# Shaping The Cluster Landscape for Supply Chain Success

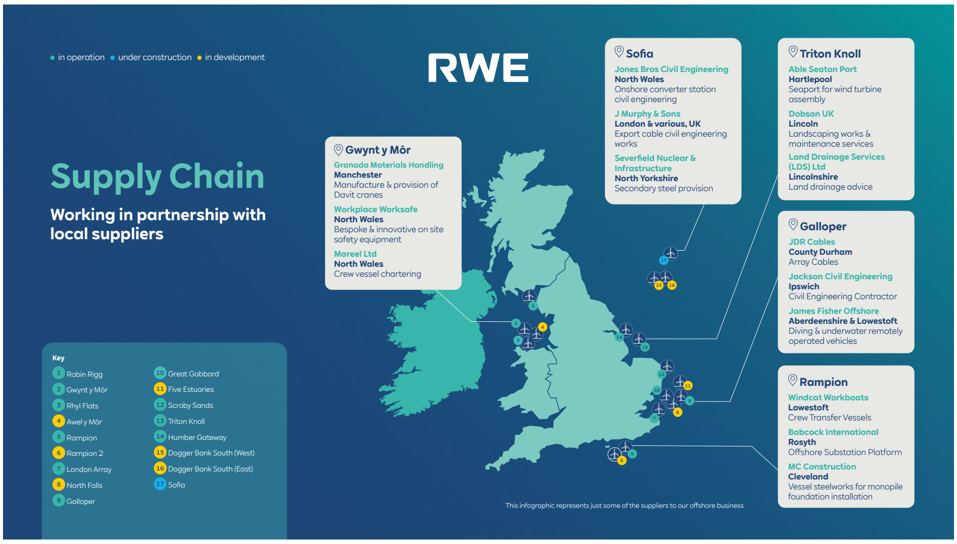
November 2024

Jordan O'Neill & Helen K Thomas from RWE's Supply Chain Development Team, UK & Ireland reflect on cluster development and supply chain success, in this well-crafted thought-piece on Ireland.

## Reflecting on Supply Chain Success

**RWE has been active in offshore wind for over two decades and more recently as a key player in the Irish energy market, with an expanding portfolio of wind projects. Our flagship offshore wind project in Ireland is Dublin Array - to be located c.10km off the coast of counties Wicklow and Dublin, with construction planned to start in 2027. Once operational, the project would have an installed capacity of 824MW, equivalent to powering approximately 770,000 typical homes.**

We recognise suppliers are the backbone to our success, and so have sought to maximise supplier opportunities, working in partnership with a skilled and diverse business network (see UK example below). Together, we have been at the forefront of innovation and driven regional and industry-wide successes in terms of local regeneration, job creation, Gross Value Add (GVA), infrastructure opportunities and enhanced supplier capabilities.




**RWE case studies of working with the supply chain (UK)**

RWE therefore has extensive insights to offer on the topic of supply chain development and success. Our experience shows the criticality of having a strong, capable, available and reliable supply chain working alongside us. Without this, the delivery of offshore wind projects like Dublin Array, is simply not possible.

Cluster Development is an increasingly important conversation in Ireland.

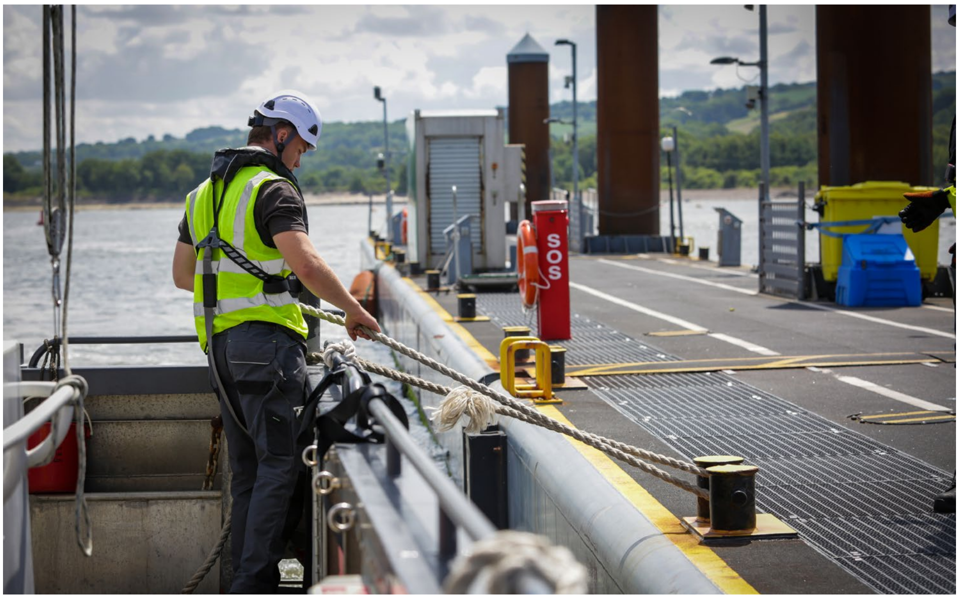
## **Developing the Cluster Landscape** by Jordan O'Neill

**Cluster Development is an increasingly important conversation in Ireland. The White Paper on Enterprise 2022 – 2030 published in December 2022, recognises clustering as key for enhancing opportunities for Irish enterprise, and proposes to establish an Irish National Clustering Programme (NCP). In addition, the Powering Prosperity: Ireland's Offshore Wind Industrial Strategy also proposes setting up a National Offshore Wind Cluster as a key action.**

RWE has engaged with several individuals and organisations recently, regarding the potential development of an offshore wind cluster in Ireland.

If implemented correctly, clusters can play a crucial role in ensuring the successful deployment of renewable technologies, and help maximise the socio-economic benefits that these technologies can deliver locally.

At the Wind Energy Ireland Trade Show 2024, RWE facilitated a roundtable with relevant stakeholders, to aid a better understanding of the ongoing cluster development activity across Ireland, and to support a collaborative approach to an offshore wind NCP bid.




In our experience, clusters are a pivotal tool for facilitating timely development and engagement – interfacing with suppliers, infrastructure providers, innovators and skills bodies in new market regions. If implemented correctly, clusters can play a crucial role in ensuring the successful deployment of renewable technologies, and help maximise the socio-economic benefits that these technologies can deliver locally.

Consequently, one of the key ways that a robust supply chain can be developed is via the creation of (one or more) collaborative geographic alliances, joined together by an aligned vision to form a 'cluster'.

When establishing clusters at an early stage, it is important to define exactly what is meant by the term 'cluster'.

## Cluster definition and a common vision for success

When establishing clusters at an early stage, it is important to define exactly what is meant by the term 'cluster'. With the development of a new sector such as offshore wind, pockets of proactive regional activity are to be expected. Yet with this comes the risk of uncoordinated, piece-meal approaches, without a common government-industry vision for both cluster and overall sector success. **The first step therefore is to ensure (as much as possible) that all parties involved have a common definition and vision for cluster success.**

Clusters can come in many forms and development stages (see Figure 1 showing the stages of cluster development) with each uniquely formed around the country or region it is representing. These may be physical hubs of activity (e.g. where supply chain, innovators and skills bodies are located), a virtual network, a regional trade body organisation and/or a membership group. It is important to decide, as early as possible, which of these i) the national level and ii) the individual county or regional level(s), are seeking to achieve.

With expert knowledge on their local areas, cluster organisations can influence successful policy design that will inevitably contribute to Ireland's 2030 offshore wind target of 5GW and beyond.

## Cluster benefits

Clusters should aim to develop supply chain capabilities that enable the successful deployment of Offshore Renewable Energy (ORE) in Ireland. This should assist growth from a local level up, in line with top-down Government policy, to enable Ireland to become a global player in the sector. With expert knowledge on their local areas, cluster organisations can influence successful policy design that will inevitably contribute to Ireland's 2030 offshore wind target of 5GW and beyond.

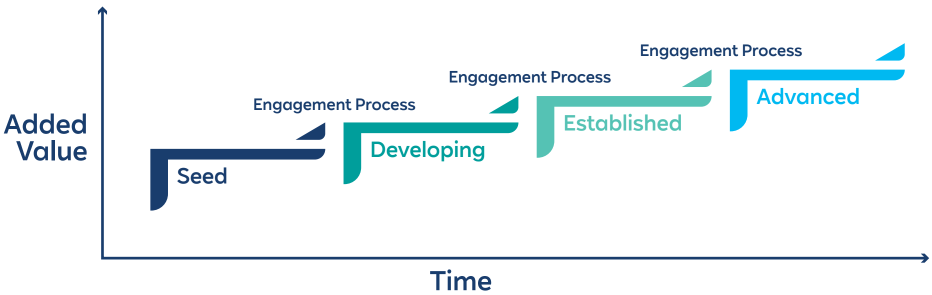



**Fig 1. Stages of cluster development**

Regional clusters 'fly the flag' for local companies, ideally with a strong link to a national programme or strategy and may provide a physical location or identity too. A successful cluster facilitates tier-to-tier interactions, identifies synergies and joins the dots between a wide range of organisations involved in ORE project development phases. These include: developers, supply chain companies, higher education institutions, the public sector / governments, international players and others. Clusters disseminate information and enable access to training, grants and funding opportunities while promoting the industry and cultivating a collaborative environment for supply chain success.

**When establishing clusters at an early stage, it is important to define exactly what is meant by the term 'cluster'.**

A huge ORE pipeline lies ahead and with the right people, supply chain capabilities and sector solutions in place, Ireland truly has the potential to become a global leader in several services. Now is the critical time to align as an industry in Ireland, cooperate to face the challenges ahead and seize the opportunities that can arise from the NCP.

### Cluster Governance

There are a number of ways a cluster can be operated, however some fundamental aspects for cluster success include:

- A shared national vision or goal
- A common understanding of the objectives at hand
- An ability to balance healthy competition with putting this aside for the success of the domestic supply chain when needed
- A remit focused on increasing local (regional and/or national) growth and benefits

The following list provides a selection of non-exhaustive examples of how some other clusters operate:

- Paid membership organisations
- Non-paid membership fees
- Clusters focused around policy-shaping and lobbying
- Private-led (i.e. funded/run by industry)
- Public-led (i.e. funded/run by Local Government)
- Academia-led (sited within universities)
- Supply chain led i.e. with assigned 'Topic Champions' from local companies as experts
- Physical Hubs (e.g. port/harbour side hubs of activity)
- Virtual Networks (e.g. virtual membership organisations)
- Others

Working in partnership allows clusters to be at the forefront of innovation and driving success, resulting in enhanced capabilities, GVA and job creation, export growth and a skilled workforce advantages.

Without projects being successfully built on appropriate timescales, the significant socio-economic opportunities that follow (jobs, skills, supply chain, infrastructure growth) are no longer tangible. Ireland must therefore overcome the barriers to offshore wind deployment for the supply chain to fully benefit.

## **Broader Supply Chain Development Success** by Helen K Thomas

**Alongside the progression of more specific initiatives to strengthen a growing supply chain (such as cluster development), it is vital to consider some more strategic elements for overall supply chain success:**

### No projects, no prosperity

**The recent 'Powering Prosperity' report recognises many of the fundamental areas required for ORE sector success. Many are not unique to Ireland but face challenges involving geography, historical strengths and capabilities, and other market specifics.**

Grid availability, interconnection & export capability, planning & consenting regimes, port development, regulatory evolution & routes to market, plus skills & supply chain capability are all Ireland's (and of course other markets') top must-solves.

This is no easy feat but ambitions to achieve Net Zero and become a significant player in the ORE technology space makes these hurdles imperative to overcome. Without these, projects simply cannot get built and the significant socio-economic opportunities that could follow (jobs, skills, supply chain, infrastructure growth etc) are no longer tangible.

From this well-informed position it is then important to be bold and pick priorities, selecting the most realistic areas that will deliver the greatest benefits.

### Be Bold and Pick (evidence-based) Priorities

A critical upfront action is to take stock of current supply chain capabilities, assessing existing levels of expertise in key component or service areas of importance to Net Zero growth, alongside those that already do (or could) offer them. It should also assess the scale of potential benefits (GVA, jobs, skills opportunities etc) that focusing on these areas could bring.

From this well-informed position it is then important to be bold and pick priorities*, selecting the most realistic areas that will deliver the greatest benefits. *Which of these offer realistic existing and new potential? Which should be left to other markets? Which offer a niche opportunity for innovation and expertise?*

The UK for example has recently undertaken a Supply Chain Capability Assessment (SCCA) to inform its Industrial Growth Plan, published in April 2024. The Plan defines nine priority areas of focus for supply chain growth, which provides a mix of dedicated ambition for growth with realistic approaches to achieving this, taking into account global competition.

***These priorities can of course adapt over time as capabilities change and grow but a clear starting point is needed**

Create dedicated plans and road maps at an early stage, per identified priority area - showing clearly how growth will be achieved and against what timeframes.

## Develop capabilities and competitiveness – gear up early

**Armed with the above, create dedicated plans and road maps at an early stage, per identified priority area - showing clearly how growth will be achieved and against what timeframes. These should be supported by dedicated funding, innovation, policy and regulatory arrangements with clear solutions to financial and other barriers.**

The plans could aim to overcome challenges that the offshore wind industry often faces (for example, aiming to promote business diversification to even out 'lumpy' contract pipelines). They may be based around tackling risk finance barriers (such as solutions to underwrite the risks associated with the often large upfront amounts needed for tendering). Or they may help better incentivise investments into key areas of industry shortages e.g. cranes and vessels in a 'build-it-and-they-will-come' type fashion - protecting companies from risk of contract uncertainty. This clarity and identification of support mechanisms will enhance investor confidence and increase market attractiveness.

In parallel, it is important to focus on any niche, innovative or ahead-of-the-curve market needs (e.g. decommissioning, robotic or artificial intelligence solutions as examples), to ensure mid to long-term competitiveness. Utilisation of the 'collaborate to compete' approach is also critical for success.

Finally, given that ORE is a global industry, it is important to avoid 'near-sightedness' in terms of ambition and to future-proof. Develop the chosen skills and capabilities that are needed now in parallel to those for the future. Utilise these to develop the learning curve – then attract them back home when the domestic market is ready. Indeed, this approach is already underway with positive actions taken by the likes of Enterprise Ireland with their recent Offshore Wind Forum. This focused on highlighting the opportunities that exist for Irish companies across the ORE sector in international markets.

By facilitating open, transparent and more regular dialogue with the supply chain, we can work to understand the challenges that suppliers face and build better and broader relationships.

## Developer & Tier 1 Responsibilities

**Acknowledging the roles and responsibilities of those at the 'top of the food chain' is an important part of the picture too. Gaining a clearer understanding of these can be a helpful way to both identify and target solutions.**

At RWE, particularly via our STEP Initiative, a review into the way we engage with suppliers led us to recognise the more proactive role we could play. By facilitating open, transparent and more regular dialogue with the supply chain, we can work to understand the challenges that suppliers face, build better and broader relationships, increase timeliness and awareness of opportunities, improve intra-tier engagement and help strengthen regional clusters via participation.

In terms of procurement and contracting, developers tend to procure on average 8-12 key component packages directly per project via the appointment of Tier 1s and OEM suppliers (dependent on the project's procurement strategy e.g. EPCI vs per package tender approaches).

Given that the majority of ORE contracts are sub-contracted via Tier One Contractor's, it is crucial for these companies to develop their own efforts within the supplier engagement space too.

This means that the majority of ORE contracts are sub-contracted via Tier One Contractor's, making it crucial for these companies to develop their own efforts within the supplier engagement space too. Despite this, our role does not stop there. Through negotiations, contract wording, increased awareness of innovative supplier capabilities, match-making and others, we can help incentivise our Tier One Contractor's, increasing the probability of uptake and opportunity - particularly in newer ORE markets such as Ireland – bringing our knowledge and supplier partnerships with us.

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