PRESENTATION OF DRAFT REPORT

THE ECONOMIC IMPACT OF SOUTHERN REGION PORTS

Agenda

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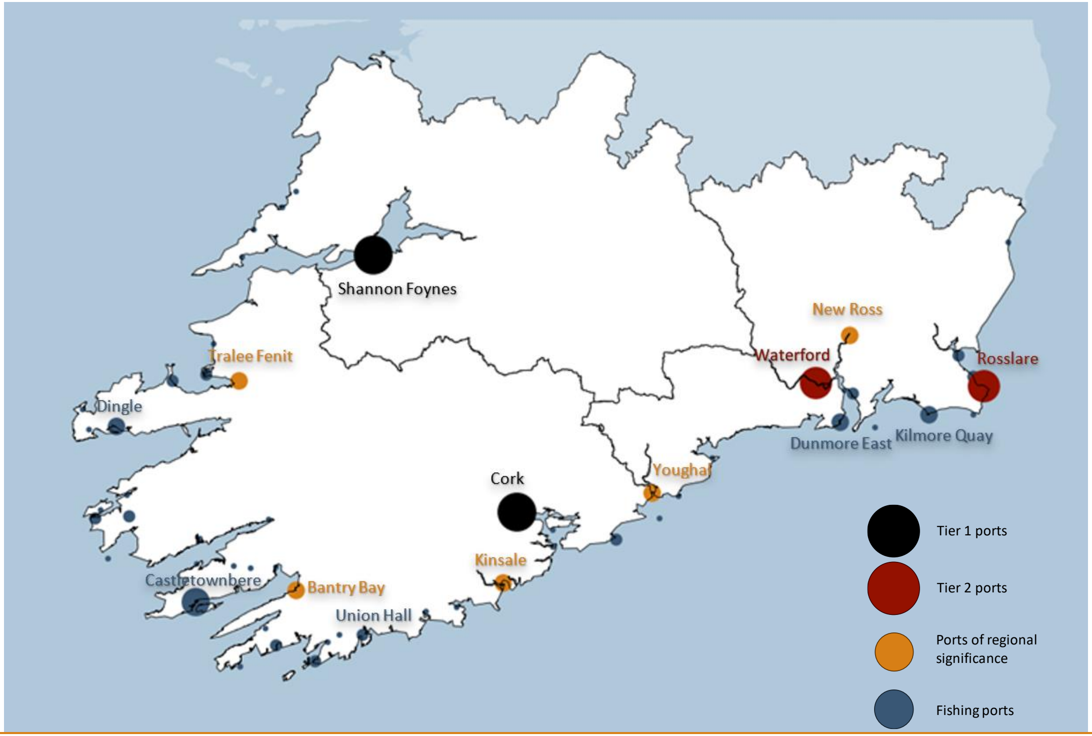
- Overview of the ports in the region
- Part 1: Economic impact of the port sector
  - Direct effects in the ports
  - Total economic impact
  - Wider economic benefits of ports
- Part 2: Potential for growth in marine economic sectors
  - Offshore wind
  - Marine tourism
  - Fisheries and aquaculture
  - Alternative fuels and renewable energy hubs

Overview of the ports in the Southern Region

Overview of the ports in the Southern Region

- The Southern Region is home to four of the five ports of national significance
  - Tier 1: Cork and Shannon Foynes
  - Tier 2: Waterford and Rosslare
- The region also houses six ports of regional significance and a large number of fishing ports



The Southern Region ports account for a little under half the goods- and passenger traffic in Ireland

	RoRo tonnes (in 1000)	LoLo tonnes (in 1000)	Bulk and other cargo tonnes (in 1000)	Cruise passengers	Ferry passengers	Value of fish landed (mill. euros)
Cork	219	2 043	6 295	186 426	118 256	17
Shannon Foynes			8 187	1 149		
Waterford		260	1 527	17 054		
Rosslare	3 355		-		634 130	3
Ports of regional significance			410	4 737		100
Other ports			-			84
Total	3 574	2 303	16 418	209 366	752 386	205
Share of Irish total, %	**22**	**35**	**64**	**56**	**30**	**52**

Part 1: Economic impact of the port sector

The definition of the port sector

Narrowest definition → This report's definition → Broadest definition

Narrowest definition

Core port services
Port administration, handling of cargo and vessels, loading and unloading, storage and warehousing, freight and forwarding, ship services

Port activities	

This report's definition

Core port services, and directly port-related activities
Including maritime transportation, ship repair and maintenance, bunkering, and other activities close to or directly related to the port

Port activities	*Auxiliary services*
Maritime transport	*Fisheries*

Broadest definition

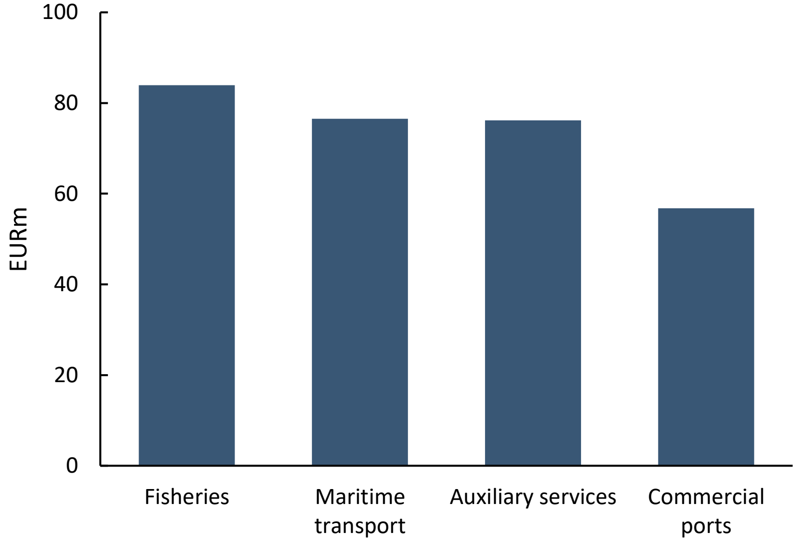
Full maritime economy,
includes shipyards, equipment suppliers, fisheries, aquaculture, and more

Port activities	*Auxiliary services*
Maritime transport	*Fisheries and seafood processing*
Marine services	*Marine manufacturing*
Marine renewable energy	*Oil, gas and minerals*
Coastal tourism	*Other services for marine companies*

The port sector created a gross value added of EURm 300 in 2023

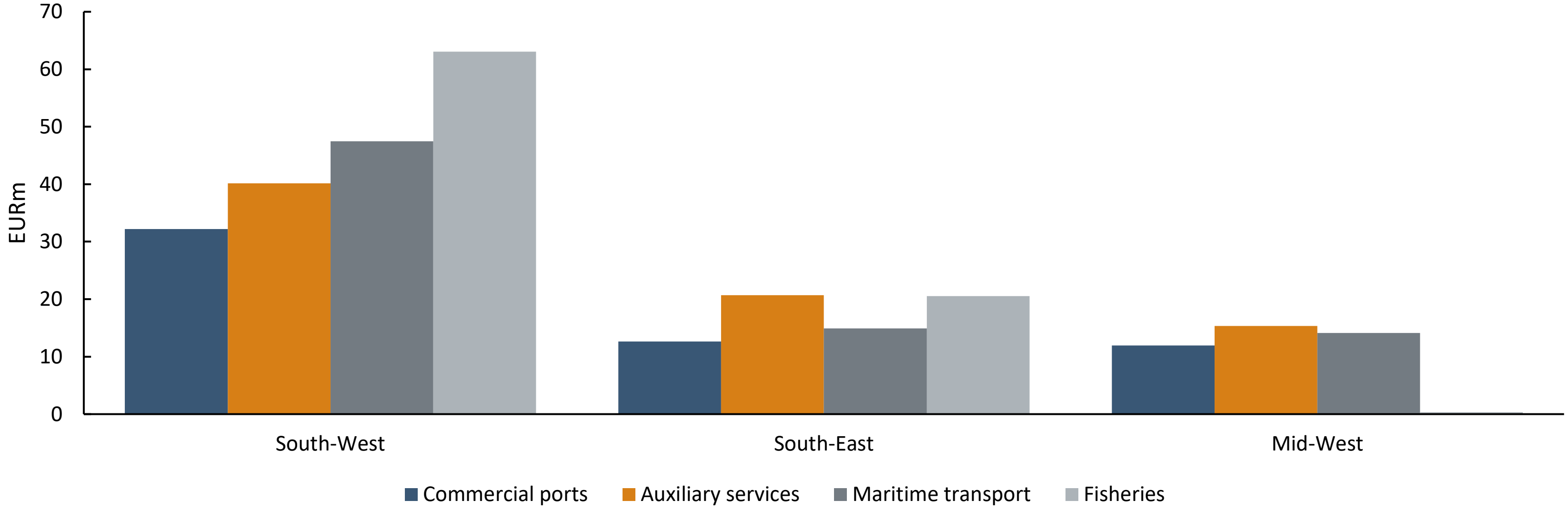
- Based on dialogue with the Southern Region, we defined the port sector activities as the companies in four categories:
  - **Commercial ports**: The semi-state companies that own and operate the ports
  - **Maritime transport**: Traditional shipping companies
  - **Auxiliary services**: Companies that support maritime operations, such as warehousing, cargo-loading and marine construction
  - **Irish sea fisheries**: Activity of the fisheries themselves, but not the seafood processing or subsequent value chain.

Gross value added (GVA) in the four sub-sectors. Source: Menon Economics



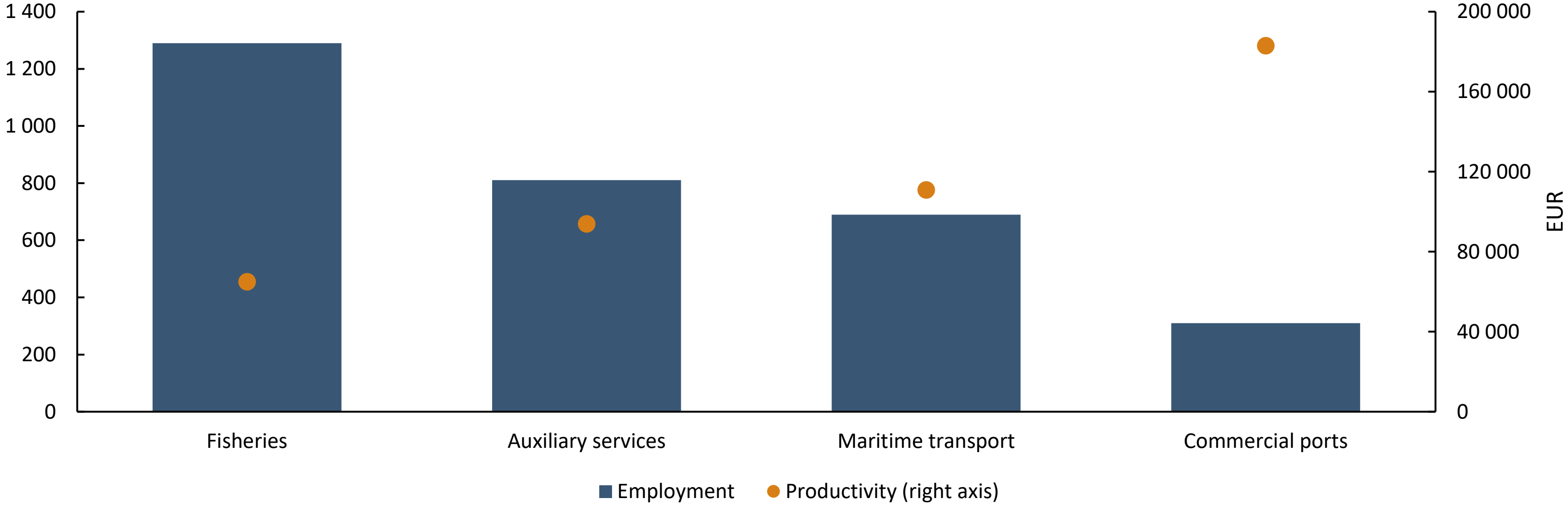
The GVA is largest in the South-West

Gross value added (GVA) in the three sub-regions. Source: Menon Economics



The port sector employs around 3,100 persons with the highest employment in fisheries - highest labour productivity in the ports

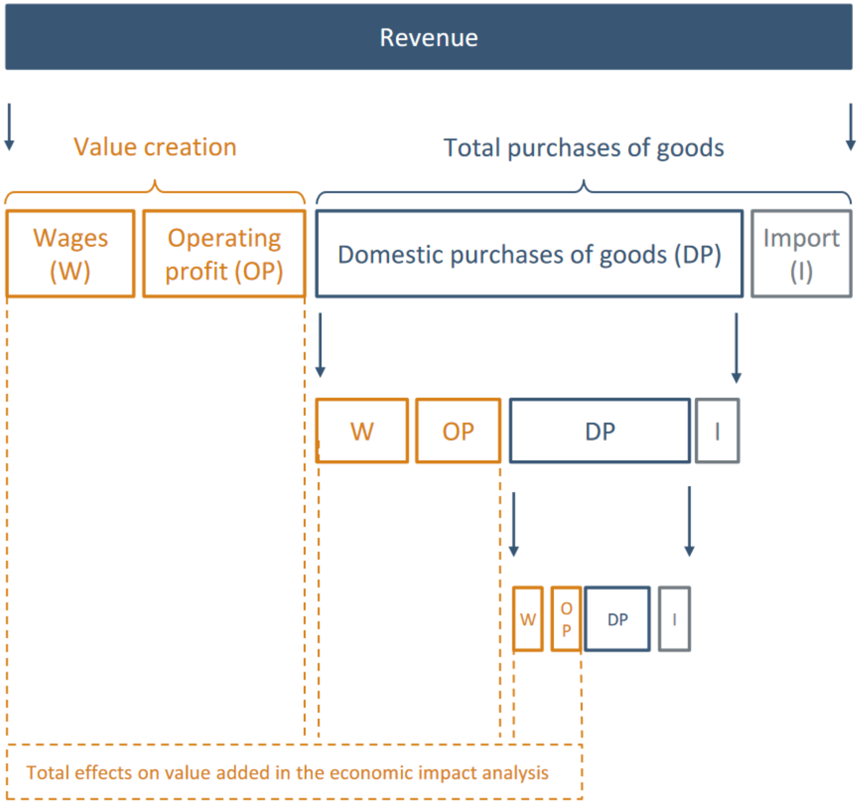
Employment and labour productivity in the four sub-sectors. Source: Menon Economics



Part 1b: Direct + indirect impact of the port sector

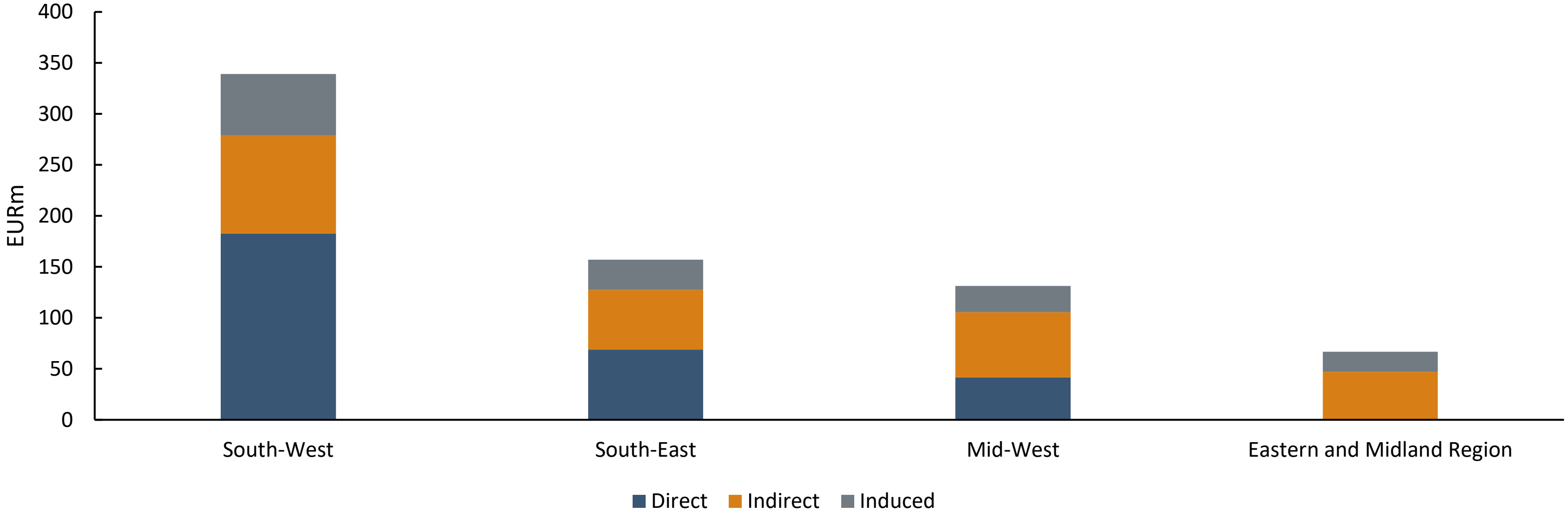
The total economic impact of the port sector

- The total economic impact measures the total effects the along the value-chain.
- The activities in the port sector also stimulate activity among their suppliers, and their suppliers again.
- The figure on the right shows a sketch of how the initial impulse has an impact far down the value chain. The sum of the orange boxes at all stages constitutes the total effects on value added
- We utilise a custom-built regionalised input-output model to estimate the total economic impact at a regional level



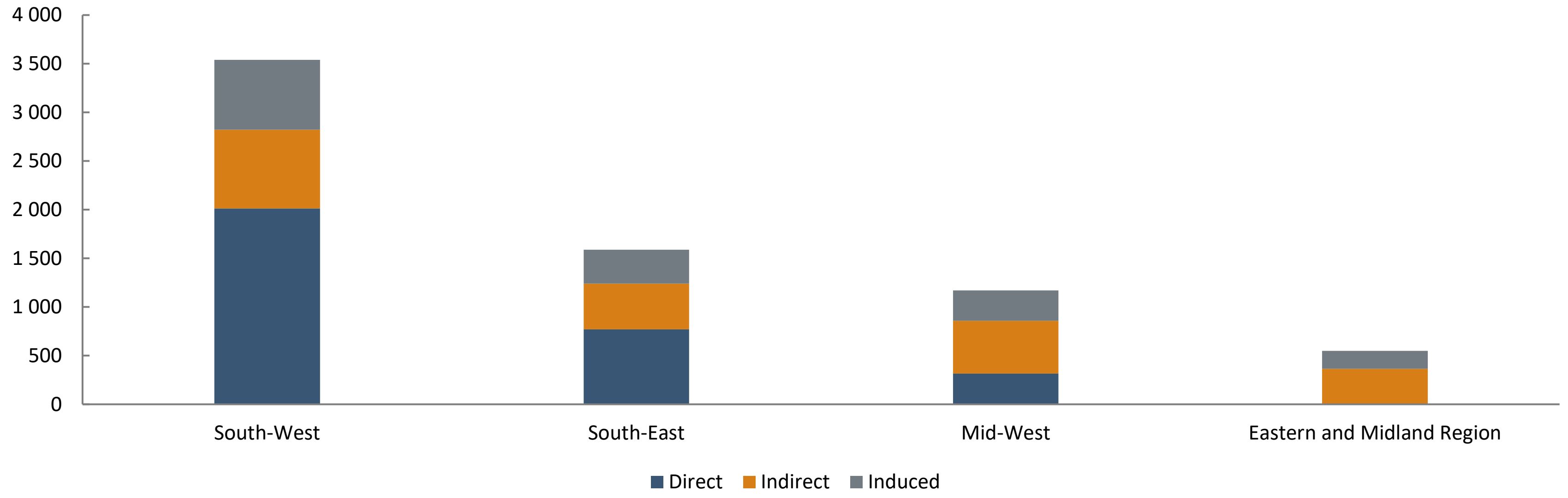
The total economic impact of the port sector was EURm 695 in 2023

Total economic impact of the port sector in 2023, classified as direct and indirect effects. Source: Menon Economics



The total employment impact in Ireland is 6,850 employees

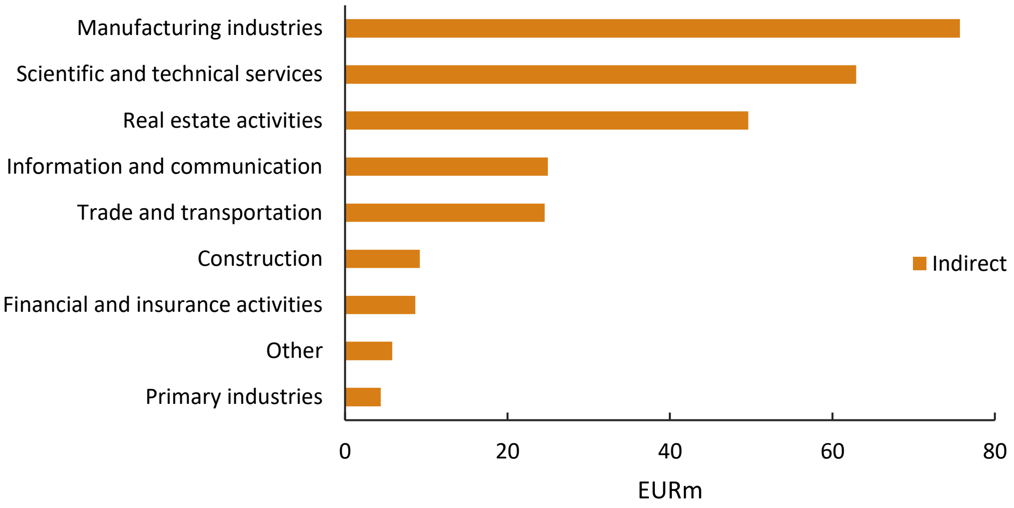
Total employment effects from core port activities in Ireland. Source: Menon Economics



The largest indirect effects are in the manufacturing industries

- Scientific and technical services, such as specialised marine services suppliers, make up the second largest indirect effects.
- The total indirect effects are around EURm 260

Indirect effects categorised by industry



Port attracted companies: The manufacturing companies in the Southern Region are generally located by the ports

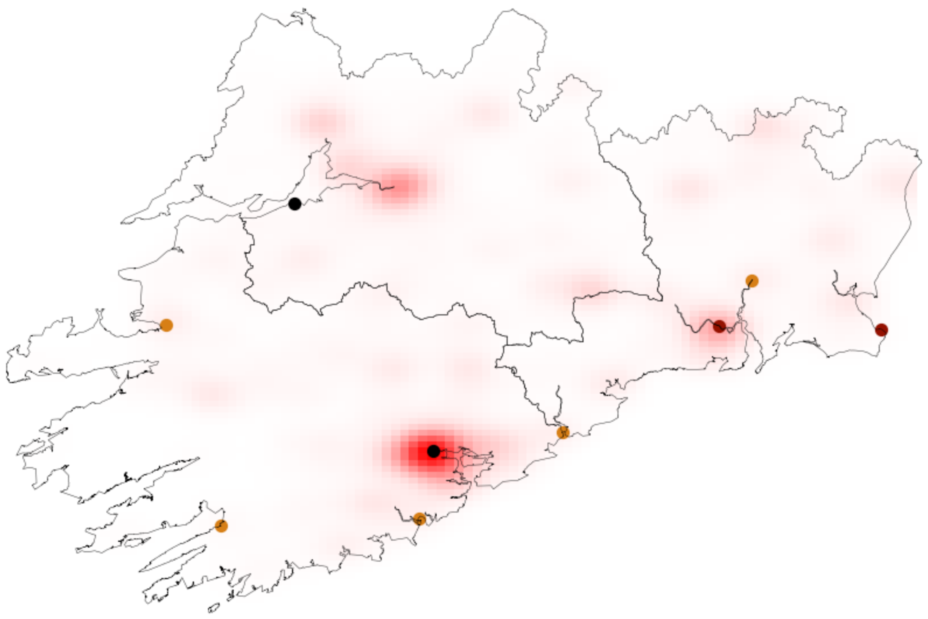


Figure: Heatmap of manufacturing companies' employment in the Southern Region along with ports. Areas with red have a higher number of manufacturing employment. Source: Labour Force Survey small area dataset

Ports as facilitators of trade

- Around 90 percent of Ireland's international trade goes through its ports.
  - A little under half of this goes through ports in the Southern Region
- In other words, the ports play an important role in ensuring that Irish companies and consumers get their inputs and consumer goods, and that exporting companies can reach their markets.
  - According to Eurostat estimates, exports in transport-intensive industries support approximately 400,000 jobs across Ireland.
- Past research has found that the ports themselves directly affect the level of trade. More efficient ports increase their country's trade participation.

Part 2: Potential for growth in marine economic sectors

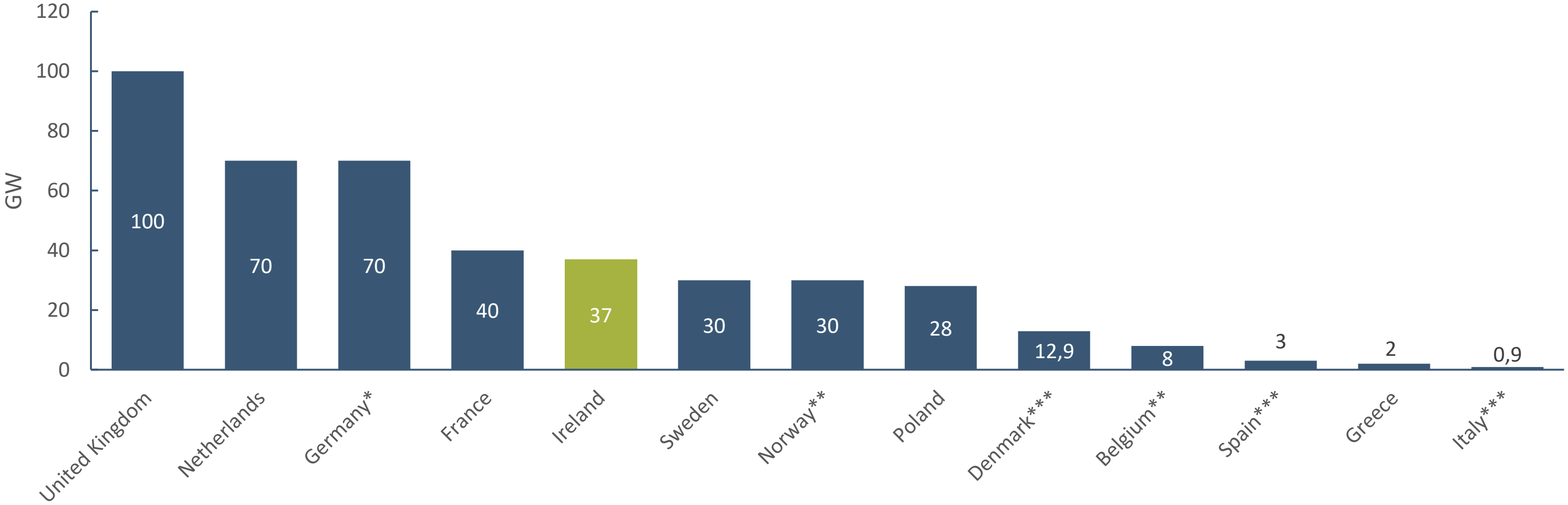
Potential for growth in marine economic sectors

We analyse the potential for growth and key barriers in four marine economic sectors

1. Offshore wind
2. Alternative fuels and renewable energy hubs
3. Marine tourism
4. Fisheries and aquaculture

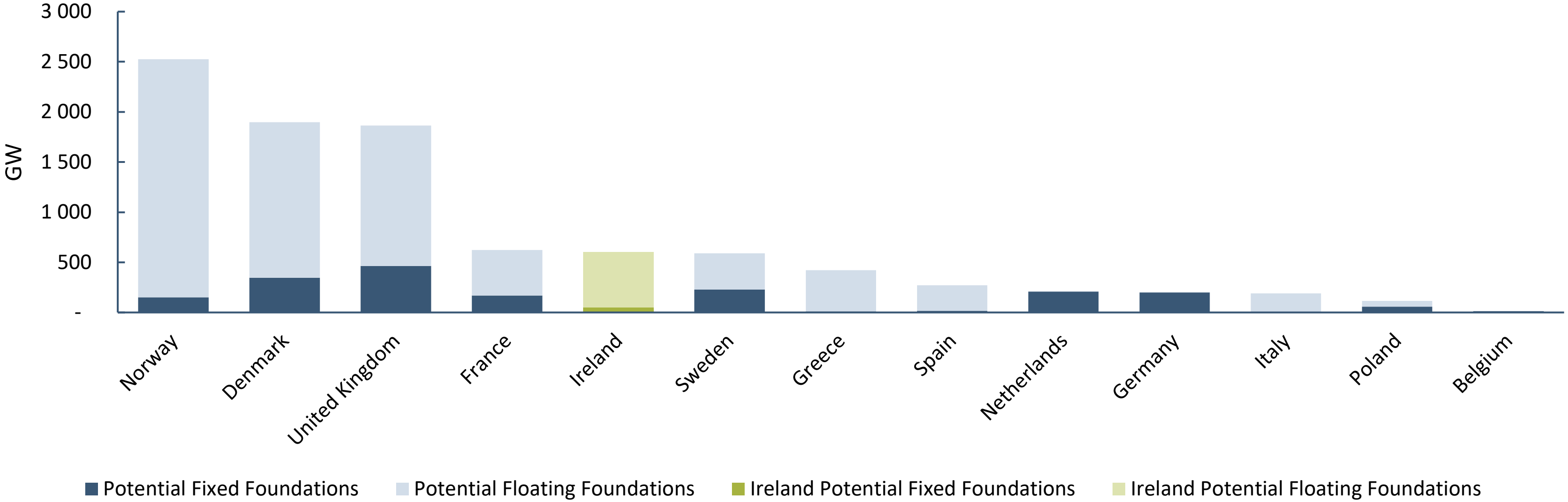
Ireland and EU countries have set ambitious plans for offshore wind

Quantified objectives for offshore wind development set by European authorities in 2050. Note that some countries have specified ambitions for 2045 (*), 2040 (**) and 2030 (***).



Ireland has a large technical potential for offshore wind

Technical potential for offshore wind for European countries, split into potential for bottom-fixed and floating technology. Source: World Bank

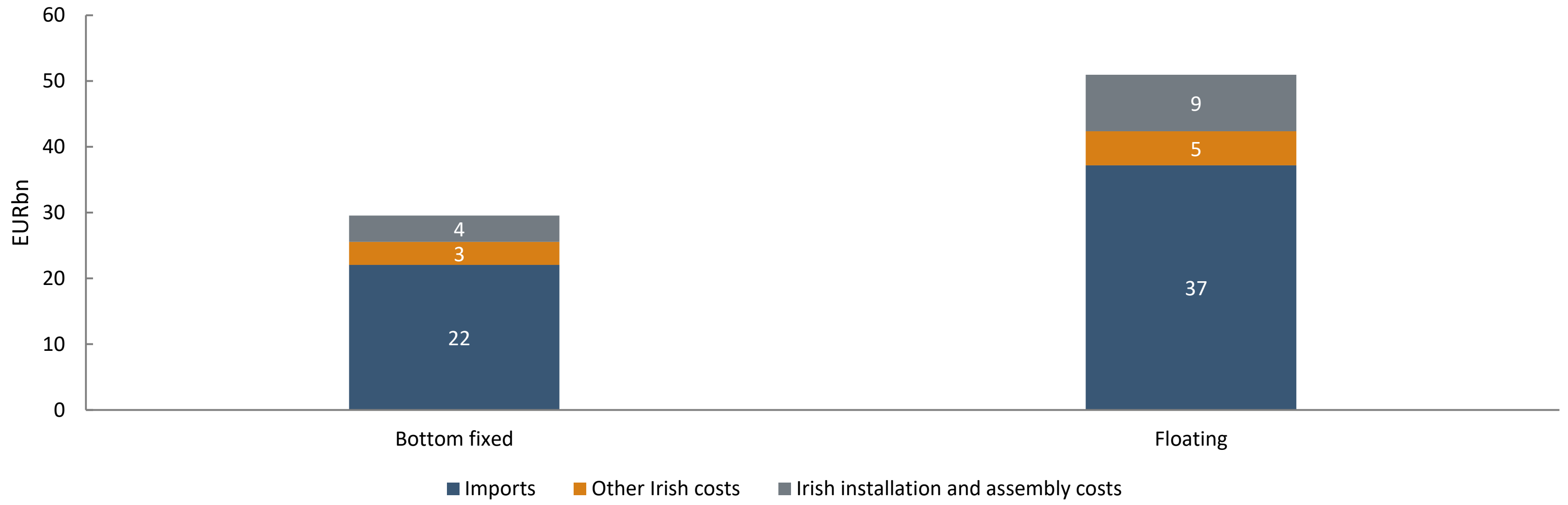


The role of the Southern Region ports

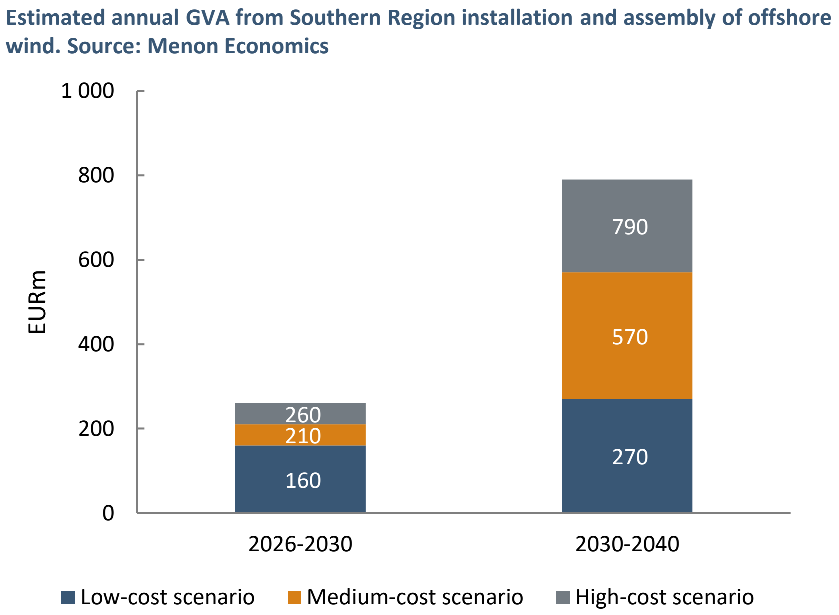
- Assembly and installation **ports are a key part of the value chain for offshore wind**.
  - Floating wind turbines are assembled in the port and require deepwater quays and ample sheltered storage.
  - Bottom-fixed turbines are assembled on-site and require nearby ports to function as logistics hubs.
- The Southern Region ports are **well placed geographically to service the build out of offshore wind**.
  - For the bottom-fixed turbines, which are being built out first, proximity is essential.
  - For the floating wind turbines, which are planned to constitute the majority of the production going forward, there is more uncertainty regarding how important distance is.

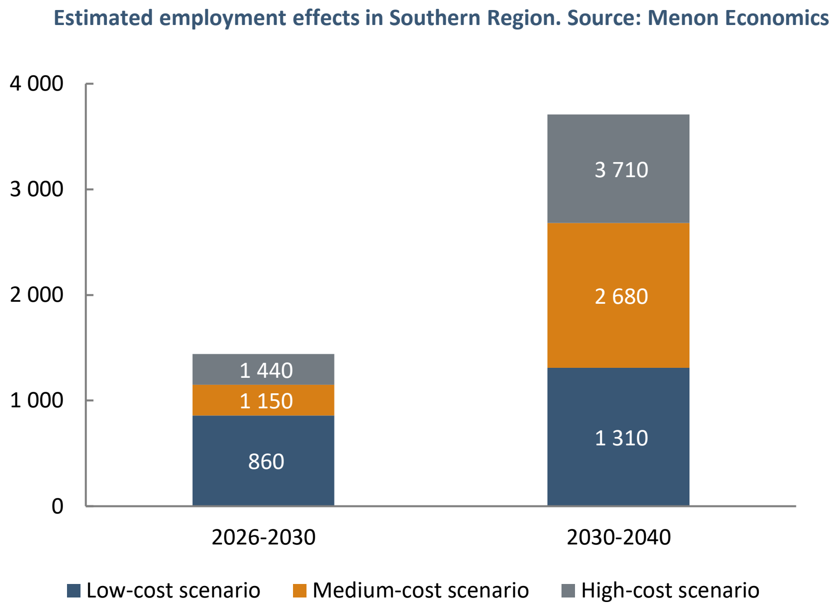
The capacity expansion of offshore wind in will generate substantial economic effects if successful, particularly in the ports during the assembly phase.

Cost of installing 20 GW offshore wind capacity by 2040. Cost in 2023-EUR. Source: 4COffshore, NVE and Menon Economics



Potential economic impact from assembly and installation of offshore wind





Alternative fuels and renewable energy hubs

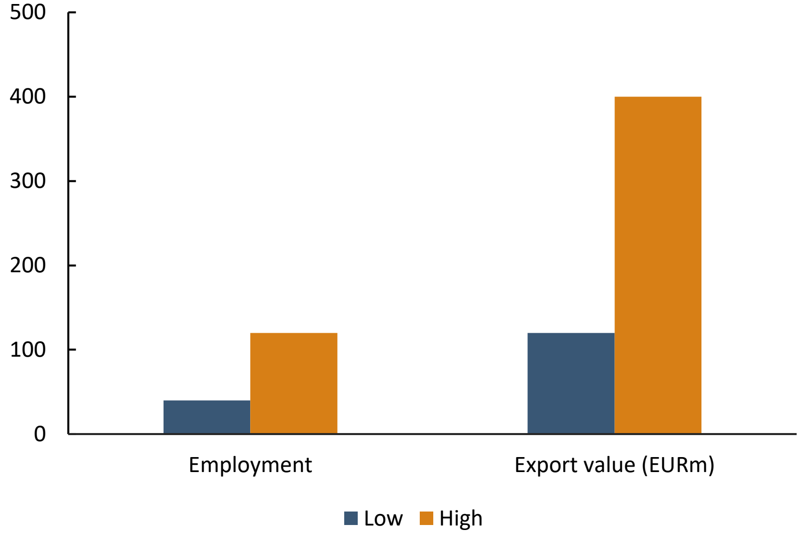
Alternative fuels and renewable energy hubs

- Alternative fuels can help decarbonise many sectors of the Irish economy, which would otherwise be hard to decarbonise.
  - Shipping is today is almost entirely reliant on fossil fuels.
  - Alternative fuels are not competitive in terms of price today, but likely will be in the future
- Ireland’s hydrogen strategy foresees a need from industry and processing of up to 15 TWh
- Southern Region ports will have to start supplying alternative fuels or electricity, otherwise they will be unable to service many ships in the future.
- Ports play two important roles:
  - As prime locations for **production of hydrogen**
  - As **alternative fuel hubs** for the maritime industry

Hydrogen production in Southern Region ports

- Ireland today imports around 80 percent of its energy use
- Power production from offshore wind may cause Ireland to produce more energy than it uses, but many industries cannot be electrified and will need hydrogen-based fuels to decarbonise.
- The commercial ports are well-positioned for hydrogen production
  - Location, infrastructure, nearby industries

Estimated employment effect and export value from a plant producing hydrogen from 1GW of Offshore wind capacity

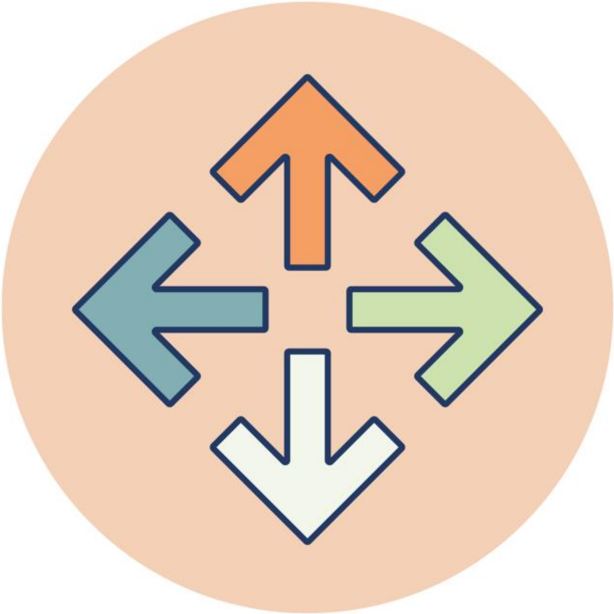


Bunkering with alternative fuels in Southern Region ports

- European and Irish ambitions indicate that all ships will have to transition from fossil fuels to emissions-free propulsion systems.
- Past studies indicate little action has been taken to provide sufficient alternative fuels infrastructure in Ireland.
- Where the infrastructure will be supplied and where ships will bunker is uncertain, however.
  - Two main factors:
    - *Where ship demand for refueling will be*
    - *How large the individual port-specific barriers to bunkering are*

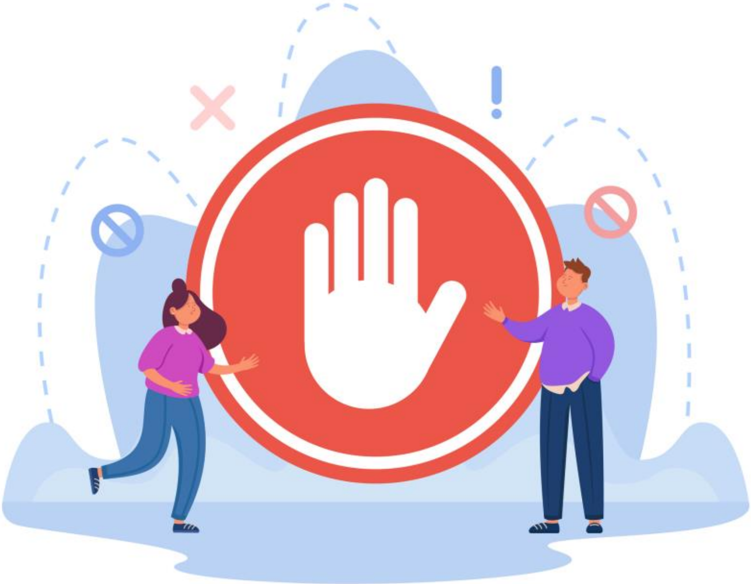
Ship demand for bunkering and changing sailing routes

- Alternative fuels will likely have a shorter range have to bunker more often
- Ireland's location poses some potential challenges and possibilities for bunkering with alternative fuels
  - It is far from other countries – all else equal a need for a lower share of electrified vessels
  - Its position may provide benefits for transatlantic trade



Barriers for individual ports with regards to bunkering with alternative fuels

- Safety issues in population centres
- Space constraints
- High costs of infrastructure investments
- Uncertainty about future demand for alternative fuels



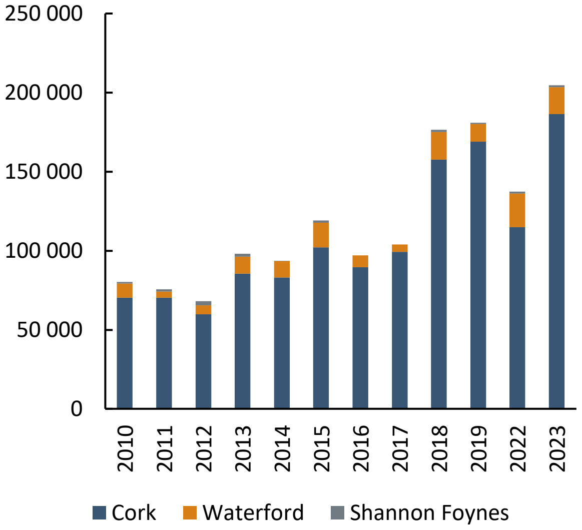
Marine Tourism

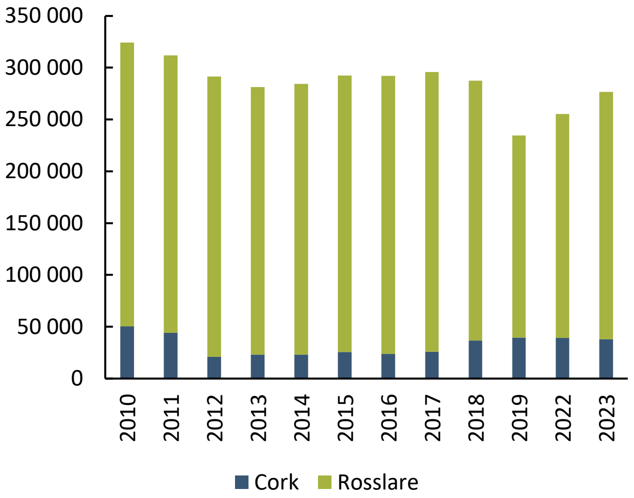
Marine Tourism

- Ports play an important role in facilitating growth in certain sub-sectors of the tourism industry, especially the cruise and ferry segments.
- In 2023 there were close to a million passengers in Southern Region ports, either with ferry or cruise. Southern Region ports account for over half of cruise tourism in Ireland, and a quarter of ferry passengers.

Growth in total port-based visitors – driven by growth in cruise passengers

Left: Number of cruise passengers to ports in the Southern Region. Right: Number of passenger cars to ports in the Southern Region. Source: CSO

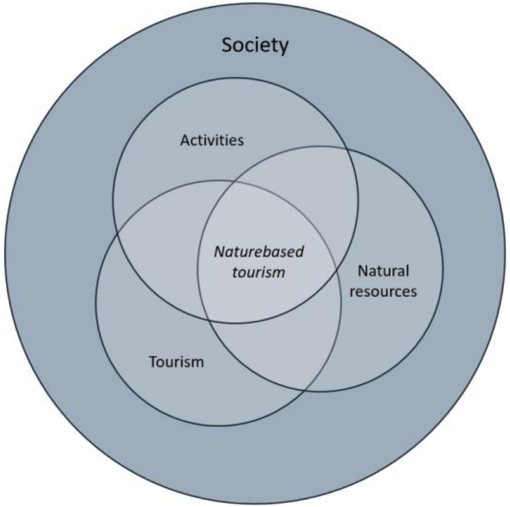




The tourism industry in Ireland is set for future growth

- Nature-based tourism is predicted to have high growth going forward.
- This is a speciality of Ireland, and a core focus of the two regional strategies that overlap with the ports in the Southern Region: The Wild Atlantic Way and Ireland's Ancient East.
- The Irish Tourism Industry confederation has ambitions for growth of 50 percent by 2030, and the tourism minister has similar ambitions.
- Ports also play a role in facilitating sea-based leisure activites in both small villages and large cities. One example is coastal cruises, which a report by SEMRU highlights is growing along the west coast.

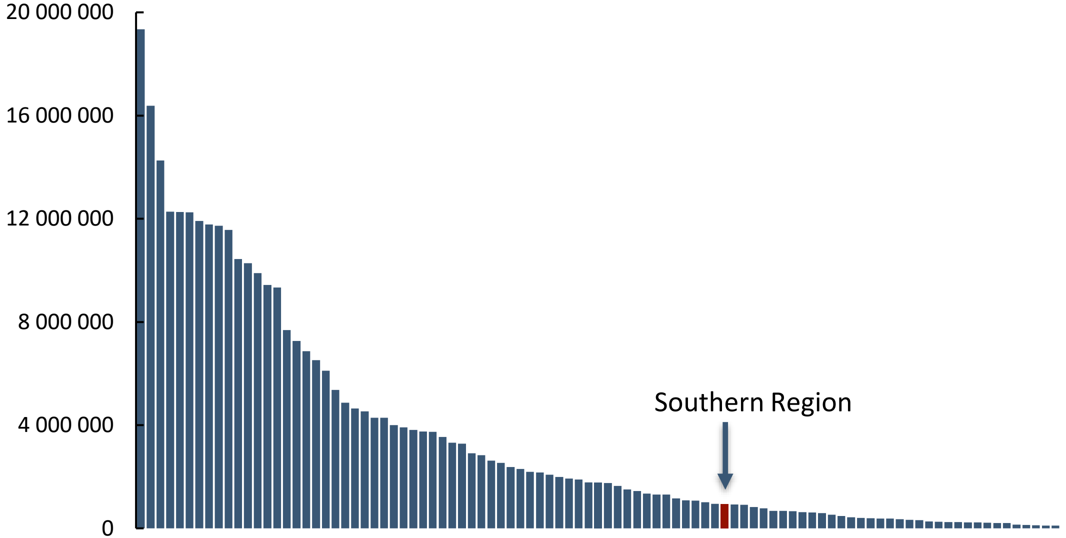
Illustration of nature-based tourism. Source: Fossgard and Fredman (2019



The role of ports in Irish tourism

- Out of all NUTS2-regions in Europe, the Southern Region is far from among those with the most maritime passengers.
- Around 1 in 10 overseas tourists to Ireland come by sea, while the rest come by air
- There are over 5 million passengers through Southern Region airports, compared to around 1 million through Southern Irish Ports

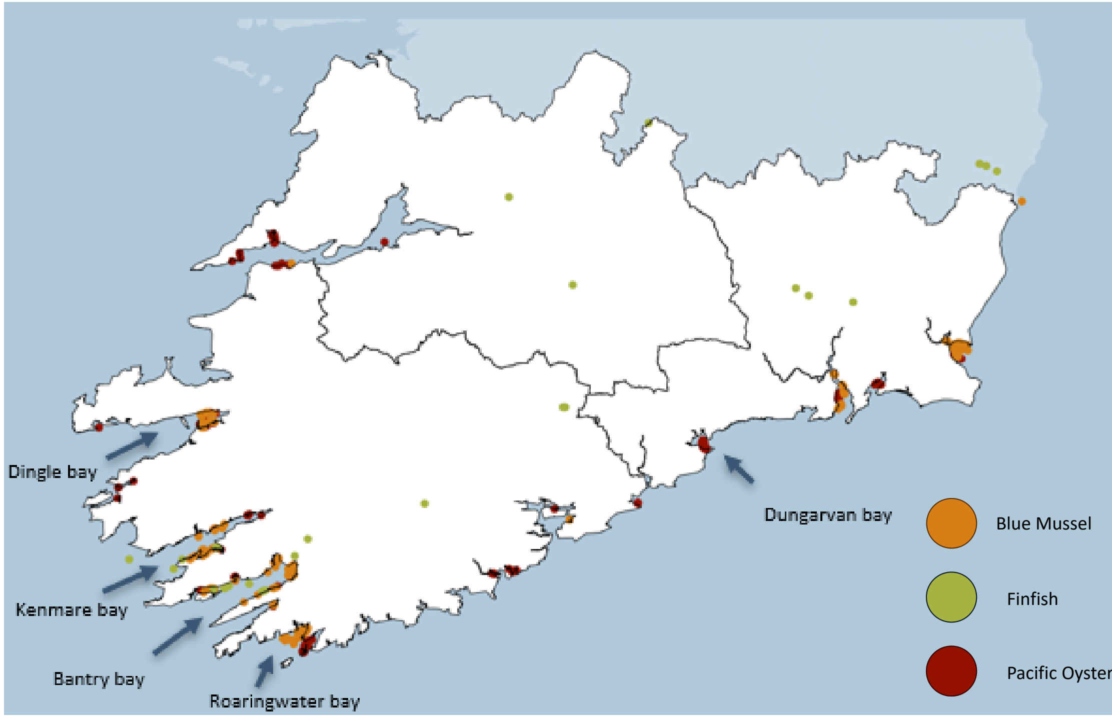
Number of passengers embarking or disembarking in ports by NUTS2-regions in 2019. Each bar is a separate region in the EU, with the Southern Region highlighted in red. Source: Eurostat



Aquaculture and fisheries

Brief overview of Southern Region aquaculture

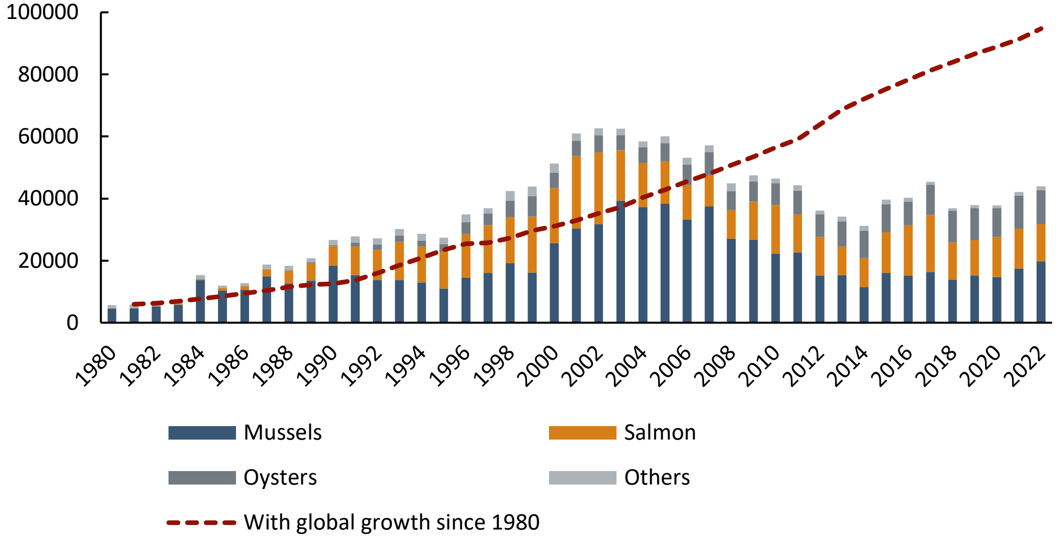
- Southern Region aquaculture mainly revolves around three species:
  - Mussels
  - Oysters
  - Finfish (especially Salmon)
- There are five especially important bays in the Southern Region according to BIM, shown to the right



The aquaculture industry in Ireland grew swiftly in the 1980s and 1990s, but has since stagnated

- From the 1980s through the 1990, aquaculture grew swiftly in Ireland.
  - It grew even faster than the global growth in the industry
- Since the peak in the early 2000s, Irish aquaculture has stagnated, with salmon production halved and mussels production down by a third.

Tons of aquaculture production in Ireland



Total growth in fishing and aquaculture is likely to be limited

- Difficulties in receiving a license has been a main barrier for growth.
  - *“in particular dysfunctional licensing arrangements are a major constraint on the development of the sector” (Renwick, 2018)*
- The licensing arrangements has resulted in very few new establishments. Surveys by BIM in the main aquaculture bays show that 9 out of 10 producers had produced in that area for over a decade.
- There are ongoing attempts to improve the licensing system, but analysing them is not the objective of this project. Past success highlights the possibility for future growth in the aquaculture industry, but whether it may be achieved is very uncertain.
- Catch fisheries are quota-determined and unlikely to grow.