



PROGRAM



13th meeting
PORT OF THE FUTURE
Innovation Hub

by **Cerema**



**MEDITERRANEAN
DAYS**

by **PIANC**

The meeting for the port community



25, 26 and 27 october 2023



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PARTNERS

Edition 2023



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Historical partners



October **25**, 2023

13th Port of the future conference

08h00 09h00	WELCOME COFFEE
09h00 09h10	OPENING Sébastien DUPRAY, Directeur de la Direction technique Risques, eaux et mer, Cerema Guillaume LE RÉVEILLÉ, Président de la section française de l'AIPCN François COMMEINHES, Président, Sète Agglopôle Méditerranée
09h10 10h00	OPENING SEQUENCE Philippe MALAGOLA, Président, Port de Sète - Frontignan Représentant de la Présidente de la région Occitanie Nicolas TRIFT, Sous-directeur des Ports, DGITM Pascal BERTEAUD, Directeur général, Cerema
10h00 11h15	ROUND TABLE N° 1 The port area, land of virtuous reindustrialization Rémi COSTANTINO, Directeur général adjoint, Port de Marseille Nicolas DEBON, Directeur, Agence d'attractivité de Nantes Saint-Nazaire Isabelle RYCKBOST, Secrétaire générale de l'European Sea Ports Organisation Matthieu MONNIER, Délégué général adjoint, France énergie éolienne Antoine FRÉMONT, Professeur du Cnam, chaire transports, flux et mobilités durables
11h15 11h20	ArcelorMittal - Decarbonization and digitalization: innovating steel sheet piles for port infrastructure of tomorrow Shilton RICA, Responsable développement pour l'activité portuaire et fluviale, ArcelorMittal
11h20 11h45	BREAK
11h45 12h45	ROUND TABLE N° 2 Port logistics strategy, how to combine performance and sustainability? Denis IGERT, Directeur de port de commerce de Sète et directeur adjoint de port Sud de France François DANIEL, Délégué général, TLF Overseas Lorène GRANDIDIER, Transport Segment Leader, Schneider Electric Raphaël RENEAU, Chercheur, Maître de conférences en Droit public à l'Université Bretagne Sud Louis JONQUIERE, Président, UNIM

12h45 14h00	LUNCH BREAK
14h00 15h30	INNOVATION TROPHIES SESSION Presentation of the 8 selected projects for the 7th edition of the Trophies
15h30 15h35	BYTP – Technical Innovation for the Ports of Tomorrow Olivier Clausin, Directeur du développement international, BOUYGUES Construction
15h35 16h00	BREAK
16h00 17h15	ROUND TABLE N° 3 AIS, strategic data for ports Ronan KERBIRIOU, Ingénieur d'études, Université du Havre Olivier BUREL, Responsable Innovation, VNF Bassin de la Seine Cyrille BERTELLE, Professeur en Informatique, Université du Havre Damien LE GUYADER, Docteur en Géographie, Geo4Seas Pamina KOENIG, Professeur des universités, Université de Rouen, Paris School of Economics Michel LE VAN KIEM, Directeur développement et innovation, GPM de Bordeaux
18h30 20h30	NETWORKING COCKTAIL offered by Union des Ports de France and Cluster Maritime Français and INNOVATION TROPHIES AWARD



October **26**, 2023

13th Port of the future conference &
5th Mediterranean Days

08h00

09h00

09h00

09h30

WELCOME COFFEE

INTRODUCTION BY

Guillaume LE RÉVEILLÉ, President of the French section of the PIANC
Olivier CARMES, Directeur général, Port de Sète - Frontignan

09h30

10h00

OPENING SEQUENCE

• **Morocco's port strategy by 2030**

Sanae El AMRANI, Directrice des Ports et du Domaine Public Maritime,
Royaume du Maroc

• **Intervention by the French Federation of Marinas**

Michaël QUERNEZ, Président de la FFPP, vice-président de la région Bretagne

10h00

11h00

Auditorium

ROUND TABLE N° 4

Preservation of biodiversity, what port strategy to face this challenge?

Didier GROSDÉMANGE, Fondateur, Gaïa - Terre Bleue

Stéphane TANT, Président du directoire, GPM de Guyane

Sandrine SAMSON, Directrice de projet transition écologique, HAROPA PORT

Gilles LECAILLON, Président fondateur d'Ecocean

Frédérique VIARD, Directrice de Recherche au CNRS, spécialiste de biologie marine à l'Institut des sciences de l'évolution de Montpellier

10h00

11h15

Room Francis Poulenc

PIANC PARALLEL SESSION

Digital and energy transition

- **Seabim : le jumeau numérique appliqué à la construction et à la gestion patrimoniale de digue à talus**
Steven LE BARS, France
- **Port Digital Twin for Smart Cities, Stakeholders and Citizens: the case study of the Port of Ravenna**
Saimon CONTI, Italy
- **The Way of Digitization and the integration of Intermodal Services in Ports**
José-Luis MONSO DE PRAT, Spain
- **Climate change minimization in port developments located in sensitive and complex areas**
Elena VALENTINO, Italy
- **Cold ironing facilities in the general interest**
Jorge Martin JIMENEZ, Spain



11h00

11h05

BRLi, Engineering for a sustainable world

Nicolas FRAYSSE, Directeur de projets portuaires et littoraux, BRLi

11h05

11h30

BREAK

11h30

12h00

PIANC SESSION – KEYNOTE SPEECH

New perspectives for the planning of port cities in Italy

Francesco MESSINEO, Italy

12h00

12h30

PIANC SESSION

Dredging and port planning

• **Dredging for sustainable infrastructure**

Ayya SHAHHAT, Communication and Engagement Coordinatore,
IADC, The Netherlands

• **L'extension du port de Port La Nouvelle**

Roman STEGA, Directeur du port, Port de Port-La-Nouvelle, France

12h30

12h35

TRELLEBORG - Take small steps today for a safer tomorrow

Hugo BERNAL, Regional Sales Manager - Southern Europe, TRELLEBORG

12h35

14h00

LUNCH BREAK

Nb: Coffee breaks, meals during the 3 days and the networking cocktail will take place at the Espace Dubonnet



October 26, 2023

13th Port du Future conference & 5th Mediterranean Days

14h00

15h00

ROUND TABLE N° 5

The new collaborative approaches of ports in favor of the ecological transition

Yann WICKERS, Directeur général, Port de Port-La-Nouvelle

Bruno DELSALLE, Directeur général, AIVP

Michel PUYRAZAT, Président du directoire du GPM de La Rochelle

Régis PASSERIEUX, Sous-préfet d'Istres, initiateur du Laboratoire territorial de Fos, Berre, Gardanne

Sabah ZRARI, Directrice de l'institut de formation international des villes et des ports associé à l'AIVP

Pierre MEFFRE, Directeur de la Valorisation Portuaire, CNR

15h00

16h30

Auditorium

PIANC SESSION

Port design tools

- **Malamocco-Marghera Navigation Channel (Venice Lagoon): study of operational and structural solutions to achieve a sustainable navigation** - Andrea PEDRONCINI, Italy
- **Chaussées portuaires durables : utiliser moins pour plus longtemps grâce aux fibres métalliques** Chiara MINORETTI, France
- **Déploiement d'un smart grid portuaire bas carbone pour le terminal de la pointe des Grives** Jérôme MERCIER, France
- **Impact analysis of autonomous ship introduction in Mediterranean Ports** Manuela SCARSI, Italy
- **Caractériser les actions météocéaniques sur des durées longues avec les Eurocodes** Jean-Bernard KOVARIK, France
- **Prise en compte de la remontée eustatique du niveau moyen dans les analyses conjointes houle-niveau pour le dimensionnement des ouvrages portuaires** Franck MAZAS, France

15h00

16h30

Room Francis Poulenc

PIANC PARALLEL SESSION

Marinas

- **Les publications de l'AIPCN/RecCom et leur utilité pour les ports de plaisance** Laurent MONSAINGEON, France
- **The innovative ejectors plan technology for sediment management in ports** Marco PELLEGRINI, Italy
- **Ports propres et création d'une norme ISO** Véronique TOURREL, France
- **La transition numérique des ports de plaisance** Fabien LUAIS, France

17h00

19h00

VISIT OF THE PORT OF SÈTE - 1) Port experience

17h30

18h30

VISIT OF THE PORT OF SÈTE - 2) Technical visit

19h30

20h00

DOORS OPEN FOR GALA DINNER

Location : Maison Régionale de la mer
2 quai Philippe Régy 34200 Sète

20h00

23h30

GALA DINNER

Location : Maison Régionale de la mer
2 quai Philippe Régy 34200 Sète

October 27, 2023

5th Mediterranean Days

08h00
08h30 WELCOME COFFEE

08h30
09h00 PIANC SESSION – KEYNOTE SPEECH

Blue Growth of the Port of Vigo, Innovation and talent Plan
Gerardo Gonzalez ALVAREZ, Spain

09h00
10h30 Auditorium

PIANC SESSION
Port design examples

- **Efficiency and flexibility in port masterplans by means of Technical Functional Adaptations. The Italian experience** - Serena D'AMORA, Italy
- **Recommendations for fenders PIANC WG 211** - Marco GAAL, The Netherlands
- **Détermination des impacts environnementaux d'une rénovation d'écluse en vue d'une écoconception des ouvrages** - Tiffany DESBOIS, France
- **Adaptation au changement climatique du Port Atlantique La Rochelle** - Perrine VERMEERSCH, France
- **Container ports planning-key factors to boost resilience** - Rita POMBO, Portugal
- **Adaptation et modernisation du port militaire de Brest face à l'arrivée des nouveaux navires de la Marine nationale** - Alexandre LEMAIRE, France

09h15
10h45 Room Francis Poulenc

PIANC PARALLEL SESSION
Innovations for sustainable and resilient ports

- **Blue Standards for nature-inclusive port infrastructure** - Phil LEBLANC, Spain
- **Construction of sustainable quay walls** - Shilton RICA, Luxemburg
- **Extreme events and importance of their identification: the study case of Salerno port** - Margherita CICCIGLIONE, Italy
- **Modernisation et restauration innovantes des écluses limitant les interruptions de navigation exemple de Méricourt** - Franck RANGOGNIO & Philippe SCHALKWIJK, France
- **Les avantages de l'utilisation de diffuseurs dans les travaux de remblais hydrauliques au port de Dunkerque** - Pierre-Yves MASSY, France
- **Quelles solutions face au changement climatique pour le port unique de l'île Maurice ?** - Jean-François DE CALONNE, France

10h30
11h00 BREAK

11h00
12h45 Auditorium

PIANC SESSION
Digital transition

- **Création de jeux numériques d'infrastructures existantes et suivi d'ouvrages : état de l'art des techniques** - Hélène MACHER, France
- **Projet Giros des jeux numériques pour un développement durable de l'estuaire de la Gironde** - Fabrice KLEIN, France
- **Air quality monitoring system and Smart Environmental platform in the Ports of the Balearic Islands** - Jorge Martin JIMENEZ & Edurne IBARROLA-ULZURRUN, Spain
- **Proactive detection of pollution episodes with AI by exploiting in-situ data, satellite data and port activity** - Cristina ALBURQUERQUE OTERO, Spain
- **Application of machine learning techniques to assist design, construction and operation of port** - Antonio TOMAS, Spain
- **Developing a wave prediction module for sustainable port operations and energy harvesting** - Gabriel DIAZ HERNANDEZ, Spain
- **Management of dredging activity in the harbor of Bari: monitoring activity and simulation modelling** - Diogo OLIVEIRA, Italy

11h00
13h00 Room Francis Poulenc

PIANC PARALLEL SESSION
Urban integration and port logistics

- **Dredging and extension works of the port of Salerno** - Vittoria PUZONE, Italy
- **Evaluation of port facilities for transport operations of windmills components** - Lourdes PECHARROMAN, Spain
- **Performance-based design of mooring/berthing dolphin structure considering geotechnical and structural constraints under offshore load conditions** - Vasileios AFENTOUIS, France
- **Système intelligent de prévention et de surveillance de la santé des structures portuaires en palplanches acier** - Pascal THEIS, Luxemburg
- **Vibro-Replacement technique for the seabed of Salerno port** - Margherita CICCAGLIONE, Italy
- **The behaviour of a moored ship in wind: the difference between a static and dynamic mooring analysis** - Lutz SCHWETER, The Netherlands

October **27**, 2023
5th Mediterranean Days

13h00

LUNCH BREAK

14h30

14h30

PIANC SESSION – KEYNOTE SPEECH:

15h00

Energy transition in Portuguese ports

Hugo LOPES, Portugal

15h00

PIANC SESSION

16h15

Technical solutions adopted by some Mediterranean ports

- **Proposition d'une solution alternative de tablier à poutres précontraintes pour la conception d'un apportement minéralier du port de Jenjen, Jijel, Algérie** - Meriem HADJI, Algeria
- **Impact of GHG initiatives in the container handling equipment market** - Andreas MOHR, Germany
- **Aménagement du complexe industrialo-portuaire de Nador West Med** - Eugénia POVEDA SANTIAGO, Spain
- **Plus-value écologique des cuvettes rocheuses artificielles intégrées aux ouvrages maritimes : premiers retours d'expérience en Atlantique et Méditerranée** - Fabrice JAVEL, France
- **The new U-oscillating water column breakwater of the commercial harbour of Salerno for the wave energy conversion** – Felice ARENA, Italy

16h15

SUMMARY / CONCLUSION OF THE 3 DAYS

16h30

Geoffroy CAUDE, Vice-président de la section française de l'AIPCN



Candidates projects for the 7th edition of the Innovation Trophies

13th Port of the future conference

INFRASTRUCTURE CATEGORY

PROJECT N° 1

« **ASMR (Acqua Smart Reuse), a solution for intelligent recycling of water and energy, on land and at sea** »

ACQUA.Ecologie



Why move wastewater several km to treat it?

Why waste water that can be reused?

ACQUA.ecologie has imagined the ports and ships of the future.

Its unique ASMR solution aims to revolutionize on-site water management by offering complete support, allowing the treatment, recovery of wastewater and reuse of water with a logic of simplicity, economy and sustainability.

A tailor-made and versatile solution, adapted to each use! This solution is being installed as a world first at the port of Sète on the new nautical center, located at the tip of the mole, in order to improve the services offered to boaters. The site is located in an area not connected to collective urban sanitation and close to a maintenance area, a large consumer of drinking water. The preservation of water resources intended for drinking uses is a major issue in the Thau territory.



PROJECT N° 2
« **Establishment of a port biodiversity observatory based on innovative environmental DNA (eDNA) technology** »

SPYGEN SAS

The project consists of setting up a Port Biodiversity Observatory based on innovative environmental DNA (eDNA) technology in the port of Saint-Gilles les Bains in Reunion. Two sampling protocols are used: one scientific to obtain data aimed at collecting scientific data to feed an observatory of the site's biodiversity, the other educational aimed at involving and raising awareness among port stakeholders through the Marine Educational Area located on the perimeter of the port. The advantage of the data thus obtained by eDNA is to have real biodiversity indicators allowing the comparison of data in time and space, because they comply with a standardized protocol. The method also presents a non-invasive, non-dangerous alternative for operators to traditional methods (visual observations, cameras, electric fishing).

PROJECT N° 3

« **Sun'Sète, the first offshore photovoltaic farm in France and the Mediterranean** »

SolarinBlue

The Sun'Sète project, inaugurated on March 17, 2023, is the first offshore photovoltaic farm in France and the Mediterranean.

It is participating in the emergence of a new form of renewable marine energy: offshore photovoltaic solar energy.

The demonstrator will be made up of 25 floating units with a total power of 300 kWp over 0.5 hectares. The structures will be gradually installed 1.5 km from the coast, on the site of the former hydrocarbon unloading station at sea.

This demonstrator is a proof of concept and the first step before a pre-commercial deployment, then on a large scale, of the technology, in ports, island systems and in co-location with offshore wind turbines. The potential is global and is measured in hundreds of GW.



EQUIPEMENT CATEGORY

PROJECT N° 4

« **Le JELLYFISHBOT, a small robot that collects waste and hydrocarbons from the surface of bodies of water** »

IADYS

A startup committed to the preservation and depollution of water, IADYS designs and markets the Jellyfishbot: a small robot capable of collecting waste and hydrocarbons from the surface of bodies of water. Autonomous, robust and easy to use, the Jellyfishbot is a versatile solution which is aimed at all types of profiles from industrial and petrochemical sites, including ports, waterways, leisure and sports structures, and scientists. A true "Swiss army knife", the robot allows surface cleaning of areas that are difficult to access by operators, in complete safety, independently or remotely. Its nets with a capacity of 80 L collect both floating macro-waste and microplastics and can also be filled with absorbents to collect hydrocarbons. Equipped with sensors, it can measure water quality and carry out bathymetric surveys up to 20m deep. It contributes to 7 of the UN Sustainable Development Goals.



Interactive Autonomous
Dynamic Systems

PROJECT N° 5

« **A device for fairing boats with sea water with rinsing with desalinated fresh water** »

SAS Soudure Service

100% of the water is recycled. The drinking water supply to the fairing area is disconnected. No work. A simple procedure. Identical cleaning quality.



DIGITAL CATEGORY

PROJECT N° 6

« **OPTIM4PFM, a multi-criteria and multi-actor decision support system for optimized planning of maritime and river calls** »

Marseille Gypstis International

The OPTIM4PFM project offers a module for optimizing port and maritime river operations based on data extracted from the CI5 port community system in Marseille Fos. The objective is to improve the use of river transport by automatically providing optimized planning of river and maritime calls in order to guarantee a maximum loading rate of river units by taking into account the constraints of productivity and availability of terminals as well as the volatility of maritime vessel arrival times factors that operators cannot effectively handle manually. The recipients of this project are river operators and terminal operators.



PROJECT N° 7

« **Design of a digital twin of a port terminal** »

CEA

The CEA's JUMO Research Platform aims to enable stakeholders in the sector to make more informed decisions and thus increase their competitiveness and enable territorial port infrastructures to respond to future competitiveness and environmental challenges. The project allows users to predict the future of a port by testing scenarios and their resilience without taking any risk and thus to identify desirable futures and the actions to be implemented to achieve them. Once appropriate, this tool can be used operationally or in a prospective approach to projecting port stakeholders over several years in order, for example, to validate strategic investments.

This appropriation will of course involve an increase in the skills of stakeholders on digital issues and will ultimately make it possible to attract digital talents and profiles to the sector.



CONCEPT/IDEA CATEGORY

PROJECT N° 8

« **MOP-ALFOWT, a multi-use floating platform** »

SETEC

The result of a collaboration between SETEC and SAFIER Ingénierie, our innovative floating, modular and towable industrial platform solution is based on the assembly methods of the elements that constitute it (eco-designed pre-stressed concrete boxes). The assembly is in fact carried out on the water and by means of a connection based on a patented C2C® system and structural reinforcements which make it possible to create a very large floating infrastructure (several hectares), monolithic, capable of accommodating industrial equipment.

This solution has been certified by DNV at the feasibility stage, the process will continue throughout future developments.

The shape of the platform is adaptable according to the logistics chain necessary for the assembly of one type of float or another, but also according to the needs for storage areas.

With a limited environmental impact, the floating nature of the platform is a decisive advantage for increasing wind turbine production capacities while port land availability does not allow sufficient production rates to date.



Partners of edition 2023

13th Port of the future conference &
5th Mediterranean Days

Le Port de Sète-Frontignan



The port of Sète-Frontignan is one of the key players in French maritime transport, it is the second decentralized French port, owned by the Occitanie/Pyrénées-Méditerranée Region, which created for the management of its 3 port concessions, the public establishment Port Sud de France. This SME type establishment is made up of 95 employees spread across port activities of commerce, fishing and pleasure craft.

The commercial port of Sète is the second port on the French Mediterranean coast, it is a deep water port that can accommodate ships with an admissible draft of 13.5 m and the second decentralized port by its overall tonnage (5.3 Mt). Several assets allow the commercial port of Sète to be competitive and to constantly adapt to changes in its economic environment. In addition to its modern infrastructure, its port equipment, latest generation cranes and gantries, its multimodal logistics offer combines maritime, rail, river and road access. Drawing on the specialization of its 10 terminals spread over 5 basins and the know-how of local teams; the commercial port of Sète is able to meet the needs of its shipowner and shipper customers, to be responsive and to handle all types of traffic (heavy parcels, vehicles, rolling freight, solid bulk, liquid bulk, containers, etc.).

The advantage of its geographical position at the gateway to Europe is a guarantee of competitiveness.

The port of Sète is made up of a very active and supportive port community, made up of pilotage, towing, mooring services, port handlers and dockers, logisticians, fishermen, fishmongers, handling and port agents...i.e. more than 1,700 jobs direct.

La Région Occitanie



ArcelorMittal



ArcelorMittal

ArcelorMittal, as a global leading steel producer, committed in 2021 to reduce its CO₂-eq. emissions in Europe by 35% by 2030 and aims at reaching carbon neutrality globally by 2050. Our values are Safety, Sustainability, Quality and Leadership.

ArcelorMittal Sheet Piling is the worldwide leader in steel sheet piling technology, providing the most innovative foundation solutions. Our products are used worldwide for the construction of quay walls, waterways, flood protection barriers, mobility infrastructure projects and containment structures.

We offer complete package solutions, based on our wide range of products and services, expert technical support from the early design stages of a project to its completion, customized fabrication, just-in-time delivery and after-sales services. Our innovative solutions and technical support allow the design of optimized, sustainable and efficient steel sheet piling solutions.

Part of ArcelorMittal's XCarb® recycled and renewably produced initiative, the EcoSheetPile™ Plus brand offers steel sheet piles manufactured from 100 % recycled scrap metal and with 100 % renewable electricity, allowing 30 % lower CO₂-eq. emissions than with the usual energy mix. Certified by a specific Environmental Product Declaration (EPD), the production of the EcoSheetPiles™ Plus range emits as low as 370 kg CO₂-eq. per tonne of steel produced.

The SmartSheetPile solutions provide an automatised monitoring system of the structure, helping to improve safety, minimise downtime, optimise maintenance and extend the lifetime.

BOUYGUES Construction



CONSTRUCTING SUSTAINABLE INFRASTRUCTURES

Bouygues Travaux Publics is one of the global leaders in the regeneration and sustainable infrastructure. As a subsidiary of Bouygues Construction specialised in civil engineering and related structures, the company has skills and recognised expertise in underground works, river and maritime works, linear projects, industrial civil engineering, earthworks and surface mining. From Hong Kong to Canada, Bouygues Travaux Publics has completed numerous iconic projects: the Channel Tunnel, the Beirut seafront, the A28 and A41 motorways, the Ile de Ré and Normandy bridges, Chernobyl's New Safe Confinement arch, Cairo and Sydney undergrounds, and over 10 tunnels in Hong Kong. Throughout the world, men and women in our company are all committed to innovating and creating value for our clients.

Schneider Electric



Schneider's purpose is to empower all to make the most of our energy and resources, bridging progress and sustainability for all. At Schneider, we call this : Life is On à EN + Life is On à FR. Our mission is to be the digital partner for the sustainable development and efficiency of our customers.

We lead the digital transformation by integrating the most advanced energy and automation technologies. We connect up to the cloud, products, control platforms, software and services over the entire life cycle of your activities for integrated management of infrastructures but also of residential housing, tertiary buildings, data centers and industries.

Schneider Electric contributes to the decarbonization and digitalization of French ports by deploying solutions for electrification, supervision, digital twins and even predictive maintenance.

Port-La Nouvelle



Located south of Narbonne, on the French Mediterranean coast, Port-La Nouvelle is France's third-largest Mediterranean port, with an annual tonnage of around 2 million tonnes. Thanks to its strategic geographical position, the commercial port of Port-La Nouvelle operates petroleum products, liquid bulk, cereals, dry bulk, breakbulk and project cargoes.

The port is owned by the Region Occitanie Pyrénées-Méditerranée and managed by a Public-Private-Partnership (called SEMOP) under a 40-year concession contract that began on 1 May 2021.

The SEMOP is an innovative governance for a French commercial port, it brings together the public players - the Occitanie Region and Caisse des Dépôts - with a consortium of private operators, including Deme Concession (managing concessions activities in offshore wind and marine infrastructures), Euroports Group (one of the largest port-infrastructure companies in Europe), Qair (independent renewable energy producer), EPICO (independent Benelux infrastructure fund) and the AUDE Chamber of Commerce and Industry.

BRLi



BRL Ingénierie offers public and private players over 20 years' experience in the fields of the sea, coastline, river and maritime navigation structures in France and abroad.

Well-versed in the most complex issues, holders of numerous patents, authors of guides and writers of international recommendations, the specialists at BRL Ingénierie are with you every step of the way, from your first thoughts to the operation of your structures. With 500 references to its credit, our team draws on the multidisciplinary skills of BRLi's 200 engineers and deploys global or innovative solutions to combine the efficiency of your developments with respect for ecosystems.

TRELLEBORG



Trelleborg Marine and Infrastructure provides expertly engineered solutions to the marine, built, and offshore infrastructure sectors.

Its comprehensive suite of solutions in the marine sector includes marine fenders, docking & mooring, oil & gas transfer safety systems, navigation, and piloting technologies. The built infrastructure sector of the company specializes in sealing systems for tunnels, water infrastructure & offshore wind foundations, vibration isolation & structural support for buildings. As part of its offshore infrastructure solutions, it offers float-over solutions, jacket leg systems, and module bearings.

Globally recognized for its expertise in polymer engineering, Trelleborg puts the environment, people, and communities at the forefront of everything it does.

CNR



CNR is the Rhône concessionaire for the production of hydroelectricity, river transport, irrigation for agricultural uses, and the first French producer of exclusively renewable energy thanks to water, wind and sun. A leading partner for regional development, CNR is a key player in the energy transition, and also shares this expertise internationally. On the Rhône, CNR manages 18 industrial and port sites, part of which is trimodal thanks to a railway branch. Around fifteen piers for passenger boats have also been built and are operated by CNR.

Supporting partners

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Artelia



Within Artelia group, multi-disciplinary engineering & project management company specialized in Mobility, Water, Energy, Buildings and Industry, the Maritime teams design and execute coastal planning, port and near offshore facilities (MRE, offshore wind), considering environmental and social issues, for public and private clients, in France or abroad.

Joining the various skill centers, among them environment, energy, numeric, urban planning, civil and hydraulic engineering and our hydraulic physical modelling lab, major investments are made in Research and Innovation for :

- development of eco-designed solutions, to reduce carbon footprint and promote biodiversity
- development of green & smart port complexes and waterfront industrial terminals, integrated in city-port operations,
- coastal zone integrated management.

France Cyber Maritime

France Cyber Maritime is a non-profit organization created in November 2020. Its main purposes are to increase the resilience of maritime and port operations to cyber threats and to develop a network of expertise in maritime cyber security. To complete these tasks, France Cyber Maritime fosters the creation of tailored cyber security solutions and operates the M-CERT (Maritime Computer Emergency Response Team), a national centre which provides information and assistance to all maritime and port operators. With more than 70 members, France Cyber Maritime brings together within three membership boards public sector players and regional coastal authorities, maritime operators and cyber security solution providers. It is supported by the Secretary General for the Sea (SGMer), ANSSI (the French Information Security Agency), France Relance, Brest Métropole and the Brittany Region.



ECONcrete

ECONCRETE

ECONcrete technology enables the construction of nature-positive marine infrastructure. Our solutions have been implemented in more than 50 projects globally including ports, piers, breakwaters, subsea and other load bearing concrete infrastructures – to promote and restore biodiversity.



Marina System Iberica

MSI Marina System Iberica specialises in the design and production of floating concrete breakwaters, and is contributing to the development of the floating wind energy sector by offering a new range of heavy concrete pontoons for the redevelopment of commercial ports. MSI Marina System Iberica has established itself as a major player in the field of port development thanks to its expertise and commitment to innovation. The company has earned a solid reputation for providing sustainable and effective solutions to protect port infrastructures from waves and sea currents.

One of its flagship projects, which has attracted considerable attention, is the concrete floating breakwater installed at the Môle Saint Louis in Sète. This breakwater has been designed to withstand the harshest sea conditions, while providing optimum protection for ships and port facilities. It represents a perfect combination of aesthetic design and technical performance.

Today, MSI Marina System Iberica presents its latest innovation: the new range of heavy-duty concrete pontoons specially designed to meet the needs of commercial port redevelopment as part of the development of the floating wind industry. These heavy-duty pontoons provide a solid, stable platform for port operations, while incorporating specific elements required for the installation and maintenance of offshore wind turbines. Its team of experts works closely with players in the floating wind industry to design solutions tailored to the unique requirements of this fast-growing sector. MSI Marina System Iberica's heavy concrete pontoons offer exceptional strength, increased durability and reduced maintenance and easy relocation due to its floating nature, making them the right choice to support the sustainable development of offshore wind farms.

Proserve has over 50 years' experience with the design, supply and installation support of geotextile formed concrete for the global market, providing concrete mattress for effective scour protection in new and existing Ports. The HUESKER Group is the world's leading manufacturer of geosynthetics and industrial textiles with over 160 years' experience. Its products and services provide solutions for the business areas such as Earthworks and Foundations, Roads and Pavements, Environmental Engineering and Hydraulic Engineering. Combining expertise with HUESKER for berth scour protection, Proserve provide customised solutions using HUESKER's uniquely woven Incomat formwork.

Spie batignolles fondations

spie batignolles

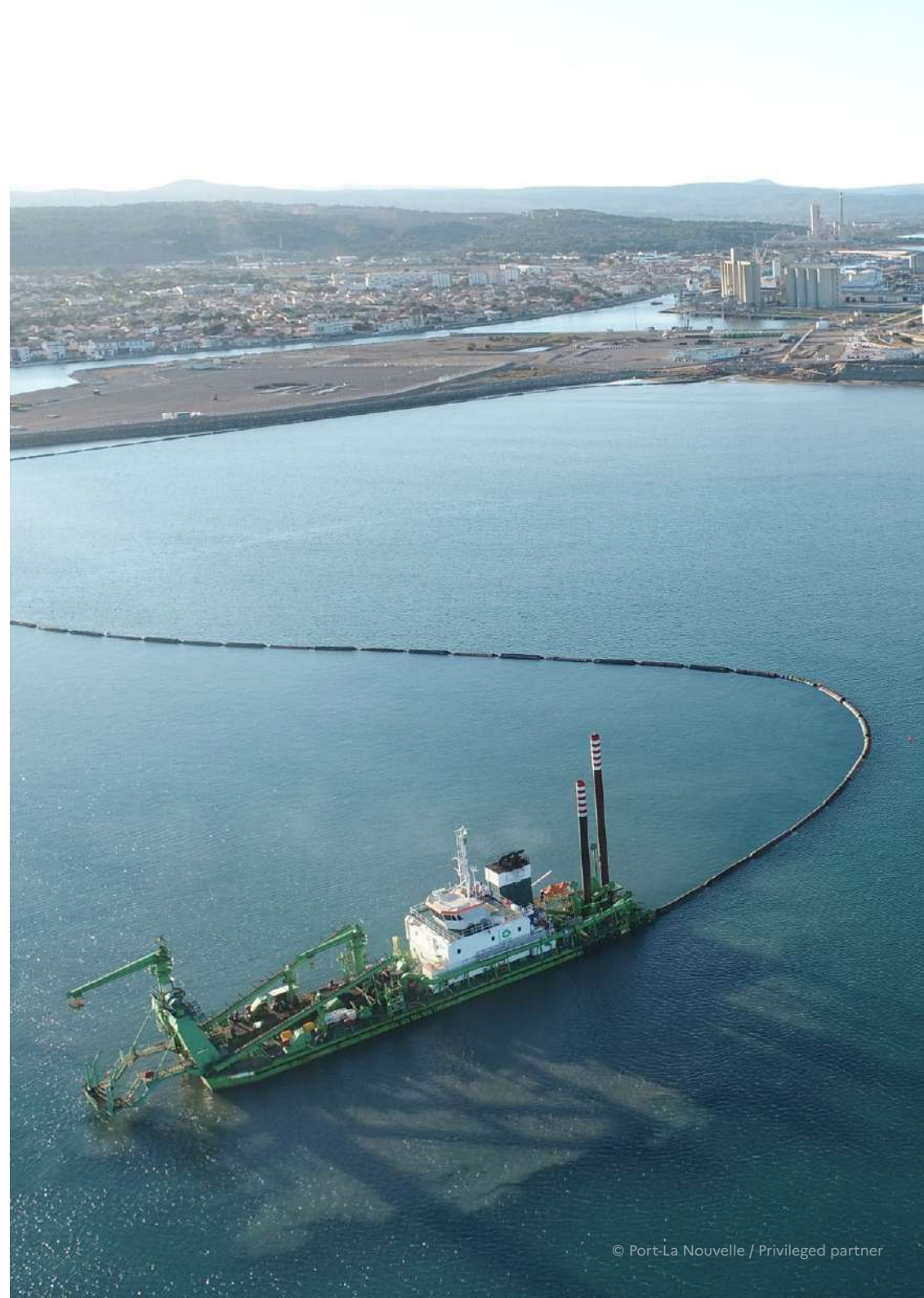
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For over 60 years, Spie batignolles foundations have been supporting all types of contractors, construction professionals and clients in geotechnical works in France and abroad. We design and build all types of complex foundations and infrastructure works for buildings, public works and industry, using our knowledge in deep foundations, shoring walls, underpinning works and soil treatment.

Whether your activities are in the field of management of navigation traffic, the creation of activity zones or energy recovery, we participate for all types of port and river developments. We work on land or on barges for turnkey projects or parts of specific works. We have the appropriate skills and equipment, in accordance with environmental requirements, for the creation, transformation or upgrade of structures. We have recently consolidated existing docks in Dunkirk and La Rochelle. Currently, we are participating in the modernization of the port of Cotonou.

Port and river development projects contain a particularly high technical challenge, with high geotechnical risks. Our expertise in special foundations and our long experience in all the aspects of these techniques constitute a major key to the success of such work.

Sète agglomération méditerranée





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