



Rialtas na hÉireann
Government of Ireland

Focus on Transport & Logistics

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Transport & Logistics

International access and competitive freight services are crucial for Ireland as a small open economy – the sector comprises a small number of large enterprises and a large number of SMEs



GLOBAL MARKET SIZE

\$1,909bn

Global Transportation Services in 2016

Growth Forecast by 2020

\$2,400bn

Source: Global Transportation Services, Marketline, September 2017

IRISH EXPORTS

€8bn in 2017

Source: CSO Balance of Payments-Transportation. Total national exports figure is derived from adding current account exports of goods and services.

11% of total Irish exports are shipped via the UK landbridge

38% of unitised traffic exports to EU continental ports are exported via the UK landbridge

Source: Irish Maritime Development Office



Irish ports handled **53.3 million tonnes** of goods in 2017, an increase of **5.2%** on 2016

Source: CSO Statistics of Port Traffic, 2017



EMPLOYMENT

97,000 in Q2 2018

Source: CSO, Labour Force Survey, seasonally adjusted, Q2 2018



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Prepared by the Department of Business, Enterprise and Innovation

The sector in numbers

Global ⁱ	Market Size			Growth Forecast		
		Global Transportation Services \$1,909bn (2016)			Global Transportation Services \$2,399.7bn by 2021 CAGR 4.7% (2016-2021)	
Ireland	Exports (2017)	% of National ⁱⁱ (Exports)	5-year CAGR (2012-2017)	Employment ⁱⁱⁱ	% of National ^{iv}	5-year CAGR (2013-2018)
	€8bn	2.28%	11.9%	97,000	4.3%	2.67%

i) Global Transportation Services, Marketline, September 2017.

ii) CSO Balance of Payments (Transportation), note: total national exports figure is derived from adding current account exports of goods and services

iii) CSO Labour Force Survey (LFS) Q2 2018 (Transportation and Storage Activities- seasonally adjusted figure). Note: The QNHS changed to the LFS in Q3 2017, the CAGR is based on seasonally adjusted, back-casted figure of employments in Q2 2013

iv) The total national employment is based on seasonally adjusted figure in Q2 2018 of 2,256,500

Description of the sector globally

- The global freight transport, distribution and logistics (FTDL) services sector includes transportation by road, rail, air and sea. The industry is both capital and employment intensive and is driven by trends in global imports and exports.
- The sector is an important enabler of economic growth.
- Freight transport and services comprise a significant component of the total supply-chain cost for companies in bringing a product to market.
- The intensity of competition varies depending on the segment of the sector. Road transport is characterised by relative ease of market access and a consequential high level of competition. Railways and ports as natural monopolies, have less exposure to direct competition.

Global developments and implications

- Technology is transforming the sector. The use of data analytics presents opportunities to improve performance and serve customers better through improved forecasting to scale capacity up or down and plan routes. Adding machine learning and artificial intelligence techniques to data analytics can deliver dynamic routing¹. In shipping, technological developments in Intelligent Awareness systems have the potential to be applied to ships to enhance safety by combining information from different sensors, such as camera, radar, Automatic Identification System (AIS) and LIDAR, and by applying intelligent object detection.
- Innovation involves the automation of warehousing activities, tracking and tracing technology, radio-frequency identification (RFID), real time location systems (RTLS) and in-cab technology.
- Ports will be transformed by technology. Driverless cranes for example, are transforming the traditional way in which ports operate.

¹ PWC Shifting patterns, The future of the logistics industry, 2016

- Remote and autonomous technologies are also being applied to the shipping industry and although it is unlikely that we will see ultra large cargo ships become autonomous in the near future there may be economic drivers to apply these technologies to smaller containerships, general cargo vessels or bulkers.
- Electric and hybrid-electric-powered vertical take-off and landing (VTOL) aircraft for personal air vehicles and urban air taxis could provide an emission-free, low-noise, on-demand alternative to ground-based transportation in urban areas and is gaining interest and investment from the likes of Audi, Airbus and Uber. Drone deliveries could be a faster and cheaper method than existing logistics methods of delivering goods to consumers.
- Major players from other industries may have the potential to shake up the industry's competitive dynamics i.e. autonomous vehicles and the industry's own customers becoming significant new entrants (Amazon is an example of this, looking to expand its in-house expertise in warehousing as well as develop its own delivery capabilities).²
- This transformation of the industry will demand new skills, putting the sector in direct competition with others as demand for people with high level ICT skills intensifies across all sectors.
- In terms of sustainability, manufacturers and retailers are demanding that FTDL operators transport their goods with a low CO₂ footprint. This encourages logistics companies to invest in eco-friendly technologies, including the use of electric vehicles, electrical systems in ports to reduce emissions. This increases the demand for skills in areas such as logistics planning, carbon reporting and the 'greening' of operations.
- Customer expectations are changing. Both B2C and B2B customers expect to get goods faster, more flexibly and at low or no delivery cost.
- Increasingly organisations are seeking to consolidate the management of their supply chain in a single location to manage more complex arrangements and increase efficiencies. Advanced SCM can facilitate the movement of goods remotely, without the need for a physical presence in the countries in which any element of the transportation occurs. The use of blockchain technologies is being adapted for supply chain management.

The sector in Ireland

- Being an island and a net exporter (in terms of value), requires Ireland to have expertise in facilitating a multi-modal supply chain incorporating sea, road, rail and air freight. Excellence in freight transport and logistics is also vital for attracting inward investment and enterprise competitiveness.
- Road freight is the largest employer within the goods transportation industry in Ireland. It is dominated by SMEs (some of which cater to sector specific needs) with an average fleet size of 4.5 trucks. The sector also includes some well-known multi-national companies (MNCs) and large domestic providers that operate internationally. The relatively high number of haulage operators results in competitive pricing in road freight. Low barriers to entry maintains Ireland's openness to the operation of shipping companies here.
- Ireland is heavily dependent on ports for trade as most of Ireland's merchandise imports and exports are transported by sea. The growth in the Irish food sector is likely to lead to an increase in sea freight volumes up to at least 2020³ - the main driver of increase in sea freight volumes in Ireland will be increases in consumption due to population increases. Irish ports handled 53.3 million tonnes of goods in 2017, an increase of 5.2% when compared with 2016.

² PWC Shifting patterns, The future of the logistics industry, 2016

³ Ibid

- Air freight accounts for 1% of freight tonnage by volume but about 35% of the value of all freight in Ireland – mainly seasonal food stuffs, higher value-added pharmaceutical, medical devices and IT components.⁴ Ireland's main airports handled a total of 163,956 tonnes of freight in 2017, the vast majority (94.1%) of which was international freight. This was an increase of 11.7% when compared with 2016.⁵ Air freight represents approximately 1% of all Irish trade tonnage, but accounts for about 35% of the value.⁶
- There is an absence of dedicated international cargo air freighters in the industry. Most of Ireland's international cargo is carried in the hold of passenger aircraft. This results in less choice in terms of frequency and range of locations for freight.
- Rail freight accounts for movement of only 1% approximately of all goods⁷. Factors such as the small size of the country, the type of products produced, access to rail networks and the comparative advantage of road transportation all affect the attractiveness of rail freight in Ireland.
- Warehousing operations are a key employer in the sector. Increasingly value-added operations take place in warehouses, such as branding, pricing and merchandising of stock in readiness for final delivery to the customer.

Brexit

- The key issues of concern to enterprises in this sector include the possibility of re-establishment of a physical border, imposition of trade tariffs, restrictions in providing or receiving a service in/from the UK, absence of a customs union and unilateral imposition by the UK of new/different product standards. Each of these factors could result in added costs and delivery times for goods/services.⁸
- Based on estimates of Irish traffic using the UK landbridge (IMDO, 2018), and CSO data on Irish trade volumes (2016), 11% of total Irish exports are shipped via the UK landbridge. The average value of goods, in € per tonne, is over three times higher for goods transported to/from the rest of the EU compared to goods transported to / from Britain. 40% of Irish exports to the EU are shipped via the UK landbridge. The agri-food, seafood and automotive sectors are particularly exposed, as are other sectors whose products are perishable or whose supply chains rely on swift transit times. Brexit, given the re-imposition of border and customs controls between the UK and EU member states, has the potential to negatively impact these shipping routes, and Irish exporters that rely on fast delivery times to the continent.
- A significant share of cross-border trade is accounted for by enterprises that trade simultaneously in both directions. Two-way traders make up around 18% of firms but accounted for over 60% of exports and over 70% of imports in 2015⁹.

See also Focus on Tourism & Hospitality and Aerospace & Aviation

⁴ DTTAS, A National Aviation Policy for Ireland, 2015.

⁵ <http://www.cso.ie/en/releasesandpublications/er/as/aviationstatisticsquarter4andyear2017/>

⁶ The Implications of Brexit on the Use of the Landbridge, Irish Maritime Development Office, 2018

⁷ Addressing the Skills Needs Arising from the Potential Trade Implications of Brexit, Expert Group on Future Skills Needs, June 2018

⁸ An Assessment of the Firm-Level Impact of Brexit on Most Exposed Sectors, Department of Business, Enterprise and Innovation, June 2018

⁹ Cross-border trade & supply chain linkages *InterTrade Ireland*, March 2018

Ecosystem

- The National Institute for Transport and Logistics (NITL) provides expertise in transport, logistics and operations management to firms operating in Ireland and overseas markets. They provide tailored services to many different industries such as manufacturing, agriculture, recycling and service industries.
- UL coordinates the introduction of approved apprenticeship programmes- Supply Chain Associate NFQ Level 7, Supply Chain Specialist NFQ Level 8, Supply Chain Manager NFQ Level 9 and Lean Sigma Manager NFQ Level 9.
- The Logistics Associate Apprenticeship, a Level 6 Higher Certificate in Logistics, is offered by DIT with the first intake of the students for the programme started in September 2018.
- A HGV Driver Apprenticeship Programme was approved for development under the 2015 Apprenticeship call. A HGV Driver traineeship will be rolled out by the Freight Transport Association of Ireland in Q4 2018.
- Numerous third level courses in Transport Management, Logistics and Supply Chain Management are on offer in DIT, UCD, UCC, UL and in the Dundalk, Limerick, Carlow and Cork Institutes of Technology
- Private sector and Professional Bodies (the Chartered Institute of Logistics and Transport, the Irish Exporters Association, the Irish Institute of Purchasing and Materials Management, Institute of Chartered Shipbrokers) offer certificates and day courses in topics such as logistics, supply chain, customs, public procurement and warehousing.

Relevant Reports

Click on hyperlinks below

- [The Implications of Brexit on the Use of the Landbridge, Irish Maritime Development Office, 2018](#)
- [IMT Economist, Irish Maritime Development Office , Annual Publication](#)
- [Addressing the Skills Needs Arising from the Potential Trade Implications of Brexit, Expert Group on Future Skills Needs, June 2018](#)
- [Limerick Docklands Framework Strategy](#)
- [Cross-border trade & supply chain linkages InterTrade Ireland, March 2018](#)
- [Our Ocean Wealth Development Task force report to Inter- Departmental Marine Coordination Group](#)
- [An Assessment of the Firm-Level Impact of Brexit on Most Exposed Sectors, Department of Business, Enterprise and Innovation, June 2018](#)

Key actors

Government Departments: Department of Transport Tourism And Sport (DTTAS), Department of Business Enterprise and Innovation (DBEI), Department of Finance (DoF), Department of Communications Climate Action and Environment (DCCAIE)

Agencies and groups: Irish Maritime Development Office (IMDO), National Civil Aviation Development Forum

Industry Bodies: The Chartered Institute of Logistics and Transport (CILT), Institute of Chartered Shipbrokers, the Irish Exporters Association (IEA), the Irish Institute of Purchasing and Materials Management (IPM), Freight Transport

Association of Ireland (FTAI), the Irish International Freight Association (IIFA), Irish Road Haulage Association (IRHA), Irish Ports Association (within IBEC).

Recent Developments

Company Developments

- McArdle Skeath, one of Ireland's leading supply chain management providers, opened its new 12,500m² temperature controlled storage facility in Hollystown, Dublin 15. This represents a €20 million investment and is strategically positioned to service the nutritional and bio-tech sectors. The company, 50 years in business this year, has added the Hollystown facility to its existing headquarters in Inniskeen, Dundalk (June 2018)
- 40 new jobs will be created at The Packaging Hub's new packaging manufacturing facility and healthcare logistics centre in Waterford (September 2016)
- Logistics company, Nightline, announced the creation of 110 new jobs in Dublin and Waterford, after opening of new depots and 40 new positions will come onstream in Tyrone (September 2016)

Sector Developments

- Funding from Science Foundation Ireland (SFI) of €1.8m - with a further €4.5m investment from industry to Dr Tim McCarthy, NUIM, for a new drone technology initiative known as U-Flyte. U-Flyte is an SFI Strategic Research Partnership award that involves collaboration with partners across the aviation industry, and includes input from Airbus, Irelandia Aviation, Intel and 15 other companies and agencies with an active interest in the development and deployment of drone technology (April 2018)
- CLDN Caledonia, Irish Ferries and Brittany Ferries have acquired new vessels which are now providing new routes for RORO services direct to EU continental ports, showing the shipping sector's responsiveness to market developments.
- A new cargo container terminal is under development at Ringaskiddy in Cork Harbour as part of an €80 million investment by the Port of Cork Company. The project is being funded by AIB, the European Investment Bank, the Ireland Strategic Investment Fund, and with monies from the European Union Connecting Europe Facility funds, as well as its own funds.
- Dublin Port Company expects to invest €1bn in capital over the next decade. The €277m Alexandra Basin Redevelopment scheme set to be completed by 2021, will improve the port's capacity for large ships by deepening and lengthening three kilometres of the port's seven kilometres of berths.
- Shannon Foynes Port Company (SFPC) plans to spend €20 million to help create a site for marine-related industries on 83 acres of its land. The development is part of Shannon Foynes' overall expansion plan, known as Vision 2041, which involves spending €64 million to turn the port into one of the Republic's leading economic zones.