# **exe** QUADRANTE

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# MARINE & HARBOUR ENGINEERING

# DESIGNING . DELIVERING . ADDING VALUE



EXE-QUADRANTE is an Engineering Consultancy Company with a global footprint specialized in Port and Marine Engineering.

With a highly experienced team of civil, coastal, hydraulic, and structural engineers, combining more than 68 years of experience, EXE-QUADRANTE proposes a competitive offer in the marine and harbour engineering sector, to deliver ground-breaking and value added solutions for an ever challenging world.

The main purpose of EXE-QUADRANTE is to support our clients accomplish their own mission. We offer a full and comprehensive range of engineering capabilities, from project planning to project development and execution, to deliver sustainable, innovative and economically efficient marine infrastructures.



EXE ENGENHARIA boasts a remarkable 21 year history in marine and harbour engineering. Though the business started in 2000, their founding partners have more than 48 years of combined experience developing port projects all over the world. Since its foundation EXE ENGENHARIA has partaken in several major maritime and port projects around the world offering full range of consulting engineering services and value added solutions for their Clients.



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QUADRANTE is an international consultancy firm of engineers and architects with over 25 years of industry experience. Headquartered in Lisbon and with on-the-ground offices worldwide, QUADRANTE have built a comprehensive track record of projects in areas such as airports, highways, railroads and ports becoming a leading engineering consultancy firm in Portugal.



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# WHAT WE STAND FOR

 68 plus years of combined experience adding value in Port and Marine Engineering consultancy.

• Highly skilled and experienced team of civil, coastal, hydraulic, and structural engineers

• Outstanding history and experience in unique marine engineering projects, ranging from container terminals, liquid and solid bulk terminals, general cargo terminals, ferries and cruise terminals, recreational ports, and military installations.

• Experience working with a wide range of clients, including, engineering contractors, public port administrations and private port operators. • Delivery capability and efficient management of engineering solutions across all stages of the project's lifecycle.

 Integrated engineering solutions, combining expertise from different areas: Transport, Buildings; Environment and Climate Change, Hydraulics, Industry and Energy, Airports and Project Management and Supervision.

• International footprint, with offices on three different continents (Europe, Africa and Latin America)

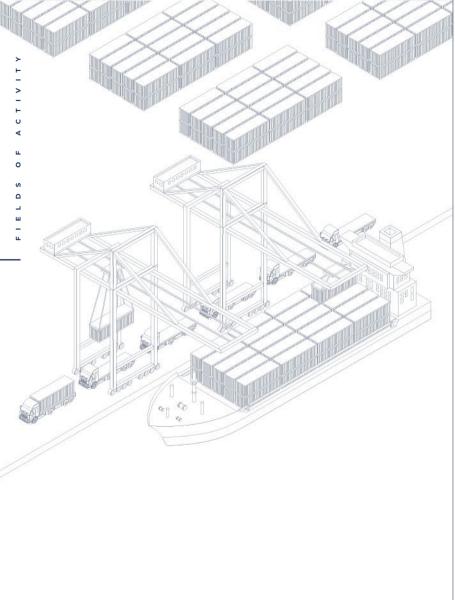
• Ambitious Sustainable Development Goals focused on the best solutions for our customers.



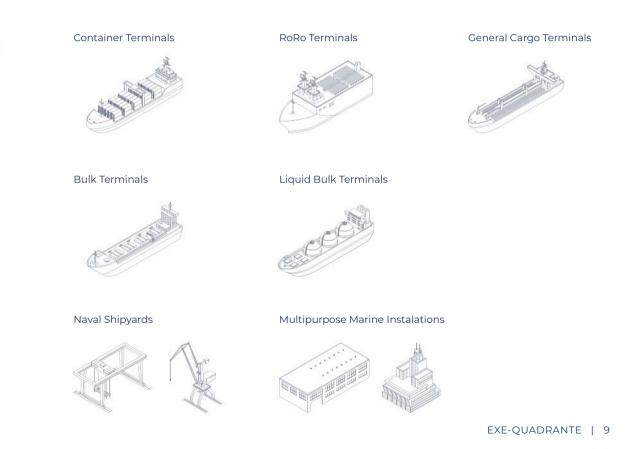
# **FIELDS OF ACTIVITY**

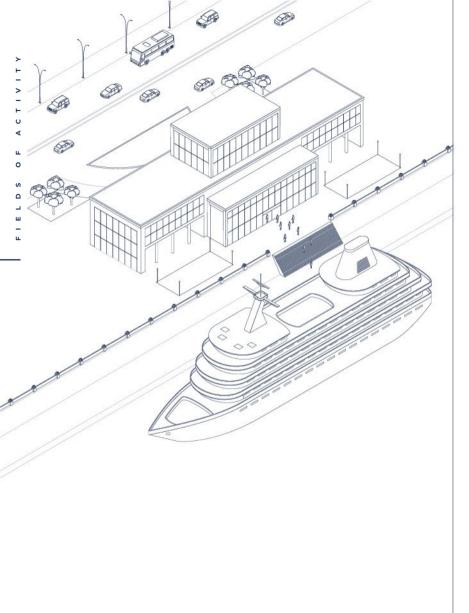
MARITIME CARGO TERMINALS PASSENGER AND RECREATIONAL PORTS COASTAL ENGINEERING





# MARITIME CARGO TERMINALS

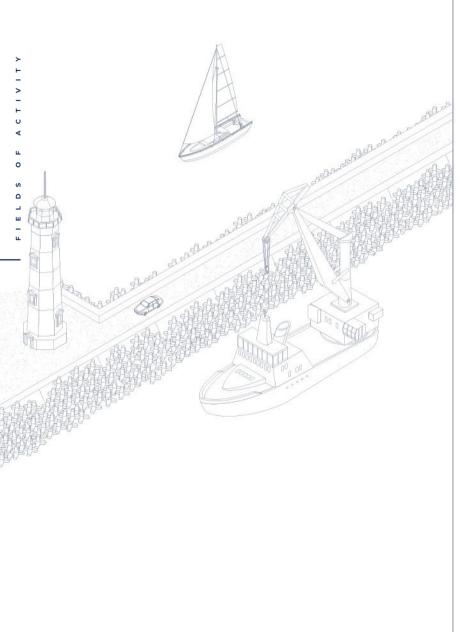




# PASSENGER AND RECREATIONAL PORTS

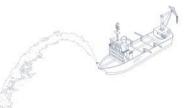






# COASTAL ENGINEERING

Dredging and Reclamations



Coastal Protection



Environmental Impact Assessment

Breakwaters



EXE-QUADRANTE | 11

# CAPABILITIES

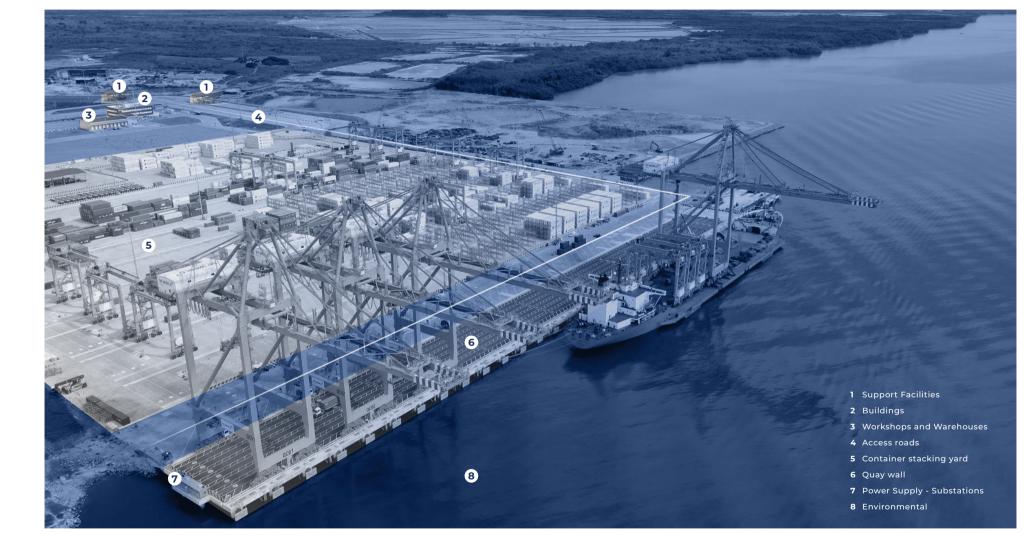
PORT PLANNING AND TERMINAL DEVELOPMENT VALUE ENGINEERING - CONSTRUCTION METHODOLOGIES QUAY WALLS AND JETTIES VESSEL BERTHING, MOORING AND TRANSFER FACILITIES DESIGN MATERIALS HANDLING MARINE HYDRAULICS - INTAKE AND OUTFALL PIPELINES MARINE ENERGY TRANSITION ANALYSIS DREDGING AND RECLAMATION BREAKWATERS AND COASTAL PROTECTION



# **SERVICES PROVIDED**

FEASIBILITY STUDIES FRONT END ENGINEERING DESIGN (FEED) DETAILED ENGINEERING AND DESIGN TECHNICAL SUPPORT CONTRACT ADMINISTRATION AND SITE SUPERVISION COST ESTIMATION EIA: ENVIRONMENTAL ASSESSMENTS BIM SOLUTIONS

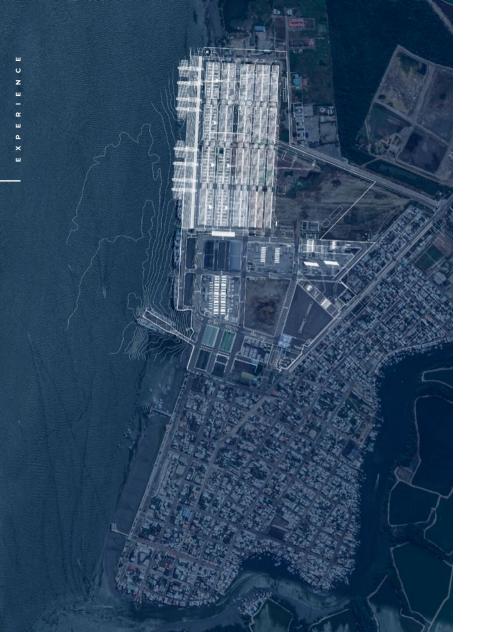




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ERVICE

# EXPERIENCE



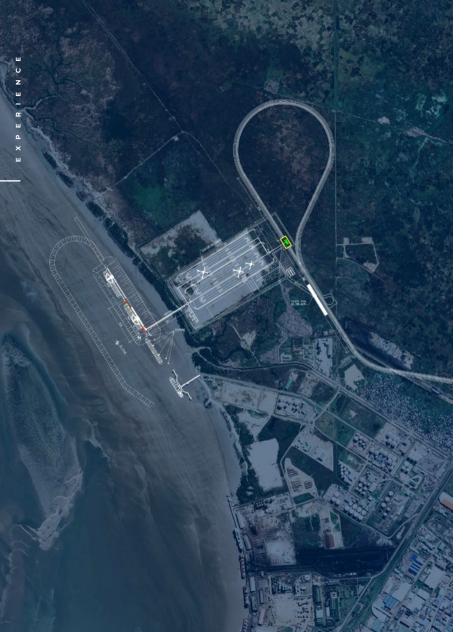
# MULTIPURPOSE TERMINAL BOLIVAR PORT

#### Country

Ecuador

#### Scope of Works

• Port and Terminal development and preliminary design



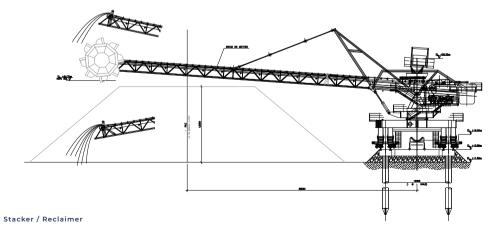
# COAL TERMINAL BEIRA

#### Country

Mozambique

#### Scope of Works

- Port Design solution for design & build tender process
- $\cdot$  Detailed design
- Metocean Studies
- Marine Hydraulics and navigation studies



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# PORT COMPLEX PORT OF DANDE

#### Country

Angola

- Port Design solution for design & build tender process
- · Detailed design
- Metocean Studies
- Marine Hydraulics and navigation studies





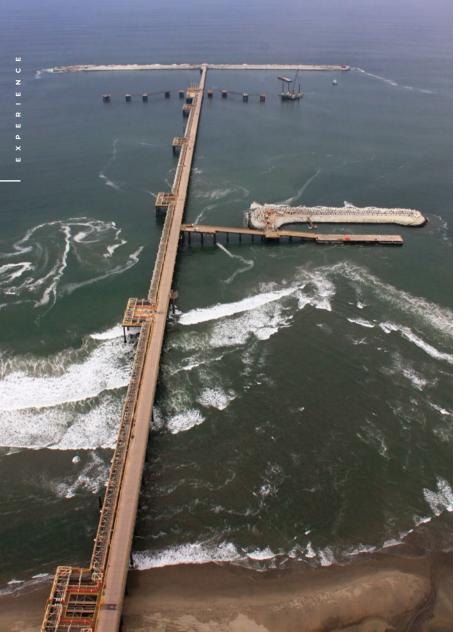
# **CRUISE TERMINAL** SALAVERRY

#### Country

Peru

#### Scope of Works

• Port and Terminal development and preliminary design



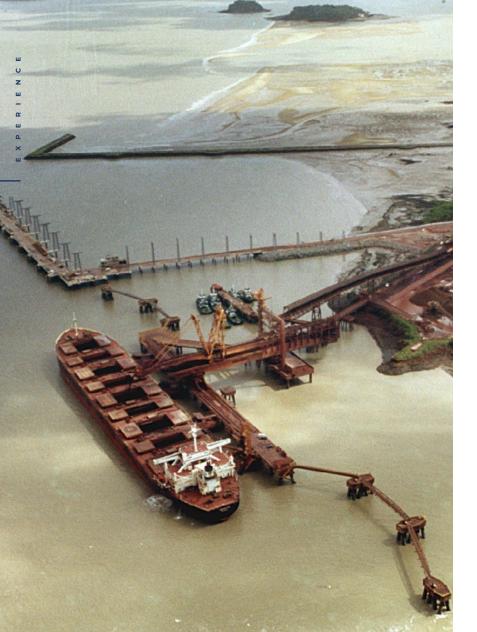
# **LNG TERMINAL** MELCHORITA

#### Country

Peru

- Port Detailed design
- Project and contract management
- Temporary construction structures development Cantitravel and Terminal development and preliminary design





# PIER III IRON ORE TERMINAL PONTA MADEIRA

#### Country

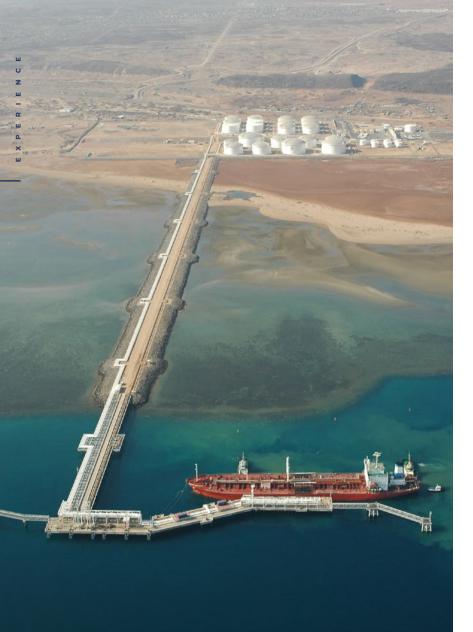
Brazil

#### Scope of Works

• Detailed design for jetty and berth construction

• Temporary construction structures development – Cantitravel





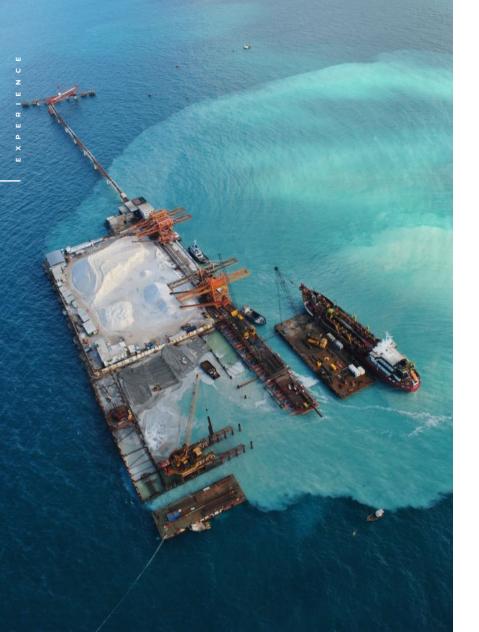
# LIQUID BULK TERMINAL DORALEH

#### Country

Djibuti

- Jetty and berth Design tender process
- Port Expansion Masterplan
- · Jetty Detail design for construction
- Temporary construction structures development Cantitravel





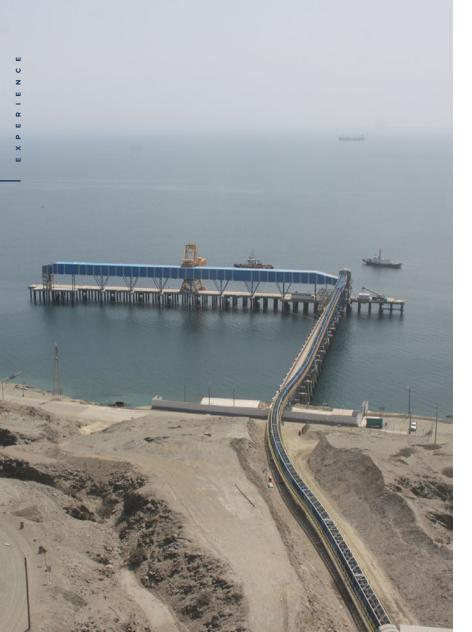
# SALT OFFSHORE TERMINAL AREIA BRANCA

#### Country

Brazil

- •15000m<sup>2</sup> Artificial Island Design with berth facilities for 75000 DWT Vessels
- Detailed Design for 500m conveyor belt bridge
- Technical Assistance
- Temporary construction structures development Cantitravel





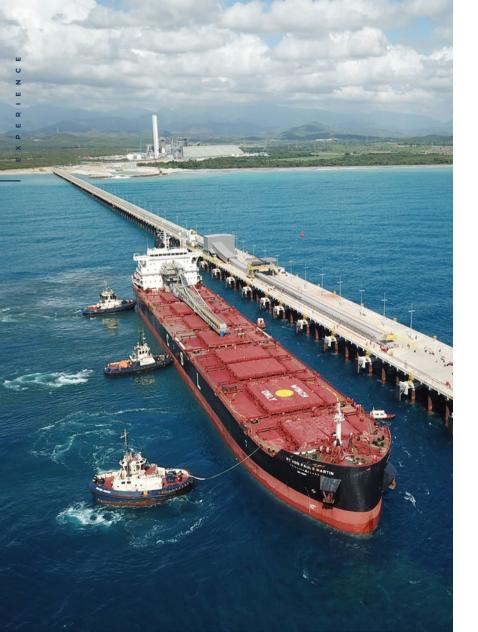
# PHOSPHAT TERMINAL BAYOVAR

#### Country

Peru

- Detailed Design for jetty and berth facilities for 75000 DWT Vessels
- Technical Assistance
- Temporary construction structures development Cantitravel





# COAL TERMINAL PERAVIA

#### Country

Dominican Republic

- Port Design solution for design & build tender process
- Temporary construction structures development Cantitravel
- Detail design for construction





# BULK TERMINAL MATARANI

#### Country

Peru

- Port Design solution for design & build tender process
- $\cdot$  170m Access bridge and 260m Quay Wall detailed design
- Material Handling Equipment Shiploaders
- Temporary construction structures development Cantitravel
- $\cdot$  Detail design for construction





# BULK TERMINAL - BAUXITE TROMBETAS

#### Country

Brazil

- Port Design solution for design & build tender process
- Initial existing port Structural Assessment
- Detail design for jetty and berth construction for 80000DWT Vessels





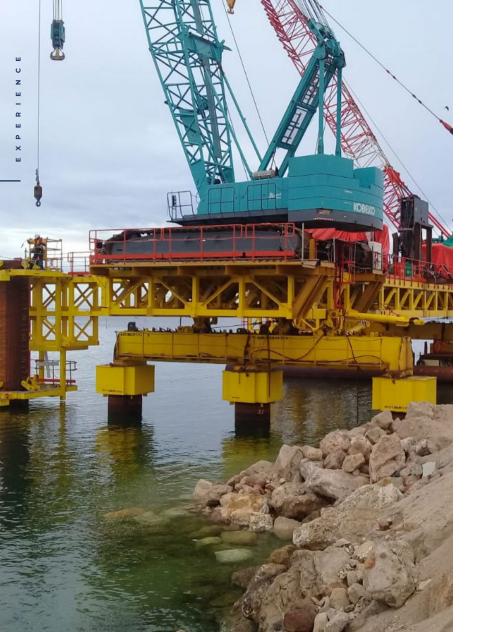
# MULTIPURPOSE TERMINAL POSORJA

#### Country

Ecuador

- Preliminary Design for 14000 TEU terminal
- 400m Quay Wall
- · Container Yard Detailed design
- · Construction Methodology Cantitravel Design
- $\cdot$  Detail design for construction





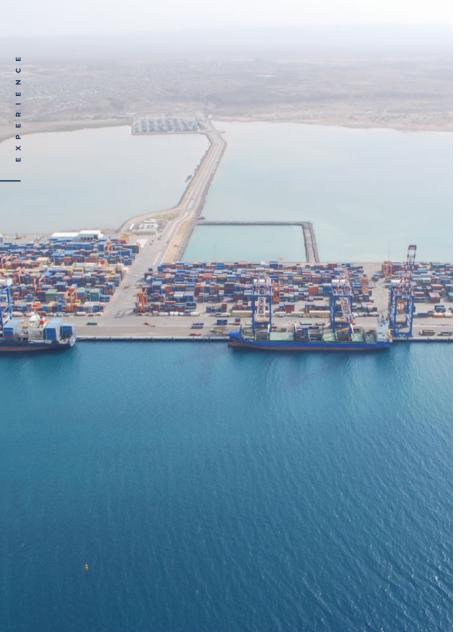
# MULTIPURPOSE TERMINAL BERBERA

#### Country

Somalia

- Port Design solution for design & build tender process
- · 400m Quay Wall detailed design -Combiwall
- Temporary construction structures development Cantitravel





# CONTAINER TERMINAL DORALEH

#### Country

Djibuti

- •1050m Quay Wall design
- Container Yard design
- Temporary construction structures development Cantitravel
- Technical Assistance at project location





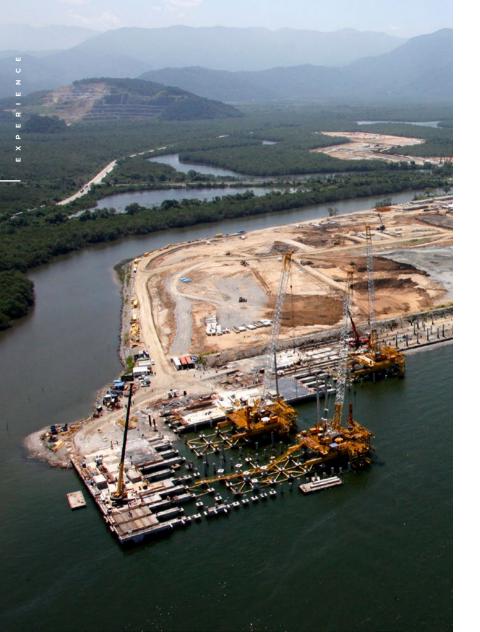
# MULTIPURPOSE TERMINAL MARIEL

#### Country

Cuba

- ·2400m Quay Wall detailed design
- · Container Yard layout detailed design
- · Admin Buildings, Mechanic Workshops and storage warehouses detailed design
- Temporary construction structures development Cantitravel





# CONTAINER TERMINAL SANTOS

#### Country

Brazil

- Port Design solution for design & build tender process
- ·1100m Quay Wall detailed design
- · Container Yard layout detailed design
- Temporary construction structures development Cantitravel





# CONTAINER TERMINAL CALLAO

#### Country

Peru

- Port preliminary Design solution
- •650m Quay Wall detailed design
- · Container Yard layout detailed design
- Temporary construction structures development Cantitravel





# GENERAL CARGO TERMINAL PRAIA

#### Country

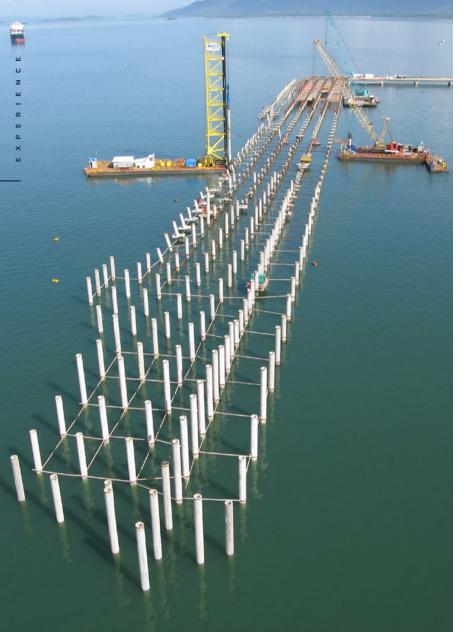
Cape Verde

#### Scope of Works

• Technical and engineering support

• HSEQ management during construction





VALUE ENGINEERING - CONSTRUCTION METHODOLOGY TEMPORARY CONSTRUCTION STRUCTURES

# PILE DRIVING FLOATING TOWER ITAPOÁ PORT

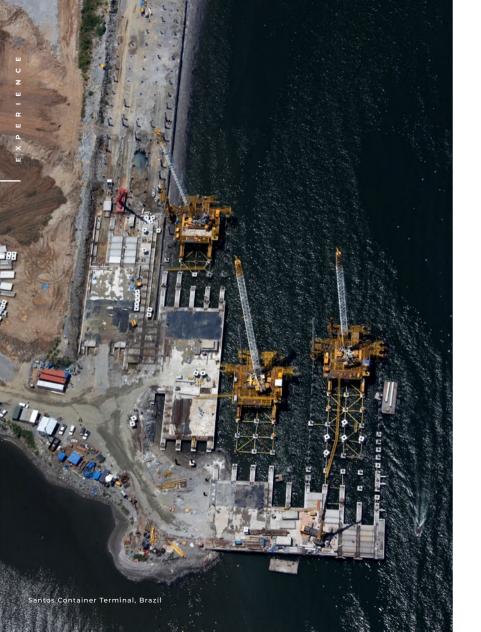
#### Country

Brazil

#### Scope of Works

• Piling Tower development and structural design





VALUE ENGINEERING - CONSTRUCTION METHODOLOGY TEMPORARY CONSTRUCTION STRUCTURES

# CANTITRAVELERS

#### Countries

Brazil, Peru, Ecuador, Algeria, Angola, Dominican Republic, Djibouti, Somalia

#### Scope of Works

For more than 25 years, EXE QUADRANTE has conceived of more than 30 temporary structures to support quay wall construction works. These bespoke, and project specific structures, either cantitravelers or pile driving barges, are particularly suitable for the most common type of quay wall, most specifically deck on piles and combiwall structures.



Arzew Fertilizer Terminal, Algeria



LNG Terminal Melchorita, Peru



VALUE ENGINEERING - BIM

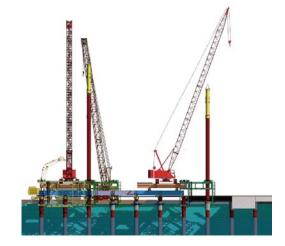
## **BIM - BUILDING INFORMATION MODELING**

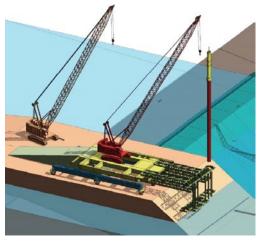
#### Countries

Brazil, Portugal and Ecuador

#### Scope of Works

EXE QUADRANTE set off using BIM processes across all phases of the project lifecycle as early as 2015. In EXE-QUADRANTE, BIM is about providing the right data to support decisionmaking at very early stages of the project, enabling efficiency and accuracy, adding value and encouraging greater synergies between all stakeholders, and most significantly, deliver greater predictability throughout the entire project lifecycle.







## COASTAL PROTECTION AND BREAKWATERS

#### Countries

Portugal, Panamá, Brazil e Djibuti

#### Scope of Works

- Coastal protection studies
- $\cdot$  Detail design for rock revetment
- $\cdot$  Marine Hydraulics and wave studies







## DREDGING AND RECLAMATION

### Countries

Somaliland, Brazil and Mozambique

#### Scope of Works

- Waterways, access channels and berth pockets design
- Dredging and Reclamation Design





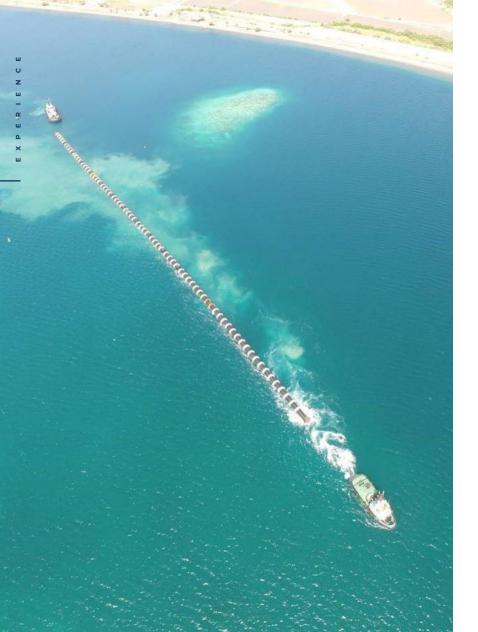
## INTAKE AND OUTFALL PIPELINE JAGUARIBE

## Country

Brazil

#### Scope of Works • 3271m lenght pipeline design





## INTAKE AND OUTFALL PIPELINE PUNTA CATALINA

#### Country

Dominican Republic

#### Scope of Works • 1050m lenght and 2,5m diam. pipeline design





#### PASSENGER AND RECREATIONAL PORTS

## **INLAND PORTS**

**Country** Portugal

## Scope of Works

Detailed Design

• Technical Assistance



Peso da Régua



Foz do Távora

# WHO WE ARE

RUBENS SABINO (EXE-ENGENHARIA) TIAGO COSTA (QUADRANTE) NUNO CORREIA (EXE-QUADRANTE)





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## **RUBENS SABINO**

#### Managing Director Civil Engineer, PIANC Member

Rubens Sabino is the founding partner of EXE ENGENHARIA. With over 40 years of experience in port and marine engineering, in Brazil, South America, Central America and Central Africa. With a degree in Civil Engineering from Universidade Federal Fluminense, his experience includes, among others, the development of container general cargo and bluk terminals, maritime foundations, special structures and shipyards.

During the last twenty years, Mr. Sabino has driven EXE ENGENHARIA to take part in several design and construction projects in many countries such as Djibouti, Peru, Equador, Colombia, Guine Bissau, Morocco, Namibia, Angola, Cuba, Chile, Mozambique, Argentina, Guatemala, Panama, Dominican Republic, Libya, Guatemala, Algeria, Venezuela, Brunei and Indonesia. At EXE-QUADRANTE, Rubens is also responsible for the Latin American market.

#### Main projects

- Iron Ore Terminal Píer III Ponta da Madeira Brazil;
- · Doraleh Bulk Terrminal Djibouti;
- · Callao Container Terminal Peru;
- Punta Catalina Port Dominican Republic;
- · Itapoá Pile Driving Barge Brazil;
- Paranaguá Port Píer "F" Brazil



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## TIAGO COSTA

#### Managing Director Structural Engineer, MBA

Tiago Costa is one of the founding partners of QUADRANTE and is responsible for the Transports Business Unit (Roads and Motorways, Railways, Structural Works, Ports and Tunnels) and for the markets in Ghana, Peru and Chile. Costa has 20 years of experience in Design and Coordination of major road subconcession projects, general construction and structural works, and urban infrastructure in Angola, Algeria, Brazil, Ghana, Mozambique and Portugal. He has recently been involved in railway projects in Portugal and the United Kingdom. He has a degree in Civil Engineering from IST and an MBA.

#### Main projects

- Railroad project Kano Maradi / Kano Dutse | 400km - Nigeria;
- $\cdot$  Highway project Accra / Tema | 32km Ghana;
- Panamericana highway project Panamá;
  Project and contract management on several Highway projects - Portugal;
- Hassi Messaoud e Sidi Abdelah new city project – Algeria

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## **NUNO CORREIA**

#### Client Manager **Civil Engineer, PMP, PMI**

With over 15 years' experience in the maritime, harbour and urban infrastructure construction sector, Nuno Correia holds a Master's degree in Civil Engineering from FEUP and is PMPcertified by PMI. Throughout his career, he has accumulated vast experience in large-scale projects, from conception to execution, with a focus on technical-commercial coordination. strategic planning, contract execution and contract management. With a strong international track record, acquired in Tier 1 construction companies, Nuno has collaborated on projects in Europe, Africa and Latin America, leading teams in the drafting and negotiation of complex contracts. He stands out for his ability to promote collaboration in cross-functional environments, ensuring high standards of quality and safety. He currently works as Client Manager for the maritime projects at EXE-QUADRANTE

#### PORTUGAL

#### BRAZIL

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