



Iceland  
Liechtenstein  
Norway grants



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

---

March 2024  
(ongoing survey)



# Project Framework

## Scope of initial survey:

- Identify the possible parts of the OW supply chain
- Propose what is necessary to be done to establish this supply chain effectively.

## Scope of extension:

- Survey more fields of the supply chain, such as Offshore services, Crane services and cables.
- Impact of the declared acceleration of the development of the national OWF program.

The image shows a questionnaire form titled "Questionnaire for harbors and shipyards" from HWEA and SAMARAS & ASSOCIATES SA CONSULTING ENGINEERS. The form is divided into several sections:

- 1. General Info / Γενικά στοιχεία**
  - 1.1. Name / Ονομασία
  - 1.2. Location / Τοποθεσία
  - 1.3. Responsible person(s) / Υπεύθυνος (οι)
- 1.4. Harbors / Λιμένες**
  - Container terminal / Λιμάνι εμπορευματοκιβωτίων
  - Crane / Κρανίδι
  - Coastal shipping / Ακτοπλοΐα
  - Ship repair zone / Ζώνη επισκευών πλοίων
  - Logistics Center / Κέντρο εφοδιασμού
  - Ro-Ro (Roll-on/Roll-off) / Αποβλήσιμα οχήματα
  - Other (specify) / Άλλα (προσδιορίστε)
- 1.5. Other information / Άλλα στοιχεία**
  - 1.5.1. Number of Employees / Αριθμός εργαζομένων
  - 1.5.2. Information about accessibility to/from the port/shipping:
    - 1.5.2.1. Direct National Road Network Access / Άμεσος πρόσβαση στο εθνικό δίκτυο οδών
    - 1.5.2.2. Rail Network Access / Πρόσβαση στο σιδηροδρομικό δίκτυο
    - 1.5.2.3. Other accessibility constraints (specify) / Άλλα συνθήκες πρόσβασης (προσδιορίστε)
- 1.6. Shipyards / Ναυπηγεία**
  - Ship repair / Επισκευή πλοίων
  - Ro-Ro building / Νέο κτίριο
  - Offshore experience / Πειραματισμός, υποστήριξη, κ.λπ.
  - Other (specify) / Άλλα (προσδιορίστε)
- 2. Information for technical characteristics and capacity / Τεχνικά χαρακτηριστικά και χωρητικότητα**
  - 2.1. Surface available for stacking needs (sq.m) / Συνολική επιφάνεια για τις αποθηκευτικές ανάγκες (τ.μ.)
  - 2.2. Soil bearing capacity (t/sq.m) / Φέρουσα ικανότητα εδάφους (t/τ.μ.)
  - 2.3. Water depth (m) / Βάθος θαλάσσης (μ.)
  - 2.4. Plans for possible expansion / Σχέδια πιθανών 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



# Potential offshore wind supply chain in Greece

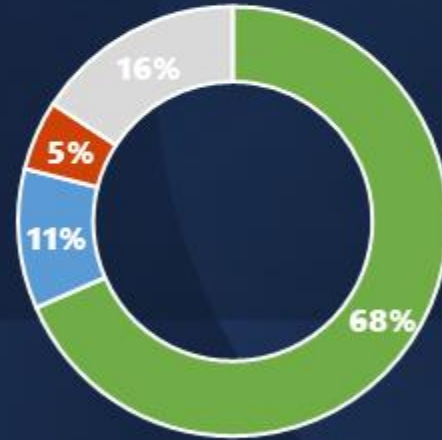
Key players / Survey participants

**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



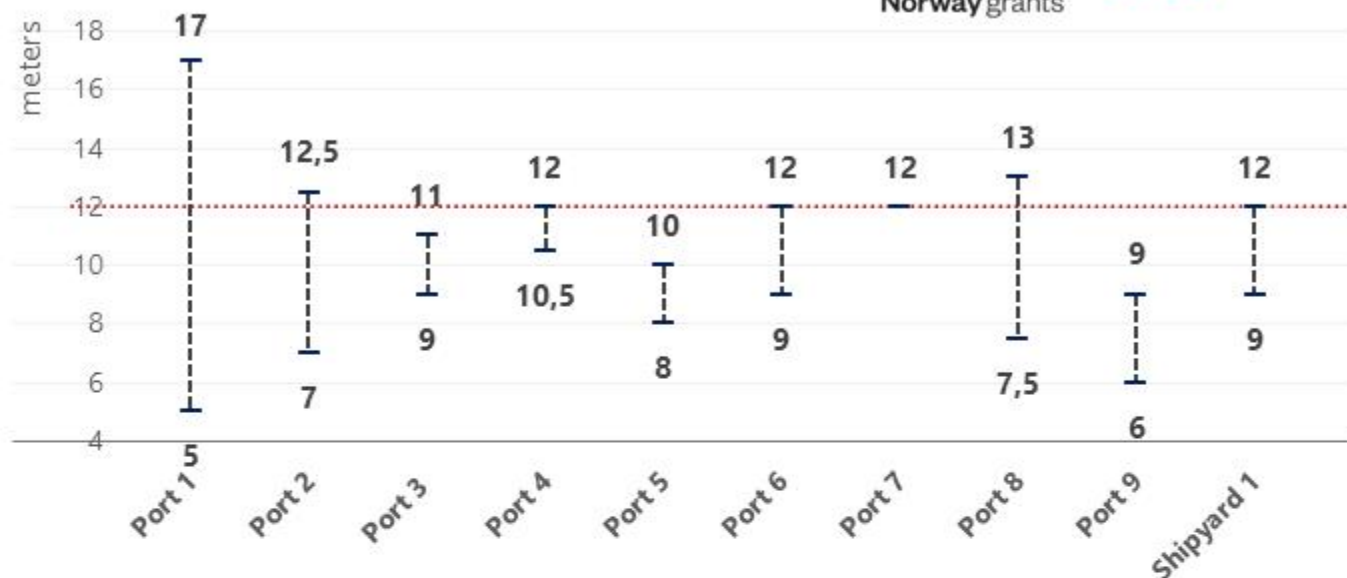
## Inadequate port infrastructure

is the most significant challenge to support the projected growth in offshore wind

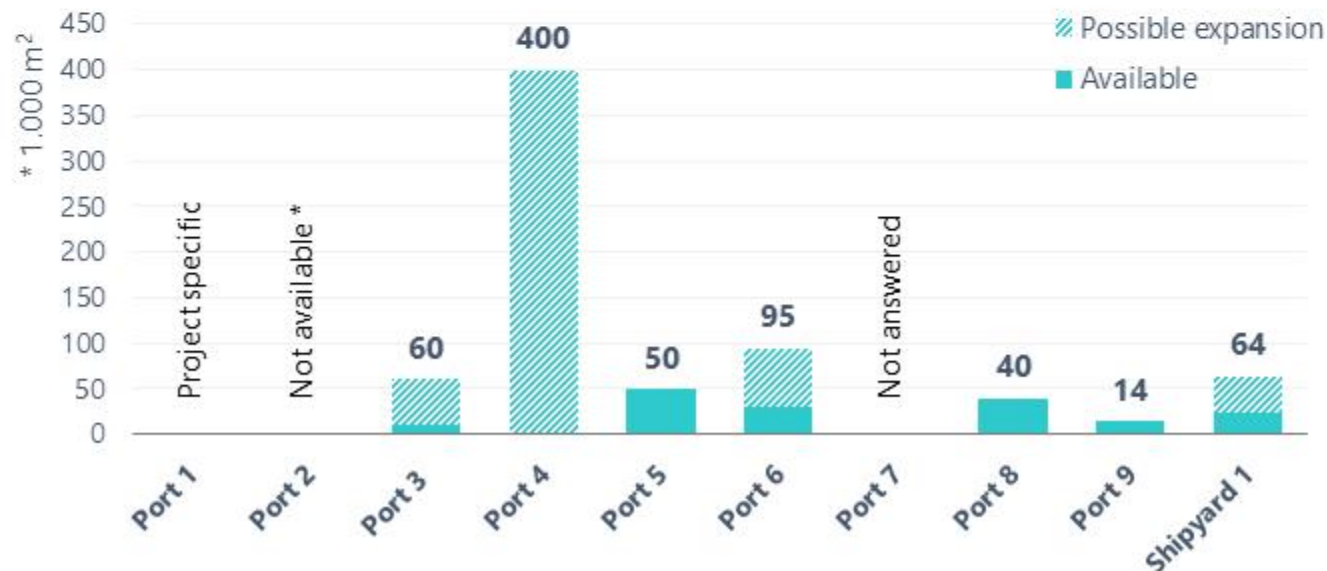
### Main challenges:

- ▶ Limited space.
- ▶ Low water depths.
- ▶ Weight restrictions (soil geotechnical evaluation need to be done).
- ▶ Insufficient equipment.

### Water depths



### Surface available for staging needs



\* Available surfaces may vary depending on other existing port activities



**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

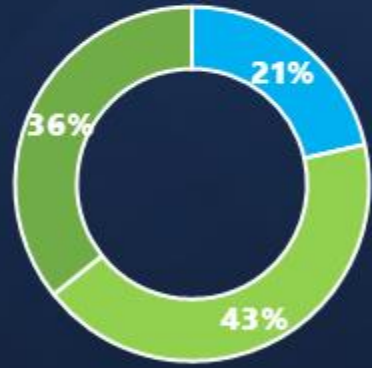


**High level of readiness  
but also investment needs**  
for maritime and crane  
services

- ▶ 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 finalised

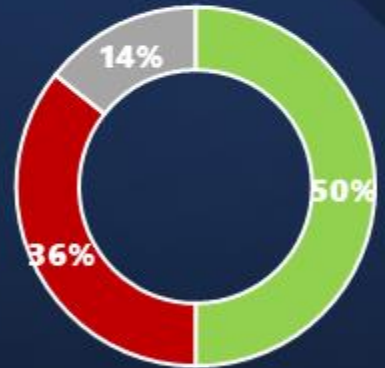
# Intended acceleration of development of floating OFW... ... key driver for decision making

*Views on the intention to accelerate the development of floating OFW*



Very negative Negative Neutral  
Positive Very positive Don't know

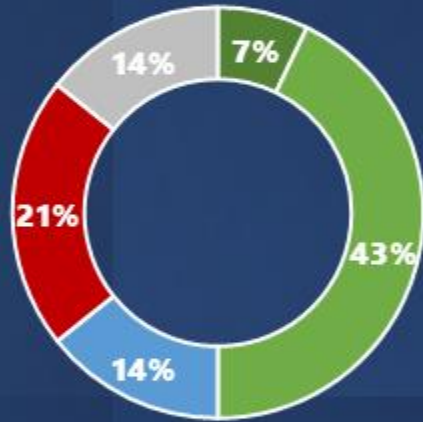
*Business planning impact of possible acceleration of floating OFW development*



Yes No Don't know / NA

## Relatively ready for the first floating OFW under conditions

- Very easily
- Easily
- Neither easily, nor difficult
- With difficulty
- Very difficult
- Don't know



### Conditions

- ▶ Design maturity.
- ▶ Define exact specifications of projects (required infrastructures and equipment).
- ▶ Long term prospect (so that the investment is worthwhile).
- ▶ Local supply chain support (to avoid unfair competition).
- ▶ Investment cost.
- ▶ Risk sharing (between supply chain and developers).

***No direct commitments for supply chain (as they will not invest unless the growth of the industry is ensured).***





# Thank you



**HWEA**  
Hellenic Wind Energy Association



**SAMARAS & ASSOCIATES S.A.**  
CONSULTING ENGINEERS

*Supported by a grant from Iceland,  
Liechtenstein and Norway through the  
EEA Grants 2014-2021, in the frame of the  
Programme "Business Innovation  
Greece", within the project GR-INNO-  
Restricted Call - HWEA/ELETAEN.*

Iceland   
Liechtenstein  
Norway grants

 Innovation  
Norway