



Status and Challenges for the supply chain for Offshore Wind in Greece

October 2024

Presentation within the launch event of  in Greece



Scope of the Project

HWEA awarded to **Samaras & Associates S.A. - Consulting Engineers** to execute a survey to identify the possible parts of the OW supply chain and propose what is necessary to be done to establish this supply chain effectively, promoting the cooperation between Greek businesses and foreign ones.

The survey was executed within a broader Project funded by **EEA Grants 2014-2021**, in the frame of the Programme "Business Innovation Greece"

Analysis of the supply chain of offshore wind development in Greece:

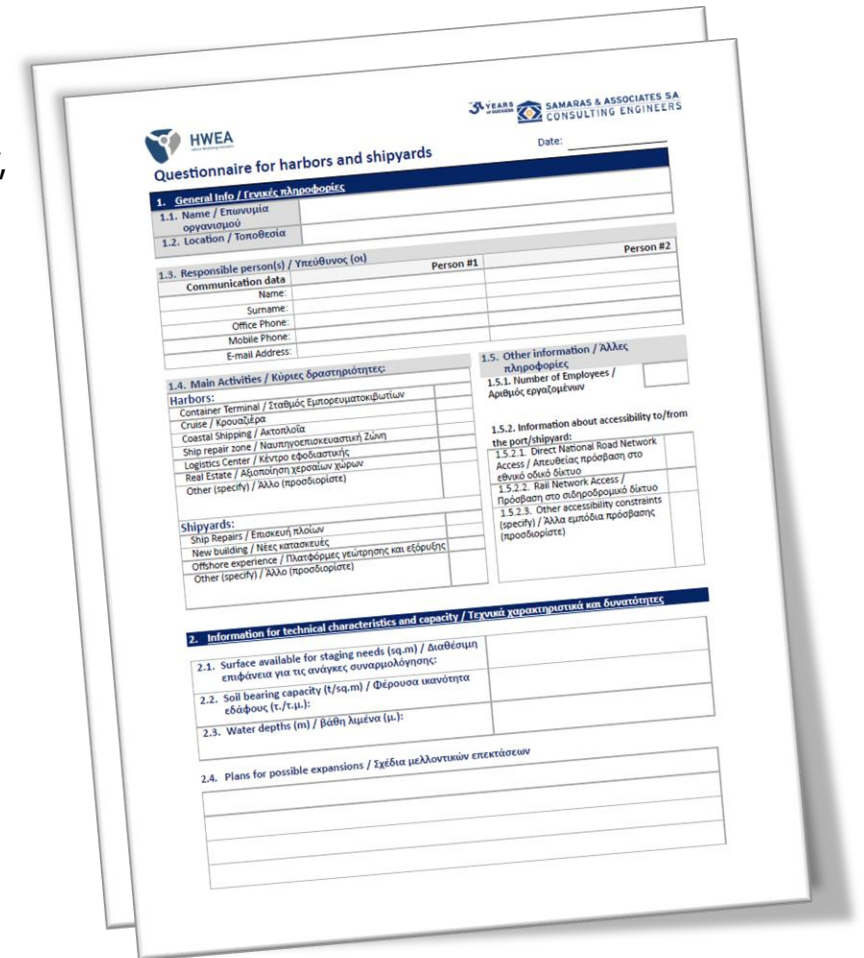
01 Identify supply chain "links" -> Greek companies that could be part of the supply chain

02 Compose questionnaires to be filled by them

03 Execute surveys and interviews with the companies

04 Report the outcome of the interviews:

- ▶ Who are the companies?
- ▶ Are they willing to be part of the supply chain?
- ▶ Are they ready to be part of the supply chain?



The image shows a questionnaire form titled "Questionnaire for harbors and shipyards" with logos for HWEA and Samaras & Associates S.A. The form is divided into several sections:

- 1. General Info / Γενικές πληροφορίες**
 - 1.1. Name / Επωνυμία οργανισμού
 - 1.2. Location / Τοποθεσία
 - 1.3. Responsible person(s) / Υπεύθυνος (οι)

Person #1	Person #2
Name:	
Surname:	
Office Phone:	
Mobile Phone:	
E-mail Address:	
 - 1.4. Main Activities / Κύριες δραστηριότητες:

Harbors:	Shipyards:
Container Terminal / Σταθμός Εμπορευματοκιβωτίων	Ship Repairs / Επισκευή πλοίων
Cruise / Κρουαζιέρα	New building / Νέες κατασκευές
Coastal Shipping / Ακτοπλοία	Offshore experience / Πλατφόρμες γεωτρήσης και εφόδους
Ship repair zone / Ναυπηγοεπισκευαστική ζώνη	Other (specify) / Άλλο (προσδιορίστε)
Logistics Center / Κέντρο εφοδιαστικής	
Real Estate / Αξιοποίηση χωρικών πόρων	
Other (specify) / Άλλο (προσδιορίστε)	
 - 1.5. Other information / Άλλες πληροφορίες
 - 1.5.1. Number of Employees / Αριθμός εργαζομένων
 - 1.5.2. Information about accessibility to/from the port/shipyard:
 - 1.5.2.1. Direct National Road Network Access / Άμεσείας πρόσβαση στο εθνικό οδικό δίκτυο
 - 1.5.2.2. Rail Network Access / Πρόσβαση στο σιδηροδρομικό δίκτυο
 - 1.5.2.3. Other accessibility constraints (specify) / Άλλα εμπόδια πρόσβασης (προσδιορίστε)
- 2. Information for technical characteristics and capacity / Τεχνικά χαρακτηριστικά και δυνατότητες**
 - 2.1. Surface available for staging needs (sq.m) / Διαθέσιμη επιφάνεια για τις ανάγκες συναρμολόγησης:
 - 2.2. Soil bearing capacity (t/sq.m) / Φέρουσα ικανότητα εδάφους (t./t.μ.):
 - 2.3. Water depths (m) / Βάθη λιμένα (μ.):
 - 2.4. Plans for possible expansions / Σχέδια μελλοντικών επεκτάσεων

Ports

- ▶ PIRAEUS
- ▶ THESSALONIKI
- ▶ VOLOS
- ▶ ALEXANDROUPOLIS
- ▶ ELEFSINA
- ▶ IRAKLEION
- ▶ KAVALA (FILIPPOS B')
- ▶ LAVRION
- ▶ EVIA (KYMI)



Shipyards

- ▶ ELEFSIS
- ▶ SYROS
- ▶ CHALKIS
- ▶ SALAMINA



Cement Industry

- ▶ Heracles General Cement Co. S.A. (Lafarge)
- ▶ Titan Cement Company S.A.



Steel & Cables Industry

- ▶ Corinth Pipeworks S.A.
- ▶ Hellenic Cables S.A.
- ▶ Lykomitros Steel S.A.
- ▶ SIDMA Steel S.A.
- ▶ Elastron S.A.
- ▶ EMEK- Group



Maritime Services & Cranes

- ▶ NemecaZ
- ▶ MegaTugs
- ▶ Asso.subsea
- ▶ Anipsotiki S.A.
- ▶ Giannakos Cranes



Key players / Survey participants

Survey focus

Outlook on the Offshore Wind Farm Sector

- ✓ Awareness of the sector
- ✓ Opinion of the company's management on the offshore wind farm sector
- ✓ Views on public policies
- ✓ Willingness to involve
- ✓ Key factors for involvement
- ✓ Readiness of the company
- ✓ Strengths & Weaknesses

Technical information

- ✓ Identify current situation
- ✓ Report existing infrastructure
- ✓ Examine compliance with "Typical Greek Offshore Wind Farm" and "Reference Turbine"
- ✓ Report any relative experience in similar projects
- ✓ Point out possible obstacles

**Positive attitude
but also**

low knowledge

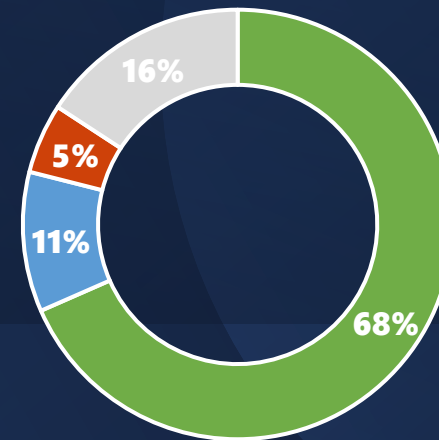
on the prospects of
the offshore wind
farm sector.

7 out of 10

are positive about the
industry's prospects

Outlook of the offshore wind farm sector

■ Optimistic ■ Neutral ■ Pessimistic ■ Don't know



Positive opinion

about government policy regarding the development of the offshore wind farm sector

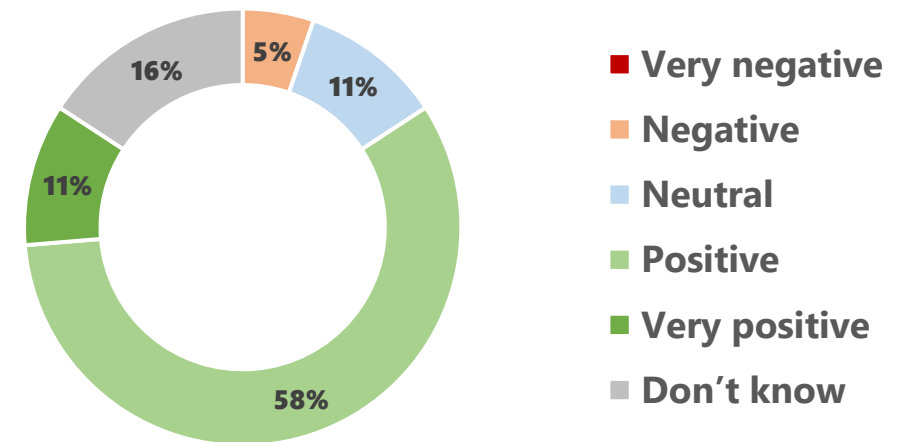
Main positive points:

- Strong commitment to carbon neutrality/ transition toward renewable energy
- Orientation for investments in energy projects
- National Program for OWF announcement

Main points of concern:

- Risk of delays: OWF Roadmap must stay on schedule otherwise the opportunity may be lost
- Licensing process: Ensuring that projects will not face bureaucracy obstacles and delays
- Uncertainty about state consistency until legislation is issued

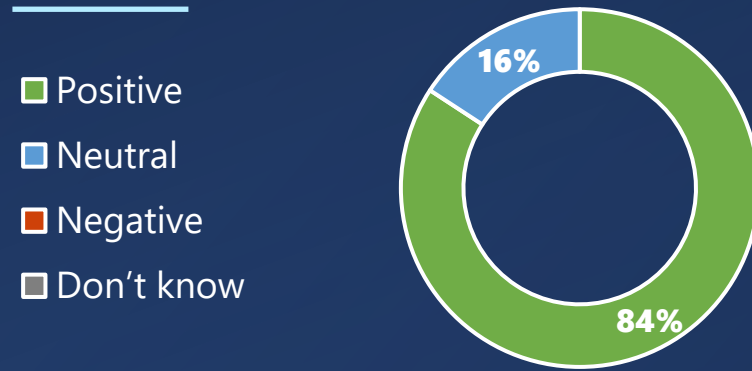
Views on current public policies for the development of the offshore wind farm sector



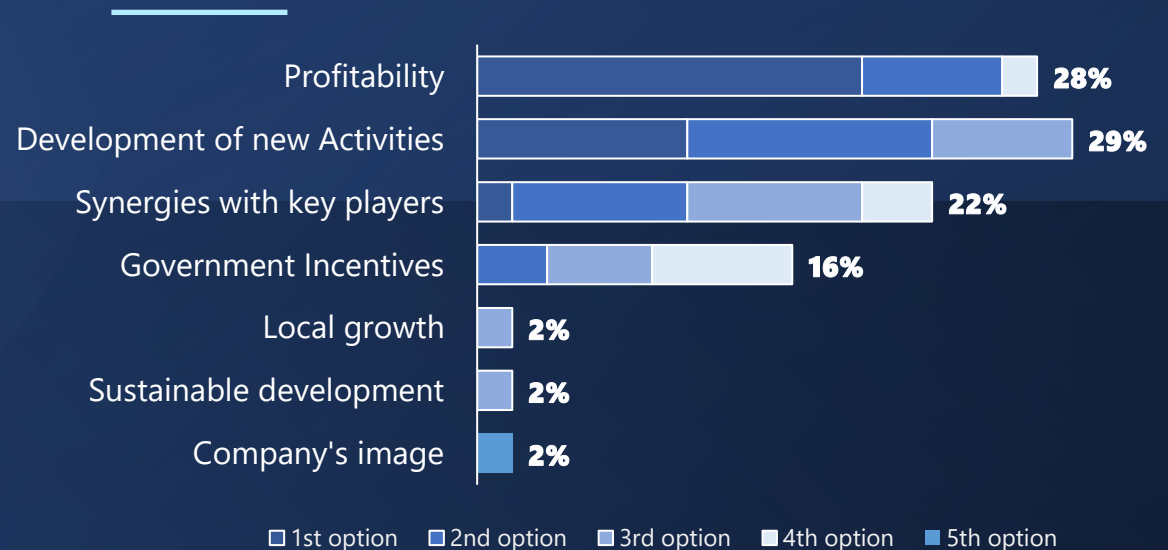
Absolutely positive attitude about involvement with the offshore wind farm sector

Development of new & innovative activities and profitability are the most important factors for involvement with the offshore wind farm sector

Willingness to involve with the OWF



Key factors for involvement with the OWF sector





Low level of readiness and several challenges for ports

- ▶ Orientation of management to other activities – competition to existing activities, mainly due to limited space
- ▶ Management uncertainty due to port privatization plans
- ▶ Lack of funds for infrastructure investments
- ▶ Master plans define Land use – Will need to be updated
- ▶ Licensing issues



Higher level of readiness and waiting attitude for shipyards & industry

- ▶ Constant upscaling of design restricts production planning
- ▶ Industrialization is a key factor to cost reduction
- ▶ Limited available space in ports
- ▶ Uncertainty due to lack of confidence that the state tenders will take place on schedule
- ▶ Capital expenditures required
- ▶ Uncertainty due to unknown tariffs



High level of readiness but also investment needs for maritime and crane services

- ▶ Investment needs in new equipment
- ▶ Need for long term commitment to invest that will may be used exclusively to such project
- ▶ Uncertainty about equipment specifications required until design specifications are finalized
- ▶ Staff shortages

Main challenges



Status and Challenges for the supply chain

Summary

STRENGTHS

- Significant wind potential.
- Strategic location.
- Maritime heritage.
- Industry and shipyards know-how.
- Skilled workforce.
- Experience by the management of onshore wind farms.
- Political will.

OPPORTUNITIES

- A new innovative technology that may be developed in Greece.
- Novel industrial sector with prospects of at least 30 years of activity.
- Potential high local added value for Greece.
- Side – activities development: a new industry in offshore wind maintenance.

WEAKNESSES

- Insufficient infrastructure in port space and equipment.
- Lack of assembly know-how in ports.
- Regulatory constraints.
- Uncertainty due to port privatization plans.

THREATS

- Risk of delays.
- Lack of a clear legal framework.
- Bureaucracy.
- Limited or lack of social acceptance.
- Increasing costs.
- Investments required in infrastructure
- Constant design upscaling.
- Limited capacity Europe-wide.
- Staff shortages



Technical Expertise: The offshore wind sector requires specialized knowledge and skills

Opportunities

- A great opportunity for the Greek Economy to enter a novel construction sector with prospects for development in the next 30 years.
- A new industry with high profitability potential will be developed in maintenance as well (involving engineers, technicians, divers, special equipment, etc.).
- Demand for several well-paying jobs will occur.

Domestic Advantages

- Acquired knowledge from onshore wind sector.
- Highly educated workforce in Greece.
- Participants will have the opportunity to obtain offshore expertise in Greece, and then expand to foreign projects.

Challenges

- Technically trained personnel is becoming increasingly difficult to find in Greece
- Lack of specialized personnel for offshore activities worldwide mainly due to competition with the Oil & Gas sector.
- Lack of expertized personnel in some key member of the supply chain (e.g. ports, steel industry).



Thank you



HWEA
Hellenic Wind Energy Association



SAMARAS & ASSOCIATES S.A.
CONSULTING ENGINEERS

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Iceland 
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 **Innovation
Norway**