European flagship Action for coLd ironING in ports

EALING project - Studies for the deployment of OPS solutions in European ports

EALING Local Workshop – Port of Valencia

Rocío García

5 June 2023

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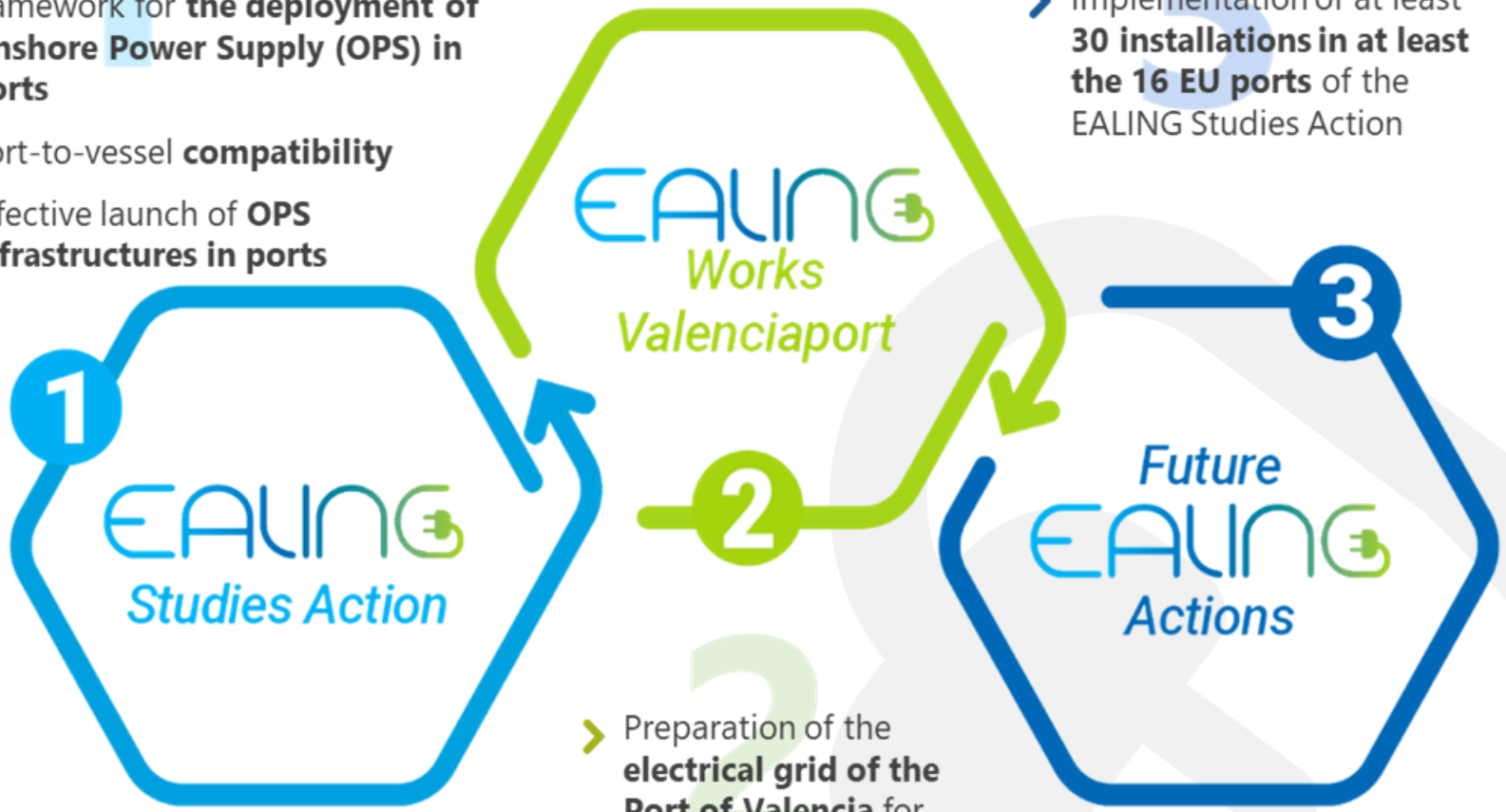
EALING overview

EUROPEAN FLAGSHIP ACTION FOR COLD IRONING IN PORTS

Accelerate the effective deployment of OPS solutions in EU maritime ports

- Common EU harmonized, interoperable and sustainable framework for **the deployment of Onshore Power Supply (OPS) in ports**
- Port-to-vessel **compatibility**
- Effective launch of **OPS infrastructures in ports**



- Implementation of at least **30 installations in at least the 16 EU ports** of the EALING Studies Action

- Preparation of the **electrical grid of the Port of Valencia** for Onshore Power Supply

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- Common EU harmonized, interoperable and sustainable framework for **the deployment of Onshore Power Supply (OPS) in ports**
- Port-to-vessel **compatibility**
- Effective launch of **OPS infrastructures in ports**

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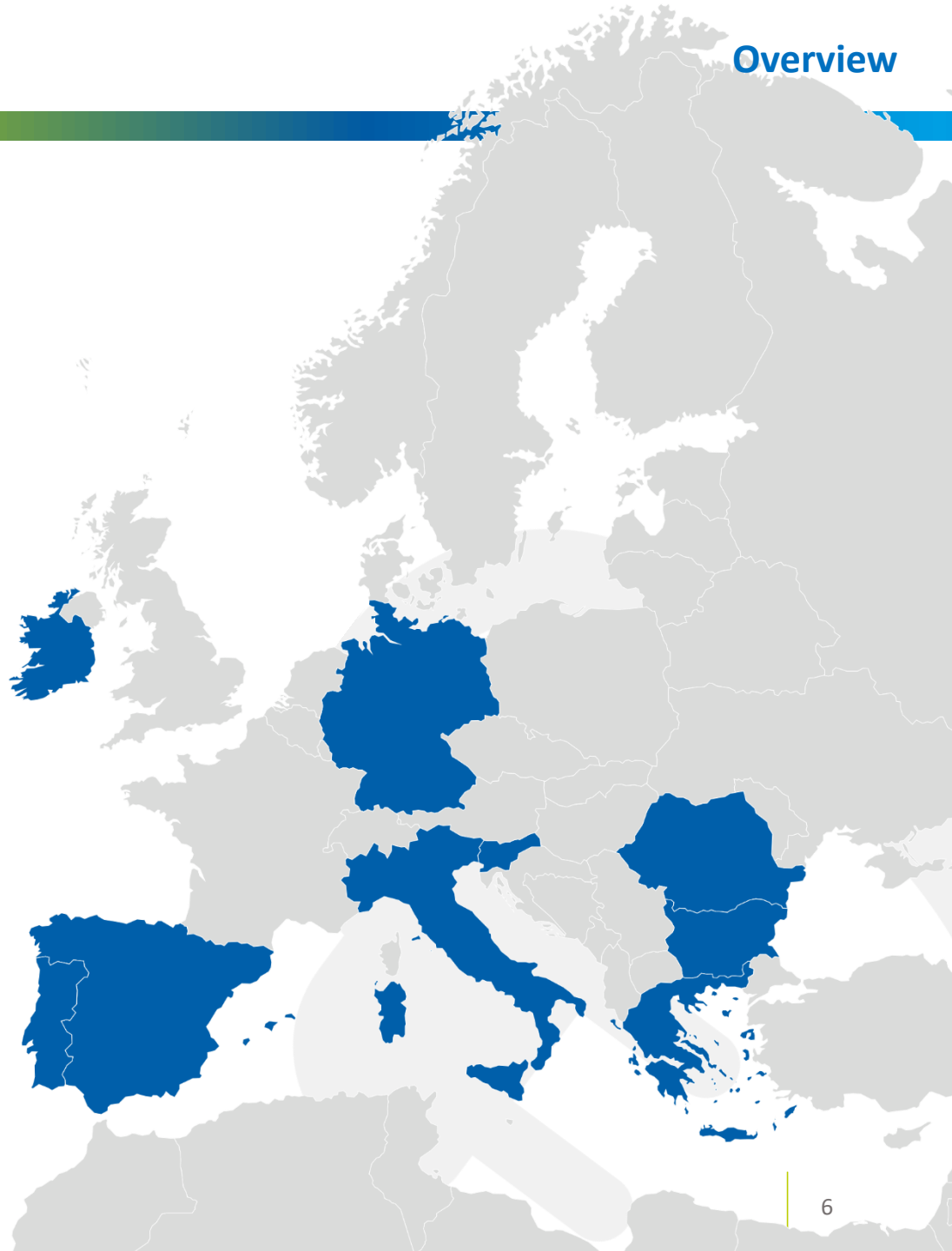
Partners and location

22 Beneficiaries from 9 EU Member States:

- **13 Port Authorities** (Valencia, Barcelona, Huelva, Gijón, Venice&Chioggia, Trieste&Monfalcone, Ancona, Piraeus, Rafina, Koper, Constanta, Leixoes, Açores)
- **2 Port & Maritime Public Institutions** (Bulgarian Ports Infrastructure Company (→ ports of Burgas, Varna); Marine Institute (→ port of Cork)
- **7 Port & Shipping related entities** (Fundación Valenciaport, Circle, Ocean Finance, Symbios Funding & Consulting, Protasis, Hydrus Engineering, Fincantieri SI)



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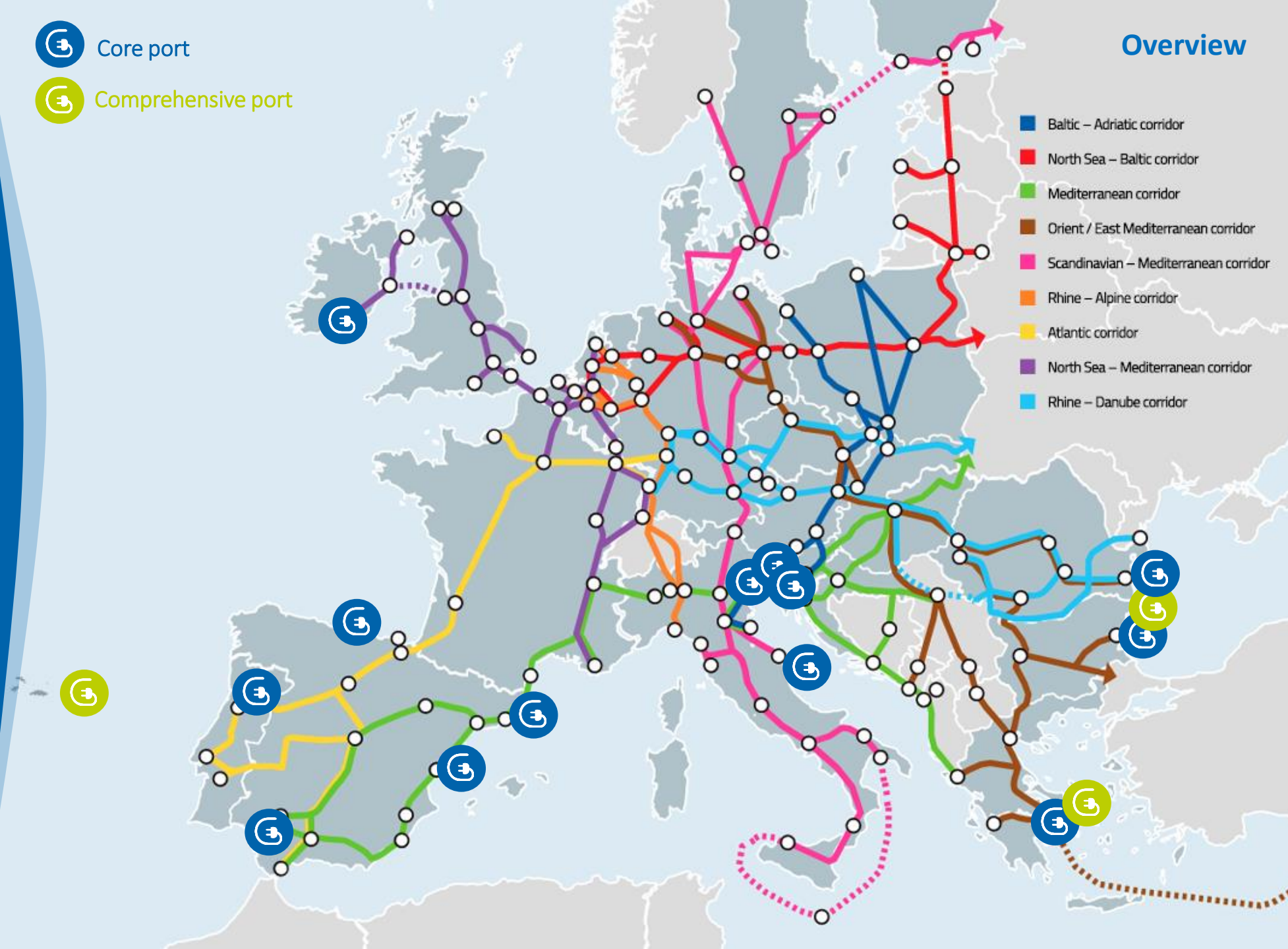
EALING

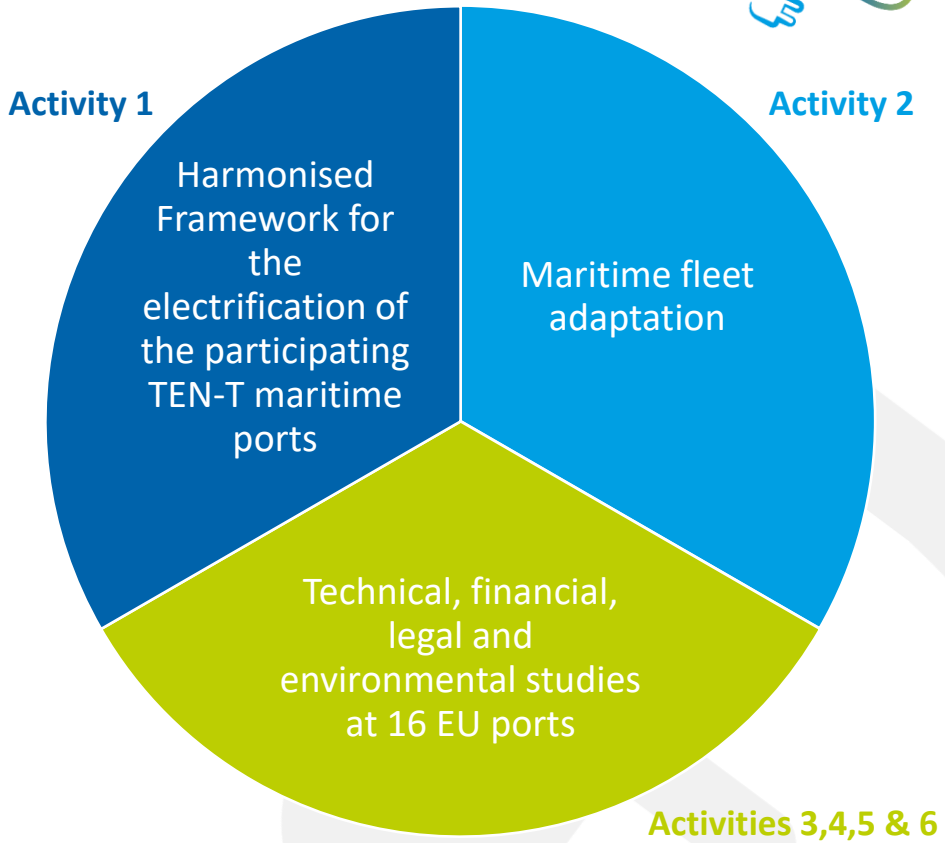
16 ports:

- Port of Valencia (Spain)
- Port of Barcelona (Spain)
- Port of Huelva (Spain)
- Port of Gijon (Spain)
- Port of Venice & Chioggia (Italy)
- Port of Ancona (Italy)
- Port of Trieste & Monfalcone (Italy)
- Port of Burgas (Bulgaria)
- Port of Varna (Bulgaria)
- Port of Constanta (Romania)
- Port of Piraeus (Greece)
- Port of Rafina (Greece)
- Port of Koper (Slovenia)
- Port of Leixoes (Portugal)
- Portos dos Açores (Portugal)
- Port of Cork (Ireland)



Objectives & structure

- **ACTIVITY 1:** Ensuring that a **common harmonised and interoperable framework** is brought forward, in line with the EU technical, legal and regulatory framework, in order to facilitate the implementation phase of OPS infrastructure in the ports of the consortium
- **ACTIVITY 2:** Ensuring the **port to vessel compatibility in the TEN-T Maritime Network,** for vessels calling at the ports of the consortium
- **ACTIVITIES 3 TO 6:** Leading all the **technical, financial, legal and environmental studies** necessary to launch the works for OPS equipment and infrastructure after the end of the Action



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EALING activities and main results

ACTIVITY 1: Harmonised Framework for the electrification of the participating TEN-T maritime ports

- **Desktop analysis**
- **Questionnaires**
- **Workshops** with ports, shipping lines, energy suppliers, and OPS technology providers
- **Interactions** with the members of the Stakeholders Platform

FINALISED

Detailed Analysis on the existing regulations related to OPS

FINALISED

Final recommendations for a harmonised framework on OPS in the EU ports

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FINALISED

Detailed Analysis on the existing regulations related to OPS

- INTERNATIONAL REGULATORY FRAMEWORK (standards, classification societies class notations, IMO)
- EUROPEAN REGULATORY FRAMEWORK (existing and future regulations affecting OPS, EMSA)
- NATIONAL, REGIONAL AND LOCAL REGULATORY FRAMEWORK - EALING PORTS:

Port structure and administrative issues

Power supply and electricity distribution

Environmental impact & Noise Pollution

Industrial installations

Safety and security measures, including occupational risks prevention

Fields under study for the comparative analysis at national and regional level

General Urban Development Plans

City Council Regulations

Distribution System Operators (DSO) - Technical Specifications -

Fields under study for the comparative analysis at local level

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ACTIVITY 1: Harmonised Framework for the electrification of the participating TEN-T maritime ports

Desktop analysis

Questionnaires

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Final recommendations for a harmonised framework on OPS in the EU ports

FINALISED

Event News

EALING Workshop with Shipping Lines – Towards a harmonised onshore power supply development in Europe

May 10, 2021

Event News

EALING Workshop with Associations – Towards a harmonised onshore power supply development in Europe

February 26, 2021

Event News

Webinar – Shore power in the Baltic and Mediterranean – developement & challenges

February 17, 2021

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ALING – OPS Solution Providers
Vorkshop | 12th July 2022

ly 14, 2022

News

EALING – Energy Suppliers Workshop | 5th July 2022

July 14, 2022

Event

EALING West Med Macro Regional Workshop | SeaFuture2021

er 12, 2021

Event

Best Practices exchange – EALING joins forces with Four Ports

August 4, 2021

Event

EALING West Med Macro Regional Workshop

July 26, 2021

News

EMSA Guidance on Shore-Side Electricity (SSE)

August 4, 2022

ING Questionnaire for Ports & ninals

T - In the context of the European Green Deal, the " EALING " Motorways of ontributes to the Global Project aiming to accelerate the transition to electri oyment of Onshore Power Supply (OPS) solutions in at least 16 EU maritim o: https://ealingproject.eu)

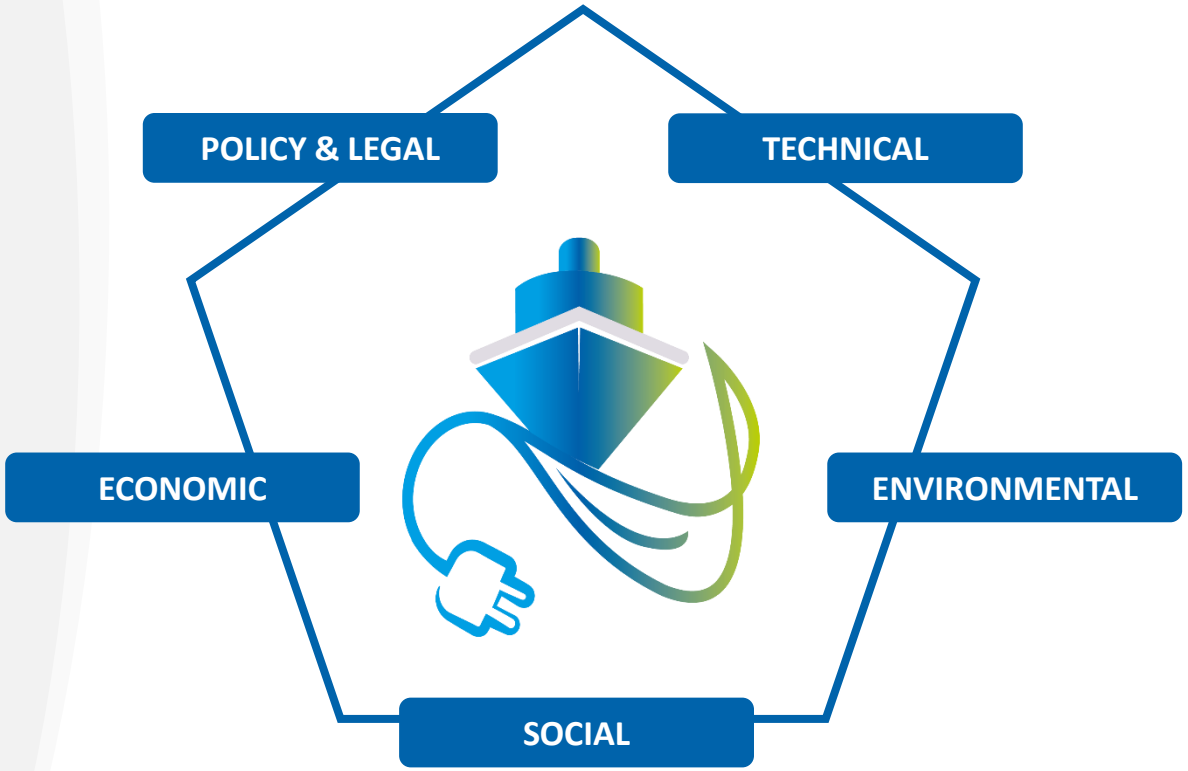
News

The Online Consultation for Ports and Terminals started

May 15, 2021

Final recommendations for a harmonised framework on OPS in the EU ports

FINALISED



- **List of 40 recommendations**
- **Some examples:**
  - **Policy:** administrative procedures, energy communities/ hubs, forthcoming regulations, tax exemptions, interaction between stakeholders, etc.
  - **Technical**: standardisation, tender procedures, power demand estimations, OPS ready vessels repository, etc.
  - **Economic:** % of funding and additional funding mechanisms, port fee rebates, electricity tariff at national level, etc.
  - **Environmental**: technical specifications of ships in the IMO and EU registers, OPS in environmental certificates (existing or new one), etc.
  - **Social:** working groups with main stakeholders at port level, training, safety, etc.

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Deliverables Activity 1

Deliverable D1.1

Report on the detailed analysis on the existing national/port regulations directly or indirectly related to shore side electricity supply

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Deliverables Activity 1

Deliverable D1.2

Report on final recommendations for a harmonised framework on OPS in EU ports

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ACTIVITY 2: Maritime fleet adaptation

- Desktop analysis
- Questionnaires
- **Workshops** with ports, shipping lines, energy suppliers, and OPS technology providers
- **Interactions** with the members of the Stakeholders Platform

FINALISED

Analysis of the standards relevant to shipside installation for OPS for the vessels operating in the ports of the consortium

ONGOING

Identification of the relevant technical and regulatory elements to facilitate adaptation / connection of ships to OPS

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Deliverables Activity 2

Deliverable D2.1

Report on the analysis of the standards relevant to shipside installation for shore side electricity supply

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Deliverables Activity 2

Deliverable D2.2

Report on the identification of the relevant technical and regulatory elements to facilitate adaptation/connectivity of ships to Shore Side Electricity (SSE)

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IN PROCESS

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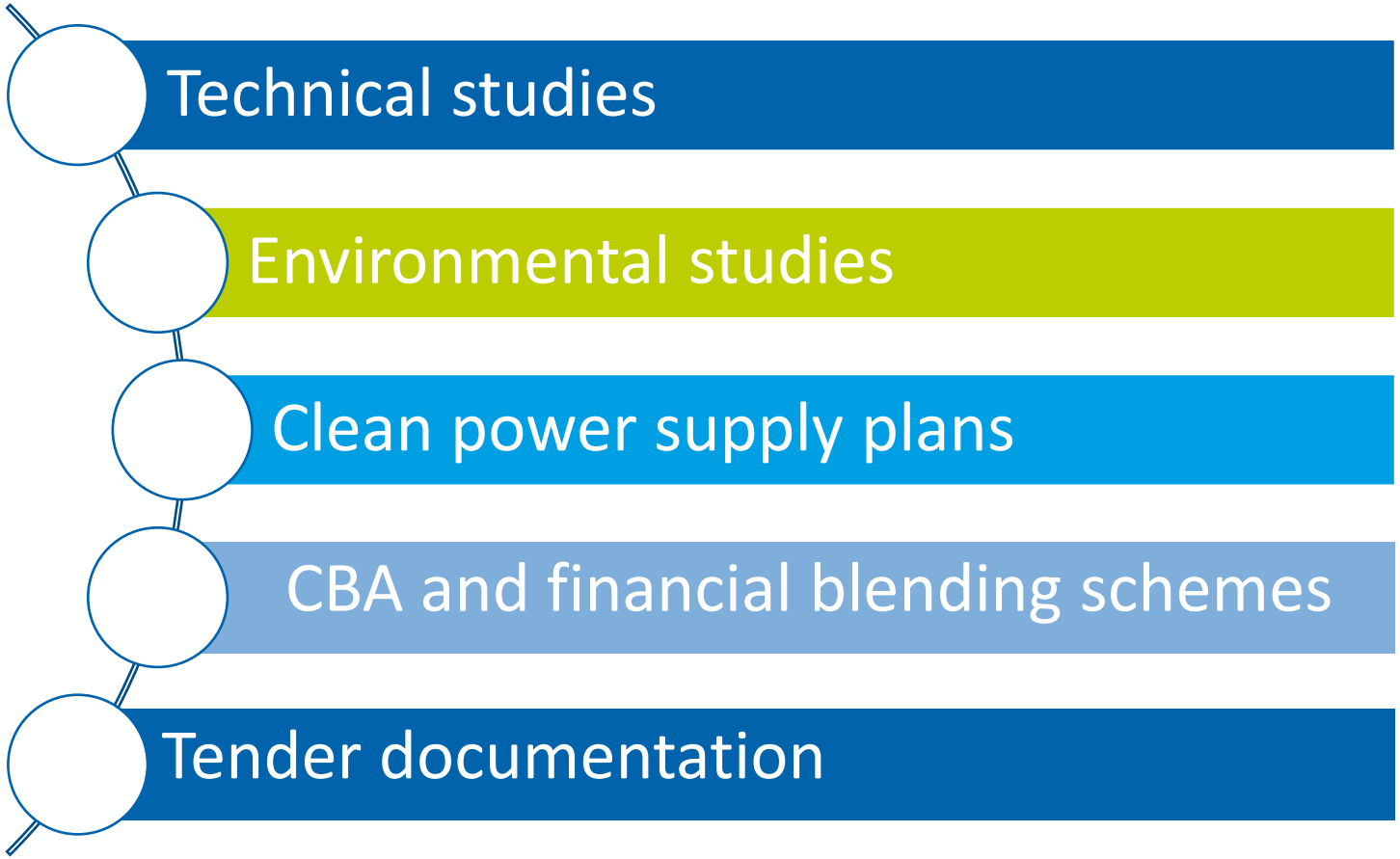
ACTIVITIES 3, 4, 5 and 6: Technical, financial, legal and environmental studies at 16 EU ports



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ACTIVITIES 3, 4, 5 and 6: Technical, financial, legal and environmental studies at 16 EU ports

Port	Technical studies (including FEED)	Environmental studies	Clean power supply plans	Tender documentation	Cost-benefit analysis
Piraeus	✓	✓	Ongoing	Ongoing	Ongoing
Rafina	✓	Ongoing	✓	Ongoing	Ongoing
Constanta	✓	✓	Ongoing	Ongoing	Ongoing
Burgas	✓	Ongoing	Ongoing	Ongoing	Ongoing
Varna	✓	Ongoing	Ongoing	Ongoing	Ongoing
Valencia	✓	✓ - Ongoing	✓	✓ - Ongoing	✓
Barcelona	✓	Ongoing	Ongoing	✓	✓
Gijón	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Huelva	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Açores	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Leixoes	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Venice&Chioggia	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Ancona	✓	Ongoing	Ongoing	✓	Ongoing
Trieste	Ongoing	Ongoing	✓	✓ - Ongoing	Ongoing
Koper	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Cork	Ongoing	Ongoing	-	-	Ongoing

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Example: Port of Valencia

Primary Substation 2
132 / 20 kV, 110 MVA (2 x 55MVA)

OPS pilot: Passenger terminal TRASMED
1 connection for cruise (16 MVA) and
1 connection for ferry (4 MVA)

EALING studies

OPS pilot: Passenger terminal Baleària
1 connection for cruise (20 MVA) and
1 connection for ferry (4 MVA)

EALING studies

OPS pilot: container terminal MSCTV
2 connection points, up to 4-5 MVA each
for simultaneous connection

EALING studies

Primary Substation 1
132 / 20 kV, 110 MVA (2 x 55MVA)
Co-financed by CEF (EALING Works)

Co-financed by the Connecting Europe Facility of the European Union

Example: Port of Valencia

TECHNICAL STUDIES

- Front-end engineering design studies for the installation of OPS in the passenger terminals of the Port of Valencia (engineering + civil works) ✓
- Front-end engineering design study for the installation of OPS in the MSC container terminal of the Port of Valencia (engineering + civil works) ✓
- Definition of port system requirements ✓

ENVIRONMENTAL STUDIES

- OPS climate compatibility studies (Climate, environmental and social assessment of projects) - Passenger terminals ✓
- OPS climate compatibility studies (Climate, environmental and social assessment of projects) - MSC terminal ongoing

CLEAN POWER SUPPLY PLAN

- Net-Zero Emissions Plan 2030 (→ OPS)✓

TENDER DOCUMENTATION

- OPS infrastructure in the MSC container terminal ✓
- OPS infrastructure in the passenger terminals ongoing

COST BENEFIT ANALYSIS

- CBA for the OPS infrastructure in the MSC container terminal ✓
- CBA for the OPS infrastructure in the passenger terminals ✓

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To know more…

EALING deliverables, newsletter, video

- **EALING DELIVERABLES:** Dissemination – Ealing Project
- **EALING BULLETIN:** 3 issues sent out and available for download on the website. Dissemination to a database of 5,000 targeted stakeholders, social media community and project partners
- **EALING PROJECT VIDEO:** European Flagship Action For Cold Ironing in ports - EALING Project - YouTube

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EALING future dissemination activities

- **Black Sea Regional Stakeholder Workshop**

27 June 2023 in Burgas

- **Local Stakeholder Workshops**

16 local public demonstrations in the participant ports in 2023

From June to December 2023

- **Final event**

30? November 2023 Valencia

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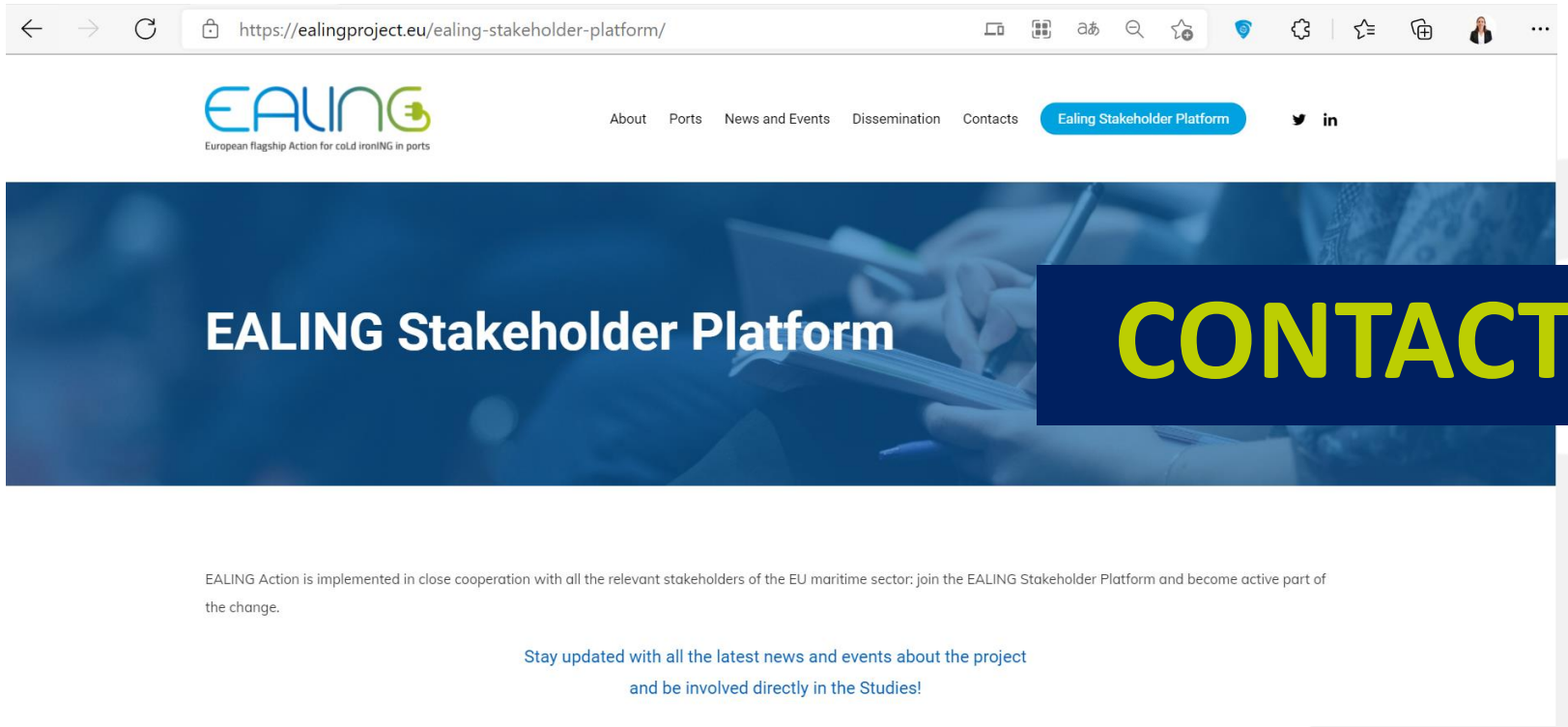
EALING Stakeholders Platform - Stay updated!



Ealing Stakeholder Platform – Ealing Project

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Thanks!

European flagship Action for coLd ironING in ports

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Discover more at

www.ealingproject.eu

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