delivered in June 2022.



Effective and sustainable financing solutions

Technip Energies delivers integrated industrial solutions focused on the execution of client projects. We enjoy close links with export credit agencies and have the capacity to support our clients in financing their projects. We fully back our clients through all project phases from design through construction to commissioning.

Customised, effective support to facilitate project financing

Selective, structured financing arrangements to financial closing

- Strong bargaining positions with banks through our use of a wide range of banking products and services.
- Privileged relationships with Export Credit Agencies (ECA) and their representative financial institutions, especially Bpifrance, Sace (Italy) and Euler-Hermes (Germany). In-depth knowledge of the process and expectations of ECA with capacity to obtain letters of interest; extensive experience earned through successful financing of multiple projects.

- Expertise in project management and in-depth credit risk assessments of primary players during the construction phase, offering lenders a high degree of reliability for project execution.

Secure financing solutions

- Early engagement to assess project bankability, including assessment of project economics if necessary.
- Delivery of indicative vision of attractiveness and capacity of potential sources of finance, assessment of main risk aspects.

- Support from our global procurement system to develop a matrix and improve access to the most reliable / favourable sources of finance (including ECA).
- Evaluation of possible financing structures (corporate, structured, hybrid).
- Investigation of alternative contractual frameworks to combine the optimisation of attractive sources of financing with an operationally efficient project management strategy.
- Contact and negotiation with financial partners to secure the most competitive solutions.

2015

LUKOIL NEFTOKHIM BURGAS HEAVY RESIDUE PROCESS COMPLEX

Corporate Finance with PCG from OAO Lukoil - SACE

DOFTECH DA - SKANDI ARTIC

Corporate Finance: Eksporfinans

TP-NPV SINGAPORE LTD DEEP ENERGY

Corporate Finance with Multi-source export credits: Finnvera / COFACE

2016

YAMAL LNG

Project Finance: BPI France / SACE / JBIC / China Exim / EXIAR / Euler Hermes

ZAPSIB 2 / SIBUR PETROCHEMICAL COMPLEX (POLYETHYLENE)

Export Credit: COFACE

BRASKEM IDESA SAPI ETILENO XXI PETROCHEMICAL COMPLEX

Project Finance: SACE / EDC / BNDES

2022

BAPCO MODERNIZATION PROJECT

Project Finance: SACE / KEXIM / K-SURE / UKEF

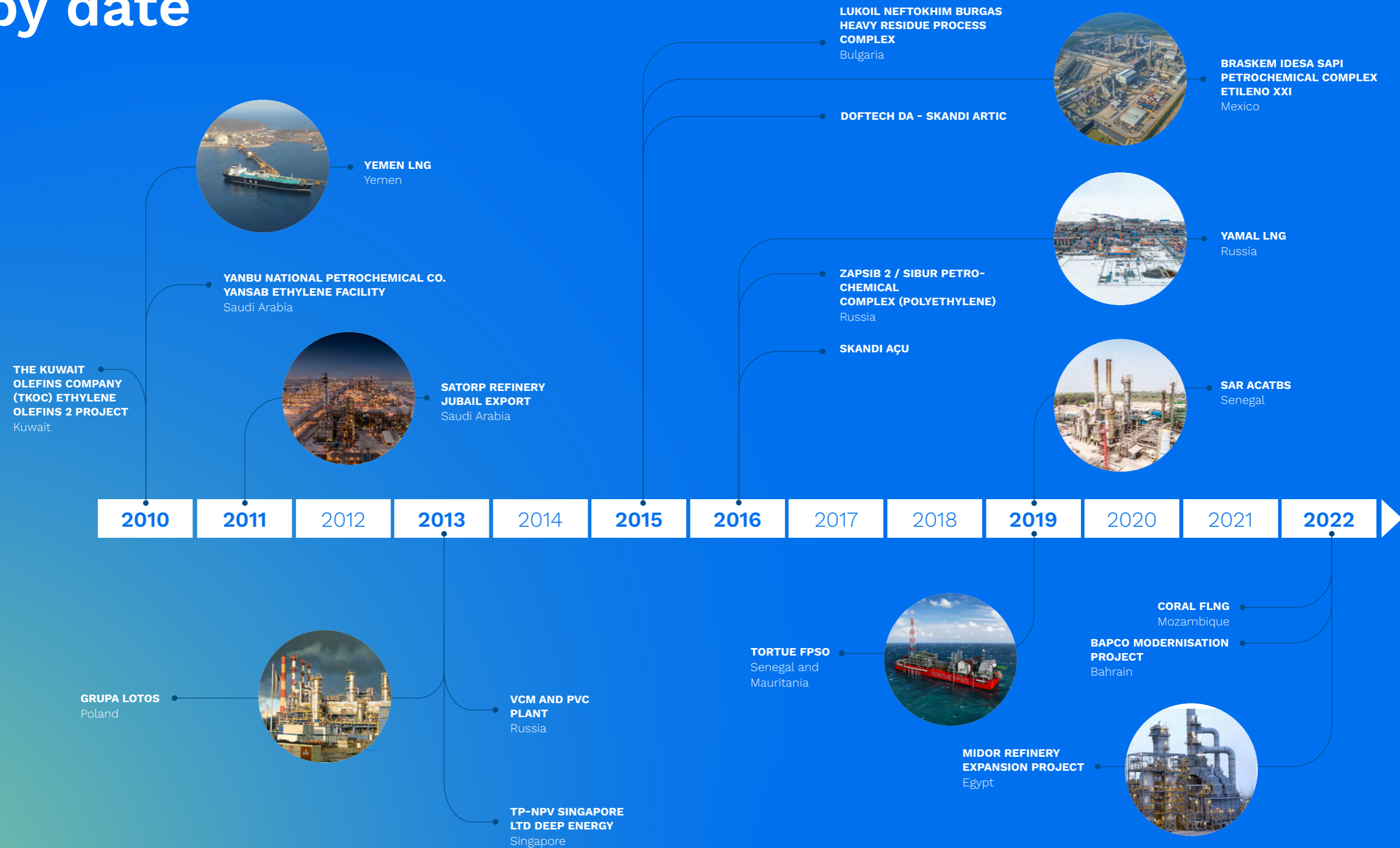
MIDOR REFINERY EXPANSION PROJECT

Export Credit: SACE

CORAL FLNG

Project Finance: BPI France / SACE / KEXIM / K-SURE / China Exim

Our key references by date





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