

Where energies make tomorrow ●

Floating Offshore Wind

Delivering certainty through end-to-end solutions



TECHNIP
ENERGIES



In Technip Energies we are known for our unique ability to deliver, and our limitless drive to enhance our clients' performance. With them we are breaking new boundaries to drive the transition to a low-carbon future.

We combine our Engineering and Construction (E&C) capabilities with our technological know-how to develop new solutions that will support the world's energy transition. We offer a range of design, construction and industrial solutions that we expect will become more prominent as the world transitions to a less carbon-reliant economy.

We are leveraging our engineering expertise and technologies to develop new projects in floating offshore wind, hydrogen, CO₂ management/ decarbonization in addition to other solutions.

Technip Energies has established a new organization with a clear objective: adapting to seize the Energy Transition opportunities. We operate under 4 business lines:

- Carbon Free Solutions (Floating Offshore Wind, Green Hydrogen, CO₂ Management and Industries)
- Gas & Low Carbon Energies
- Sustainable Fuels, Chemicals & Circularity
- T.EN X – Consulting & Products

Together with our clients, we're taking on the world's biggest and most innovative energy challenges to build a better tomorrow.

Your partner for floating offshore wind

We are a leading EPCI contractor providing solutions to meet the challenges of our clients' projects for their energy transition journey. We integrate floater technology, management of offshore projects, yard fabrication experience and a unique global footprint.



Committed to Energy Transition



Offering Innovative offshore wind technologies



Supporting clients decision making process from the early development stages through turnkey project delivery and beyond



Developing industrialization and scale-up approaches to reach project FID and successful execution



Providing a comprehensive set of services for the complete lifecycle of the assets

A comprehensive and competitive offering

Technip Energies works with several floating technologies such as our in-house INO15™, a cost-competitive floating offshore wind foundation solution that demonstrates our goal to fulfill market demand with an efficient and robust design integrating tomorrow's turbine technology.

Technip Energies develops floating offshore wind innovative solutions that can be industrialized at a large scale allowing a competitive LCOE to our Customers.

Innovative Technologies

- In-house INO15™ cost-competitive floater design that is lean, scalable and built for global application
- X1Wind self-orienting floating wind design
- Mooring solutions
- Floating substations

Marine operations, logistics and commissioning

- Extensive worldwide track record with logistics, T&I, mooring & hook-up activities, offshore commissioning that will allow reduced installation and commissioning cycles.

Assets lifecycle management

- Advanced O&M expertise (e.g. Coral FLNG), including Beyond™ digital suit
- Innovative monitoring and inspection solutions with Cybernetix Robotics
- Equity linked services

Industrialized fabrication

- Worldwide footprint with global procurement
- Strong relationship and experience with Asian fabrication yards
- Proven track record in robust design and fabrication
- Yard partnership for certainty in delivering commercial scale projects
- Digitalized suite of tools from fabrication to installation.

*Inocean and Cybernetix are Technip Energies fully owned companies

Providing end-to-end project management

We are a partner of choice for our clients, offering tailored and cost-effective solutions for the entire project lifecycle of floating wind development to achieve their energy transition journey. Beginning with concept and design, we deliver comprehensive management expertise to derisk future execution of the project. We offer the best partnerships for construction and installation to ensure tailored project execution from the fabrication yards to the local assembly and integration sites and harbors.

KEY REFERENCES IN OFFSHORE WIND PROJECTS INCLUDE:

- The world's first floating turbine (Hywind demo 2,3MW) in Norway
- The world's first floating wind turbine park (Hywind pilot - (5x6MW) in Scotland.
- Equinor South Korea Co - FEED for the Floating Offshore Wind Firefly project



Our in-house INO15™ is a cost-competitive floating offshore wind foundation solution. Through automation and robotics, we improve operational efficiency and reduce manual maintenance and inspection. Through advanced simulation and analysis, we reduce uncertainties and enhance confidence. We combine floater technology, management of offshore projects, fabrication experience and a unique global footprint to develop innovative industrial offshore wind solutions.



Key Design Features

- 15 MW (easily scalable)
- 3-Column Semi-Submersible foundation with integrated turbine
- Lean Design
- Passive Ballast system
- Structural configuration for mass production & scalability
- Full assembly at quayside, low T&I cost
- Direct/easy access to tower
- Robust design to resist worldwide environment

- Fully coupled global model established and analysis
- performed for various site specifications What sets us apart
- 25 years design life (+2 years pre-service lifetime)

- Structural Analyses Methodology approved by DNV

Status and Certification

- Basin model tested
- Technical Readiness Level (TRL) 6
- DNV Basic Design Approval - 2022
- Bureau Veritas (BV) - 2022



Addressing our clients' needs from early stage

We are a partner of choice offering to our clients tailored and cost-effective solutions for the entire project life cycle.

Our expertise ranges from conceptual design, engineering, procurement, construction to turnkey project delivery.

- Leading engineering and Technology company for the energy transition
- 10 years' experience in floating wind market
- Dedicated Business Unit encompassing engineering, industrialization and operations capabilities
- Extensive offshore engineering and marine operations skills
- Early engagement to ensure projects predictability and affordability
- Digital design solutions
- Proprietary cost competitive and scalable floater solutions:
 - Simple (no active ballast) enabling both CAPEX and OPEX savings
 - Structure configuration well suited for mass production
 - Limited draft promoting quay-side wind turbine generator integration

- Leading-edge technologies such as mooring technology
- Global Procurement worldwide footprint
- Strong relationship & experience with fabrication yards: certainty in delivering commercial scale projects
- Marine operations and logistics expertise securing the supply chain
- Innovative monitoring & inspection solutions for O&M

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Driving the energy transition through innovating, reliable and cost-effective floating wind solutions.”



Partnering to unlock value

Technip Energies has an extensive global track record of proven yards partnerships at some of the most complex and challenging projects.



Local yard for Assembly

- Integration yard management (including storage of wind turbines material)
- Wind turbine and tower integration on floater



Selecting the right yard for the right project

- FMECA audits
- Memorandum of agreement before subcontract award
- Construction driven engineering
- Procurement effort
- Subcontract wisely chosen



Potential partners

- T&I specialist
- IAC specialist (optional scope)
- Fabrication: modules or single piece
- Transportation to local yard
- Local port or harbor for wind turbine integration



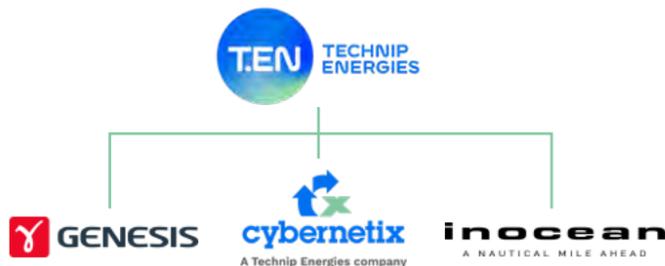
Partnership toward project delivery

- Integrated team
- Skilled supervision
- Experienced pool of resources
- Mix of nationalities
- Leveraged local personnel skills
- Engineering expertise
- Logistics scheme to optimize project resources

A tailored execution to answer all project needs

TECHNIP ENERGIES AS A SOLUTION INTEGRATOR MANAGING RISK AND INTERFACES

- Floater and mooring design
- Overall design management: Interaction between floater, mooring, IAC, T&I, fabrication
- Mooring procurement
- Overall T&I execution: Floater + mooring + hookup



A GLOBAL PROCUREMENT NETWORK

Global procurement is a centralized organization regrouping the three fields of procurement: Purchasing, quality control and surveillance. We offer a worldwide procurement network of more than 2,000 professionals.

Top-ranking procurement tools

- EPC-Business E-Procurement tool for managing Inquiry Phase via the Web
- Smart Materials (SMat) Life-Cycle Material Management Application covering the entire supply chain
- IFS Jeevan managing the entire project accounting cycle from registration of PO until invoice payment approvals for material and services
- Easy Plant managing site purchasing of additional materials during construction.

T.EN X, Consulting and Products

A full range of services and products for the complete asset lifecycle management

Advisory & Digital Services

GENESIS ADVISORY

Genesis is a market-leading engineering company focused on providing engineering and technical services to the global energy industry.

DIGITAL SERVICES: BEYOND™ BY T.EN

The full range of Technip Energies digital solutions including Plant Performance, Carbon Management and Operational Excellence.



Services to Operations

PROJECT MANAGEMENT CONSULTANCY (PMC)

Technip Energies is a contractor of choice for PMC services. We are supporting clients' business objectives and consistently delivering projects with outstanding safety and

environmental performance that meet cost, schedule and quality targets.

CYBERNETIX

Expertise is the hallmark of Cybernetix for robotics and surveillance systems. Our

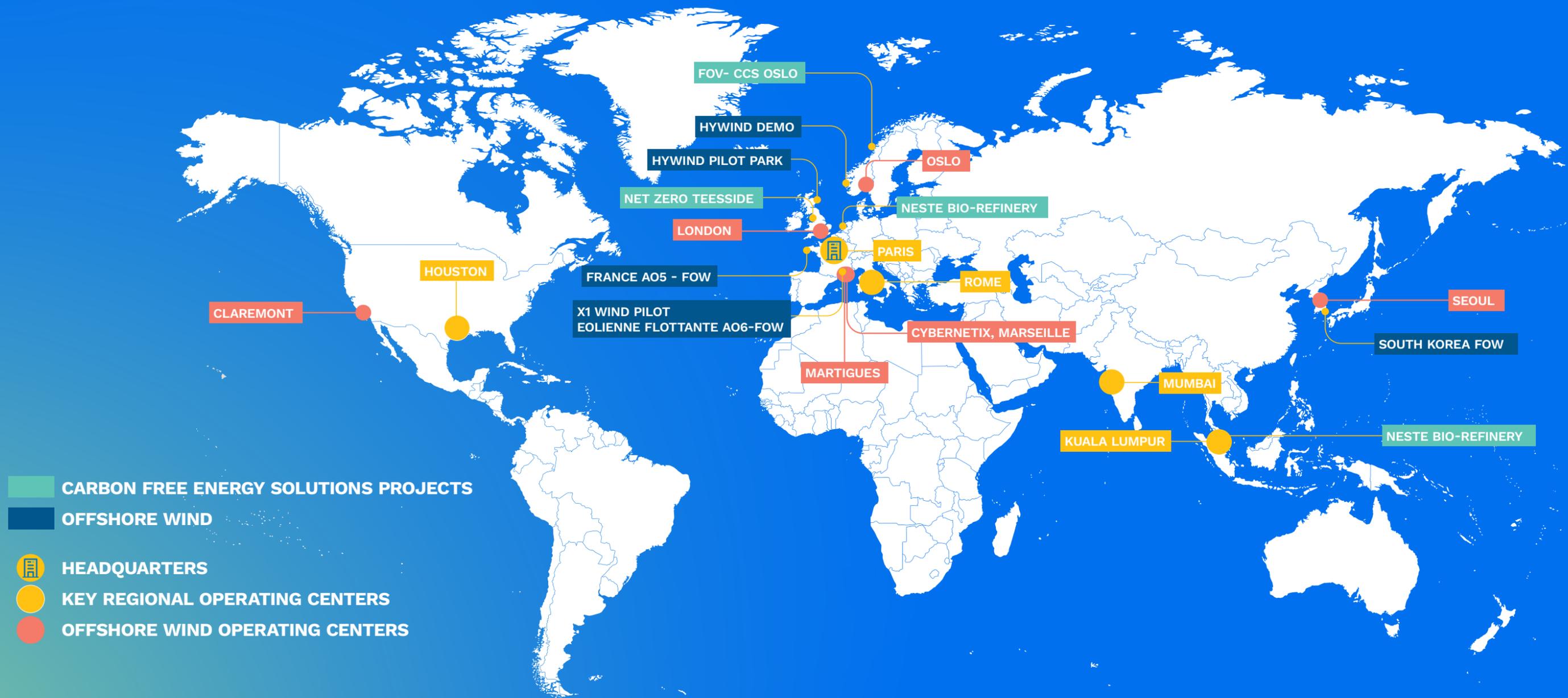
solutions help energy clients increase uptime, reduce costs and improve safety and speed of decision-making through augmented monitoring and advanced robotics solutions for inspection and dexterous interventions.

Equity-Linked Services

We represent a strategic partner for our clients' investment success. Our worldwide presence, commitment to the energy transition market, strong technical

expertise and successful track record of completed projects make us a recognized industry leader with solid financial worthiness.

Unique project management expertise from design to delivery and beyond





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