



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

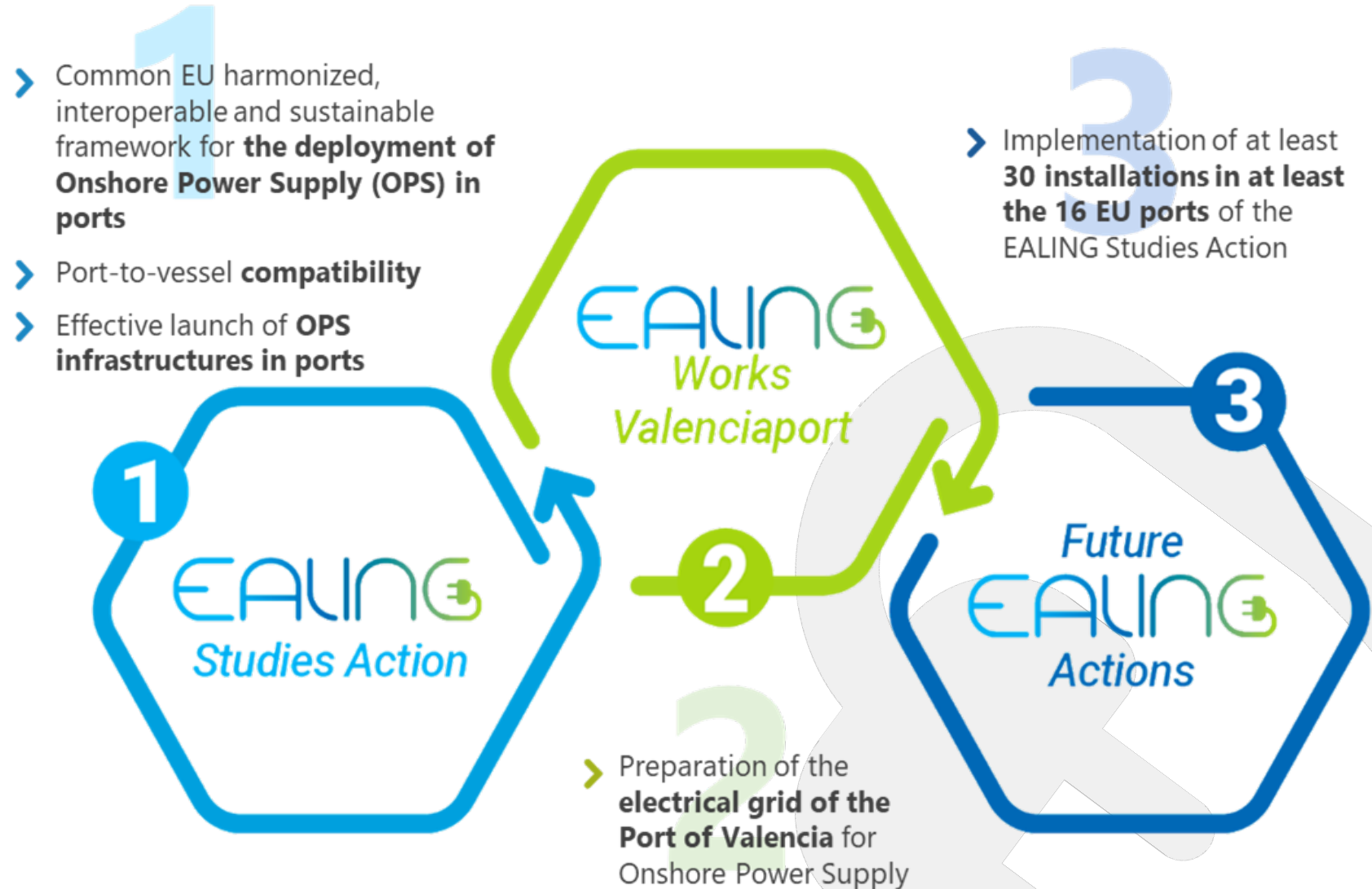



EALING overview



**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**



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)



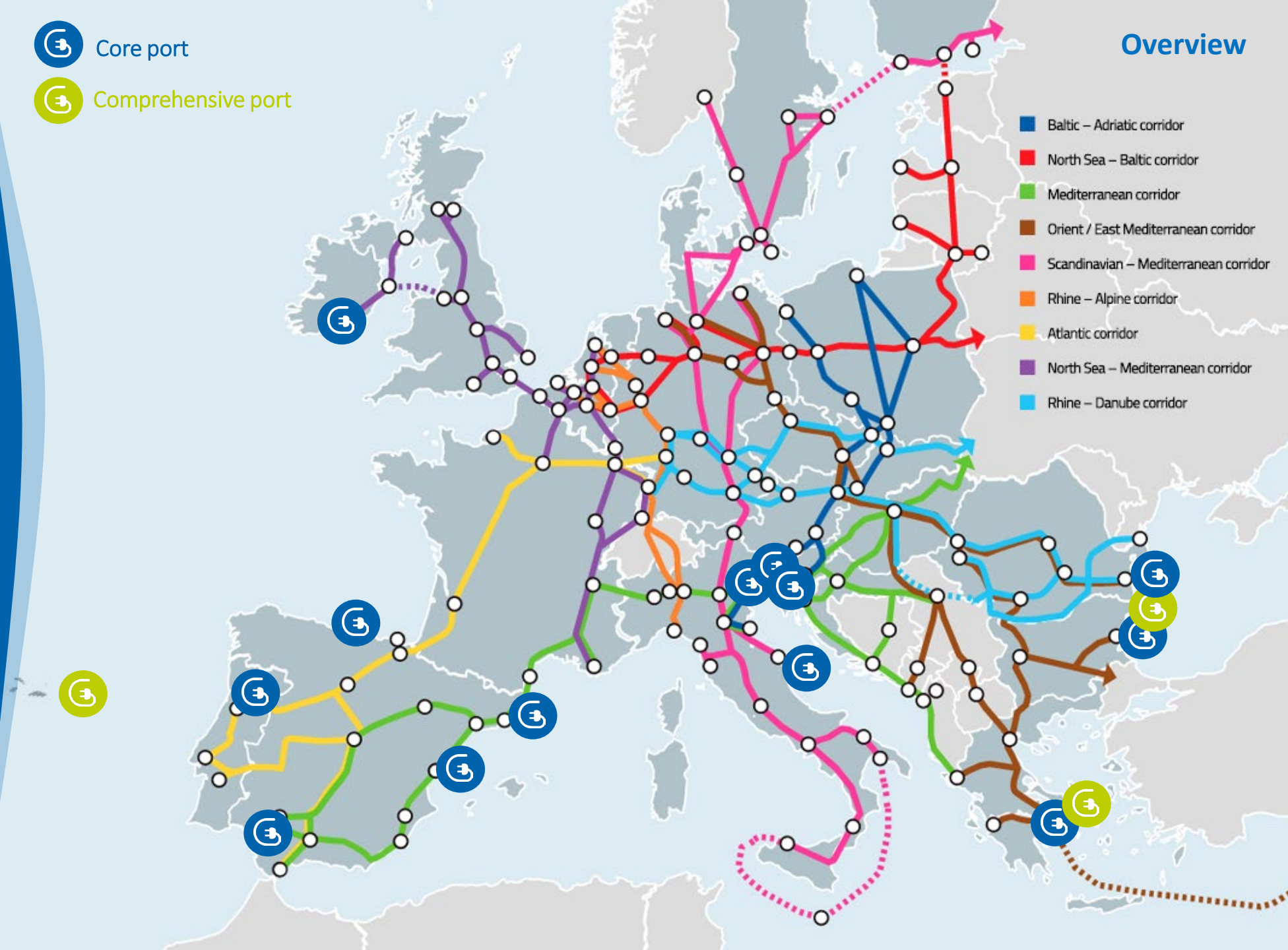
16 ports:

- 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)

-  Core port
-  Comprehensive port

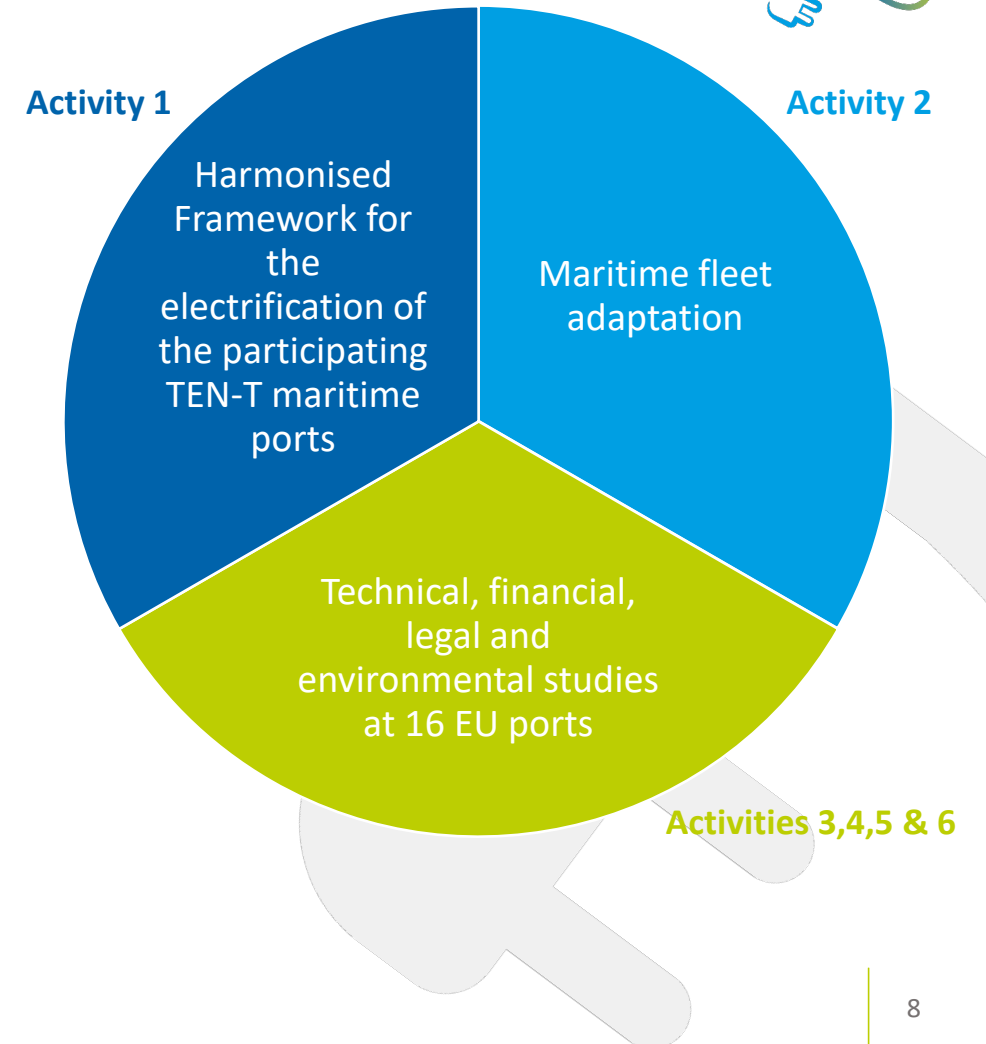
Overview

-  Baltic – Adriatic corridor
-  North Sea – Baltic corridor
-  Mediterranean corridor
-  Orient / East Mediterranean corridor
-  Scandinavian – Mediterranean corridor
-  Rhine – Alpine corridor
-  Atlantic corridor
-  North Sea – Mediterranean corridor
-  Rhine – Danube corridor



Objectives & structure

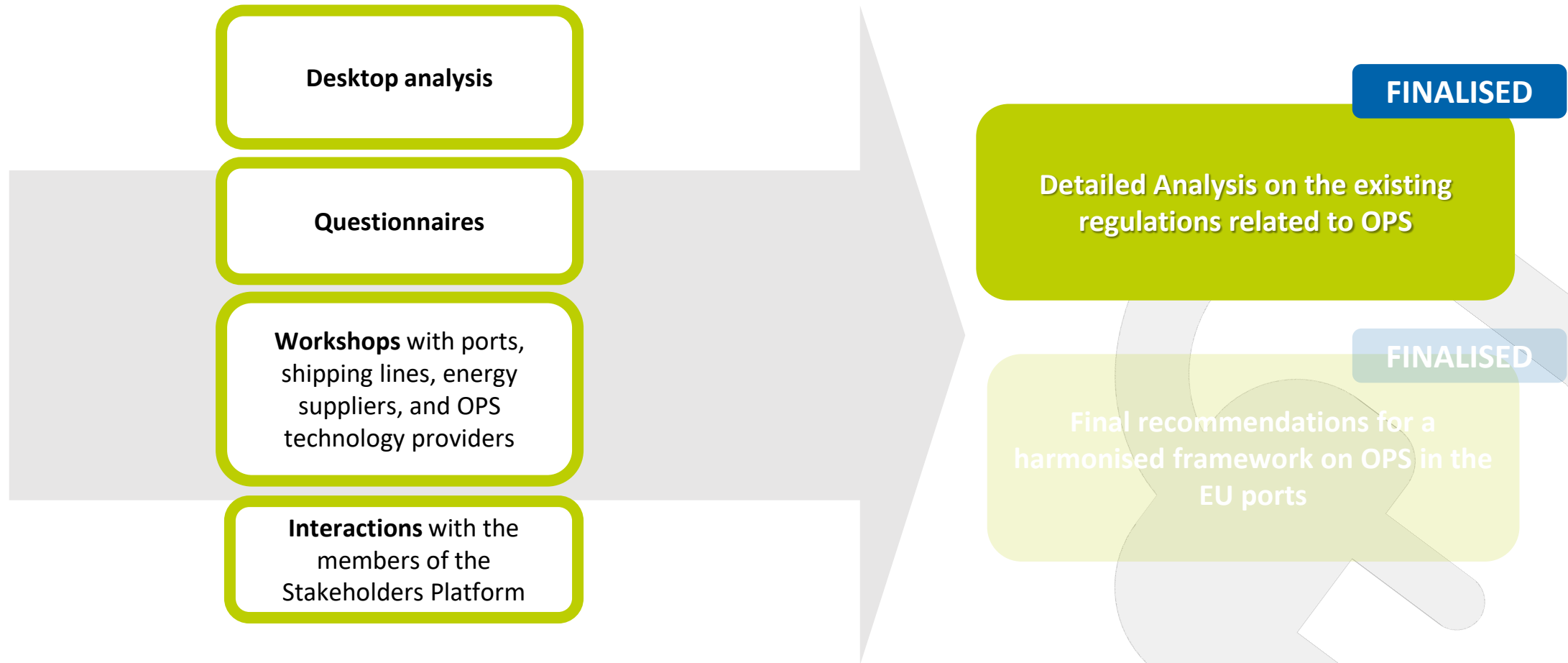
- **ACTIVITY 1:** Ensuring that a **common harmonised and interoperable framework** is brought forward, in line with the EU technical, legal and regulatory framework, in order to facilitate the implementation phase of OPS infrastructure in the ports of the consortium
- **ACTIVITY 2:** Ensuring the **port 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



2

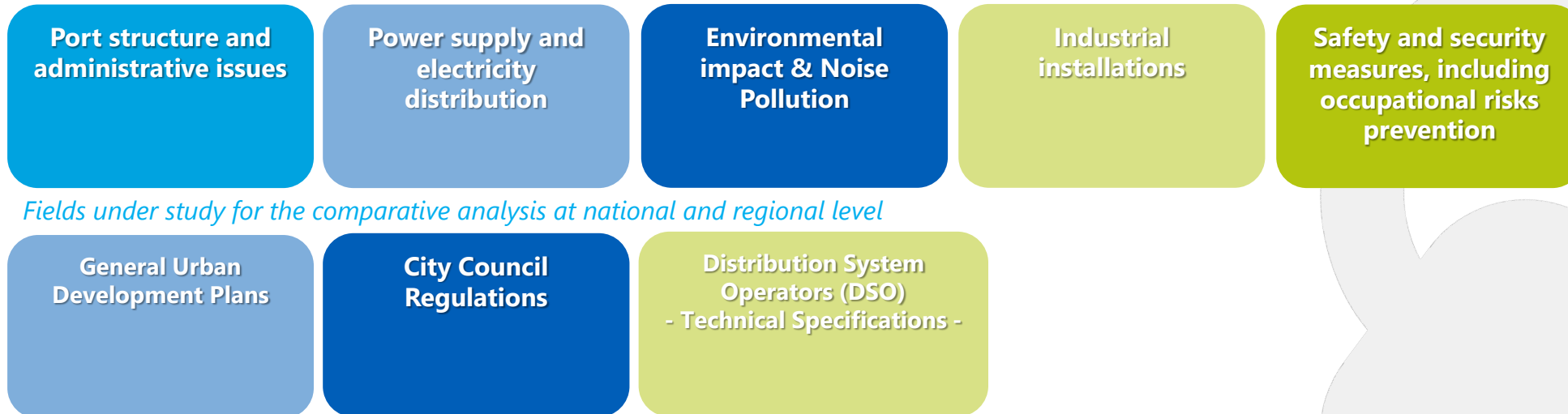
EALING activities and main results

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



Detailed Analysis on the existing regulations related to OPS

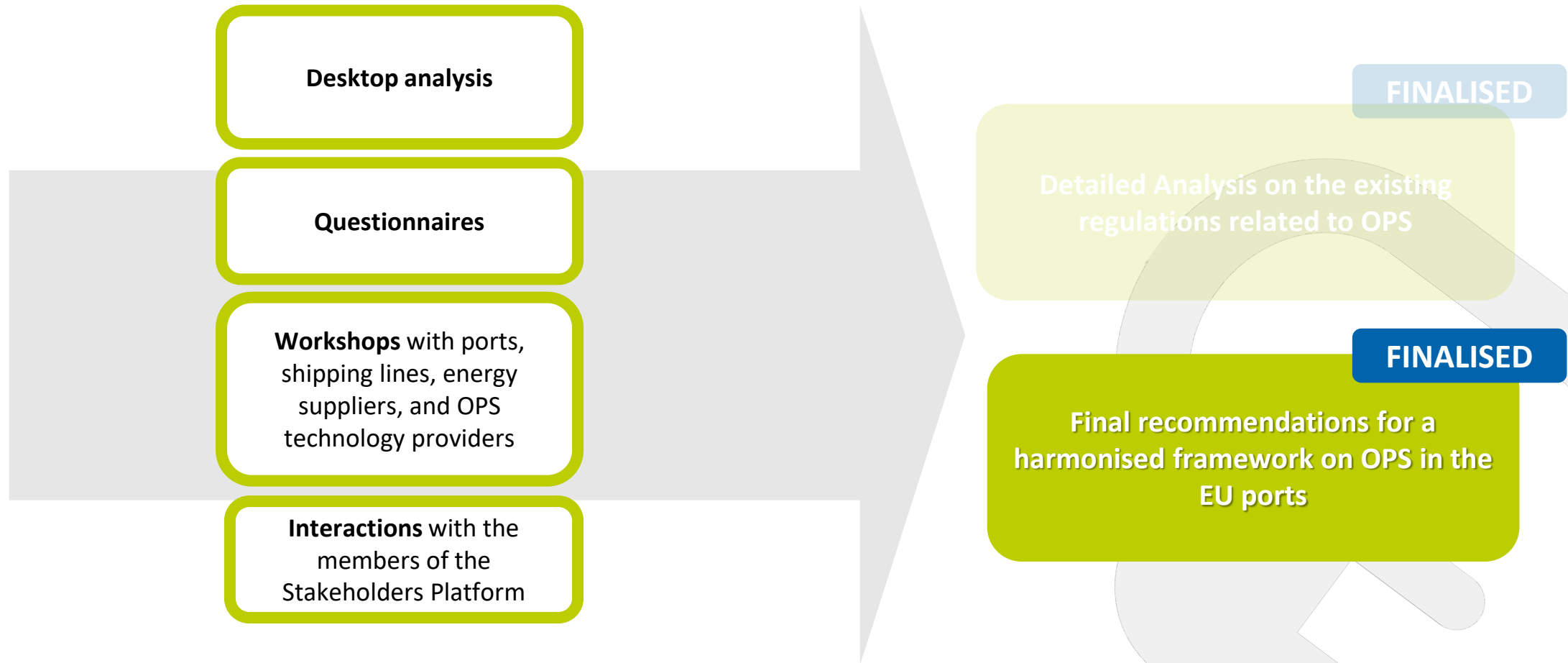
- INTERNATIONAL REGULATORY FRAMEWORK (standards, classification societies class notations, IMO)
- EUROPEAN REGULATORY FRAMEWORK (existing and future regulations affecting OPS, EMSA)
- NATIONAL, REGIONAL AND LOCAL REGULATORY FRAMEWORK - EALING PORTS:



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

Fields under study for the comparative analysis at local level

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



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 – development & challenges
 February 17, 2021



News
 EALING – OPS Solution Providers Workshop | 12th July 2022
 July 14, 2022



News
 EALING – Energy Suppliers Workshop | 5th July 2022
 July 14, 2022



Event
 EALING West Med Macro Regional Workshop | SeaFuture2021
 August 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



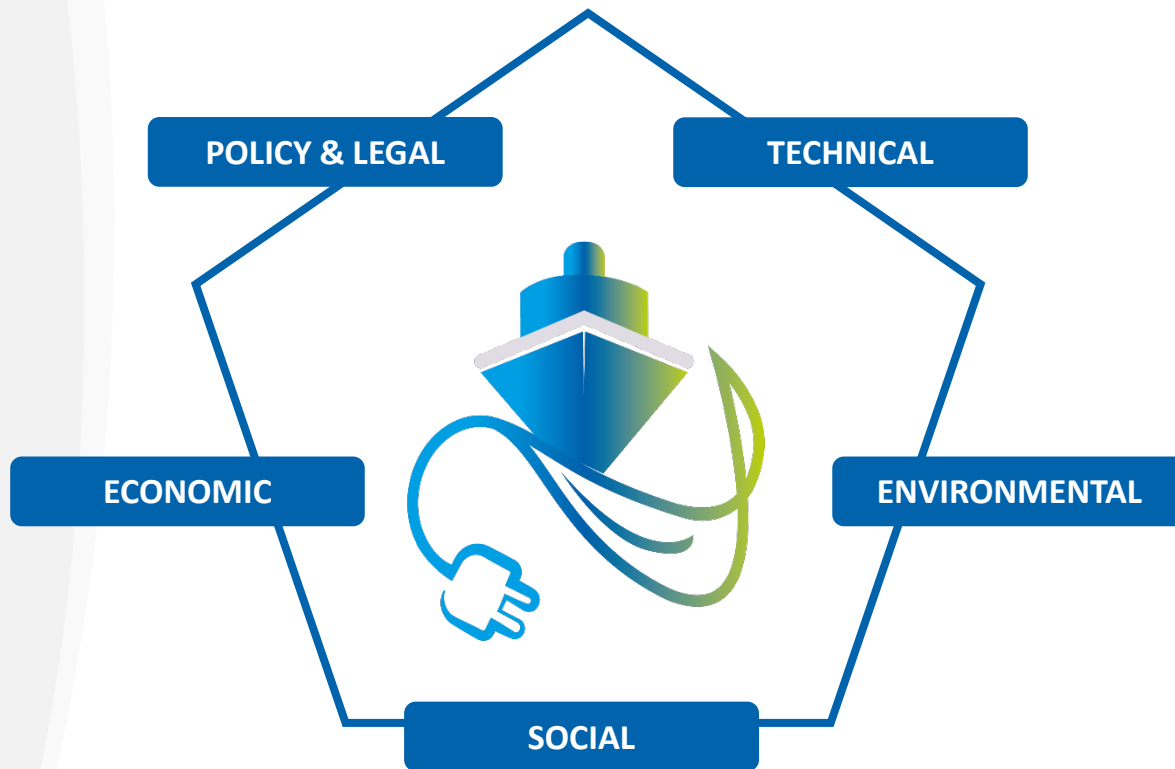
ING Questionnaire for Ports & Terminals

In the context of the European Green Deal, the "EALING" Motorways of Electricity contributes to the Global Project aiming to accelerate the transition to electrification of Onshore Power Supply (OPS) solutions in at least 16 EU maritimes. <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.

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



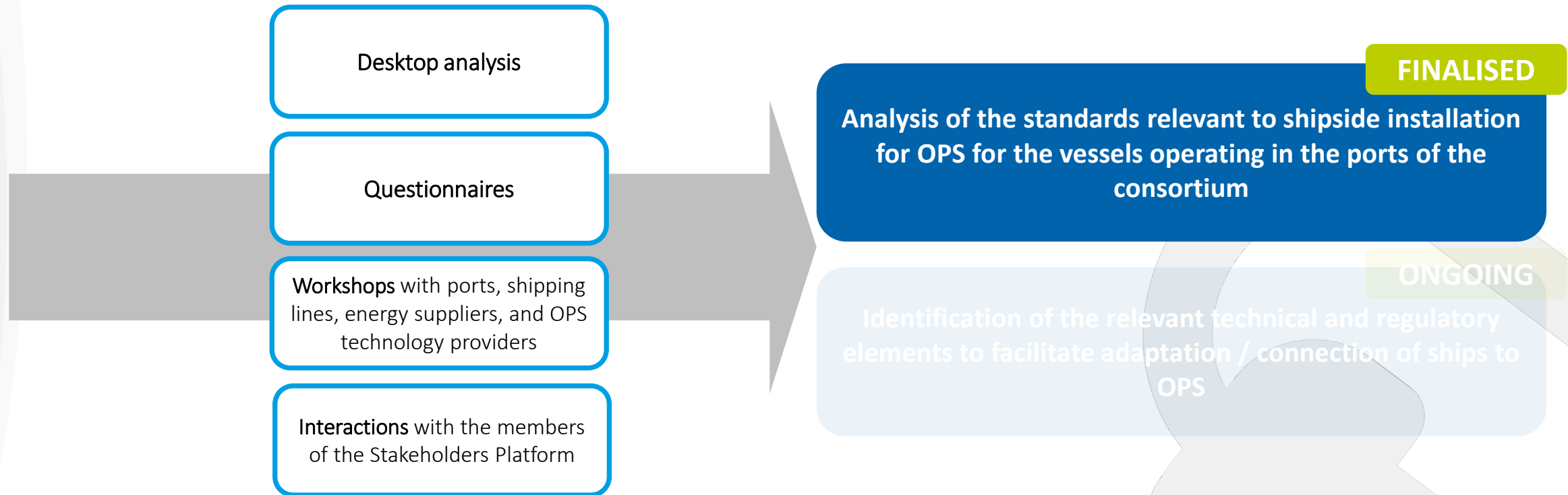
Deliverable D1.2

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

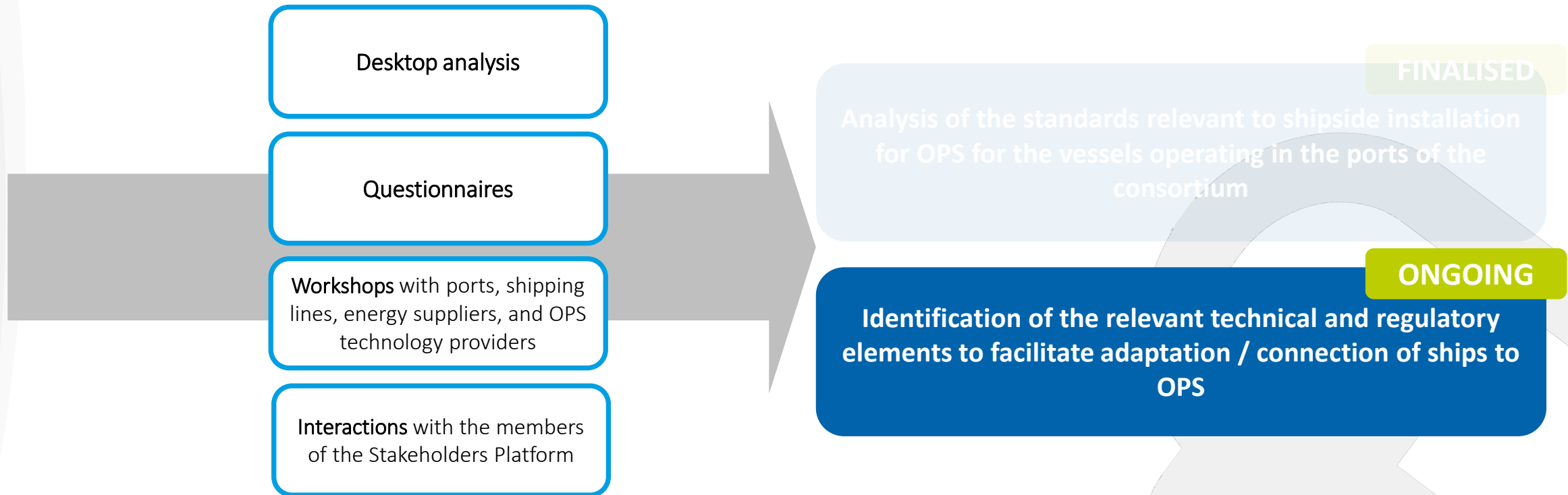
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ACTIVITY 2: Maritime fleet adaptation



ACTIVITY 2: Maritime fleet adaptation



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)



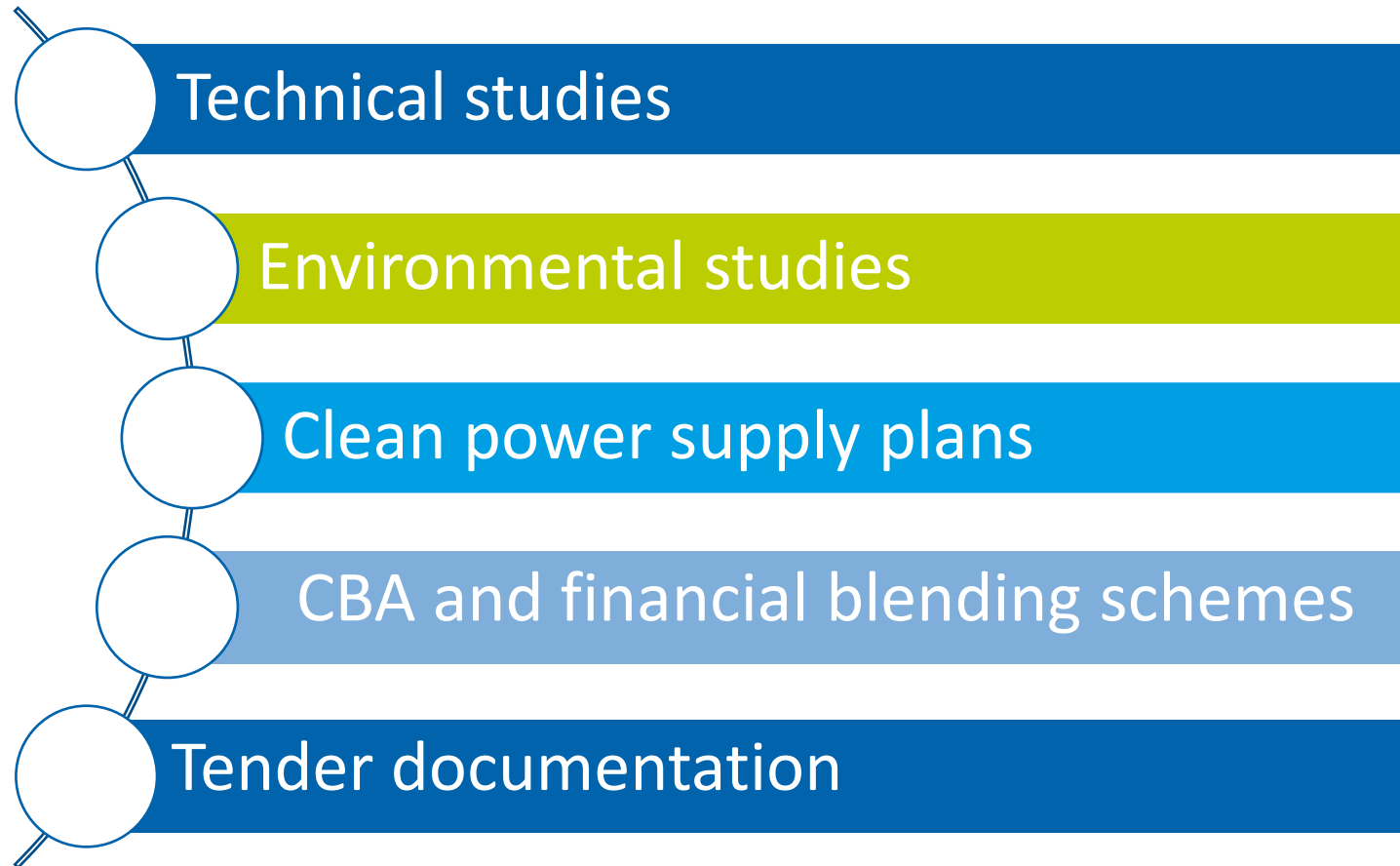
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IN PROCESS



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



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



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)

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

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

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

EALING
studies

EALING
studies

EALING
studies



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 ✓

3
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](#)



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

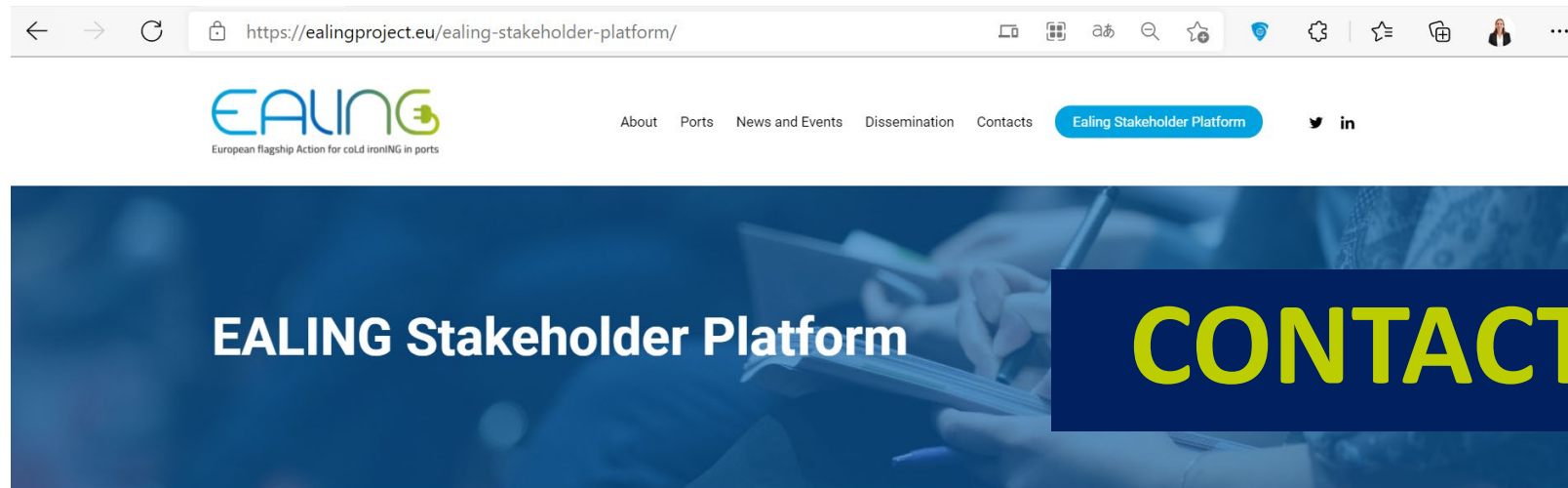
- **Final event**

30? November 2023 Valencia





EALING Stakeholders Platform - Stay updated!



EALING Action is implemented in close cooperation with all the relevant stakeholders of the EU maritime sector: join the EALING Stakeholder Platform and become active part of the change.

Stay updated with all the latest news and events about the project and be involved directly in the Studies!

[Ealing Stakeholder Platform – Ealing Project](#)



Thanks!



European flagship Action for coLd ironING in ports

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Discover more at

www.ealingproject.eu



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