ALL IS CHANGE

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TECNALIA RESEARCH AND TECHNOLOGICAL DEVELOPMENT

SINCE 2011
TECNALIA is a benchmark Research and Technological Development Centre in Europe

MULTISECTORAL
MULTI-TECHNOLOGY

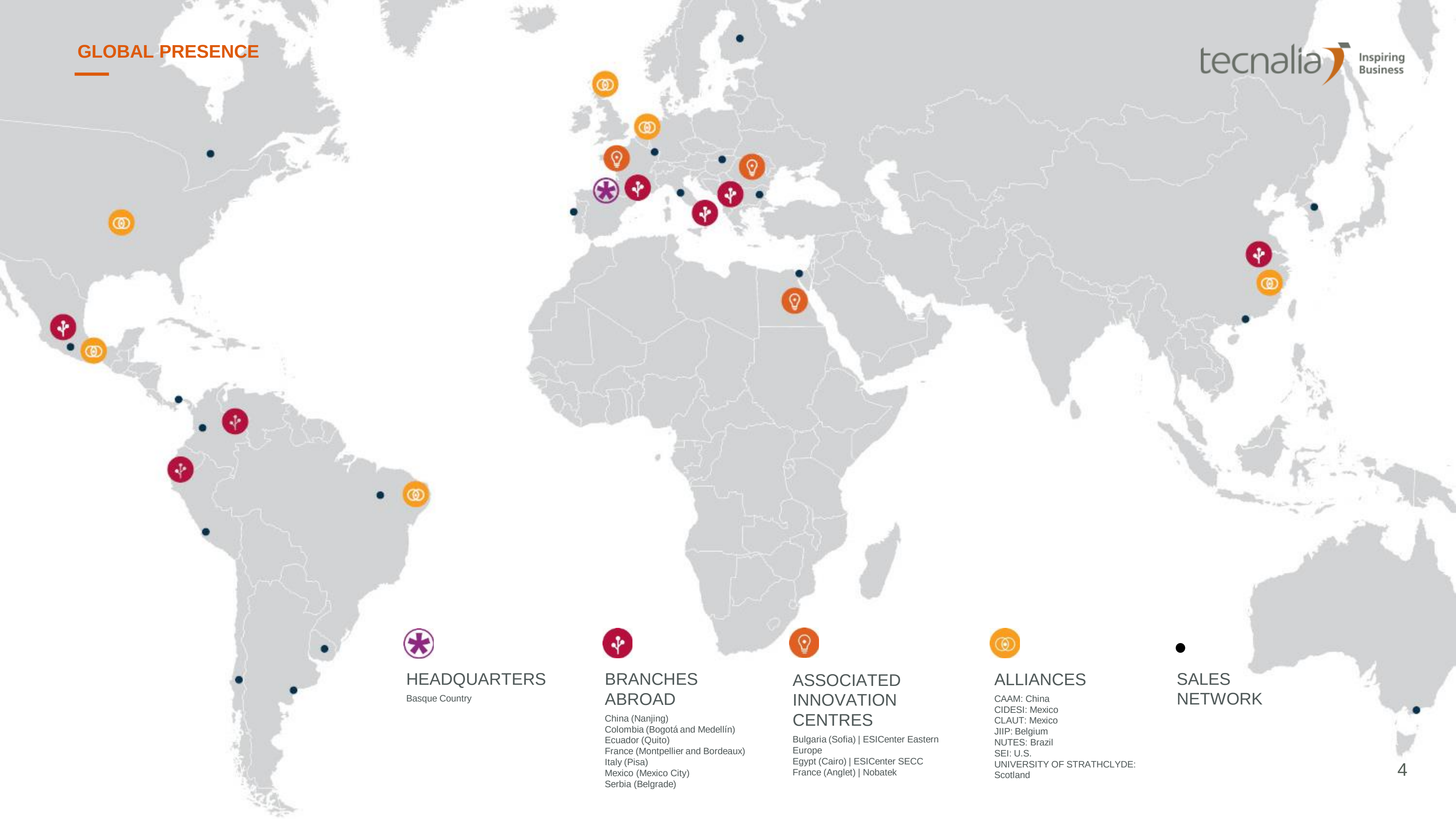
A MODEL
ANTICIPATING THE FUTURE

A COMBINATION OF TECHNOLOGY, TENACITY, EFFICIENCY, COURAGE AND IMAGINATION

WE TRANSFORM

Technology into GDP

GLOBAL PRESENCE



HEADQUARTERS

Basque Country

BRANCHES ABROAD

China (Nanjing)
Colombia (Bogotá and Medellín)
Ecuador (Quito)
France (Montpellier and Bordeaux)
Italy (Pisa)
Mexico (Mexico City)
Serbia (Belgrade)

ASSOCIATED INNOVATION CENTRES

Bulgaria (Sofia) | ESICenter Eastern Europe
Egypt (Cairo) | ESICenter SECC
France (Anglet) | Nobatek

ALLIANCES

CAAM: China
CIDESI: Mexico
CLAUT: Mexico
JIIP: Belgium
NUTES: Brazil
SEI: U.S.
UNIVERSITY OF STRATHCLYDE: Scotland

SALES NETWORK

PEOPLE IN TECNALIA

1,472

PEOPLE
ON STAFF

56%

MEN

44%

WOMEN

31

DIFFERENT
NATIONALITIES

267

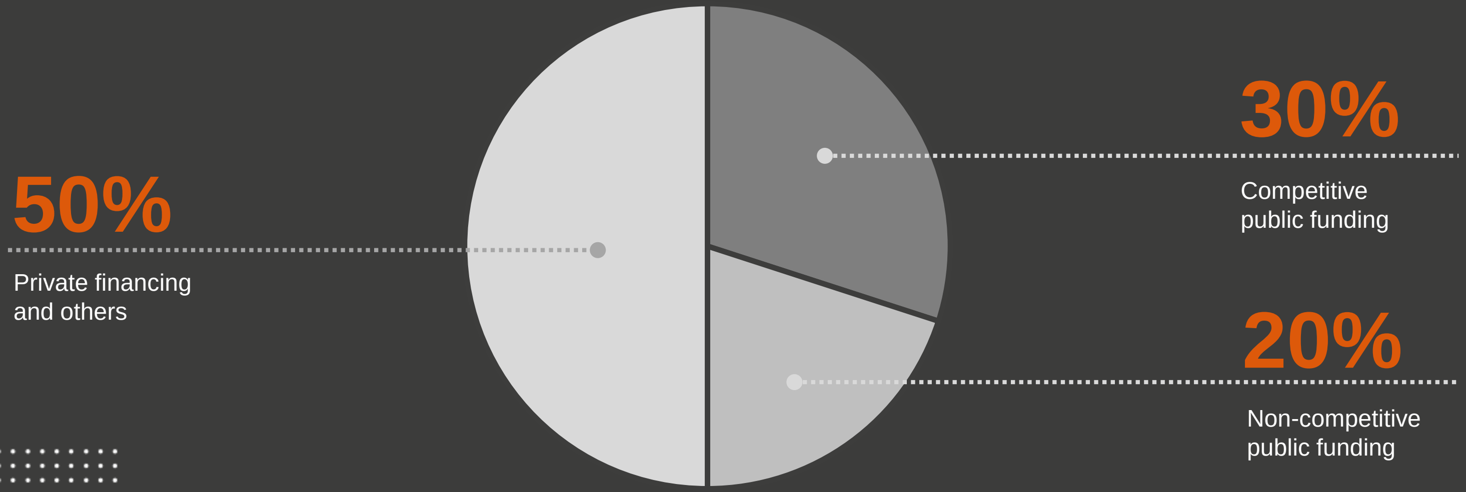
PhDs

Figures on 31 December 2020

BALANCE OF ACTIVITIES AND THEIR FUNDING

INCOME

115 MILLION EUROS

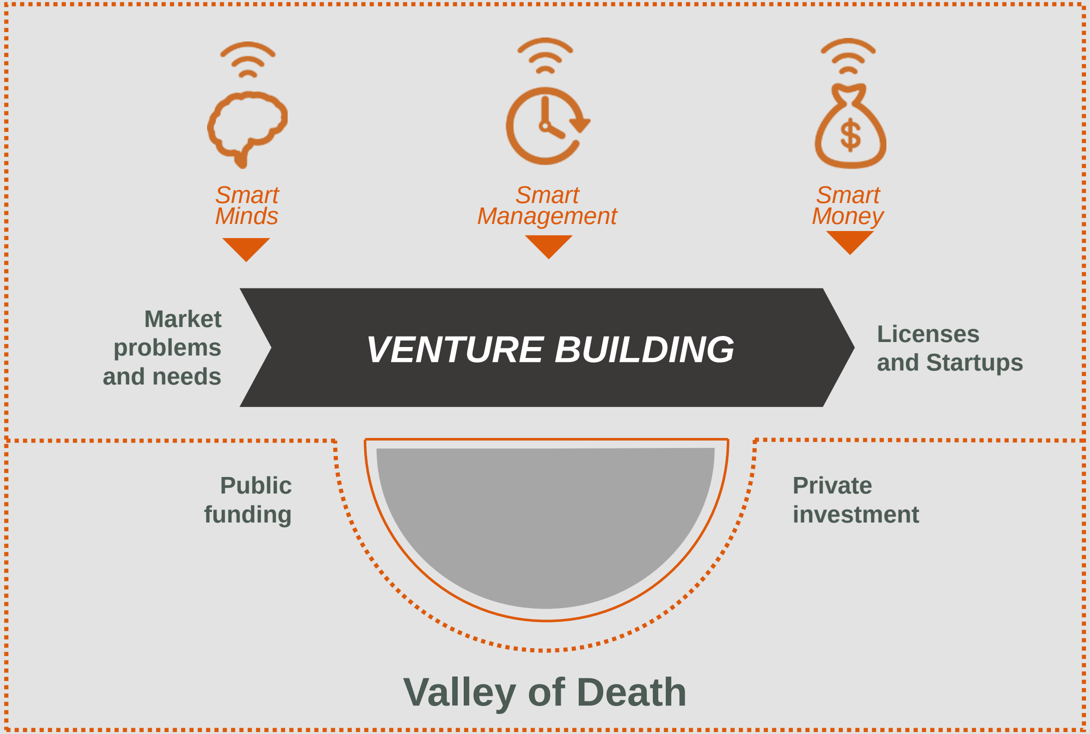


TECNALIA VENTURES

It is a 100% TECNALIA owned company, set up with the objective of appraising in-house R&D and innovation, identifying and deploying deep tech business opportunities, through a venture building process.

To do so, it has a **technological assets Incubation Acceleration Programme** to manage their life cycle and maximise their impact.

tecnalia ventures
Technology Value for Growth



Acceleration of the incubation of technological assets until they are turned into investment opportunities capable of generating value in society. **VENTURE BUILDING**

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Patents

Portfolio of patent families

192

783+117

Active software patents and registrations in portfolio

23+15

Software patents and registrations requested in 2020

NTBCs

Figures on 31 December 2020

*The survival rate of TECNALIA'S NTBCs 5 years after their establishment is of **100%**.*

GENERATED INCOME (MILLION EUROS)	EMPLOYEES
27.3	207
20	13
ACTIVE NTBCs	NTBCs WHERE TECNALIA IS INVOLVED

TECNALIA is currently the SECOND SPANISH PRIVATE ORGANISATION IN EUROPEAN PATENT APPLICATIONS, with an outstanding success ratio of 92% regarding EPO/PCT applications granted since 2012.

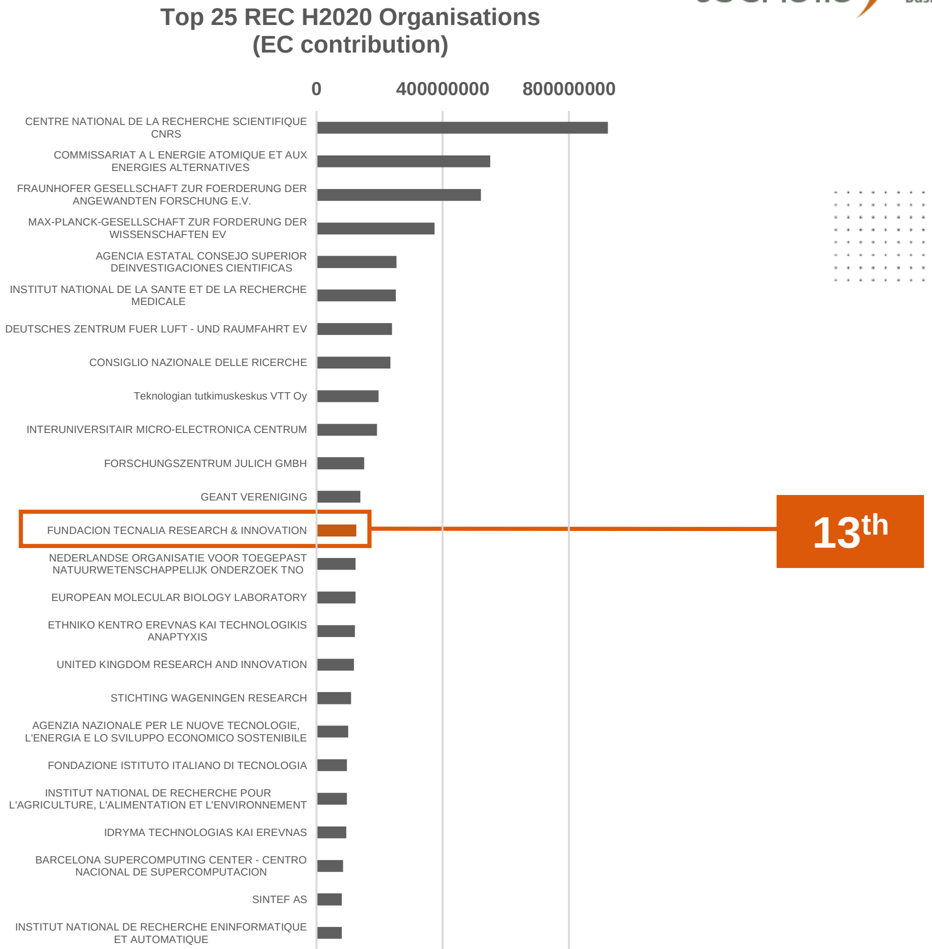
Private organisation in Spain

in project contracting, participation and leadership

under the EU Horizon 2020 Programme

EUROPEAN BENCHMARK

RANKED No. 13 OUT OF 2,900 RESEARCH EUROPEAN ORGANISATIONS



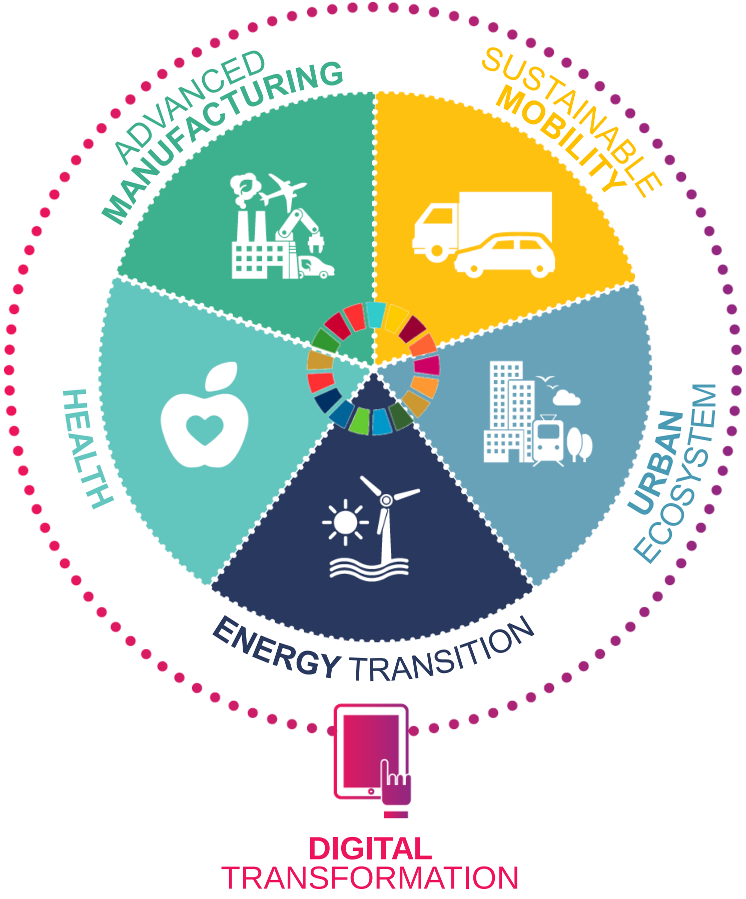
SOURCE: CORDIS

Figures on March 2020

READY TO FACE NEW CHALLENGES **WITH YOU**

We are alert and ready to face all current challenges and opportunities as well as those which lie ahead.

Along all the paths which lead us to the future.



SCOPES OF ACTION: ENERGY TRANSITION

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DIGITAL ENERGY

Advanced sensor systems
Remote control and automation
Meter and "Beyond the meter"
Artificial Intelligence
Digital Twins
Virtual / Augmented Reality
Smart Contracts (blockchain)
Cybersecurity
Data communication protocols
Functionality diagnosis and assessment

ENERGY EFFICIENCY AND DISTRIBUTED GENERATION

Thermal efficiency
Heat electrification, heat pumps
Energy efficiency in construction
Active demand management.
PV integration, self-consumption
Energy optimisation in cities
Positive energy buildings
Energy strategy and planning

DECARBONISATION AND ENERGY EFFICIENCY IN INDUSTRY

Efficient thermal systems
Energy efficiency in industry
Residual heat recovery
CO_2 recovery
Membrane technology
Intensification of chemical processes
Sustainable chemistry

ADVANCED & SUSTAINABLE MATERIALS

Materials for extreme conditions
Functional surfaces and treatments
Materials for energy storage
Bio-based materials and energy products

RENEWABLE / SUSTAINABLE ENERGY

Photovoltaic solar energy and thermal energy
Offshore wind energy
Onshore wind energy
Biomass and waste heat recovery

SMART GRIDS

Smart grid management.
Integration of renewable energies and energy resources distributed in the grid
Energy storage
Microgrids
Active demand management.
District heating and cooling
H_2 and Power to Gas
Conformity assessment
Diagnosis, predictive maintenance and commissioning

SUSTAINABLE MOBILITY

Development of electric and hybrid vehicle (EV)
Electric vehicle (EV) charging
Energy storage in EV
V2G (Vehicle to Grid)
V2V (Vehicle to Vehicle)
Autonomous vehicle
H_2

CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY

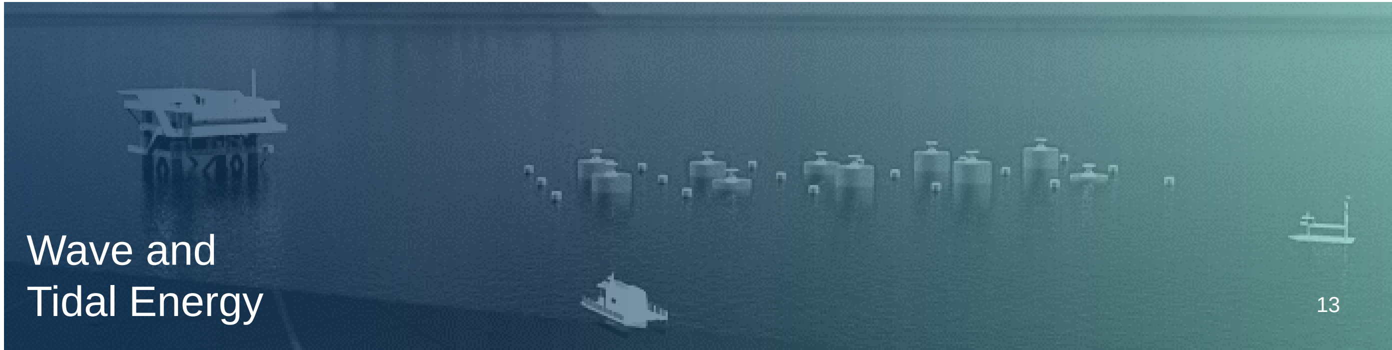
Vulnerability and risk assessment, adaptation plans for the energy sector
Climate services
Quality management and environmental comfort
Circular Economy
Weather forecasting

OFFSHORE RENEWABLE ENERGY AT TECNALIA

- New solutions for installation and O&M
- Optimised designs for reducing costs of foundations and electrical infrastructure
- Test and analysis of materials and components for harsh environments

- Design tools for floating platforms
- Tank testing and numerical analysis
- Analysis and design of mooring systems and electrical connections

- Design tools for the optimisation of arrays
- Performance assessment
- Optimisation of Power Take-Off and Control systems



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16

years of experience in the offshore renewable energy sector

€42m

worth on R&D

4

patents transferred to industry (including 2 SMEs)

contributing to numerous international committees and advisory groups

tank and open-sea **testing of wave energy** devices

collaborating with the regional government on the definition of **a marine energy strategy**

organising international and national events, including ICOE 2010

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2 technology-based companies created

OCEANTEC

in partnership with Iberdrola,

development of wave energy converters.

Acquired by IDOM in 2018

nautilus floating solutions

a consortium made up of four industrial companies plus TECNALIA

aiming at developing cost-effective floating platforms for offshore wind in deep waters.

European Research Projects

20 participation in

5 led projects

>€7m funding

>33% success rate

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What we know

Coupled, analytical and multi-physical models, including testing and validation

Physical and virtual sensing

Experimental modelling based on data analytics and deep learning

System engineering and decision tools

Where we apply our knowledge

Testing of components for offshore applications in real conditions

Digital twins of components for offshore applications to support life extension, operation, maintenance and redesign

Design and optimization of offshore structures and systems, including among others, foundations, mooring systems, dynamic cables, marine operations and electrical lay-out

Generation, modeling and evaluation of innovative concepts for cost reduction in offshore renewables

Inspiring Business

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