

Offshore wind power: a European industry that deserves a European industrial strategy

Europe is at the edge of a new industrial revolution and offshore wind is a key technology laying its foundations.

EWEA welcomes the European Commission's Communication 'A stronger European industry for growth and economic recovery'.¹ Although green energy is clearly mentioned as one of the pillars of the new industrial break-through, EWEA regrets that renewables, and in particular wind and offshore wind are not considered as a priority action line by the European Commission.

Offshore wind is a European industry of strategic importance which creates growth and jobs. It represents an extraordinary economic and investment opportunity as well as contributing to ensure Europe's energy independence, competitiveness and mitigating climate change.

The offshore wind sector currently employs 35,000 people, and this is expected to rise to 170,000 in 2020 and 300,000 in 2030. Offshore wind is a motor for other European economic sectors, including metals, electric and electronics equipment, IT, shipbuilding, financial services.

The European Commission should therefore fully weigh the strategic importance of the European offshore wind industry and develop an industrial strategy to drive forward its development and build a world class industrial leadership for Europe.

Reinforced by the industrial strategies developed at national and regional levels, the European industrial strategy for offshore wind should:

- **Provide a comprehensive vision of the sector's development and ensure its deployment;**
- **Be articulated around four work streams: technology innovation, supply chain expansion, skills and financing;**
- **Focus on delivering cost reduction.**

1/ Harnessing offshore wind represents an extraordinary economic and investment opportunity.

Offshore wind is a 'European industry'. It started in European waters 20 years ago and its development is driven by European companies. Even more, Europe leads the world in offshore wind power, with more than 90% of the global installed capacity.

- **Offshore wind is an engine for driving forward industrial revival and economic development.**

Born 20 years ago off the Danish coast, offshore wind is a young and burgeoning industry representing 4.3GW installed across 10 European countries.² 35,000 people are directly and indirectly employed and around €2.4bn are annually invested in offshore wind farms.

¹ Com (2012) 'A Stronger European Industry for Growth and Economic Recovery – Industrial Policy Communication Update'

² EWEA (2012) 'The European offshore wind industry - key trends and statistics 1st half 2012'

This is only the beginning of a major industrial development. In 2020, with 40GW installed capacity, offshore will meet 4% of the European electricity demand and 14% from 150GW in 2030. There will be 170,000 jobs in the sector in 2020 and 300,000 in 2030.³

Harnessing domestic offshore wind does not only help revitalise European economies, particularly coastal communities, but it also places Europe at the heart of global offshore wind developments benefiting European companies well established as first movers.

Offshore wind, as onshore wind, is indeed an export opportunity⁴. The expertise, skills and technologies which are developed in Europe can be exported as the offshore renewable capacity grows across the globe.

- **Offshore wind is a motor for other economic sectors.**

150GW installed offshore wind means 25,000 to 30,000 turbines need to be installed by 2030, as well as 25,000 to 30,000 substructures. Additionally, one or two converter platforms will be installed per project.

Offshore wind development represents a tremendous economic opportunity not only for the businesses involved in this sector but also for other industries. Offshore wind is a motor for other European economic sectors, including metals⁵, electric and electronics equipment, IT, shipbuilding, financial services.

- **Harnessing offshore wind represents an extraordinary investment opportunity.**

Offshore wind is characterised by high upfront capital costs and very low running costs which makes it a stable investment once the upfront capital is financed, especially compared to conventional technologies. As a consequence, harnessing offshore wind represents a very attractive investment opportunity for actors such as private investors and pension funds looking for stable revenues.

In 2011, although the sector is still facing significant challenges, offshore wind has increasingly been attracting finance not only from utilities but also from these new financial actors. This is positive news at times of economic stagnation.⁶

2/Developing a European industrial strategy to support offshore wind development

Europe has a competitive advantage in offshore wind. The industry itself is proving very ambitious and dynamic with significant investments on-going annually. However, offshore wind remains a very young industry which must mature and develop industrially to deliver its market potential and reduce costs in a quick and effective way.

Until today, the European approach to offshore wind has concentrated on two main streams: R&D, via the European Wind Initiative and framework research programmes, and market deployment, via national policies implementing the 2001 Renewable Electricity Directive and the 2009 Renewable Energy Directive. With the support of the European Investment Bank (EIB), loans and grants were also allocated to the offshore wind industry to facilitate its large scale commercial deployment and overcome the gap between research and market. This was also the case with the successful European Economic Recovery Programme (EPR).⁷

However, the offshore wind industry misses an European industrial strategy which would encompass all these elements and help the sector industrialise.

³ EWEA (2011) 'Pure Power'

⁴ EWEA (2012) 'Green Growth': In 2010, the European wind industry was a net exporter of €5.7 billion worth of goods and services.

⁵ World Steel Association (2012) 'Steel solutions in the green economy: Wind turbines'

⁶ EWEA (2012) 'The European offshore wind industry - key trends and statistics 2011'

⁷ http://ec.europa.eu/energy/eepr/index_en.htm

- **A comprehensive vision of the sector should be developed to address supply chain issues, facilitate the necessary investments needed and deliver on cost reduction.**

Because offshore wind is a European industry, this comprehensive view must take place at the European level. This will benefit not only the sector itself but also the other industries, such as the shipbuilding or steel sectors keen on positioning and reaping the benefits at national, regional and European levels.

- Acknowledging the success of the industrial strategies the Commission deployed for the automotive and shipbuilding sectors, **EWEA urges the European Commission to develop a European industrial strategy for offshore wind.**
- As with national and regional levels, **an European industrial strategy should focus on four main pillars: technology & innovation, supply chain expansion, skills and financing. It should be supported by the right framework conditions to stimulate investments through enhanced business confidence.**
 - **Technology & Innovation:** the EU industrial strategy should aim at implementing the Strategic Energy Technology Plan's offshore wind energy industry's research needs elaborated by the Technology Platform Wind (TP Wind), with a focus on cost reduction.
 - **Supply chain:** the industrial strategy should, with the involvement of the stakeholders, identify the standardisation needs of the industry. Furthermore, it should facilitate the links with the other actors of the maritime industry such as ports to help overcome supply chain bottlenecks.
 - **Skills:** the offshore industry is facing a shortage of a qualified workforce. The European industrial strategy should identify the training needs and facilitate the development of European training programmes, taking into consideration certification issues, with health and safety as the overriding priority.
 - **Financing:** while it remains clear that long term certainty by means of a 2030 target for renewable energy is the best way to give investors the necessary confidence and reduce investor risk, in times of stressed capital markets the European industrial strategy for offshore wind should explore and develop innovative instruments, aimed at involving pension funds and other new financing sources in wind energy financing. It should encourage Member States to develop green investment banks, or support the continuous and expanded involvement of the EIB in offshore wind energy finance. The EIB has provided significant support to offshore wind development through non-recourse lending as well as corporate refinancing. Particularly important for the offshore wind industry is provision of EIB instruments that will cater for projects carrying on average a higher technological risk.
- A European industrial strategy should also **allow for the involvement of other European industries and therefore favour exchange of knowledge from one sector to another.** This would help the offshore wind industry to reduce its costs in a quicker and effective way.
- **Finally, the European industrial strategy on offshore wind should not contradict the initiatives carried at national or regional levels but rather support and complement them.**
The offshore wind industry is indeed playing its part and the sector is taking a proactive stance, developing regional industrial networks and setting out a longer-term strategic vision and direction of travel.

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The European Wind Energy Association (EWEA) is the voice of the wind industry, actively promoting the utilisation of wind power in Europe and worldwide. Around 700 members from nearly 60 countries, including manufacturers, developers, research institutes, associations, electricity providers, finance organisations and consultants, make EWEA the world's largest wind energy network.