



SUSTAINABILITY AND ENERGY TRANSITION

Hugo Lopes

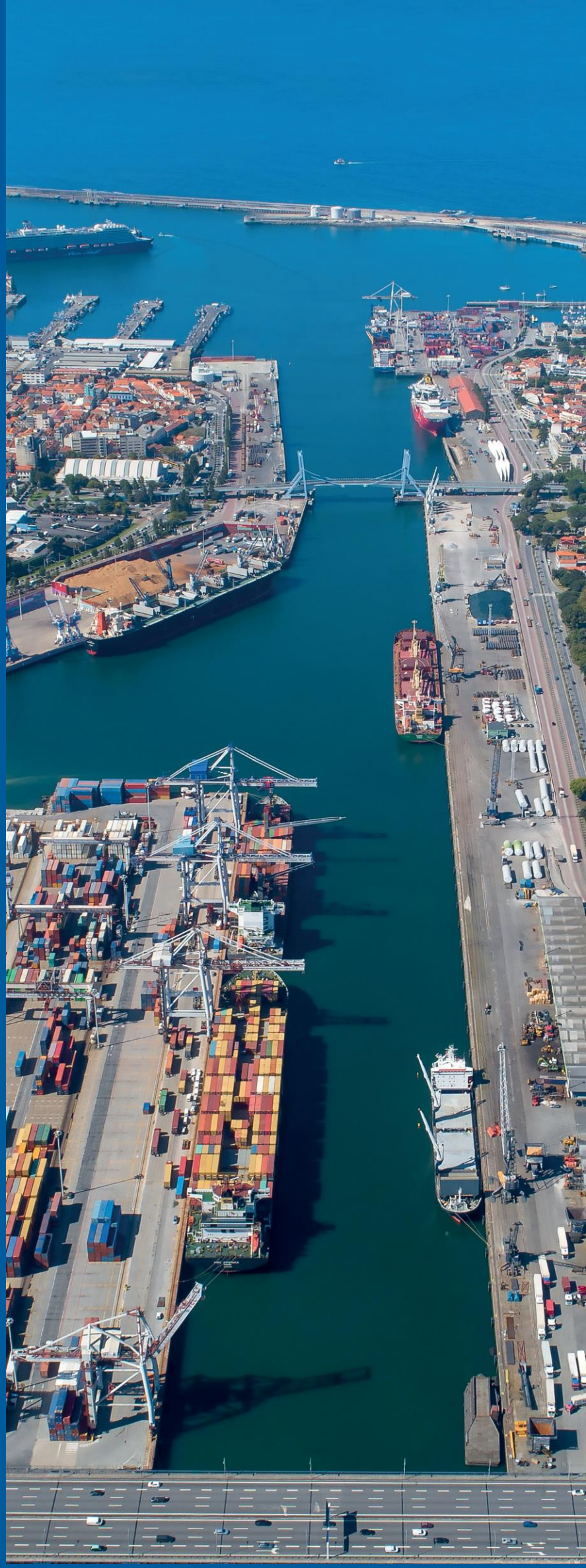
Head of Development and Sustainability



APDL

PORT AUTHORITY
DOURO • LEIXÕES • VIANA





WHO WE ARE?

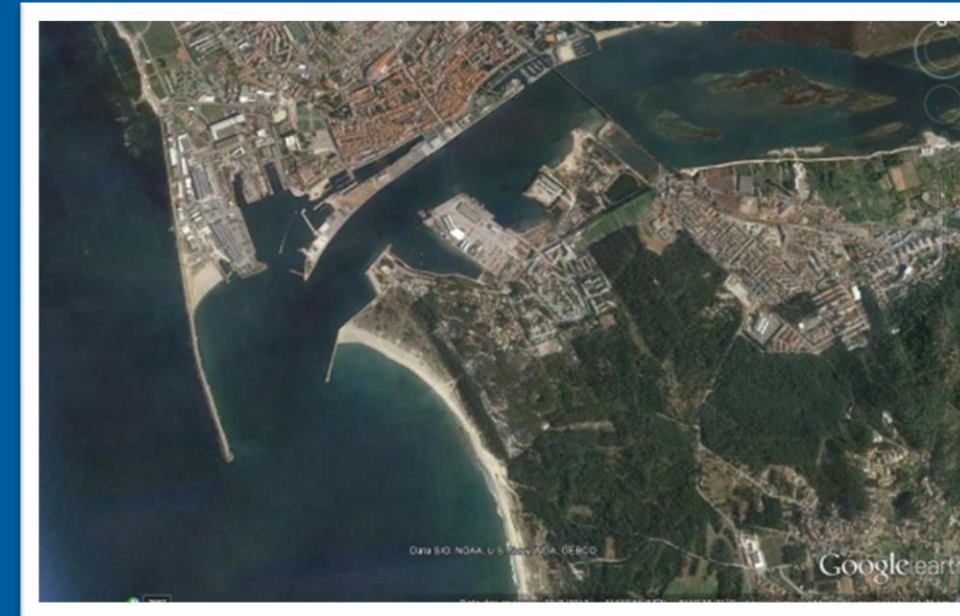
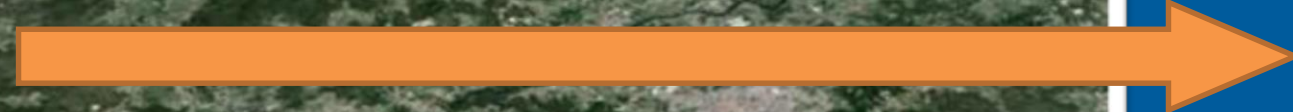
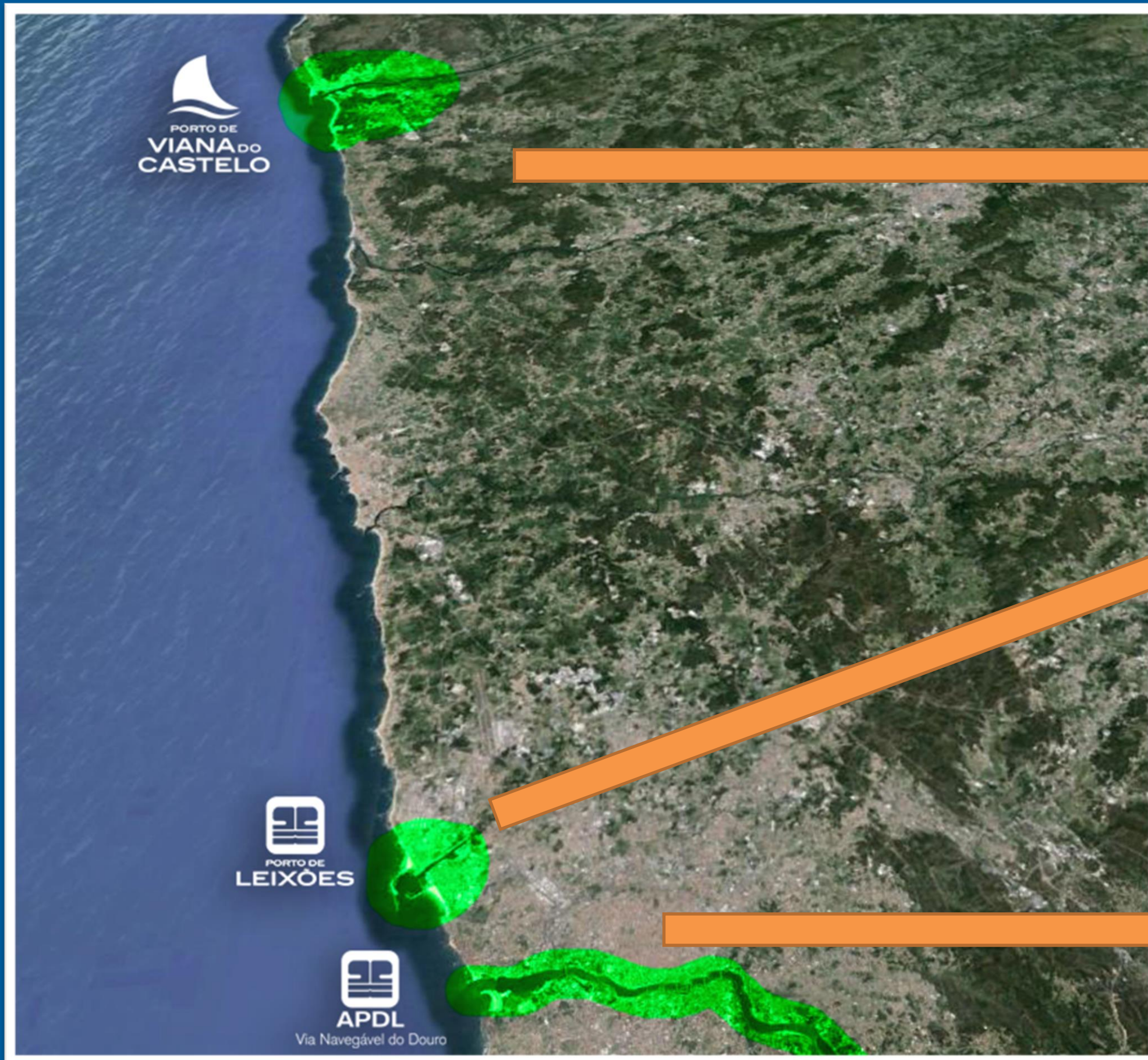


#APDL2035

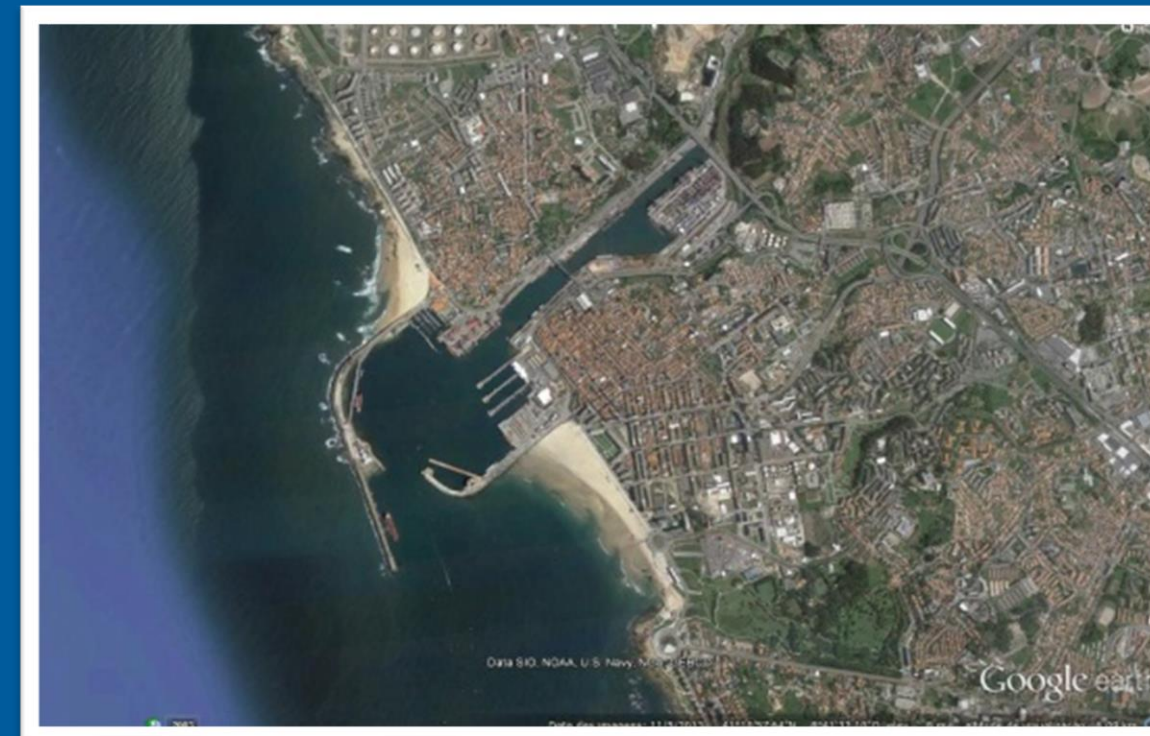


APDL
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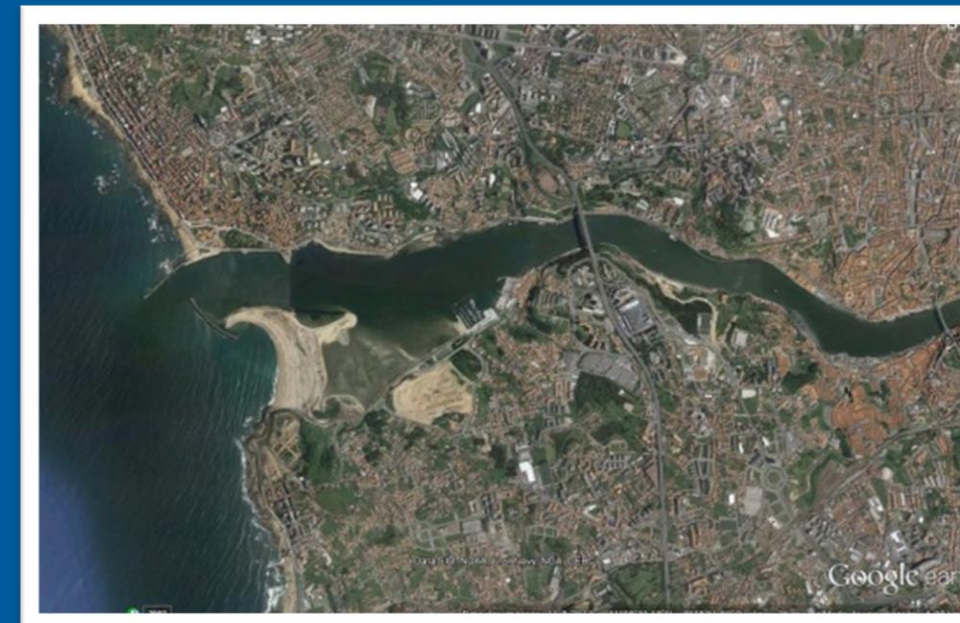
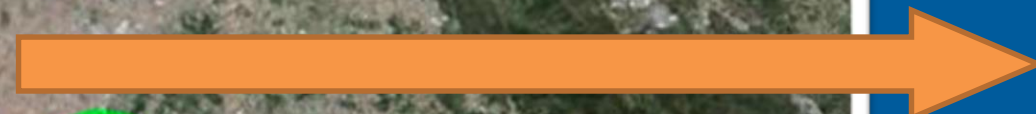
BUSINESS UNITS



Viana



Leixões



Douro



SUSTAINABILITY AT APDL



Relatório de Sustentabilidade 2016 Relatório de Sustentabilidade 2017 Relatório de Sustentabilidade 2018 Relatório de Sustentabilidade 2019 Relatório de Sustentabilidade 2020



Relatório de Sustentabilidade 2011 Relatório de Sustentabilidade 2012 Relatório de Sustentabilidade 2013 Relatório de Sustentabilidade 2014 Relatório de Sustentabilidade 2015



Relatório de Sustentabilidade 2006 Relatório de Sustentabilidade 2007 Relatório de Sustentabilidade 2008 Relatório de Sustentabilidade 2009 Relatório de Sustentabilidade 2010



OBJETIVO:
MONITORIZAR E MINIMIZAR OS IMPACTES AMBIENTAIS

OBJETIVO:
GARANTIR A SEGURANÇA DAS PESSOAS E DAS OPERAÇÕES

OBJETIVO:
CRIAR VALOR E ENVOLVER OS PARCEIROS DE NEGÓCIO NOS COMPROMISSOS COM A SUSTENTABILIDADE

OBJETIVO:
VALORIZAÇÃO PROFISSIONAL E PESSOAL DAS PESSOAS QUE TRABALHAM NA EMPRESA

OBJETIVO:
PROMOVER A RESPONSABILIDADE SOCIAL CORPORATIVA E A INTERAÇÃO COM AS COMUNIDADES LOCAIS





PORT & CITY

New sustainable paradigm

The future requires resilient ports

Invest in the Core Business and in the Business Diversification

R&D | INNOVATION

ENVIRONMENTAL CHALLENGES



Urban Harbor

About 2.5 Million People Live Within a 50 km Radius of Port of Leixões



European Green Deal

50% Reduction in Emissions by 2030
Climate Neutrality by 2050

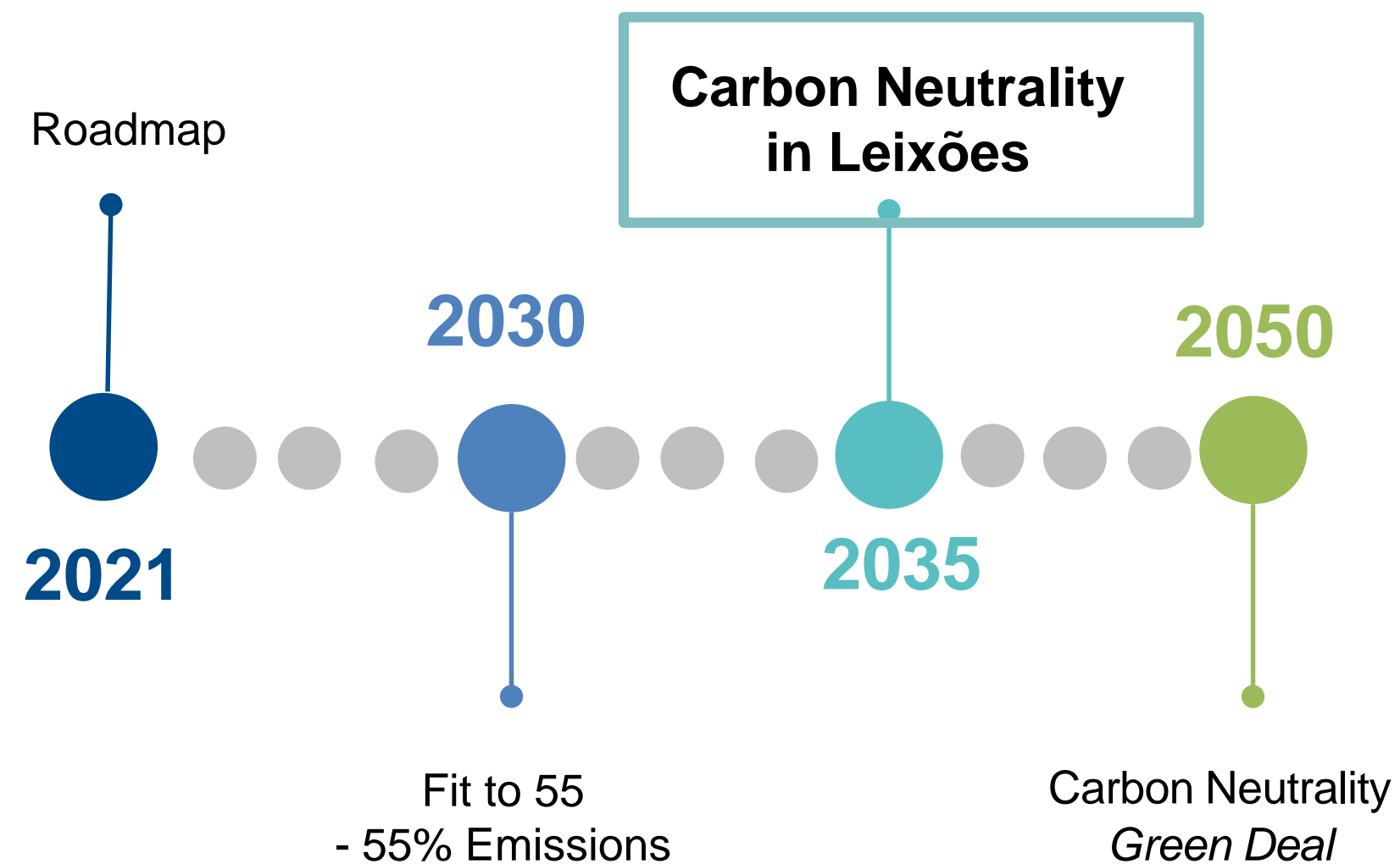


EU Fit for 55 Package

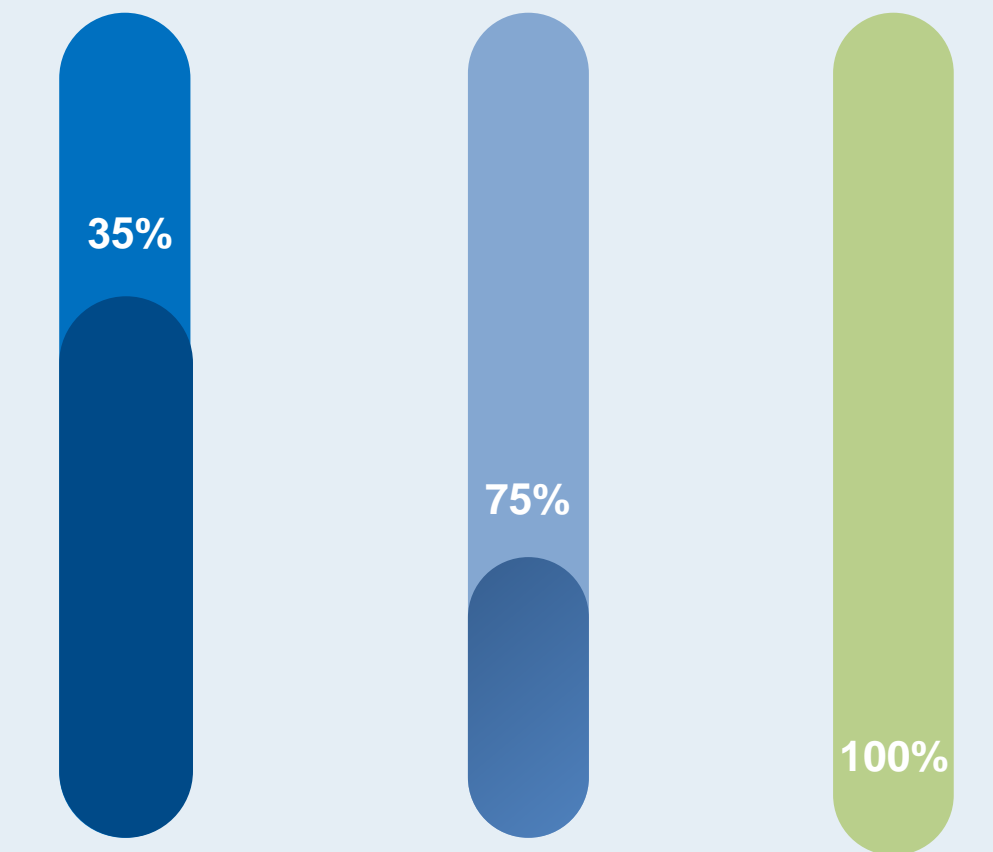
EU ETS
40 % Energy Produced from RE



Anticipating EU and Fit for 55 goals due to Climate Emergency



Emission Reduction



2025

2030

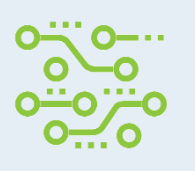
2035



DECARBONIZATION



ENERGY TRANSITION



DIGITALIZATION

Being resilient and taking action...



BUSINESS DIVERSIFICATION

ACTION PLANS

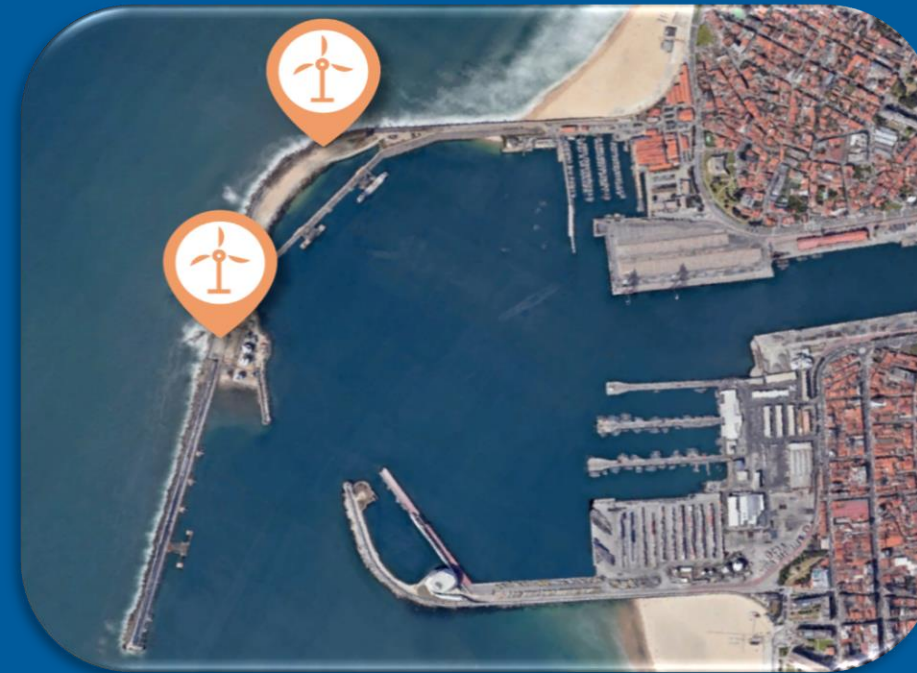
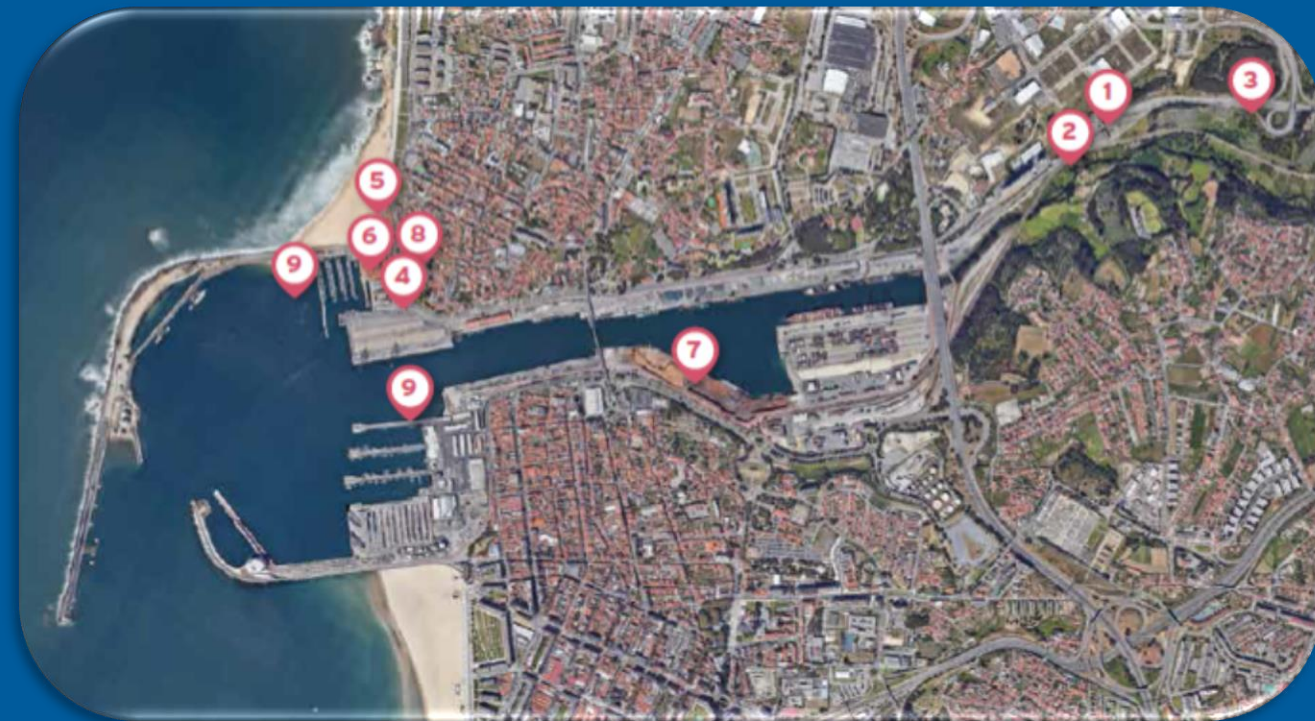
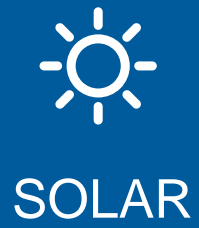


#2035APDL



PORT OF
LEIXÕES
APDL

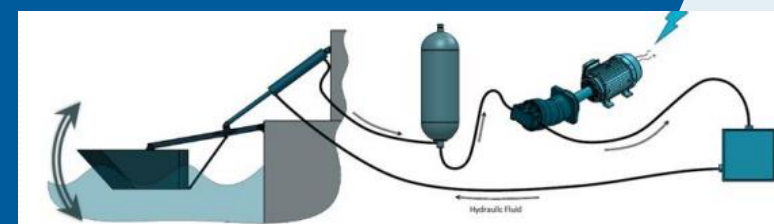
RENEWABLE ENERGY



Leixões



Douro



- PV Panels on Roofs of Buildings, Parking Lots and Floating Solar Panels
- 1 turbine of 4 MW / 2 of 2MW each (**Wind Energy**)
- 1 MW Pilot (**Wave Energy**)
- Integration of Renewable Energy into Electricity Grids
- Producing up to **35 GWh/year** (Can be increased by producing in other APDL domains)



Viana do Castelo test site may evolved to become a strategic HUB for Offshore Renewables

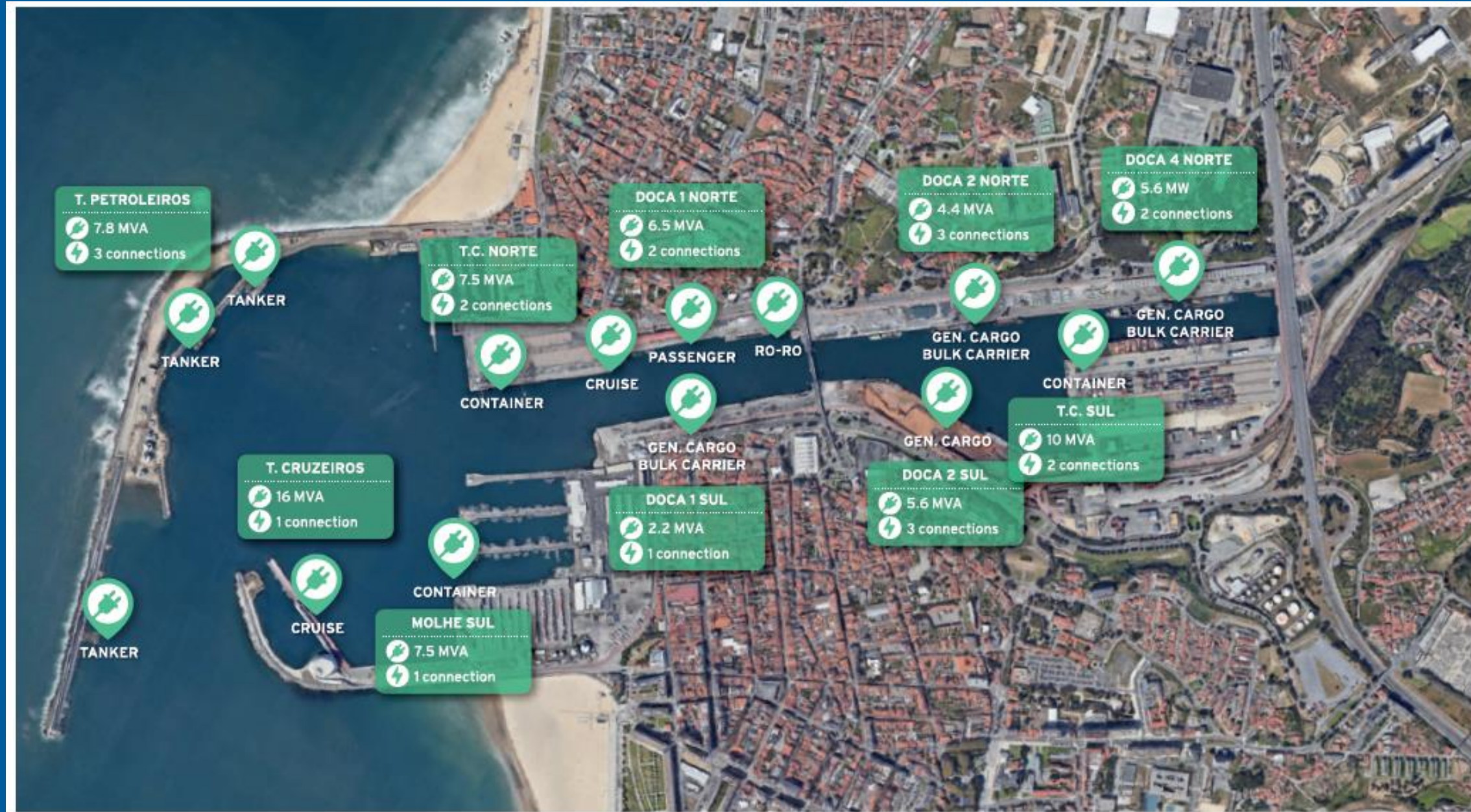


wave energy conversion devices

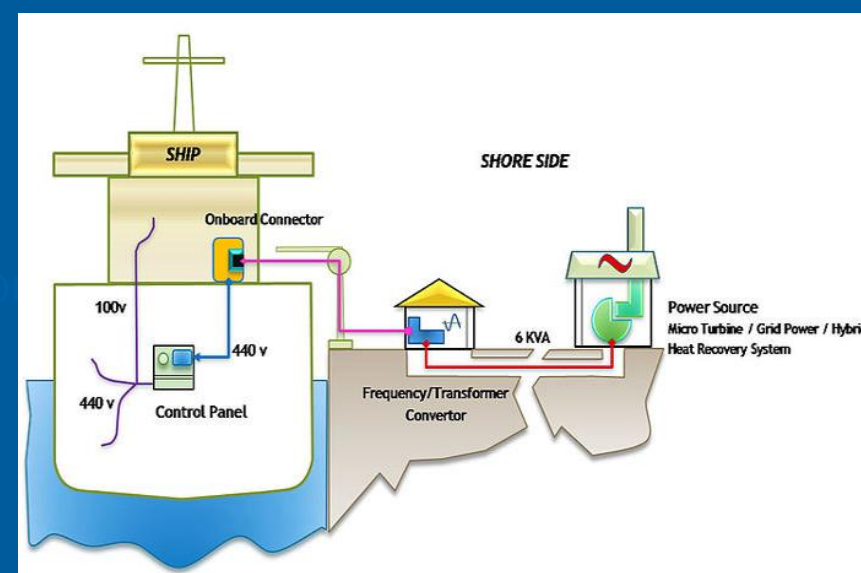


Floating offshore wind

ELETRIFICATION OF TERMINALS (OPS - ONSHORE POWER SUPPLY)

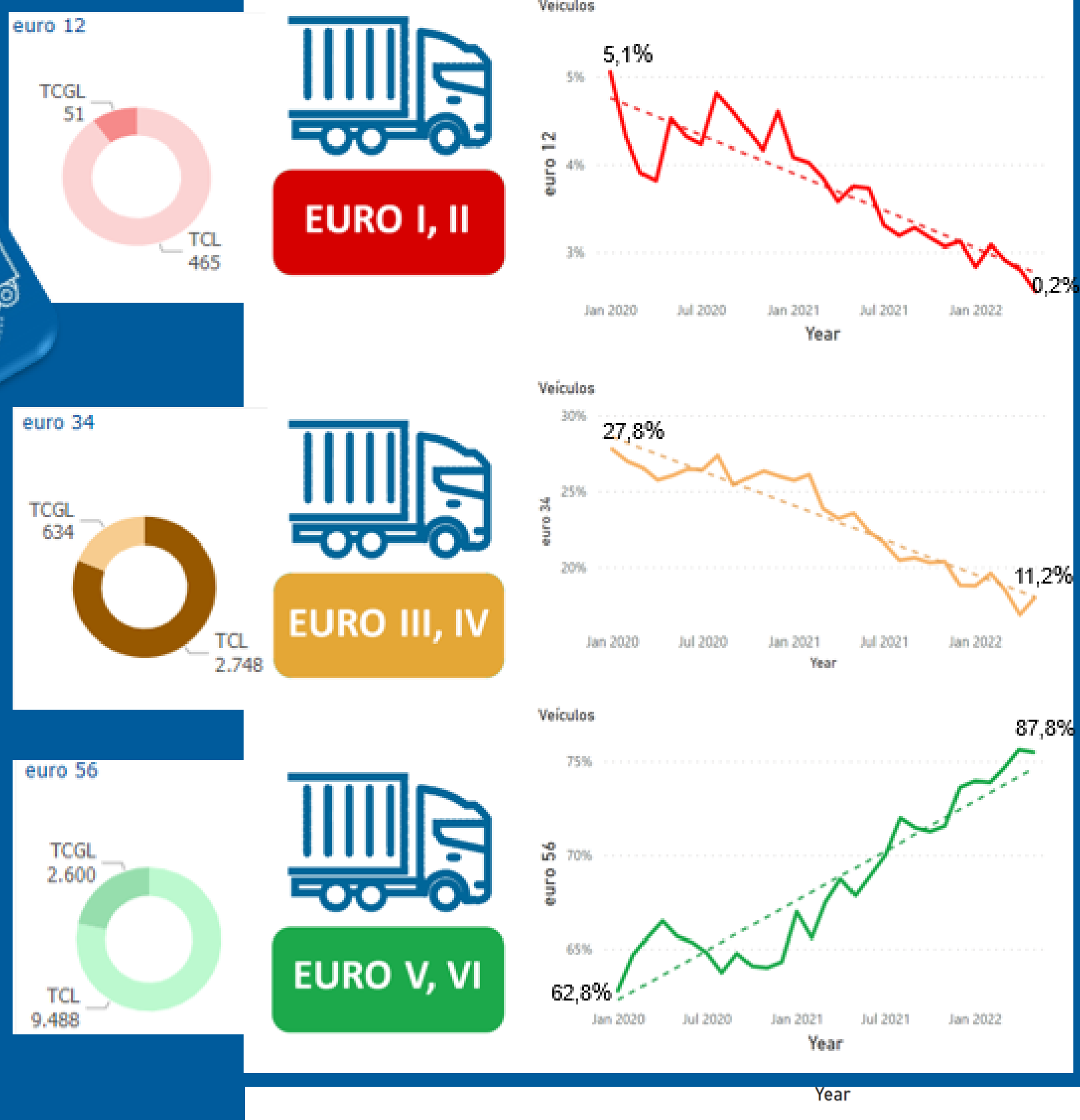


- Connection to High Voltage Network (HV)
- Development of Medium Voltage Network (MV)
- Pilot Development and Implementation
- OPS in all Docks
- +40 Million €



DECARBONIZATION

- Reduction of Gas Emissions from Trucks and Tugboats
- Measuring Air Quality
- Eco-Truck



- Prohibiting the entry of trucks with Euro I, II, III and IV certification in the Port



DECARBONIZATION



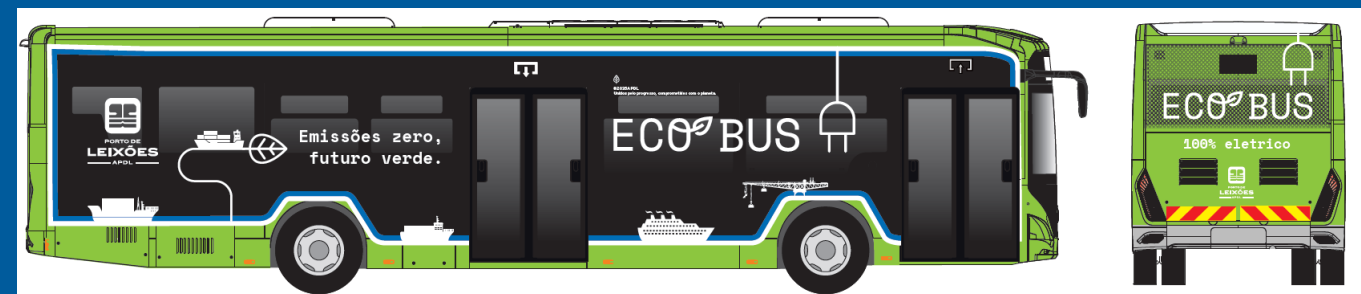
- Electrification of Port Activities (forklifts, reachstackers, cranes and other equipment)

- Electric and Hybrid Vehicles Fleet



- Electric Vehicles Charging Stations

- Electric shuttle – for port workers



ALTERNATIVE FUELS

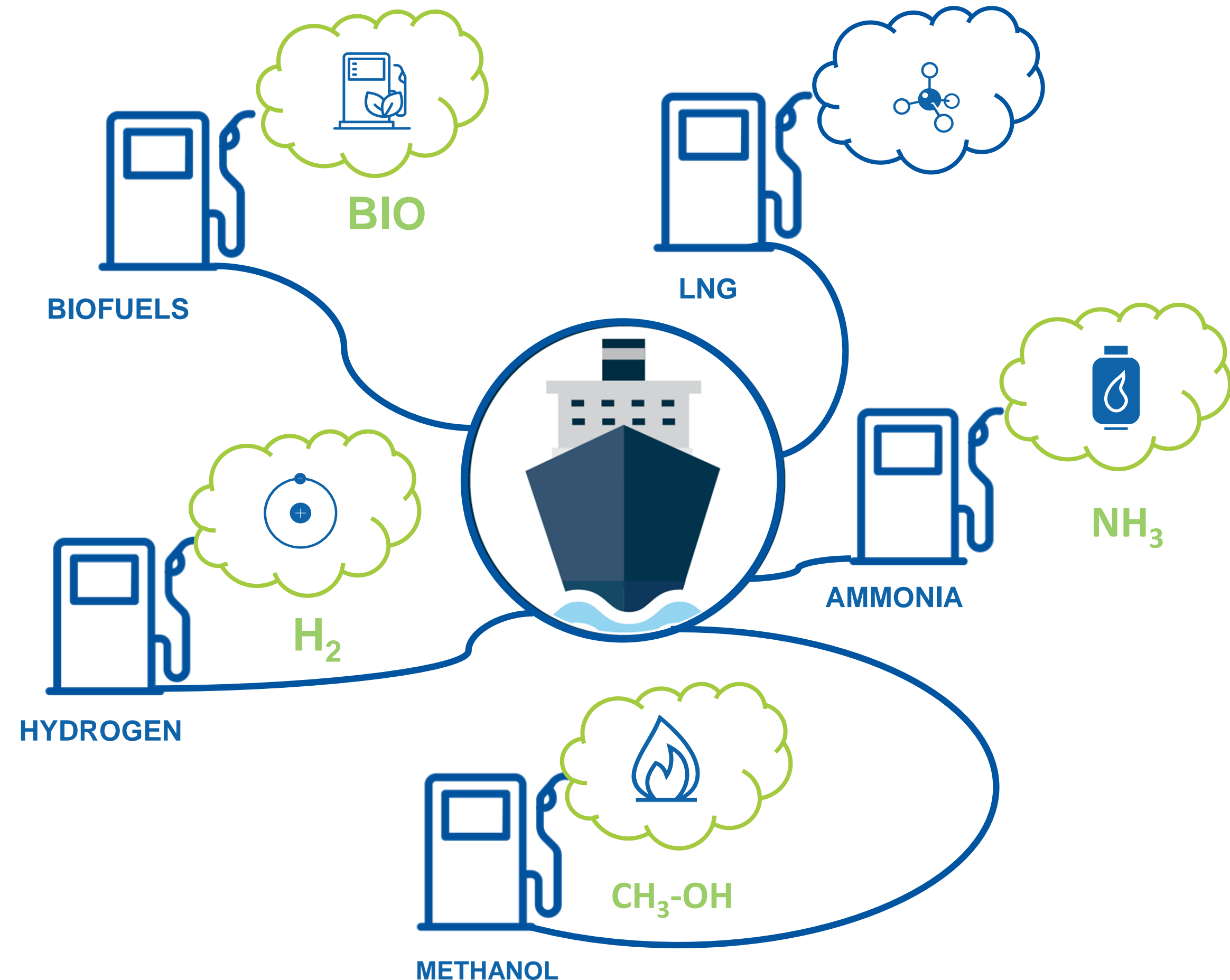
- Monitoring demand for Alternative Fuels

- Development of a Biodiesel Pilot

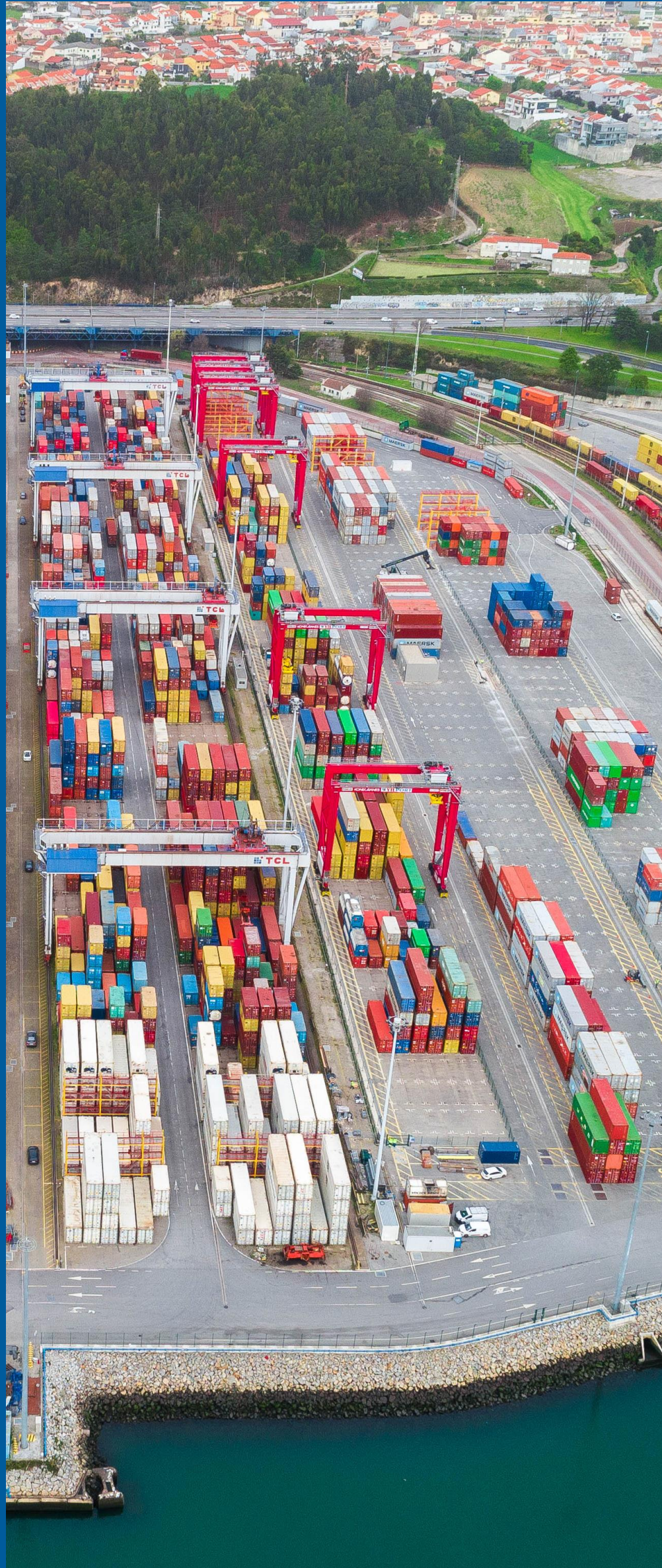
- Introduction of Carbon Rate

- Port Fees Reduction for Ships with Better Environmental Performance

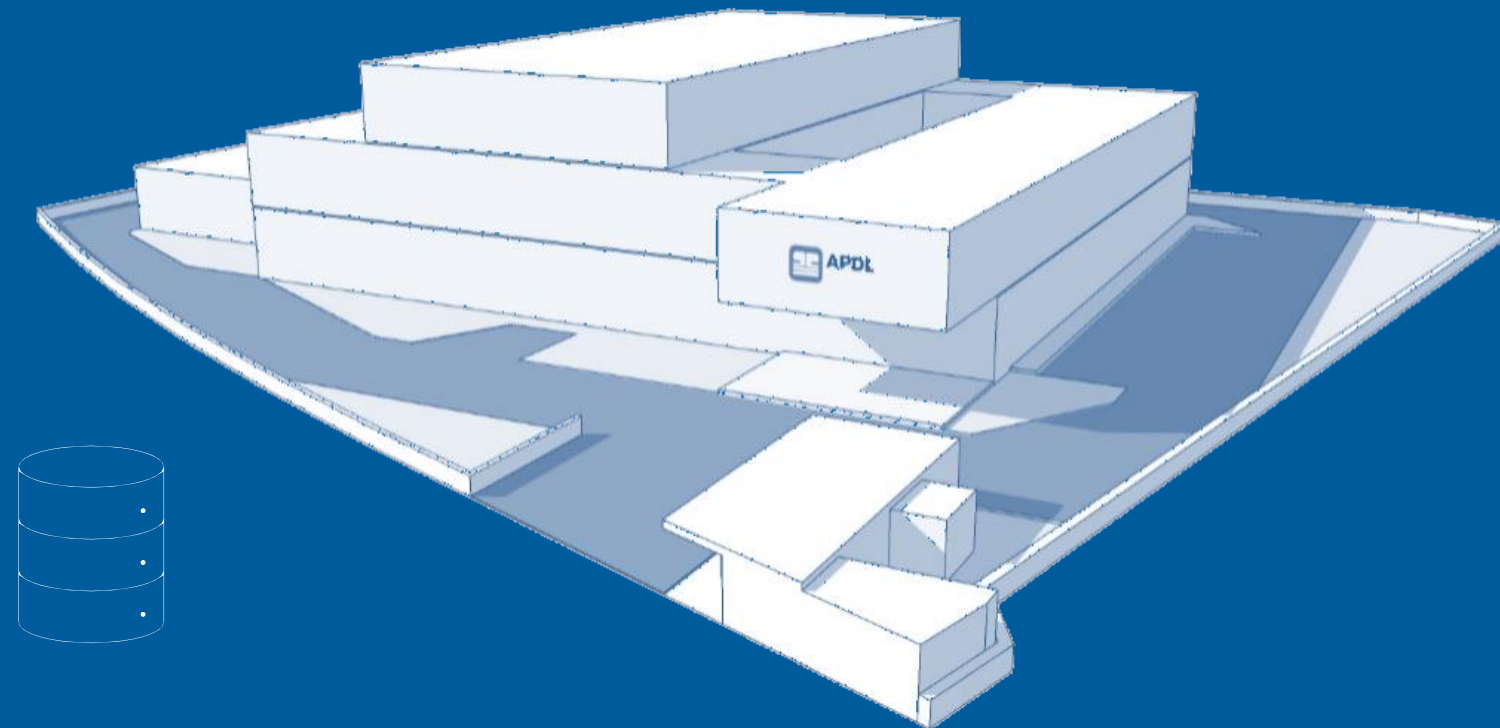
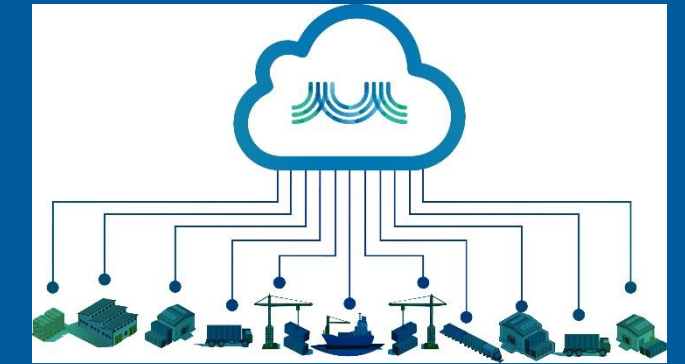
- Green Fuels Storage (Hydrogen*, Ammonia, Methanol**)
 - *Green H2 Production
 - ** PRR – H2Driven. *Agendas mobilizadoras*



DIGITALIZATION



- + EFFICIENCY + SPEED
- EMISSIONS - ENERGY CONSUMPTION



IoT



BlockChain



BigData



AI



Sensors



5G LoraWan



DigitalTwin



SmartGrid



#2035APDL



PORTO DE
LEIXÕES
APDL

URBAN, INTELLIGENT AND SUSTAINABLE PORT

VISION FOR 2035

Be an **international reference** port in **southern Europe** in the transition to an energy system based on the use of its own natural resources, with the ambition of being a **self-sufficient and net zero emissions port**



USING RENEWABLE ENERGY AS THE MAIN SOURCE OF ENERGY



SELF-SUFFICIENT PORT



REDUCE CARBON FOOTPRINT



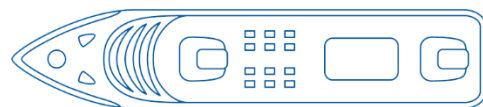
PUBLIC HEALTH (IMPROVING AIR QUALITY IN THE PORT)



STRENGTHEN RELATIONS WITH SURROUNDING COMMUNITY



Excellent City-Port Relationship



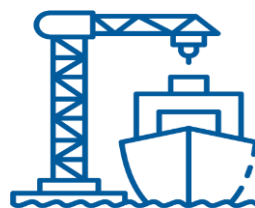
Perfect Experience for Passengers



Qualified and Enthusiastic Workers



Economic Sustainability



Efficient Operations



Sustainable Development

Social Responsibility

Cooperation and Collaboration

Efficiency

WE CREATE MOBILITY AND VALUE SUSTAINABILITY...



THANK YOU!



#2035APDL

United for progress, committed to the planet



APDL

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Development and Sustainability