

# Transport Trends

An Overview of Ireland's Transport Sector



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Irish Government Economic & Evaluation Service



An Roinn Iompair  
Turasóireachta agus Spóirt

Department of Transport,  
Tourism and Sport

*Transport Trends 2017* was produced by the Department of Transport, Tourism and Sport's Economic and Financial Evaluation Unit, a constituent unit of the Irish Government Economic and Evaluation Service. The report is available at both [www.dttas.ie](http://www.dttas.ie) and <http://igees.gov.ie/>.



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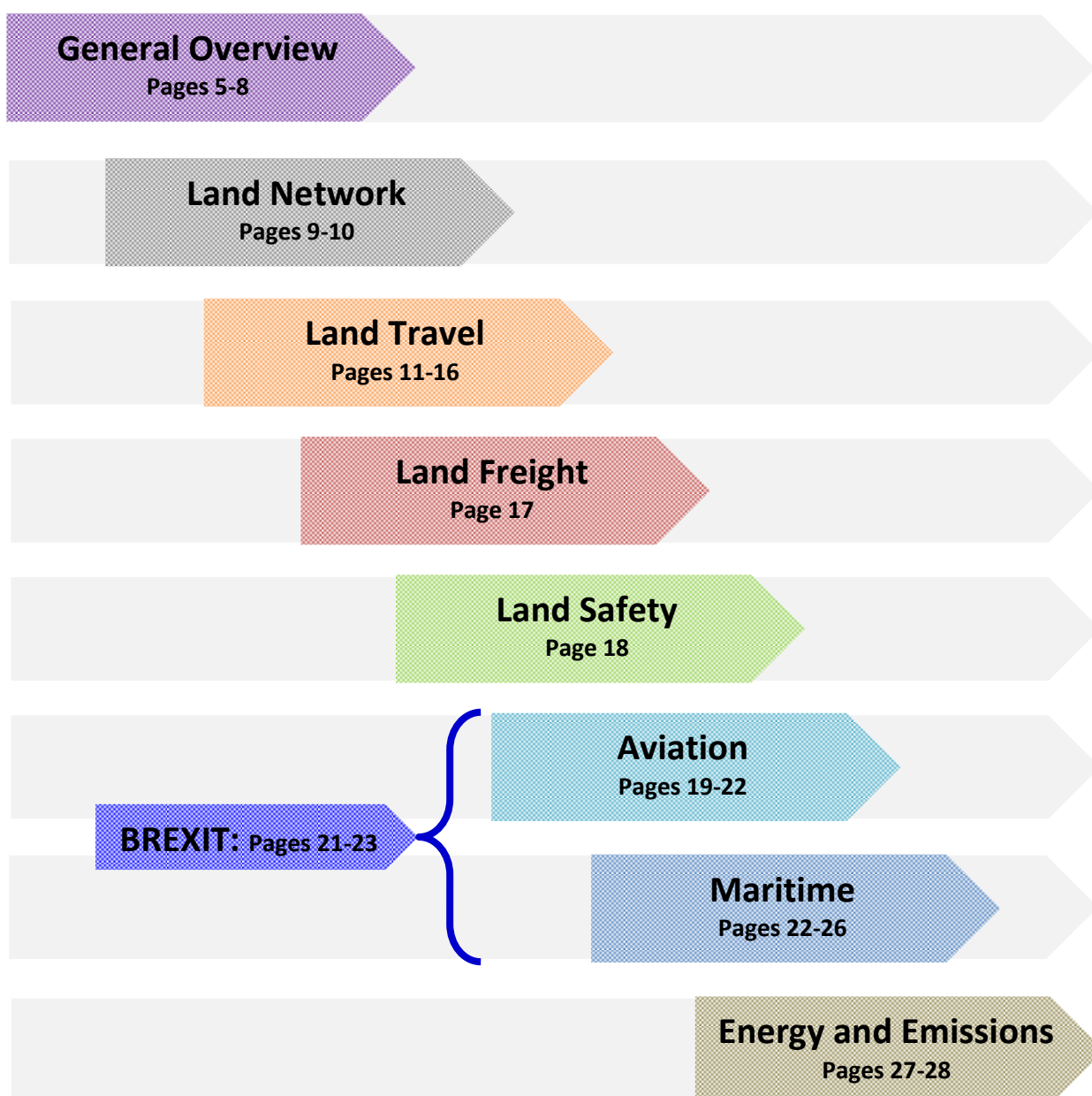
# Introduction and Contents

*Transport Trends* seeks to provide a concise overview of the key developments that are evident from the latest Irish transport data.

The publication is produced annually by the Department of Transport, Tourism and Sport's Economic and Financial Evaluation Unit (EFEU); a constituent unit of the Irish Government Economic and Evaluation Service (IGEES).

The contents of this publication are based primarily on data gathered from external sources. Information provided here should be used for reference purposes and citation should remain with the original source as stated. The 'Notes and References' section (pp.31-34) should be consulted when interpreting this document.

This document is arranged as follows:



# Snapshot

This year's edition of *Transport Trends* highlights continued and consistent growth across the various transport domains in Ireland. Whether analysing the number of passengers carried by public transport, the amount of freight being moved by road, sea or air, the number of people moving through our airports and ports, or the number of kilometres driven by vehicles on Irish roads, the general trend across the different indicators within the transport sector is of sustained and strong growth, moving on from several years of decline and stagnation. A clear correlation between transport activity and economic activity remains evident.

**Land Transport:** The latest data shows an increase in the percentage of Ireland's road network classified as motorway (now 17.3% of national-level roads). The level of public transport services provided for bus and rail increased in 2015.

Travel demand for land transport showed continued strong growth across a range of measures. Total kilometres driven on Irish roads increased by 8.3% in 2015, while the number of new vehicles registered increased 18.4% in 2016. 2015 saw an extra 9.9 million public transport passenger journeys across bus and rail. Use of active modes (walking and cycling) has increased within Dublin but remained steady for the country as a whole.

Levels of road freight activity continued to grow by a small amount in 2015, while levels of rail freight activity showed decline. The number of road fatalities also increased to 187 in 2016, though Ireland's level of road fatalities relative to private car passenger kilometres remained stable.

**Aviation:** Irish aviation activity continued to show pronounced growth across a range of measures in 2016. Dublin Airport had another record year in terms of passengers handled with 27.8 million. Levels of freight handled at Irish airports (in 2015) and flights handled by Irish air traffic control also grew.

**Maritime:** Ireland's port system experienced further increases in activity in 2015. The number of vessels arriving at Irish ports, the gross tonnage of vessel arrivals, the gross tonnage of goods handled through Irish ports, and the number of cruise vessels and passengers arriving all increased, indicating growth in the sector and the wider economy.

**Energy & Emissions:** The level of emissions from the transport sector grew again in 2015 to 11.8m tonnes of CO<sub>2</sub> (up 4.2%), despite a further decrease in the average emissions of new vehicles. Continued growth in transport activity will create increasingly challenging conditions in which to meet climate-related targets.

Several challenges are evident for transport policy, notably the continued dominance of private car use (three out of every four journeys in 2016) and continued expenditure constraints. In summary, *Transport Trends 2017* shows continued growth in transport activity in Ireland across a wide range of measures.

# Transport Dashboard

This section lists the latest headline figures for the transport sector in Ireland. All data listed here are taken from the referenced sources highlighted throughout the report (see 'Notes and References' section). Percentage changes refer to previous year unless otherwise stated.

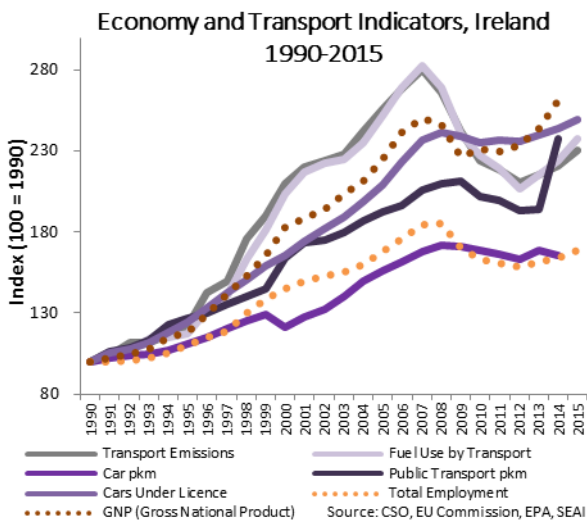
Land Transport			
km of Road	<b>5,306 National; 13,120 Regional; 80,472 Local</b>	Number of Dublin Bus PSO Passengers (2016*)	<b>125 million (Up 4.6%)</b>
Vehicle km Driven (2015)	<b>46 billion km (Up 8.3%)</b>	Number of Bus Eireann PSO Passengers (2016*)	<b>31.9 million (Up 5.5%)</b>
Road Freight Tonne-km Driven (2015)	<b>9.8 billion tonne-km (Up 0.7%)</b>	Number of Luas Passengers (2016*)	<b>34.1 million (Down 1.4%)</b>
Number of Road Fatalities (2016*)	<b>187 (Up 15%)</b>	Number of Irish Rail Passengers (2016*)	<b>42.8 million (Up 7.9%)</b>
Car Modal Share, All Journeys (2016)	<b>74.3% (Down from 74.4%, 2014)</b>	Public Transport Modal Share, All Journeys (2016)	<b>5.5% (Down from 5.8%, 2014)</b>
Gross DTTaS Expenditure <sup>(a)</sup> , Roads, 2016	<b>€805.8 million</b>	Walking/Cycling Modal Share, All Journeys (2016)	<b>16.3% (Down from 16.4%, 2014)</b>
Gross DTTaS Expenditure <sup>(a)</sup> , Public Transport, 2016	<b>€608.6 million</b>	Gross DTTaS Expenditure <sup>(a)</sup> , Sustainable Transport 2016	<b>€13.6 million<sup>(b)</sup></b>
Maritime		Aviation	
Total Number of Vessel Arrivals (2015)	<b>12,242 (Up 0.3%)</b>	Total Air Passengers Handled in Ireland (2016)	<b>32.8 million (Up 10.3%)</b>
Total Gross Tonnage of Vessel Arrivals (2015)	<b>231.7 million tonnes (Up 3.9%)</b>	Air Passengers Handled at Dublin Airport (2016)	<b>27.8 million (Up 11.3%)</b>
Gross Tonnage of Goods Handled (2015)	<b>50.7 million tonnes (Up 6.7%)</b>	Flights Handled at Main Airports <sup>(c)</sup> (2015)	<b>228,200 (Up 5.1%)</b>
Maritime Passengers (2015)	<b>2.8 million (Down 0.1%)</b>	Flights Handled by Irish Air Traffic Control (2016)	<b>1.1 million (Up 8.3%)</b>
Cruise Ship Passenger Arrivals (2015)	<b>241,872 (Up 18.7%)</b>	Air Freight Handled at Main Airports (2015)	<b>149,700 tonnes (Up 7.7%)</b>
Gross DTTaS Expenditure 2016	<b>€81.7 million</b>	Gross DTTaS Expenditure 2016	<b>€23.5 million</b>
Energy & Emissions		Wider Economy	
Emissions from Transport Sector (2015)	<b>11.8m tonnes of CO<sub>2</sub> Equivalent (Up 4.2%)</b>	Seasonally Adjusted Unemployment Rate <sup>(d)</sup> (March 2017)	<b>6.4% (Down from 8.3% in March 2016)</b>
New Electric Vehicles Registered (2016)	<b>402 (Down from 488)</b>	Real GDP at 2014 Prices (2016) <sup>(e)</sup>	<b>€256.6 billion (Up 5.2%)</b>

(a): Expenditure on non-pay administration and miscellaneous services is recorded for Land Transport as a whole. The above figures allocate this 'other' expenditure pro-rata on the basis of existing expenditure in each area. (b): Some expenditure on Sustainable Transport-related projects is under both Sustainable Transport and Public Transport sub-heads. (c): Main Airports: As defined by CSO - Dublin, Cork, Kerry, Knock, Shannon. (d): Seasonally adjusted unemployment data from the CSO are subject to revision following further releases. (e): GDP data from CSO Quarterly National Accounts. PSO: Public Service Obligation or State subsidised. \*: Provisional Data.

# General Overview



This section provides an overview of the transport sector in Ireland. This includes details on how we travel, historical developments, recent headline expenditure trends, revenue associated with the transport sector and the wider international context.



The performance of the wider economy is a primary determinant of trends within the transport sector. Economic growth both results in and is driven by more commuters, goods and tourists moving around Ireland.

The growth of the economy between 1990 and 2008, measured by GNP and employment, was associated with significant growth in cars licenced, passenger km by private car and public transport, and energy use & emissions in the transport sector. The observed **recovery in both economic indicators and measures of transport activity since 2012 has continued** – the most recent figures available show increases in all of the selected indicators apart from car pkm, which fell by 1.8% from 2013 to 2014.

By looking at specific modal trends we can further observe the latest increases in transport demand. Across all modes, growth was positive in 2014 and 2015 and this **growth in transport demand has accelerated in the last two years.**

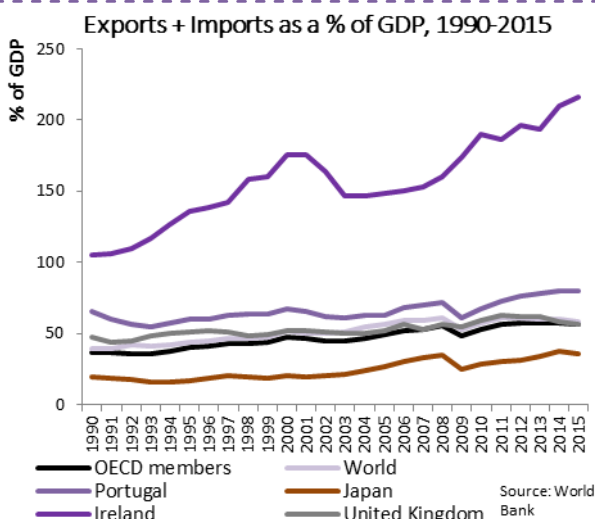
The number of passengers using public transport increased by **4.2% to 248.8 million in 2015**. Total road km driven was up by **8.3% in 2015 to 46 billion km**. The total tonnage of freight handled at Ireland's primary ports increased by **6.7% in 2015 to 50.7 million tonnes**. There was an **11.3%** increase in the number of aviation passengers handled at Dublin airport in 2016 to a total of **27.8 million**.

2015: 4.2% Increase in Public Transport Passengers

2015: 8.3% Increase in Total Road km Driven

2015: 6.7% Increase in Maritime Freight Handled

2016: 11.3% Increase in Aviation Passengers at Dublin Airport



The graph on the left shows the ratio of total exports plus total imports to GDP for various countries and country groups. World Bank data shows that **Ireland is a particularly open economy**, and that this openness has grown over time. **In 2015, Irish exports and imports combined to an amount over twice the size of Irish GDP (216%)**. Only Hong Kong (401%), Luxembourg (391%), Singapore (326%) and Malta (278%) recorded higher levels of trade openness.

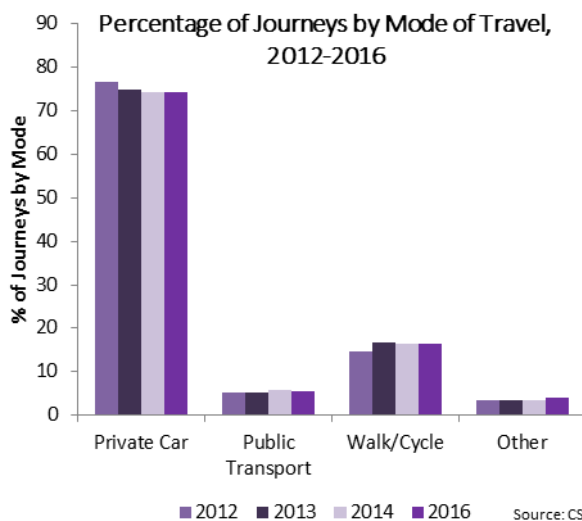
Clearly, Ireland's economy is heavily dependent on the movement of goods and services into and out of the country, and therefore on reliable and effective domestic and international transport networks.





**Use of private car remained the dominant mode of travel in Ireland in 2016.** Long-run data on commuting trips (work trips, age 15+) indicates that private car use increased from 58% in 1981 to 70% in 2011.

Data from the National Travel Survey (right) demonstrates the most used forms of transport for all journeys. **Private car** remains the most used mode, with the **2016 mode share** virtually unchanged from 2014 at **74.3%**. The share of **public transport** journeys in total journeys has fallen slightly from 5.8% in 2014 to **5.5% in 2016**. **Walking/cycling** mode share also remains virtually unchanged at **16.3%** (down from 16.4% in 2014).



Average Journey Profile by Region, 2016

	Distance (km)	Duration (min)
<b>Border</b>	<b>15.1</b>	<b>19.9</b>
<b>Midland</b>	<b>20.8</b>	<b>24.5</b>
<b>West</b>	<b>18.0</b>	<b>23.4</b>
<b>Dublin</b>	<b>9.8</b>	<b>24.8</b>
<b>Mid-East</b>	<b>15.8</b>	<b>24.9</b>
<b>Mid-West</b>	<b>16.7</b>	<b>23.0</b>
<b>South-East</b>	<b>17.6</b>	<b>22.2</b>
<b>South-West</b>	<b>16.2</b>	<b>23.1</b>
<b>All Regions</b>	<b>14.7</b>	<b>23.6</b>

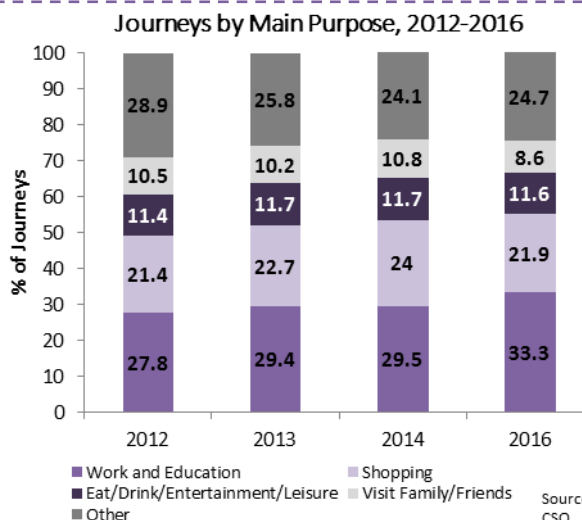
Source: CSO

The table (left) shows the average journey profile for 2016, broken down by NUTS 3 region. **Overall the figures show a continued upward trend in both journey distance and duration.** Average distance increased from 14.6 km in 2014 to 14.7 km in 2016, while average duration increased from 22.7 minutes in 2014 to 23.6 minutes in 2016.

Average distance in Dublin is well below the averages of all other regions at 9.8 km, and has decreased since 2014, but average duration in Dublin is the second highest at 24.8 minutes, and has increased. The **averages for all non-Dublin regions combined are 17.1 km and 23 minutes**, with both figures continuing on an upward trend.

The purpose attributed to the greatest proportion of journeys is **work and education**. **The share of these trips has increased consistently from 27.8% in 2012 to 33.3% in 2016.** For 2016, the share of work journeys increased from 25% to 29.3%. The second largest share was taken up by trips with shopping as their main purpose with 21.9% of the total in 2016.

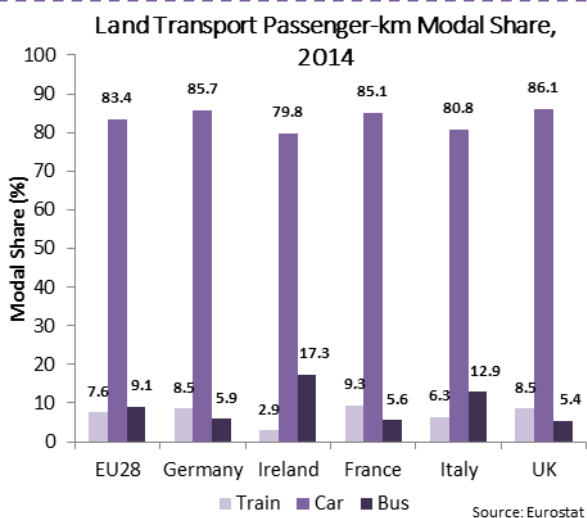
Trips that had leisure as their main purpose accounted for 11.6% of all journeys in 2016 while the share of trips for visiting family/friends fell to 8.6%. The other categories consist of personal business (5.7% in 2016), companion/escort journeys (15.2% in 2016) and other (3.8% in 2016).



**The transport of people and goods across various modes continues to increase rapidly following a number of years of decline. This increase is both a result and further signal of wider economic growth in Ireland. Data from the 2016 National Travel Survey shows that generally people are making more journeys for the purpose of work and that journeys are generally becoming longer in terms of both duration and distance.**



The way we travel continues to rely heavily on private car, although recent years have seen increases in the use of public transport and active modes. The trend of reliance on the car is similar to the rest of the EU. While how and how often we use the transport system is changing, the level of expenditure and investment has stabilised at around 45% of 2008 levels having declined steeply between 2008 and 2013.

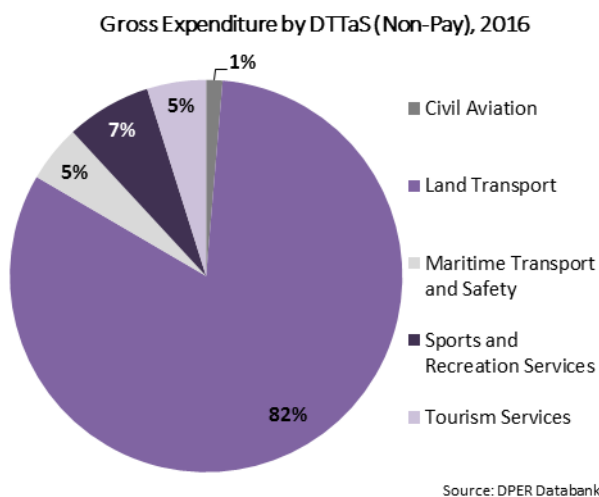
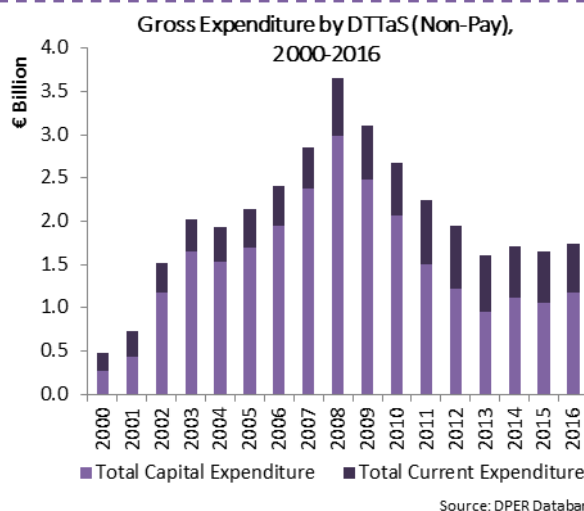


Figures from Eurostat for 2014 show Ireland as broadly in line with other EU states in that private car is the dominant mode of transport for inland passenger kilometres, a pattern persisting from 2013. The data (left) shows 79.8% of all inland passenger km in Ireland were by private car.

By this measure, the share of rail in Ireland's land transport passenger km is lower than in other states at 2.9% while the EU28 figure is 7.6%. However, the share of passenger km by bus is 17.3%, above the EU28 average of 9.1%. Passenger km in Ireland are now reported as using private car at a level below the EU average, bus to an extent well above average and rail well below average.

Expenditure (gross, non-pay) by DTTaS peaked at €3.65 billion in 2008. The upward trend was driven by capital expenditure on major infrastructure projects. The Department took responsibility for maritime in 2005 and sports and tourism in 2011. Expenditure fell to 44% of 2008 levels in 2013 at €1.61 billion, increasing to €1.74 billion in 2016 (48% of 2008 expenditure, and a 5% increase from 2015).

From 2002 to 2008, capital expenditure consistently comprised around 80% of DTTAS expenditure, but fell to 59% in 2013. The distribution in 2016 was 33% current and 67% capital.



In terms of the sectoral breakdown for 2016, 82% of gross non-pay expenditure was on land transport (€1.43 billion), 5% on maritime transport and safety (€81.7 million), 7% on sports and recreation services (€122.1 million), 5% on tourism services (€84.5 million) and 1% on civil aviation (€23.5 million).

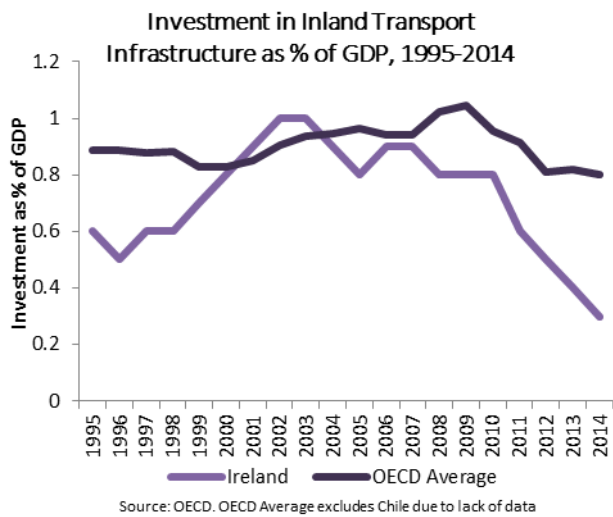
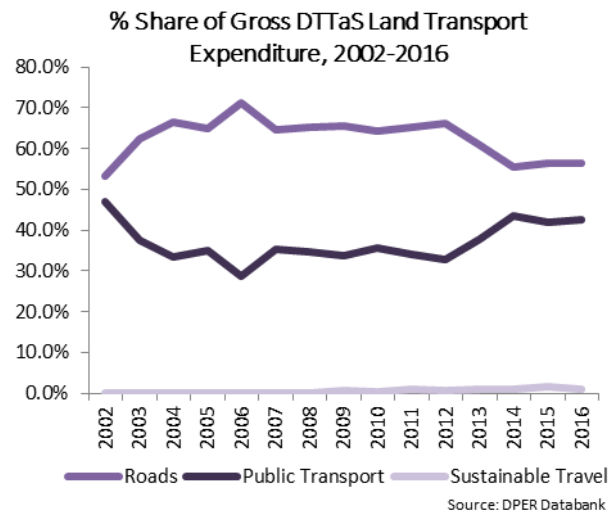
The biggest year-on-year sectoral expenditure increase from 2015 to 2016 was for sports (24.35%). Expenditure also increased for land transport (4.41%), maritime (5.82%) and civil aviation (6.82%). Tourism spending decreased by 1.33% in 2016.





The largest expenditure item within DTTaS is land transport which is made up of roads, public transport and sustainable transport. Between 2002 and 2013, roads received an average of 64% of land transport expenditure while public transport received 36% on average.

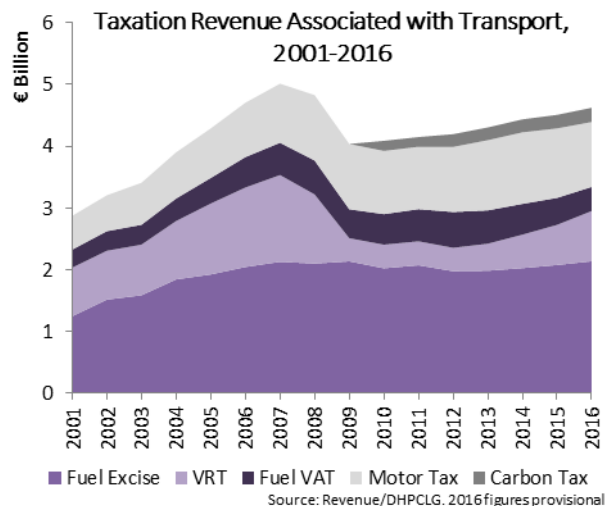
In recent years this has narrowed following the completion of the motorway network and investment in public transport – the distribution in 2016 was 56% roads to 43% public transport. It should be noted that expenditure areas are not entirely distinct; some spending on sustainable transport-related projects is included under public transport.



Ireland's investment in inland transport infrastructure as a percentage of GDP (left) stood at 0.3% in 2014, below the OECD average of 0.8%. A marked decline can be seen relative to previous years, particularly since 2010 when the Irish figure was 0.8%. Given our stable levels of capital expenditure since 2014, this low relative level of investment is likely to have persisted.

Work carried out by DTTaS in 2014 suggests that investment in land transport is currently below our long-run average and the necessary amount to maintain the current network as it is. The 'steady-state' funding gap amounted to €300 million in 2015.

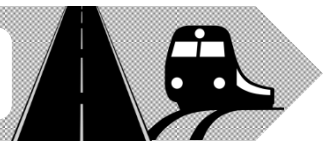
Taxation revenue associated with the transport sector has consistently outstripped expenditure. Provisional data for 2016 shows that revenue reached €4.8 billion, an annual increase of 6.5%, and significantly above DTTaS exchequer expenditure at €1.7 billion.



Associated taxation revenue fell sharply after 2007 when it peaked at €5 billion. The primary driver of this was a fall in vehicle registration tax (VRT) which went from €1.4 billion in 2007 to €379 million in 2012. This has since recovered to €814 million in 2016. The other associated tax streams, including the carbon tax which was introduced in 2010, have remained relatively constant over the time period.

Transport investment has decreased significantly since 2008. It remains the case that Ireland is investing less than it historically has, less as a proportion of GDP than other OECD states, and less than the estimated level to maintain the current system. As transport demand continues to grow in line with resurgent economic growth, investment in the sector is still constrained.

# Land Transport – Network



This section of *Transport Trends* discusses the provision of land transport infrastructure and services. The road network facilitates both passenger and freight transport, and both public and private transport, and is broken down into national, regional, and local classifications. Public transport also relies on rail infrastructure, both light rail (in Dublin) and heavy rail (nationwide).

## Road Infrastructure, 2015/16

National Road: **5,306 km**  
 Regional Road: **13,120 km**  
 Local Road: **80,472 km**  
**Total Road: 98,898 km**

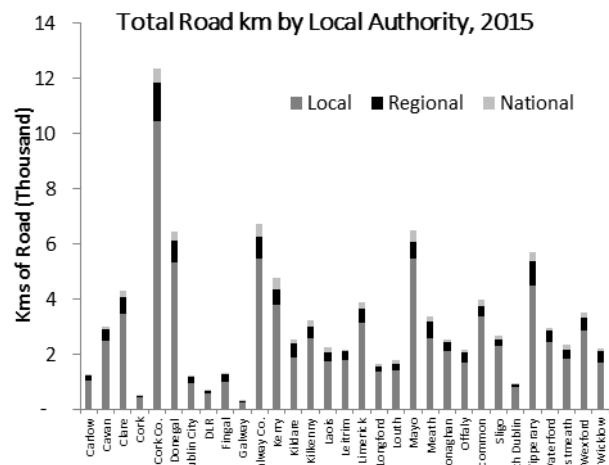
Source: CSO

The Irish road network consists of approximately **98,898 km of road**. National roads, the primary links between cities and towns, account for 5,306 km or 5.4% of all roads. Of this, 916 km, or 17.3% of all national roads, are motorway. This represents an increase of 19 kilometres from 2013, with approximately 4 km of dual carriageway and 14 km of national single carriageway having been upgraded to motorway. 5.5% of national roads are now dual carriageway, with the remaining 77.2% single carriageway.

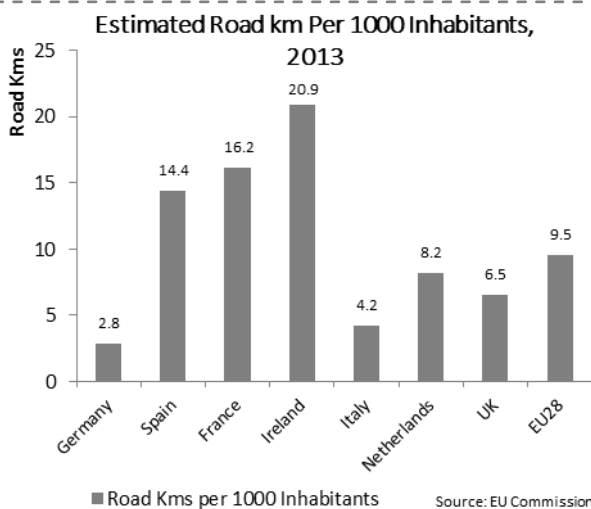
The regional and local road network constitutes 13,120 km (13.3% of all roads) and 80,472 km (81.4% of all roads) respectively.

The figure presented (right) details the geographical breakdown of the Irish road network by local authority area. The areas containing the highest proportion of the Irish road network are **Cork County** (12,362 km or 12.5%), **Galway County** (6,706 km or 6.8%), **Mayo** (6,485 km or 6.6%) and **Donegal** (6,429 km or 6.5%).

The distribution of the Irish road network is necessarily a function of geography and demography and gives an indication of the road asset levels being managed across the country and the relative breakdown of road classifications.



Source: CSO and DTTaS. National Roads is 2015 data. Regional/Local is 2016



Source: EU Commission

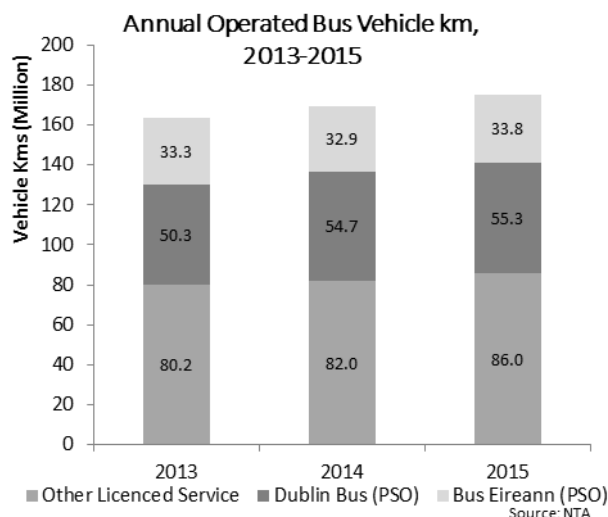
The latest data published by the European Commission (2013) allows for a comparison of the level of road density across EU Member States. This is measured as the number of road km per 1000 inhabitants.

As can be seen in the figure (left), **Ireland's road density is high by European comparison**. With **20.9 km per 1000 inhabitants** Ireland has the 5<sup>th</sup> highest density in the EU and is **significantly above the EU28 average** of 9.5km. Ireland can also be seen to have 3 times the level of the UK (6.5 km per 1000 inhabitants). This is potentially driven by Ireland's low level of population density, amongst other factors.



Data from the NTA (right) provides a picture of the total level of bus service provision in Ireland. The **total vehicle km operated increased from 169.7 million km in 2014 to 175.1 million km in 2015**. Data available for Public Service Obligation (PSO) services also shows annual increases in vehicle seat km for both Dublin Bus (to 3.52 billion) and Bus Éireann (to 2.12 billion) in 2015.

Based on other NTA data, there were **2,719 buses providing services in 2015, up from 2,597 in 2014**. 35% or 943 of the buses operating in 2015 were for Dublin Bus PSO services, 17% or 475 for operating Bus Éireann PSO services and 48% or 1,301 for operating other licenced bus services.



### Luas: Key Facts (2015)

- Red Line Length: **20.8km**
- Green Line Length: **16.4 km**
- Trams in Operation: **66**
- Tram Capacity: **310 People**
- Vehicle Km: **3.9 million**
- Passenger Km: **180 million**

### Heavy Rail: Key Facts (2015)

- Passenger Lines: **1,679 km**
- Passenger Stations: **144**

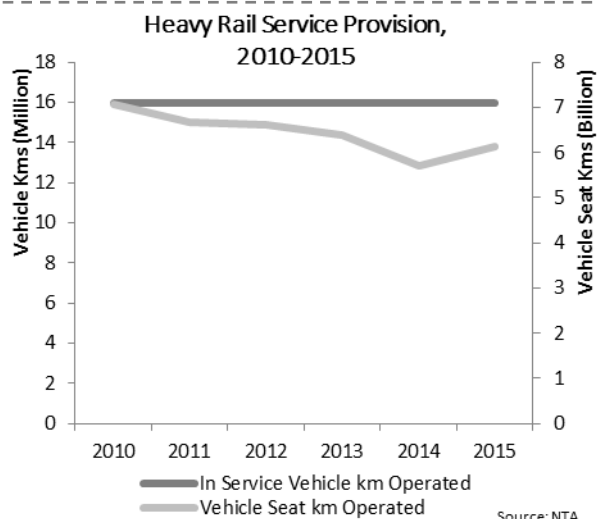
Luas, Dublin's light-rail system, commenced operation in 2004. The network is currently two lines; the Red Line between the City Centre and Tallaght/Saggart; and the Green Line between the City Centre and Bride's Glen. Work on **Luas Cross City, a 5.6 km extension linking the green and red lines, is due to be completed this year**. As of 2015, there were 66 trams operating on 37.2 km of track. In operational terms, there were **3.9 million vehicle km provided by Luas in 2015** with a corresponding level of 180 million passenger km.

The heavy rail passenger network consists of **1,679 km of line tracks** linking areas and regions. The network has **144 passenger stations** in total.

Source: CSO Transport Omnibus

The number of in service vehicle kilometres operated on heavy rail services remained **unchanged from 2014 to 2015 at 15.97 million km**, and has been virtually unchanged since 2010 when the figure stood at 15.95 million vehicle km.

The number of operated vehicle seat kilometres had decreased steadily from 7.1 billion in 2010 to 5.7 billion in 2014, however **2015 saw a 7.3% year-on-year increase to 6.1 billion vehicle seat kilometres operated**. The lack of change in the vehicle km figures shows that the decline and recent increase in number of seats operated is due to changes in the number of carriages employed on rail services.

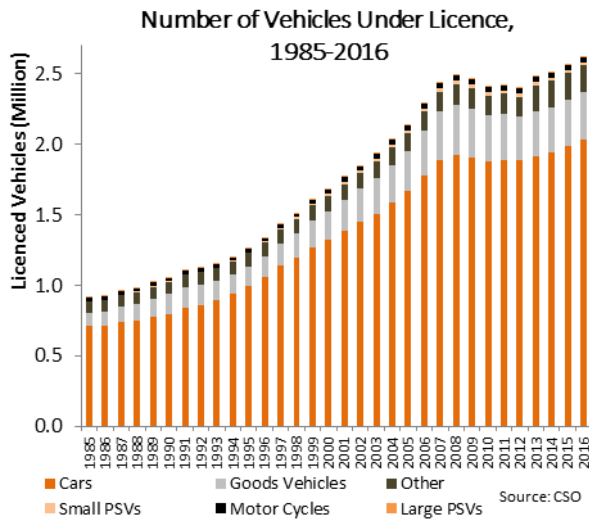


The level of bus service provision continued to increase in 2015 after declines in both vehicle kilometres and vehicle seat kilometres from 2010 to 2013. Heavy rail vehicle seat kilometres have also increased from 2014 to 2015 after several years of decline. Thus, while the level of road and rail infrastructure in place in Ireland has remained constant, the quantity of land transport services available to the public has increased.

# Land Transport – Travel



This section shows trends in land passenger transport demand in Ireland. Passenger travel demand within the land transport network takes the form of private car use, public transport (primarily bus and rail) use, and use of active modes (walking and cycling). The chapter begins with a look at statistics measuring the use of private cars in Ireland.

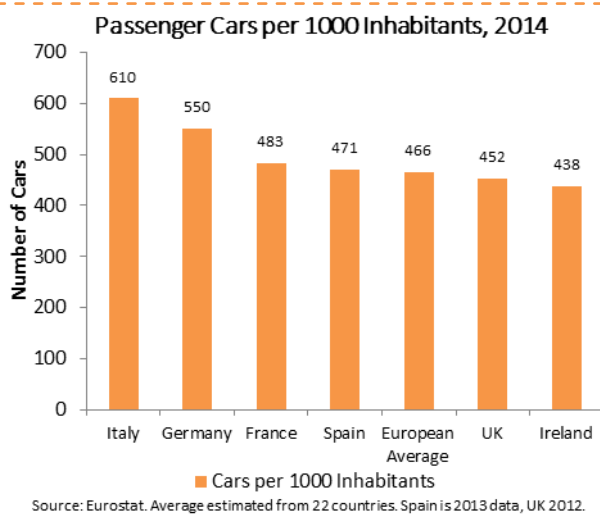
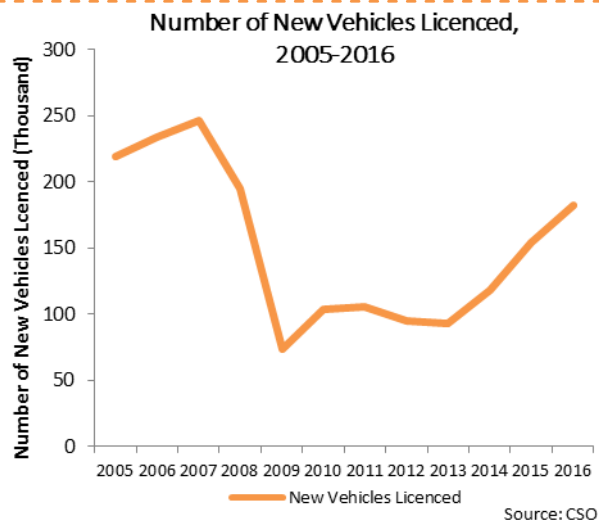


The number of licenced vehicles in Ireland has grown substantially from 914,758 in 1985 to **2.62 million in 2016** as the economy and population have expanded. In terms of fleet composition, 77.2% of licenced vehicles in 2016 are private cars and 13% are goods vehicles.

2016 saw a continued upward trend in the number of licenced vehicles with **2.1% annual growth**. The total number of **private cars rose by 2.1% to just over 2 million**. This follows a contraction in the total number of licenced vehicles by 3.8% between 2008 and 2012, the only period since 1985 in which a decrease has been recorded by the CSO.

The number of new vehicles licenced in 2016 was **182,137, an increase of 18.4% in comparison to 2015**. This maintains a high level of renewed growth following a large drop off when new vehicles licenced fell from 246,446 in 2007 to 73,125 in 2009. The number of new vehicles licenced in 2016 was still 26% below the 2007 peak.

**New private cars made up 78.3% of new vehicles licenced in 2016 at 142,688**. New goods vehicles accounted for 19.7% of the 2016 total with 28,117.



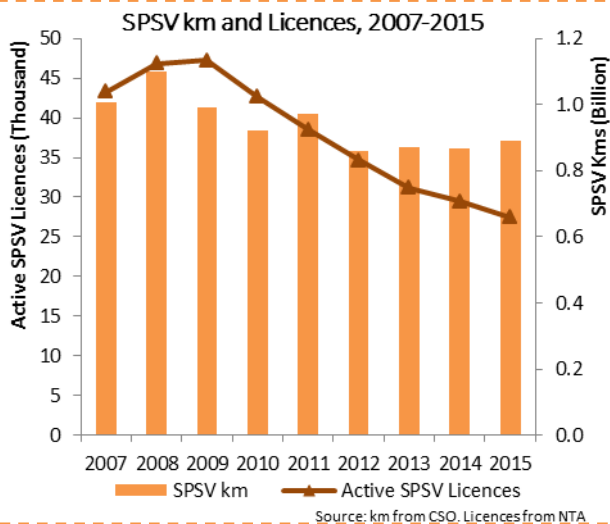
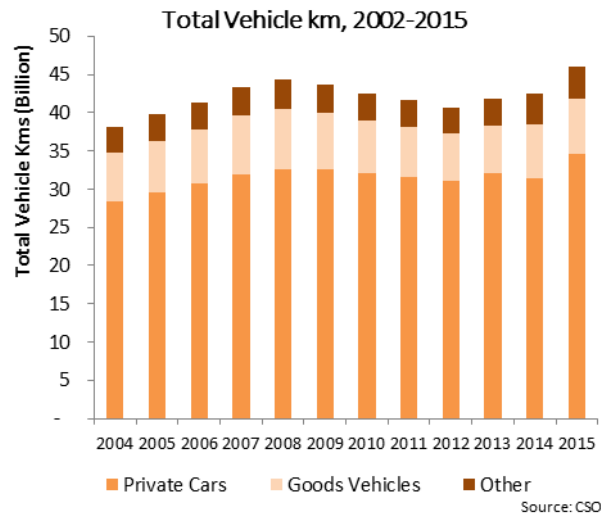
Analysis of the latest Eurostat data (2014) suggests that **the level of private car ownership is lower in Ireland than in other European states**.

The **estimated level of 438 private cars per 1000 inhabitants in Ireland** ranks below the average of the 22 EU member states for which data is available, at 466. The UK (452), Spain (471), France (483), Germany (550) and Italy (610) all have a higher density of private car ownership. Ireland's level is the 8<sup>th</sup> lowest of countries for which data is available. 19 of those countries recorded increases in this measure between 2013 and 2014; Ireland increased by 1.39% from 432 to 438.



The total number of kilometres driven on the Irish road network continues to show renewed growth following a period of decline, in line with other elements of the transport network.

Recent increases continued in 2015 as **total km driven grew to 46 billion, an 8.3% increase from 2014**. This figure outstrips the previous peak of 44.4 billion from 2008 – total km driven had bottomed out at 40.6 billion in 2012. Private car made up 75.3% of total km in 2015 with goods vehicles accounting for 15.9%, and tractors and machinery accounting for 3.5%. Average annual km per private car in 2015 grew 7.7% from 2014 to **17,367**.

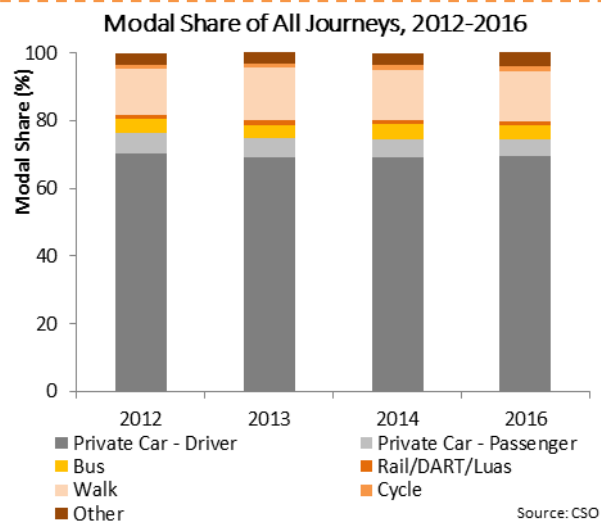


The graph (left) shows trends in Small Public Service Vehicle (SPSV) use in Ireland. SPSVs are vehicles with seating for up to 8 passengers and primarily consist of taxis, hackneys and limousines.

Data on active SPSV licences from the National Transport Authority shows that **the total has reduced by 42% from 47,222 in 2009 to 27,440 in 2015**. The number of road kilometres driven by SPSVs fell from the peak of 1.1 billion km in 2008 to 860 million in 2012. **Total SPSV km increased by 2.8% from 2014 to 2015, when the figure stood at 891 million km driven.**

Data from the CSO's National Travel Survey shows developments in the total proportion of trips taken via each mode of transport. Overall, the data shows little change across the years surveyed.

**Private car remains the dominant form of transport in Ireland**, although modal shares for both car drivers and passengers have decreased slightly – **car driver mode share fell from 70.4% in 2012 to 69.4% in 2016**. Journeys by bus stood at 4.2% of total journeys in 2016, down from 4.4% in 2014. Rail/DART/Luas mode share remains stable at 1.3%. **Walking remains the second most popular mode of travel at 14.6% of all journeys**. Cycling has increased from 1.2% in 2012 to 1.7% in 2016.

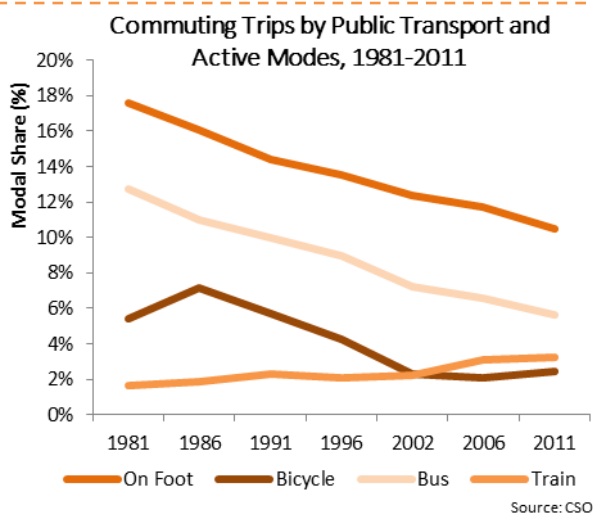


**Private car remains the dominant choice of travel mode in Ireland. Road use demand is increasing, both for private cars and for SPSVs. Ireland's road network is experiencing a continued increase in traffic following a decrease post-2007.**





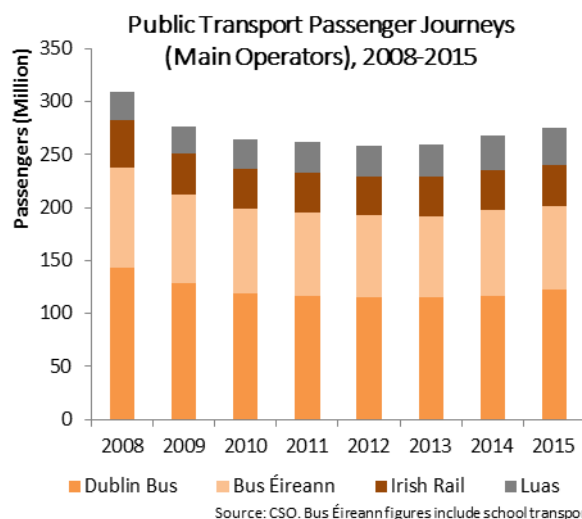
This section explores trends in passenger travel by modes other than private car. Census data on journeys to work has shown downward trends in the share of bus, walking and cycling journeys as a percentage of total journeys, with a small increase in rail mode share. In recent years, passenger numbers on public transport, both publicly funded and commercially operated, have shown a general upward trend.



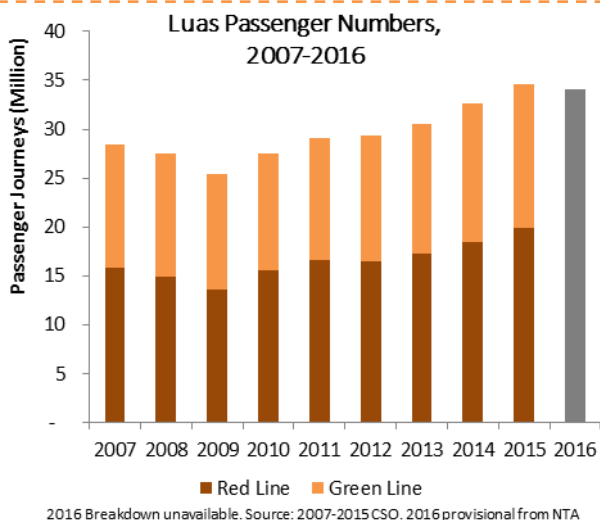
By analysing census data we can observe trends in use of public transport and active modes before 2012. The data (left) shows the share of total commuting journeys by bus, rail, walking and cycling, for the population aged 15 years over at work. Data on commuting trips from the 2016 Census is due to be released later this year.

The **mode share of commutes by bus** decreased from 13% in 1981 to 6% in 2011, with a **similar decrease for trips on foot**, falling from 18% to 10%. **Rail mode share rose** from 2% in 1981 to 3% in 2011 with the number of rail commuters more than tripling in that time. The **commuting mode share of cycling fell** from 7% to 2% over the same period.

The total number of passengers travelling on public transport services has grown each year since 2013. **Passenger journeys on the four main operators combined have increased from 259.3 million in 2013 to 275.2 million in 2015 with annual growth of 2.8% between 2014 and 2015.** This total had previously fallen from 309.5 million in 2008 to 258.4 million in 2012. These CSO figures include school transport passengers on Bus Éireann.



Further NTA data shows 22.7 million passengers on commercial licenced bus services and 1.76 million passengers on the Rural Transport Programme in 2015, taking the **overall public transport passenger journey total for 2015 (excluding school transport) to 248.8 million, a 4.2% increase (9.9 million).**



Since 2009, the Luas has experienced consistent growth in the number of passengers using the service. Total passengers had fallen from 28.5 million in 2007 to 25.4 million in 2007.

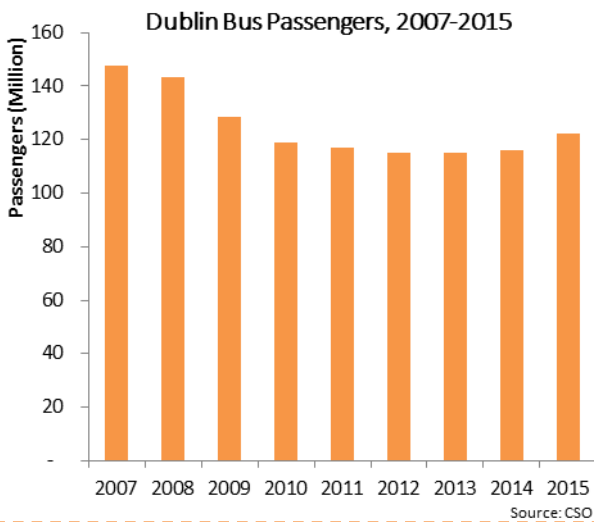
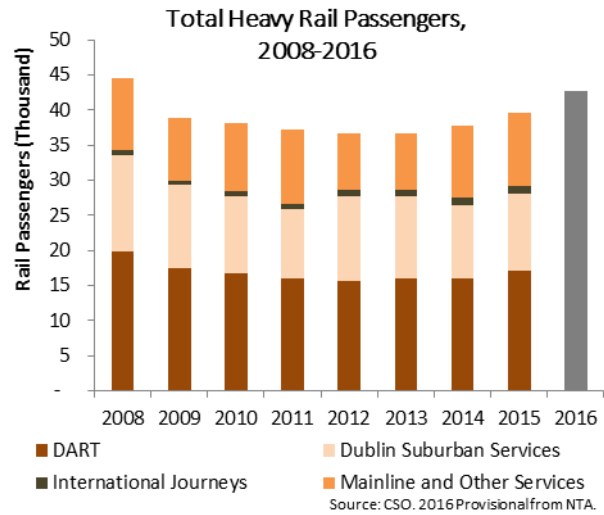
Provisional data for **2016** indicates that **Luas passenger numbers fell by 1.4%, or 500,000 passengers**, in comparison to 2015. Of the 34.6 million passenger journeys that took place on the Luas in 2015, **57.5% were on the Red Line with 42.5% on the Green Line.** Passenger numbers have generally grown more strongly on the Red Line than on the Green Line: **Red Line passengers grew 7.8% in 2015 while Green Line passengers grew by 3.8%.**





The total number of heavy rail passengers fell from 44.7 million in 2008 to 36.7 million in 2013. Recent years have however seen a renewed growth in rail passengers which continued in 2016. **Provisional data for 2016 indicates a 7.9% annual increase, or 3.1 million extra passengers, to 42.8 million total heavy rail passengers.**

2015 saw an increase of 4.9%, or 1.9 million passengers, to 37.8 million. The greatest increase was on **DART services**, where **passenger numbers grew by 7.5% to 2015**. Passenger growth was 3.6% on Dublin suburban services, 2.5% on mainline and other services, and 1.6% on international journeys.

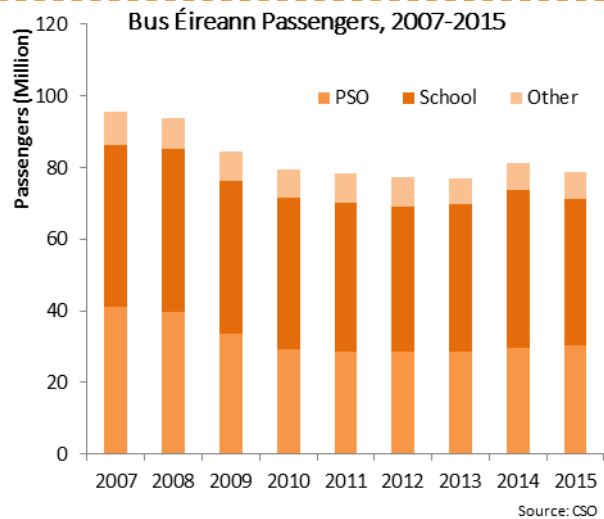


The total number of passenger journeys on **Dublin Bus** shows a similar trend to other elements of transport demand across the Irish network; decline after 2007 followed by renewed growth in recent years.

Annual passenger numbers decreased by 28.3 million between 2008 and 2012 when the totals stood at 143.5 million and 115.2 million respectively. The last four years have seen consistent growth. **Passenger numbers grew by 5% from 2014 to 2015, reaching 122 million in total.** Provisional figures for PSO services suggest an increase of 4.6% to 125 million passengers in 2016.

Passenger numbers for **Bus Éireann** have followed the established trend from 2007 to 2014 across transport modes. Again, there was contraction after 2007 while recent years have seen a return to growth.

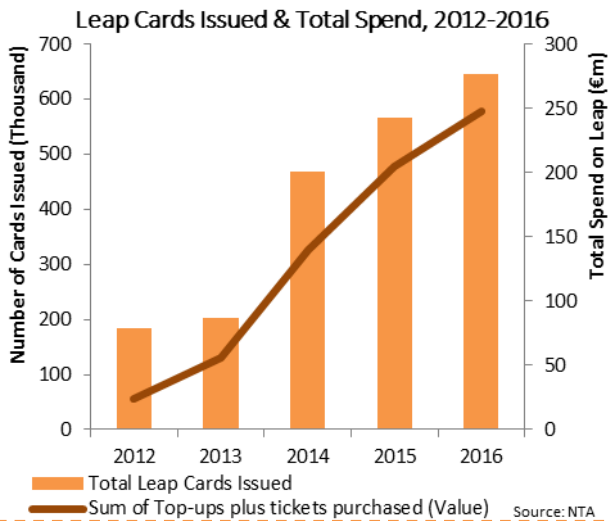
Total passenger numbers for Bus Éireann services actually **fell by 2.7% in 2015 to 78.9 million**, having increased from 77.2 million in 2012 to 81.1 million in 2014. In 2015, school services made up 52% of total passengers (41 million), 38% were from PSO services (30.2 million) and 10% other (7.7 million). Provisional data indicates that **passenger numbers on PSO services for 2016 increased by 5.5% (1.7 million passengers) on 2015 to 31.9 million.**



**Passenger numbers on both rail modes have shown recent positive trends, although Luas passenger numbers fell slightly in 2016 while heavy rail passenger numbers showed continued strong growth. Bus services make up the largest part of Ireland's public transport system: bus passenger numbers have generally shown a return to growth in recent years.**



This section shows figures on the use of the Leap integrated ticketing system for public transport, and for the public bike schemes available in Ireland's largest cities. Use of Leap cards has increased significantly since their introduction, both in terms of total spend and the number of public transport journeys paid for using Leap.

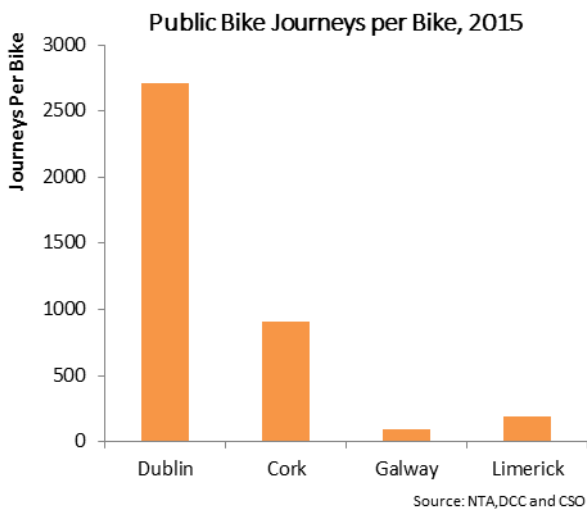
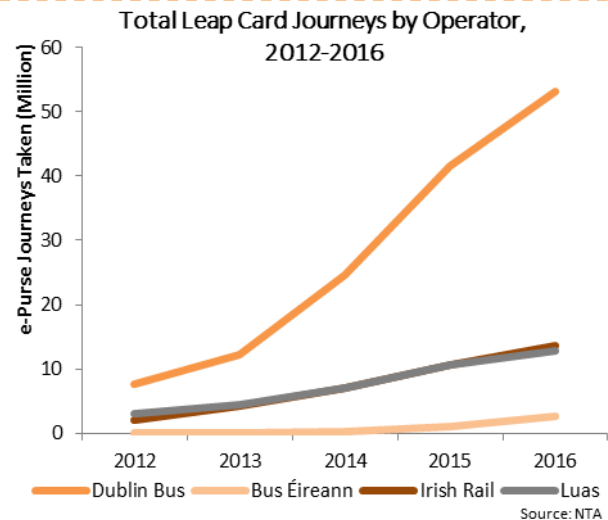


The Leap card system provides integrated ticketing across public transport modes in the Greater Dublin Area and Ireland's regional cities. Data from the NTA (left) shows the total number of Leap cards issued and the total amount spent on travel using Leap since the system was introduced.

Growth in both measures has been significant. **Total Leap cards issued** has grown from 183,130 in 2012 to **644,959 in 2016**, with **annual growth of 14%** between 2015 and 2016. Similarly, **total value of top-ups plus tickets purchased** has increased from €23.6 million in 2012 to **€247.7 million in 2016**, with **annual growth of 21%** between 2015 and 2016.

The graph (right) uses NTA data to show the total number of journeys paid for by Leap card on each of the four main public transport operators. Payment by Leap card has grown from 12.6 million public transport passenger journeys on the main operators combined in 2012 to just over 82 million in 2016.

Combining these figures with passenger journey numbers (also from the NTA) shows that the **percentage of total journeys paid for by Leap card** has increased from 10.4% in 2012 to **37.4% in 2016 for Luas**, and from 5.5% in 2012 to **31.7% in 2016 for Irish Rail**.



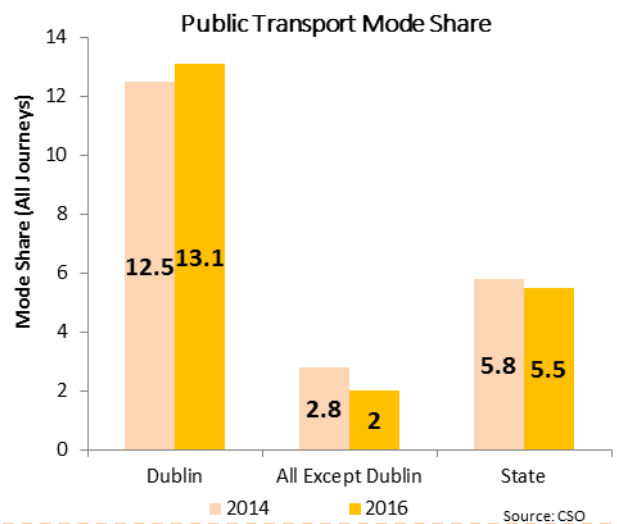
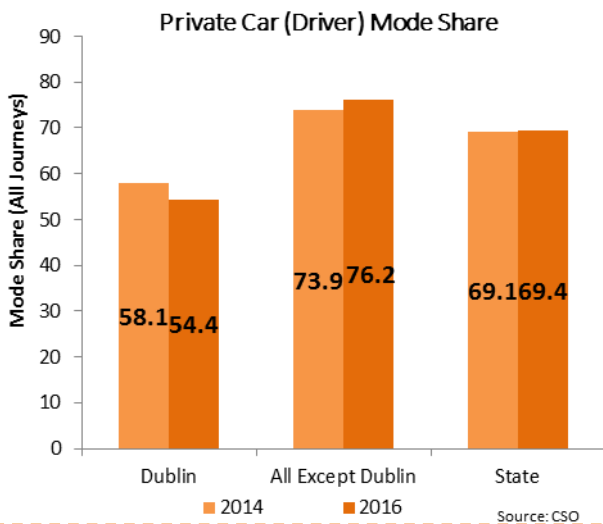
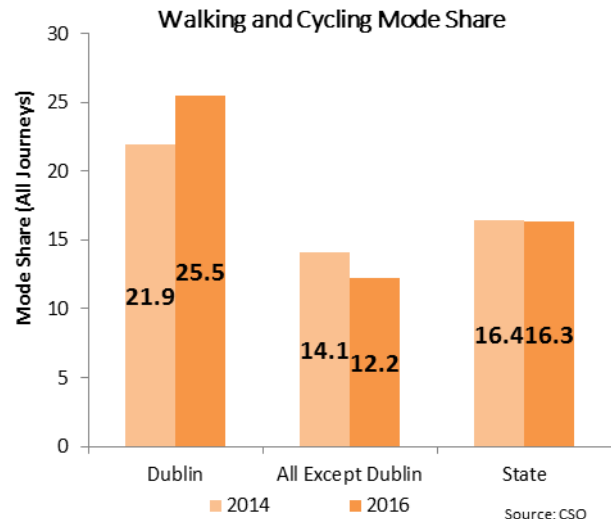
Public bike schemes have been in place in Dublin since 2009, and Cork, Galway and Limerick since 2014. Data from the NTA, CSO and Dublin City Council for 2015 only (left) shows the number of journeys for each city on a per bike basis. **Dublin had by far the highest number of journeys per shared bike in 2015 at 2,715.3**. Cork had the second highest at 904.5, while Limerick had 186.6 and Galway had 97.2.

A similar pattern is evident for the number of annual subscribers. **Dublin also had the most valid annual subscribers per shared bike in 2015 at 38.5**, with Cork second at 23.5, Limerick third at 11.4, and Galway fourth at 9.7 annual subscribers per bike.



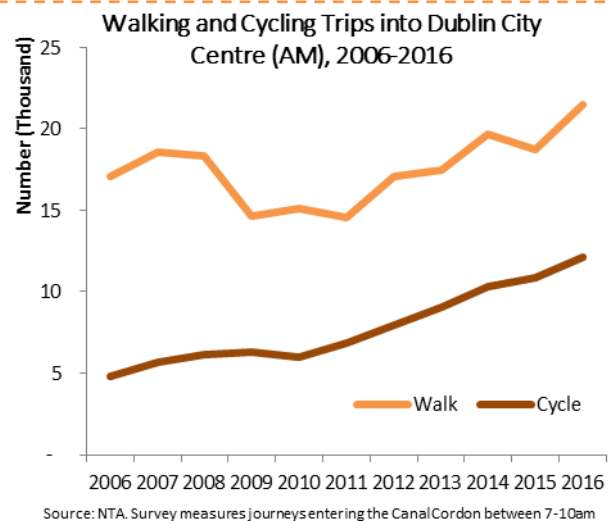
The graphs (right and below) show mode shares of the active modes (walking and cycling), public transport modes (bus and rail), and private car driving, broken down by region. **At the aggregate level, from 2014 to 2016, active mode share fell by 0.1 to 16.3%, public transport fell 0.3 to 5.5%, and car driving increased 0.3 to 69.4%.**

The aggregated data for Ireland hides significant variation between County Dublin and the rest of the State excluding Dublin. Within Dublin, mode shares for active and public transport have increased, while the share of car drivers in total journeys decreased. This pattern was reversed for all areas outside Dublin taken together.



Data from the NTA provides further detail on the performance of cycling and walking in Dublin over time. The Canal Cordon Count (right) measures the number of trips into the city centre on a typical morning in November of each year.

Data from the counts shows that **the number of cyclists entering the city has more than doubled between 2010 and 2016**, increasing from 5,952 to 12,089. Furthermore **the number of people walking into the city centre has increased by 47.6% from 2011 to 2016**, increasing from 14,551 to 21,473. This provides further evidence of the increased use of active modes of travel in Dublin.

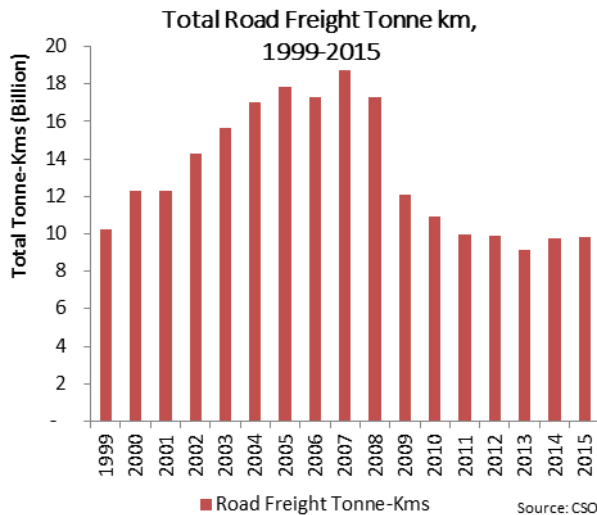


**Sustainable transport has a key role to play in supporting a healthy active lifestyle for all our citizens and in contributing towards helping Ireland to meet its targets in relation to climate change and energy use. Recent years have seen some progress with an increase in cycling numbers for those commuting to work and college, and in general for trips in Dublin. Dublin's public bike scheme has attracted notably more use than the schemes in Ireland's regional cities.**

# Land Transport – Freight



Ireland's road and rail networks also play a vital role for economic activity by facilitating the movement of goods around the country. Levels of road freight activity continued to grow by a small amount in 2015, while levels of rail freight activity showed decline.



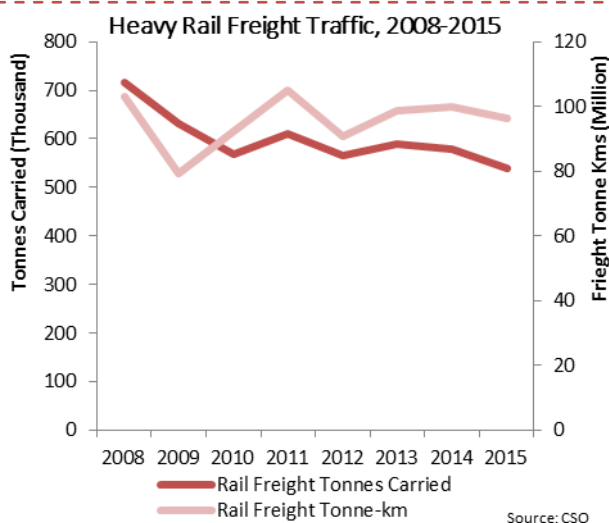
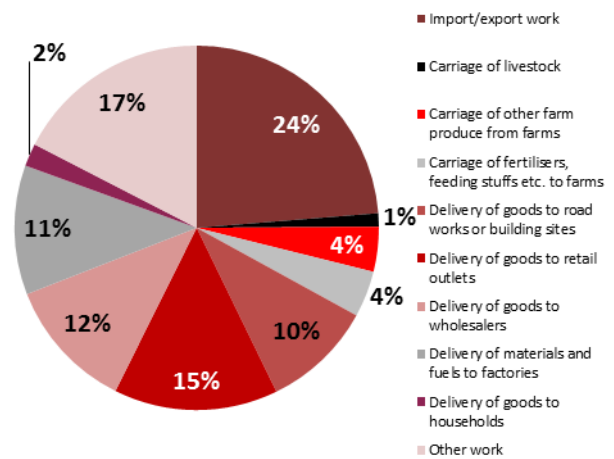
The level of road freight activity in Ireland decreased sharply after 2007 but has continued to increase in 2015 after bottoming out in 2013.

Road freight activity (measured by total road freight tonne-kilometres) closely followed economic activity between 2000 and 2013, increasing from 12.3 billion tonne-km in 2000 to 18.7 billion in 2007 and then decreasing to 9.1 billion in 2013. The most recent data available shows continued growth in road freight activity, although at a slower rate than overall economic growth. **Road freight tonne-km grew by 0.7% from 9.7 billion in 2014 to 9.8 billion in 2015.**

The overall distribution by type of freight carried on the Irish road network changed little from 2014 to 2015. The figure (right) illustrates this breakdown of road freight activity (in tonne-kilometres) by main use.

Once again, the primary elements of road freight activity are **import/export work** (24% or 2.3 billion tonne-km), delivery of goods to retail outlets (15% or 1.4 billion tonne-km), delivery of goods to wholesalers (12% or 1.2 billion tonne-km), delivery of materials and fuels to factories (11% or 1.1 billion tonne-km) and delivery of goods to road works or building sites (10% or 965 million tonne-km).

**Road Freight Tonne km by Main Use, 2015**



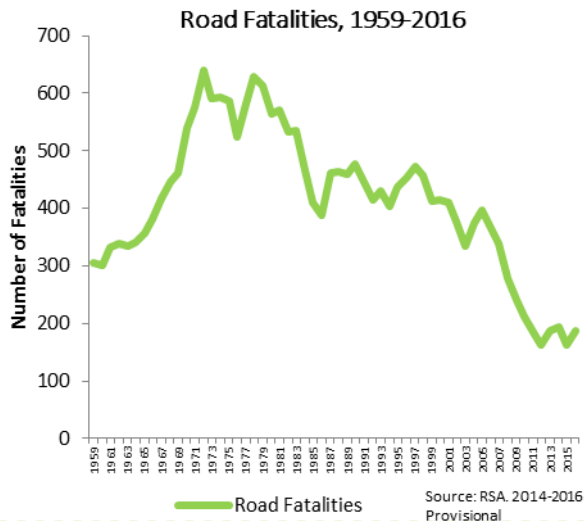
Freight is also carried in Ireland by rail, although rail freight quantities are comparatively small and have declined starkly over recent decades. Long run data from the CSO shows that the **total tonnage of goods carried by rail decreased from 3.4 million tonnes in 1985 to 540,000 in 2015**. Three categories of goods are carried by rail: mineral ores, wood and cork, and general freight.

**Rail freight activity declined further from 2014 to 2015.** Tonne-km fell from 99.8 million to 96.4 million (a 3.4% decrease) while total tonnes carried fell by 6.6% to 540,000. This new decline follows relative stability for both figures over recent years.

# Land Transport – Safety



This section looks at some safety statistics for the land transport sector in Ireland. The number of fatalities on Irish roads has shown a downward trend over several years, both in absolute terms and relative to the amount of passenger kilometres travelled on Irish roads. Statistics for incidents on the light and heavy rail networks are also discussed.

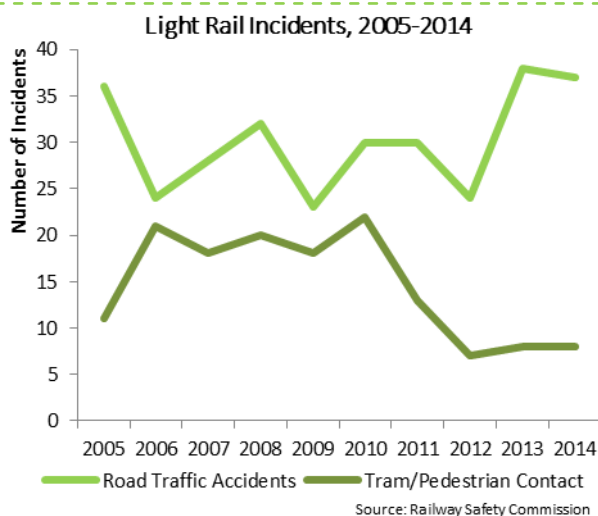
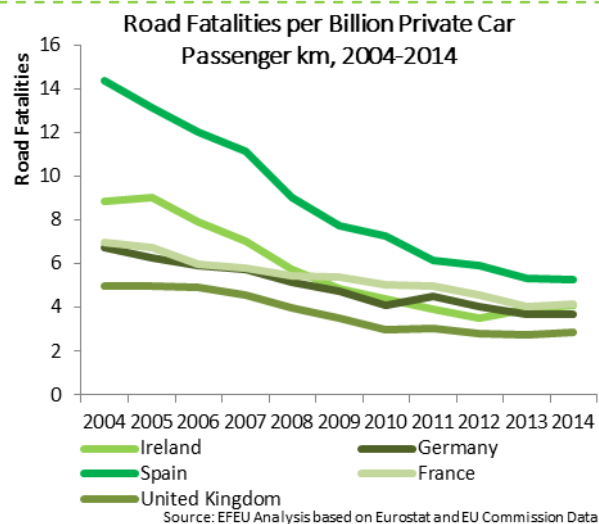


Over the long run there has been a clear and significant reduction in the number of fatalities on Irish roads.

Since the first road fatality statistics were recorded, the number of fatalities peaked at 640 in 1972 and decreased to 387 in 1986. The number fluctuated around the 400 mark between 1986 and 2005 before a period of significant reduction began. Total fatalities decreased by 59% from 396 in 2005 to 163 in 2012. Provisional data records show **187 fatalities on Irish roads in 2016, an increase of 25 (15%) from 2015.**

Ireland's progress in road safety, as measured by the number of annual road fatalities per billion private car passenger kilometres, shows a similar trend to that seen in other European countries. Levels of fatalities have decreased between 2004 and 2013 in the countries shown (right). This decline has slowed recently, with little change in figures between 2013 and 2014 for the countries shown.

**Ireland's estimated annual road fatalities per billion car passenger km was 4 in 2014.** This is a fall from 9 in 2005 and is in a similar range to Germany (4), Spain (5), France (4) and the UK (3).



The Luas light rail system interfaces with the public and road traffic along significant sections of its lines, most notably in Dublin city centre. Thus, collisions with vehicles and pedestrians by trams can and do occur. **There were 37 road traffic accidents involving Luas trams in 2014,** down from 38 in 2013 but still the second highest number recorded since Luas began operating. There were **8 instances of trams colliding with pedestrians in 2014,** the second lowest number recorded.

There were no passenger fatalities or serious injuries on the heavy rail network in 2014, however 6 people lost their lives due to unauthorised entry to the railway. There were also 2 serious level crossing accidents recorded in 2014.





The aviation sector is critical to Ireland's connectivity to the rest of the world for travel, business and tourism. This section reviews the primary data and describes the overarching trends and dynamics in relation to airport infrastructure, passenger and flight traffic trends, and movement of freight by air.

## Total Passengers Handled at State and Regional Airports, 2016

### State Airports

**Dublin:** 27.8 million

**Cork:** 2.2 million

**Shannon:** 1.7 million

### Regional Airports

**Knock:** 735,869

**Kerry:** 325,670

**Donegal:** 44,156

**Waterford:** 13,511

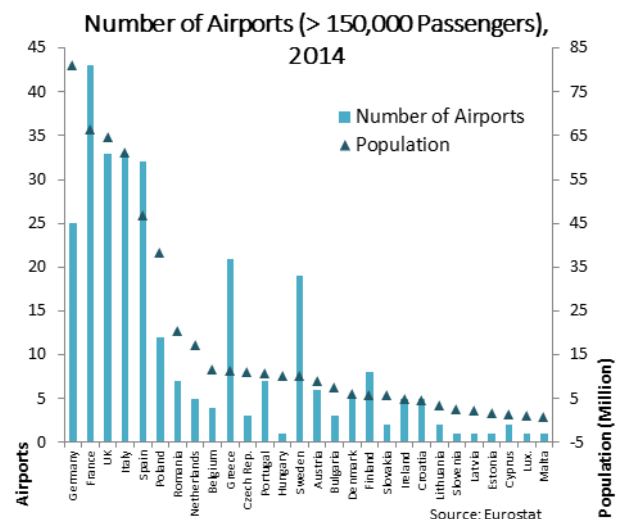
Source: CSO

Ireland's aviation infrastructure is divided into two distinct categories of airports, as set out by the *National Aviation Policy* published in August 2015. **State Airports** – Dublin, Cork and Shannon – are the primary gateways through which air traffic accesses Ireland. **Regional Airports** – Ireland West Airport Knock, Kerry, Donegal and Waterford – are smaller.

Ireland's airports have mostly seen increases in passenger traffic from 2015 to 2016. Waterford is the exception to the trend – passenger numbers there fell as commercial flights ceased in June 2016.

Comparing Ireland's airport infrastructure internationally shows that Ireland has a similar number of airports to other European countries with a comparable population.

The latest available Eurostat data for 2014 shows minimal change from the 2013 figures. **Ireland has 5 airports with more than 150,000 annual passenger movements.** Among countries with similar populations (4-6 million in 2014), Denmark and Croatia have 5 airports each, Finland has 8, while Slovakia has only 2. In 20 of the 28 featured countries, the number of airports with over 150,000 passengers was unchanged year-on-year (4 increases, 4 decreases).



Source: Eurostat



Source: CSO. Other: Kerry, Knock and Galway

Having fallen from a peak of 283,500 in 2007 to 202,300 in 2012, the total number of **commercial flights handled has now rebounded to 228,200 in 2015.** This represents an increase of 5.1% on 2014 levels.

**Dublin Airport handled 82.7% of total flights in 2015 with 188,800 flights.** Cork handled 7.8% (17,900), while Shannon had 5.8% (13,300). The other airports reported (Kerry and Knock) handled just 8,300 flights (3.6%). Thus **Dublin saw a 9.4% annual increase in commercial flights handled, while figures for all other airports decreased.** This continues the broad trend in commercial flight numbers since 2007 – contraction and renewed growth for Dublin, steady decline for other airports.





The total number of passengers handled at Irish airports continues to grow. **In 2016, total passengers handled grew to 32.8 million, a 10.3% annual increase.** Growth has been such that from a low of 23.7 million in 2011, total numbers have now exceeded the 2007 peak of 31.5 million.

**Dublin Airport accounted for 84.6% of all passengers in 2016 at 27.8 million,** an 11.3% annual increase. The total annual number of passengers using Dublin Airport has now exceeded the previous peak of 23.5 million from 2008. Passenger numbers at the other State and Regional airports have generally shown less marked increases.

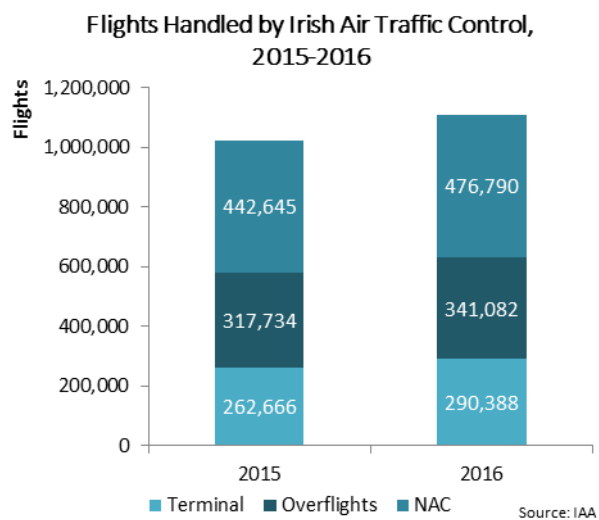


Strong renewed growth can also be seen in the total amount of **freight handled** at Ireland’s main airports, which **increased by 7.7% from 139,000 tonnes in 2014 to 149,700 in 2015.** This follows a decline from 145,500 in 2006 to 117,200 tonnes in 2009, and a staggered return to growth.

Again, the figures are driven by activity at Dublin Airport, which saw a 7.7% increase of its own to 137,300 tonnes of air freight handled. As in 2014, **Dublin accounted for 91.7% of total air freight in Ireland in 2015.** Of the other airports, only Shannon (12,200 tonnes in 2015) and Cork (200 tonnes) recorded any freight activity over the last decade.

Data from the Irish Aviation Authority (right) shows that **only 26% of air traffic handled in Ireland in 2016 were flights into or out of terminals at Irish airports.** Flights through Irish airspace (overflights) make up 31% of the total, with North Atlantic Communications (NAC) flights (over oceanic airspace) constituting the remaining 43%. All overflights are handled by Shannon Area Control Centre.

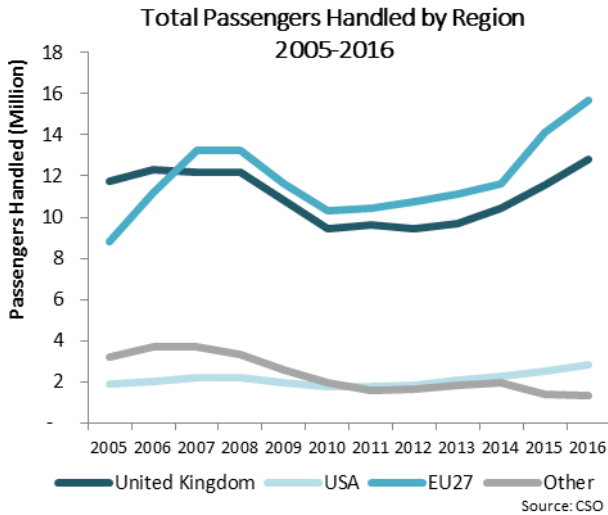
**Flights handled by Irish air traffic control increased overall by 8.3% from 2015 to 2016,** with the total number increasing to over 1.1 million. Terminal flights increased 10.5% from 2015, overflights went up 7.4%, and NAC flights increased 7.7%.



**Whether measured by commercial flights handled, passengers handled or air freight tonnes handled, it is clear that Ireland’s aviation sector is exhibiting strong and continued aggregate growth. This aggregate pattern is dominated by activity at Dublin Airport, which is responsible for between four-fifths and nine-tenths of activity in Ireland on the above measures.**



The exit of the United Kingdom from the European Union has profound implications for Ireland, not least in the transport sector. This section of *Transport Trends* aims to highlight some of the key connections between Ireland, the UK and the EU, beginning with analysis of passenger movements between Irish airports and international destinations, and the prominence of UK traffic at Irish airports.



More passengers are moving between the EU27 and Irish airports than are moving to and from the UK and Irish airports. This has been the case for the last decade and the gap between the EU27 and UK widened further in 2016. The number of EU27 passengers increased from 14.1 million to 15.7 million (10.9%) while UK passenger numbers increased from 11.6 million to 12.8 million (10.5%).

The number of passengers moving to and from Irish airports and the USA increased in 2016 from 2.5 million to 2.8 million (12.7%). Passenger numbers to other regions have fallen by 31% from 2014, reaching 1.3 million in 2016.

In 2016 the busiest routes to and from Dublin airport were centred on the UK with 6 of the top 10 routes being between these regions just as they were in 2015. UK airports now occupy 5 of the top 6 routes for Dublin and these 5 alone provide 5.9 million passengers, 21.2% of the airport's total.

In terms of annual growth, passenger numbers grew for 9 of the top 10 routes, with Amsterdam (53.1%) and Gatwick (20.5%) growing the most. Birmingham (18.1%), Manchester (13.7%) and Edinburgh (10.5%) also registered double-digit increases. Numbers for Heathrow and Stansted grew by 4.1% and 4% respectively.

#### Dublin, Top 10 Routes by Passengers 2016

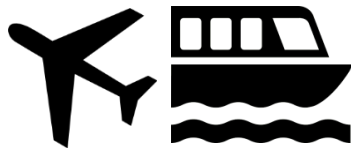
London-Heathrow	1,751,689	6.3%
London-Gatwick	1,309,524	4.7%
Manchester	981,628	3.5%
Amsterdam Schiphol	937,262	3.4%
Birmingham	927,584	3.3%
London-Stansted	915,039	3.3%
Paris-Charles de Gaulle	690,905	2.5%
New York-JFK	638,654	2.3%
Edinburgh	597,342	2.2%
Barcelona	558,688	2%
<b>Total</b>	<b>27,778,888</b>	<b>100%</b>

#### Cork, Top 10 Routes by Passengers 2016

London-Heathrow	390,268	17.5%
London-Stansted	339,312	15.2%
Amsterdam Schiphol	178,166	8%
London-Gatwick	120,691	5.4%
Malaga	116,864	5.3%
Faro	114,439	5.1%
Lanzarote	98,015	4.4%
Manchester	92,170	4.1%
Paris-Charles de Gaulle	90,842	4.1%
Liverpool-John Lennon	80,336	3.6%
<b>Total</b>	<b>2,226,233</b>	<b>100%</b>

The importance of the UK, and specifically London, to Cork airport is clear. Heathrow, Stansted and Gatwick comprise 3 of the top 4 routes, totalling 850,271 passengers or 38.2% of the airport's total. The rest of the top 10 routes are either European (including Lanzarote) or to the north-west UK.

Passenger numbers grew on all of Cork's top 10 routes between 2015 and 2016. Of the UK routes, growth was strongest for Manchester (13.6%). Numbers also increased for Stansted (6%), Gatwick (2.2%), Liverpool (2.4%) and Heathrow (1.6%).



Shannon Airport's main routes in 2016 were once again to and from the UK and USA. 3 of the top 4 routes were to the UK: these accounted for 619,180 passengers or 37% of the airport's total. The top US routes, to JFK, Boston, Newark, and Philadelphia, accounted for 371,556 passengers or 22.2% of the total.

Passenger numbers grew on most of the top 10 routes from 2015 to 2016. The strongest passenger growth of the top UK routes was for Heathrow (up 12.9%). Passenger trips to and from Stansted grew by 2.2%, but Gatwick numbers fell by 0.6%. Drops in passenger numbers were also recorded for Newark (down 1.4%) and most notably Manchester (20%).

### Shannon, Top 10 Routes by Passengers 2016

London-Heathrow	267,795	16%
London-Stansted	239,078	14.3%
New York-JFK	136,616	8.2%
London-Gatwick	112,307	6.7%
Boston/Logan	99,363	5.9%
Newark	96,164	5.7%
Manchester	84,762	5.1%
Faro	58,896	3.5%
Malaga	56,003	3.4%
Philadelphia	39,413	2.4%
<b>Total</b>	<b>1,674,567</b>	<b>100%</b>

### Knock, Top 5 Routes by Passengers 2016

London-Stansted	160,804	21.9%
London-Luton	131,212	17.8%
Liverpool-John Lennon	82,754	11.3%
London-Gatwick	75,678	10.3%
East Midlands	67,565	9.2%

### Kerry, Top 5 Routes by Passengers 2016

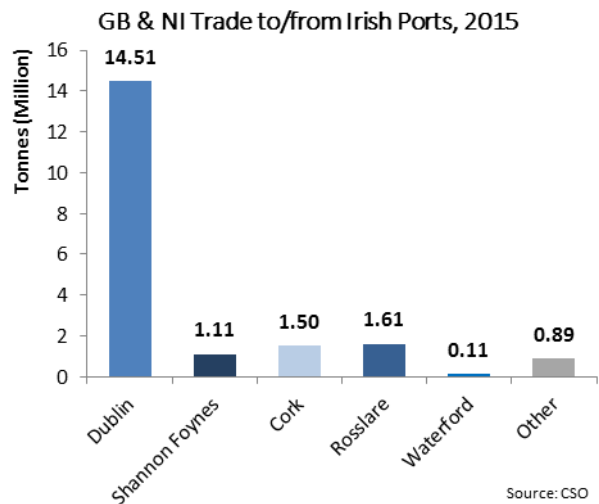
London-Luton	111,901	34.4%
London-Stansted	74,263	22.8%
Frankfurt-Hahn	57,116	17.5%
Dublin	48,712	15%
Alicante	23,039	7.1%

Routes to and from the UK are clearly of vital importance to Knock airport. 21.9% of all passenger journeys at Knock in 2016 were to/from London Stansted (160,804), with London Luton accounting for 17.8% (131,212). In total, **British airports comprised 8 of the top 9 routes for Knock airport in 2016**. Those routes carried 600,511 passengers, **82% of the total passengers** at the airport.

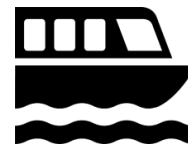
Though significantly smaller than the other airports featured, **Kerry airport shows a similar reliance on UK traffic**. Routes to and from London Luton and London Stansted account for 186,164 passengers or 57% of the airport's total.

**Almost three-quarters (73.6%) of total maritime trade between Ireland and the UK in 2015 was done through Dublin Port.** 14.51 million of the total of 19.7 million tonnes of goods traded with the UK passed through Dublin.

Dublin's share of UK maritime trade amounted to almost ten times more than any other Irish port. Rosslare had the second largest share of UK trade with 8.1%. Cork was a close third with 7.6% of total UK maritime trade. Shannon Foynes accounted for 5.6% and Waterford 0.56%. Other Irish ports taken together totalled 4.5% - prominent among these were Bantry Bay (2.2%) and Drogheda (1.1%).

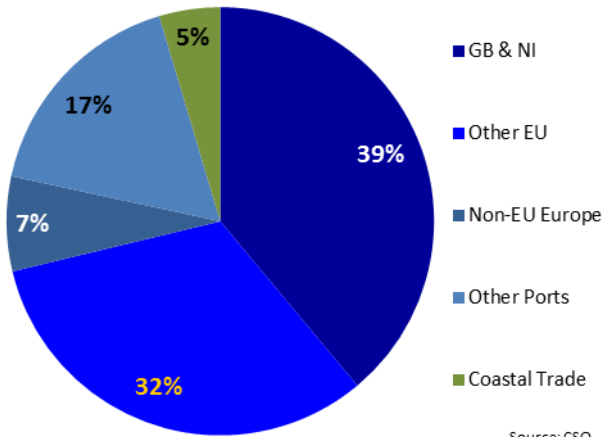


**Aviation trends reveal the importance of the UK and Europe as origins and destinations for Irish air traffic. Routes to London, the rest of the UK, mainland Europe and the USA are the most important to Ireland's 5 busiest airports. By and large, passenger numbers on UK air routes grew in 2016. Dublin Port takes a dominant share of Ireland's maritime trade with the UK.**



Movement of goods and services between Ireland and the UK plays a vital role in the economy of Ireland, and transport of goods to and from both Britain and the EU by sea is crucial to Ireland's capacity to trade. This section highlights that trade of goods to and from the UK contributes a significant amount to the total level of maritime freight activity in Ireland, but also that this trading activity plays a larger role at some of our major ports than it does at others.

Goods Handled, 2015 (50.67 million tonnes)

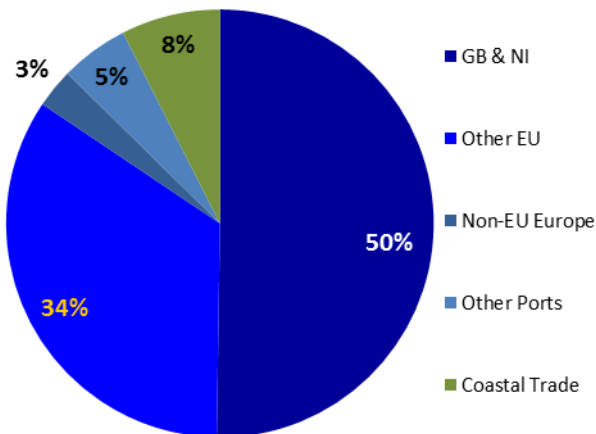


Source: CSO

The graphs left and below show the regional origins and destinations of all goods passing through Irish ports in 2015. Trade with the UK comprised 39% of all Irish maritime trade, while trade with other EU member states represented 32%.

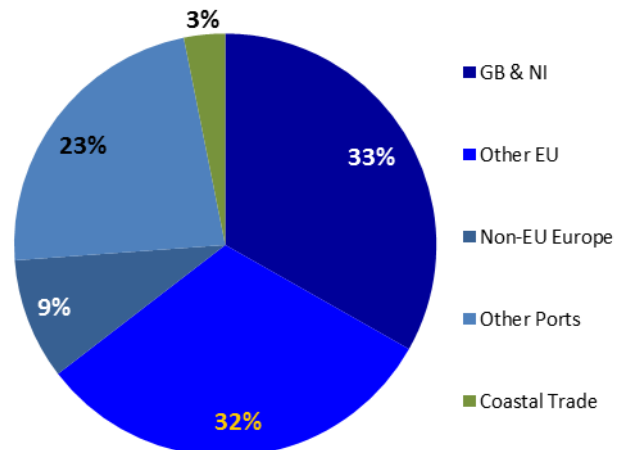
One of every two goods forwarded through Irish ports in 2015 went on to the UK (below left). One-third of all goods received in Irish ports in 2015 originated in the UK (below right). The equivalent figures for EU trade are 34% of goods forwarded and 32% of goods received. Thus, **trade with the UK accounted for a slightly higher share of total maritime trade in 2015 than trade with other EU member states**, especially for goods forwarded.

Goods Forwarded, 2015 (17 million tonnes)

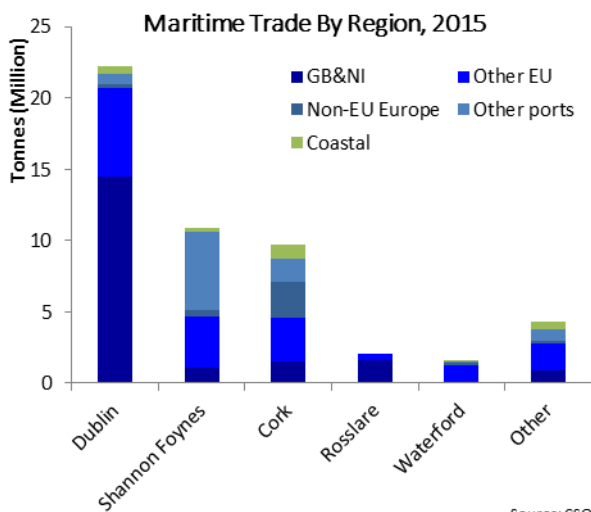


Source: CSO

Goods Received, 2015 (33.6 million tonnes)



Source: CSO



Source: CSO

Combining information on the total level of UK maritime trade across Ireland with the regional distribution of trade within each individual port helps illustrate the importance of the UK as a trading partner in greater detail.

**The ports on the eastern seaboard (Dublin and Rosslare) rely most heavily on UK trade** – Rosslare handled UK and EU freight only in 2015. The exact amount of UK freight which then proceeds indirectly to the EU, using the UK as a land bridge, is currently unknown. Trade to non-European ports had its highest share of activity at Shannon Foynes, while 78% of trade at Waterford port was direct to the EU. Coastal trade (between Irish ports) was most prominent at Cork with 10% of activity there.



Irish ports provide the infrastructure which allows the movement of goods and people between Ireland and other countries by sea. This section provides some overview information on the maritime sector in Ireland including details on port and vessel infrastructure, maritime freight statistics and maritime passenger trends.

## Total Freight Handled at Tier 1 and 2 Ports, 2015

### Tier 1 Ports

**Dublin Port:** 22.2 million tonnes  
**Shannon Foynes:** 10.9 million tonnes  
**Port of Cork:** 9.7 million tonnes

### Tier 2 Ports

**Rosslare:** 2.1 million tonnes  
**Port of Waterford:** 1.5 million tonnes

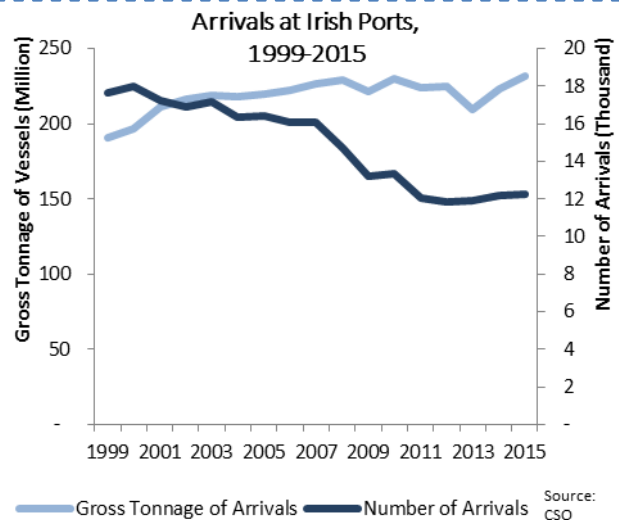
Source: CSO

Ireland's National Ports Policy classifies three ports as '**Tier 1 Ports of National Significance**': Dublin Port, Port of Cork and Shannon Foynes. There are two ports classified as '**Tier 2 Ports of National Significance**': the Port of Waterford and Rosslare Europort. The remaining commercial ports are classified as '**Ports of Regional Significance**' with the largest in freight terms (based on 2015 data) being Drogheda, Bantry Bay, Greenore and Galway.

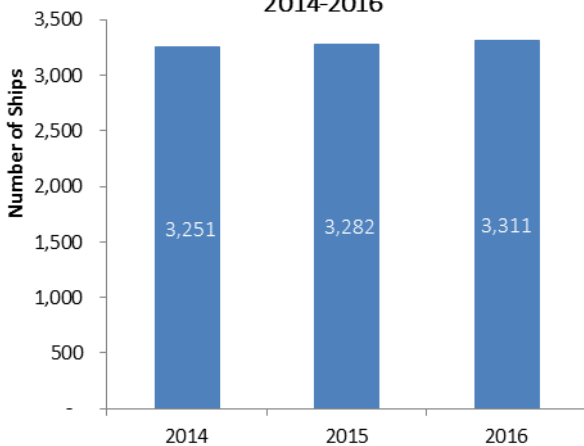
In addition to this classification, there are 12 other ports around the country where regular carriage of goods and/or passengers are reported to the CSO Statistics of Port Traffic.

Data on the number and size of vessels arriving at Irish ports indicates that **though the number of vessels arriving has decreased, the size of vessels continues to increase.**

The number of vessel arrivals consistently decreased between 1999, when 17,645 vessels arrived at ports, and 2012, when there 11,810 vessel arrivals. The trend has been marginally upward since: **12,242 arrivals were recorded in 2015, an annual increase of 0.3%.** The size of vessels arriving has however generally increased over the same time period. **2015 saw gross tonnage of vessel arrivals reach 231.7 million tonnes, an annual increase of 3.9%.**



## Number of Ships Registered Under Irish Flag, 2014-2016



Source: DTTaS. 2016 figure correct as of March 2017.

Ireland's port infrastructure receives ships registered to countries across the globe. However, looking at the number of Irish ships gives an insight into the overall level of maritime activity.

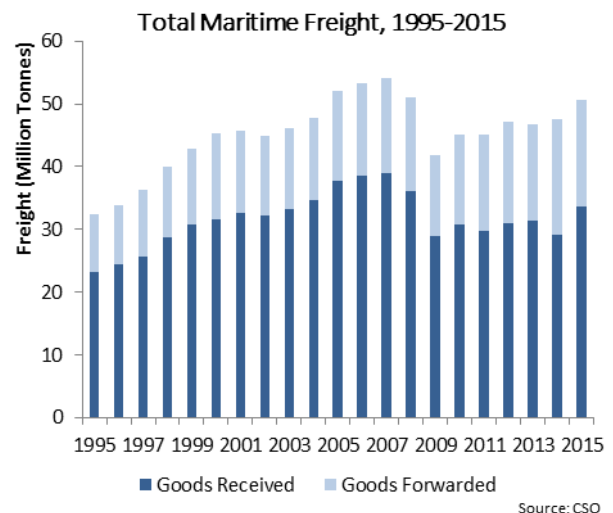
The number of ships registered under the Irish flag has continued to increase slightly in **2016 to a total of 3,311, an increase of 0.9%.** The number of merchant ships with a weight of over 100 gross tonnes stood at 137 in 2016, an increase from the figure of 133 recorded in both 2014 and 2015. It should be noted that not all ships that are registered are necessarily in operation.



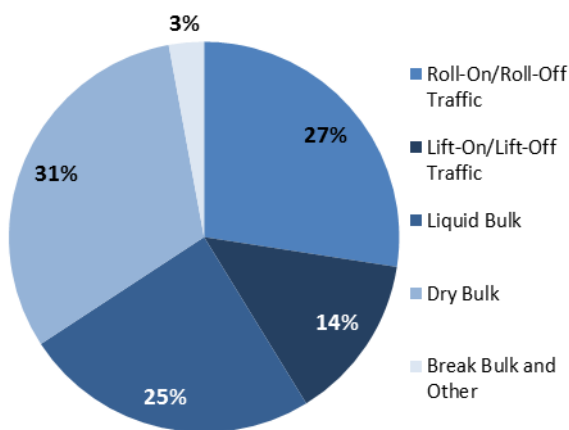


**2015 saw an annual increase of 6.7% or 3.2 million to a total of 50.67 million tonnes handled.** This is the highest level of freight handled since 2008 (51.1 million tonnes), well above the 2009 trough (41.8 million) but still below the 2007 peak (54.1 million). The data indicates that **the drop in maritime freight after 2007 was largely driven by lower imports rather than lower exports:** goods received decreased, while goods forwarded remained relatively constant.

**Dublin Port accounted for 43.8% of all freight handled in 2015** (22.2 million tonnes). Shannon Foynes and Port of Cork handled 21.5% and 19.2% (10.8 and 9.7 million tonnes) respectively.



**Total Maritime Freight by Type, 2015**

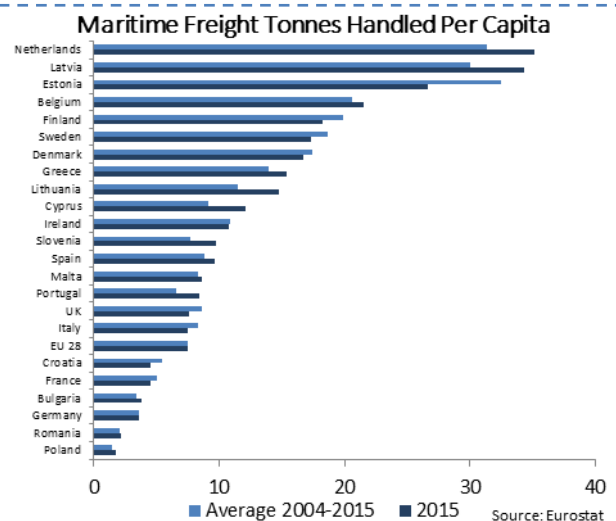


**The shares of total maritime freight handled by type remain very similar to those from 2014. The largest element remains dry bulk at 32% of the total, with roll-on/roll-off (27%) and liquid bulk (25%) the next biggest. Load-on/load-off (14%) and break bulk/other (3%) make up the remainder.**

Of the Tier 1 ports in 2015, Dublin handled the vast majority of both ro-ro (84.6%) and lo-lo (67.7%) freight that passed through Irish ports. Shannon Foynes handled a majority of dry bulk (61%), while Cork handled the biggest share of the liquid bulk freight (47.7%). Most break bulk and other types of freight were handled at the other Irish ports.

International comparative data on maritime freight activity in 2015 shows little change from 2013. **Ireland's freight tonnes handled per capita in 2015 was 10.8, a 4.9% increase from 2014.** Despite this rise, Ireland fell behind Lithuania and Cyprus in the rankings of countries with highest levels of per capita maritime freight activity in Europe.

Ireland in 2015 still ranks well above the EU28 average of 7.5 tonnes per capita, and remains above Spain (9.6), Portugal (8.4), the UK (7.6), and Italy (7.5). The most maritime freight per capita in 2015 occurred in the Netherlands (35.1 tonnes), Latvia (34.1) and Estonia (26.6).

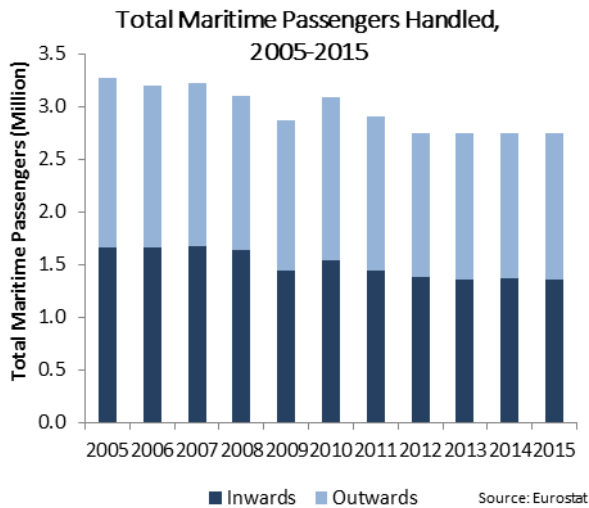


**It is clear that the maritime sector holds a key role within the economy as an important gateway for the movement of freight between Ireland and its trading partners. The recent trend of renewed growth in levels of freight handled has continued in 2016. Ireland remains above the European Union average for levels of maritime freight handled per capita.**





In addition to its role as an international gateway for imports and exports, the maritime sector is also an important facilitator of people travelling to and from Ireland. Our port network caters for travellers through ferry services and cruise ship visits.

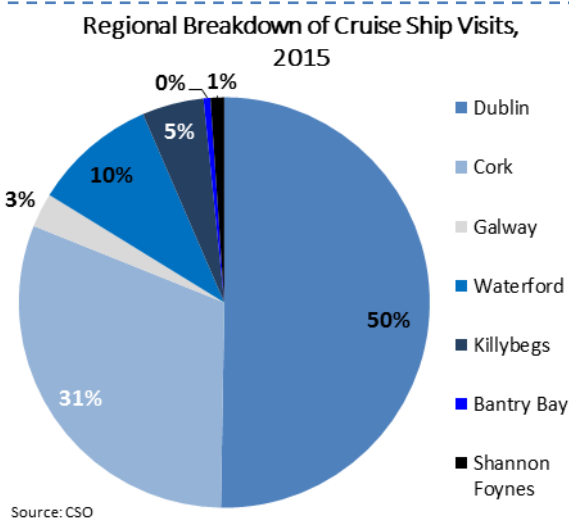
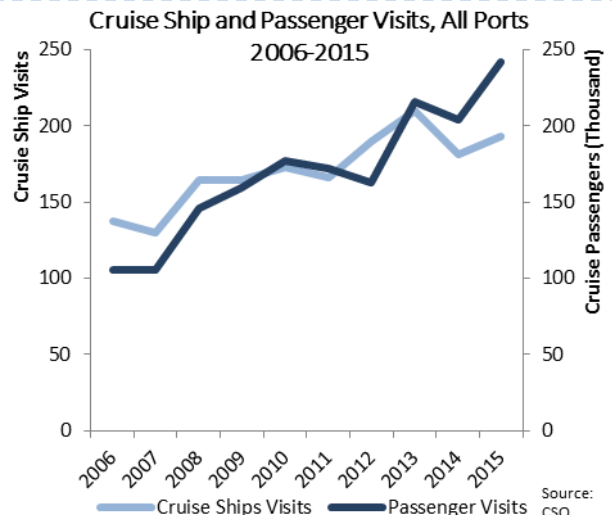


Ireland's network of ports is a key gateway for international tourism and the movement of people. Data from Eurostat (left) shows the number of maritime passengers handled at all Irish ports from 2005 to 2015. Trends for both inward and outward passengers have been very similar.

The total number of maritime passengers arriving to or departing from Irish ports fell between 2007 and 2009, from 3.23 million to 2.88 million, but increased again to 3.09 million in 2010. Passenger numbers then declined to 2.76 million in 2012 and have remained steady since, with **2.75 million maritime passengers handled in Ireland in 2015, a decrease of 0.1% from 2014.**

A significant element of Irish maritime activity and Ireland's tourism industry is the cruise ship sector. Available data indicates that **the number of cruise ship visits has increased from 130 in 2007 to 193 in 2015.** This follows a drop from 210 visits in 2013 to 181 in 2014. This growth has seen the **number of cruise ship passengers increase from 105,725 in 2007 to 241,872 in 2015.**

In 2015, the number of cruise passengers visiting Dublin increased by 4.2% from 2014, but Dublin's share of Ireland's cruise passenger visits actually went down. This was due to large increases for Cork (22.9%), Waterford (52.3%) and Shannon Foynes (267.2%).



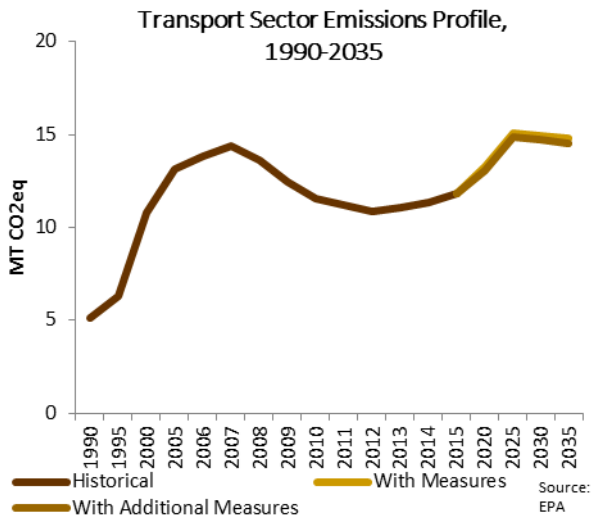
Data from the CSO (left) shows the regional distribution of cruise ship visits to Ireland in 2015. **50% of all cruise ship visits in 2015 were to Dublin Port (93 visits, up from 86 in 2014).** Cork had the next highest share at 31% (57 visits, up from 52), while 10% of cruise ship visits were to Waterford (18 visits, up from 16). The 2014 shares for these ports were 49%, 28% and 9% respectively.

The CSO data also shows that **Cork overtook Dublin in 2015 as the port with the highest share of Ireland's cruise passenger visits.** 45% of cruise passenger visits were to Cork, up from 41% in 2014, while Dublin's share decreased from 48% to 44%.

# Energy and Emissions



The transport sector is a large consumer of energy and as a result is a significant contributor towards national greenhouse gas emissions. This section profiles the role of transport in relation to climate change and energy and highlights key trends and measures being taken to address the challenge of reducing emissions.

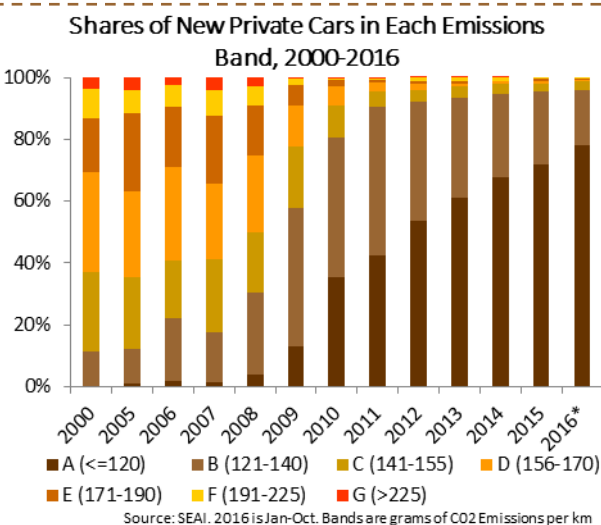
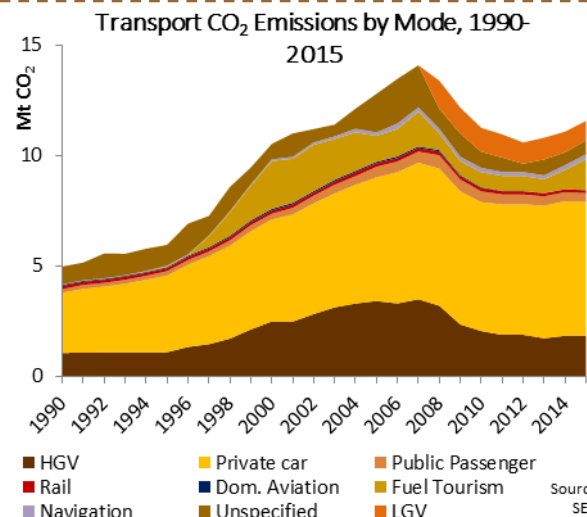


The transport sector emitted 11.8 million tonnes of CO<sub>2</sub> equivalent in 2015. This was a 4.2% increase on 2014 levels and the **third consecutive year since 2012 in which emissions rose**. The sector is the second largest contributor to national greenhouse gas emissions at 19.8%.

By 2020 it is estimated that the transport sector will emit 13.2 Mt CO<sub>2</sub>eq with current policy measures or 13 Mt CO<sub>2</sub>eq if additional identified measures are implemented. Transport sector emissions are projected to increase by 11.3% over the period 2020-2035. This is largely driven by a projected rise in population and an increase in national car kilometres driven.

The majority of transport CO<sub>2</sub> emissions arise from road transport. Of this, private car use accounted for 52% in 2015 with goods vehicles accounting for a further 24%. The other main contributor is fuel tourism at 12%.

In looking at the trend in transport CO<sub>2</sub> emissions, it is evident that there is a clear divide in emissions before and after 2007, due in large part to the economic recession. **HGV road freight experienced a strong increase in emissions over the period 1990-2007 (+229%) and also a sharp contraction in the period 2007-2015 (-47%).** Private car CO<sub>2</sub> emissions grew by 127% from 1990-2007 but only fell by 2% in the period 2007-2015.

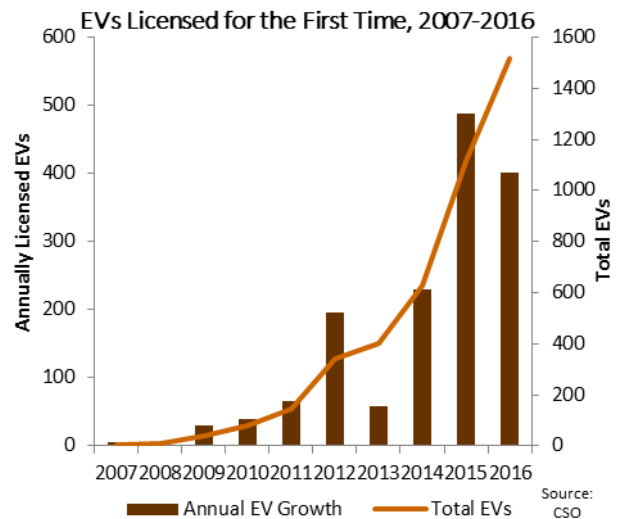


A new system of assessing private cars for VRT and Motor Tax came into effect from July 2008 and was based on the CO<sub>2</sub> emissions rating of the vehicle. The tax changes, which applied to vehicles purchased in 2008 or later, had an immediate effect in changing buyer behaviour.

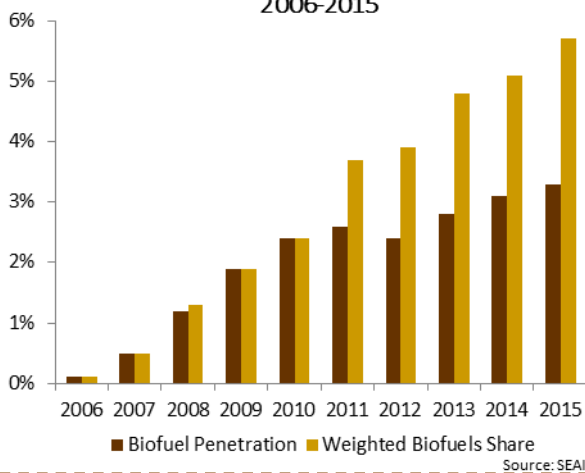
**In 2015 the share of cars in the A and B emission bands was 95.3% and for the first ten months of 2016 it was 96.2%.** The largest increase in share was in the A emission band, which rose from just 1.5% in 2007 to 71.8% of the new private cars sold in 2015. Data for 2015 show that this trend has continued with A vehicles making up 78% or more than three quarters of all new registrations.



Ireland set an initial target of converting 10% of its passenger and light commercial vehicle stock to electric vehicles (EVs) by 2020 (roughly equivalent to 230,000 vehicles). The lower than anticipated uptake of EVs led to a downward revision of this target to 50,000. Sales of EVs have been slow to catch on, though **2015 recorded the highest number of new registrations to date at 488** for private cars and goods vehicles. This **fell slightly to 402 in 2016** which brings the total number of EVs for these vehicle classes to 1,519. In parallel, a nationwide programme to rollout EV charging points has begun with 800 having been installed to date in the Republic of Ireland, including 79 fast chargers.



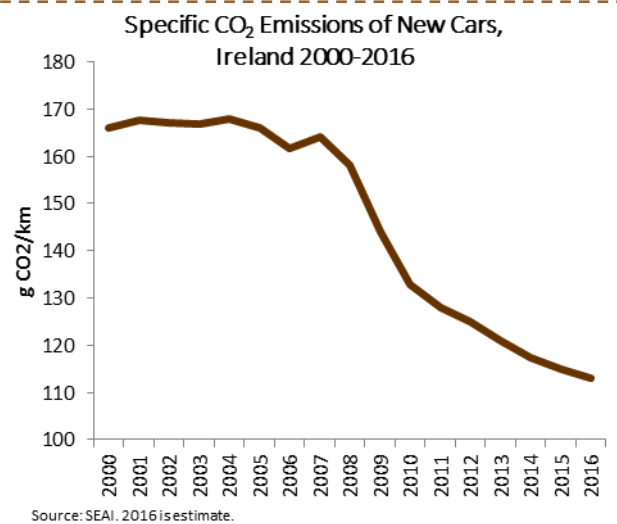
**Biofuels as a Proportion of Transport Energy, 2006-2015**



The penetration of biofuels as a share of road transport energy has increased significantly over recent years, albeit from a very low base. Under the Biofuels Obligation Scheme (BOS) mineral oil suppliers are required to ensure that 8.695% (by volume) of the motor fuels they place on the market in Ireland is produced from renewable sources. A weighting system is applied whereby biofuels produced from wastes and residues qualify for 2 BOS certs per litre. The **weighted share of biofuels in transport energy (RES-T) in 2015 is 5.7%** which is over half way towards meeting the national 2020 target of 10%.

All new cars have CO<sub>2</sub> emissions ratings calculated under laboratory test conditions. Between 2000 and 2007 the average CO<sub>2</sub> emissions for all cars was approximately 166 g CO<sub>2</sub>/km which is within band D.

Through the combined effects of the motor taxation change in 2008 and the imposition of fuel efficiency standards on car manufacturers, the **average emissions of the new car fleet continued to fall, reaching 114.9 g CO<sub>2</sub>/km in 2015 (down 2.2% from 2014)** which is within band A4. It is estimated that the average emissions of new cars purchased in 2016 is 113 g CO<sub>2</sub>/km.



**The economic downturn saw Ireland's transport emissions decrease, but a return to growth has seen emissions rise again since 2013. Measures have been introduced which are having an impact in decarbonising transport but much more remains to be done if emission reduction targets are to be met and if the sector is to be able to support continued economic growth without resulting increases in emissions.**

# Transport Data Map

The following section lists a number of resources for transport related data and statistics. This is not exhaustive of all sources but gives an indication of where information which relates to transport can be found. Click each logo for direct link. Conditions of use as stated with source.

 <p><b>An Roinn Iompair Turasóireachta agus Spóirt</b> Department of Transport, Tourism and Sport</p>	<p>Annual Publication of 'Bulletin of Vehicle and Driver Statistics' Data and Information provided in policy documentation</p>
 <p><b>Central Statistics Office</b> An Phríomh-Oifig Staidrimh</p>	<p>Annual Publication of Transport Omnibus, National Travel Survey, Various Sectoral Surveys and Bulletins (Maritime, Freight, Aviation)</p>
 <p><b>An Roinn Caiteachais Phoibli agus Athchóirithe</b> Department of Public Expenditure and Reform</p>	<p>Publicly Available Expenditure Data at DPER Databank</p>
 <p><b>DATA.GOV.IE</b></p>	<p>Government Open Data Portal</p>
 <p><b>StatCentral.ie</b></p>	<p>National Statistics Portal</p>
 <p><b>eurostat</b></p>	<p>On-Going Release and Publication of Transport Statistics</p>
 <p><b>EUROPEAN COMMISSION</b></p>	<p>Annual Publication of 'Statistical Pocketbook' of Europe-Wide Transport Indicators</p>

**Ireland Stat** Government performance measurement

Whole-of-Government Performance Data



Traffic Count Data Publicly Available. Number of Data-Focused Publications



On-Going Publication of Statistical Reports and Bulletins



Annual Publication of the 'Irish Maritime Transport Economist'



Data Portal for Energy Production, Transformation and End Use in Ireland



Open Data for Dublin



Produces and Publishes a Number of Statistical Bulletins and Reports

# Notes and References

This section provides relevant notes and references for the analysis contained with *Transport Trends 2017*. Each individual section is directly hyperlinked to the original source where relevant. This section should be used when interpreting the rest of this document's contents. Any queries on this analysis should be forwarded to [transporttrends@dttas.ie](mailto:transporttrends@dttas.ie).

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## Section One: General Overview

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**Economy and Transport Indicators:** Transport passenger km from [EU Commission](#). GNP in €m 2013 prices and [total employment](#) from the CSO. Transport emissions in Thousand Tonnes of CO2 equivalent from the [EPA](#). Fuel consumption by the transport sector in Thousand Tonnes of Oil Equivalent from [SEAI](#). Private cars under current licence from the [CSO](#).

**Recent Sectoral Trends:** From cited data from other sections of *Transport Trends*.

**Exports plus Imports as a Percentage of GDP:** Data from [World Bank](#).

**Percentage of Journeys by Mode of Travel:** Data from [CSO National Travel Survey](#).

**Average Journey Distance and Duration:** Data from [CSO National Travel Survey](#).

**Journeys by Main Purpose:** Data from [CSO National Travel Survey](#).

**Mode Share of Land Transport Passenger Kilometres:** Data from [Eurostat](#). All data relates to 2014 and represents the split between car, train and bus use.

**Gross Expenditure by DTTaS (Non-Pay):** Data from [DPER Databank](#). All expenditure is gross and does not include any pay or pensions. All expenditure is as reported on DPER Databank and includes only expenditure as and when it was assigned to the Department (Maritime after 2005 and sports/tourism after 2011). Gross expenditure refers to the overall Departmental spend as distinct from net expenditure which refers to the overall drawdown from the Exchequer (this is lower than gross spend, because it takes account of "appropriations-in-aid", i.e. fees, levies and other receipts which Departments and agencies may retain and use).

**Investment in Inland Transport Infrastructure as a % of GDP:** Data from the [OECD](#). Due to the lack of common definitions and accounting practices it is not possible to make definitive comparisons between countries. Thus, only consistent trends within the series are discussed. Full metadata information available at original source. OECD average excludes Chile due to lack of data.

**Taxation Revenue Associated with Transport:** Estimation of revenue associated with the transport sector provided by Department of Finance and Department of Housing, Planning, Community and Local Government. Data for 2016 is provisional. Other potential sources of revenue that accrue to government such as tolling, vat on car purchases and maintenance and Local Authority parking revenues are not considered here.

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## Section Two: Land Transport – Network

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**Total Road km:** National road data from the [CSO](#). Regional and Local road estimate from DTTaS for 2016.

**Road km Per 1000 Inhabitants:** Road length data from [European Commission](#) for 2013. Population data also from European Commission. The data is not definitively comparable and are indicative only as some road length data are Commission estimates and there is a variety of definitions.



**Bus Operated Vehicle-km:** Data for Dublin Bus and Bus Éireann from [NTA Bus Statistics](#). Data for other commercial services from [NTA Commercial Bus Statistics](#).

**Number of Buses Providing Services:** Data from [NTA](#). The format for collecting data on fleet size and age changed between 2013 and 2014 and some discrepancies may have occurred. Rural transport services are excluded because, in general, the buses used are mini buses.

**Heavy Rail Service Provision:** Data from [NTA](#). Irish Rail figures do not include rail freight operations.

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### Section Three: Land Transport – Travel

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**Number of Vehicles Under Licence:** Data from [CSO](#) and refers to 31<sup>st</sup> December of each year. 2016 total vehicles licensed is provisional from DTTaS. 2013 data for tractors and others were inflated by the three month transition period for motor tax gapping provided for in the Non-Use of Motor Vehicles Act 2013.

**Number of New Vehicles Licenced:** Data from [CSO Transport Omnibus](#). 2016 data from [CSO release](#), 12 January 2017.

**Passenger Cars Per 1000 Inhabitants:** Data from Eurostat for 2014. Estimated European average represents the 22 countries with available data in 2014. Czech Republic, Denmark, Spain, Luxembourg, Netherlands and UK data unavailable.

**Total Vehicle km:** Data from [CSO Transport Omnibus](#).

**Small Public Service Vehicle Kilometres and Licences:** Vehicle km from [CSO Transport Omnibus](#). Number of active SPSV licences from [NTA Taxi Statistics](#).

**Modal Share of All Journeys:** Data from [CSO National Travel Survey](#).

**Commuting Trips by Public Transport:** Data from [CSO Census](#) Place of Work, School or College.

**Public Transport Passenger Journeys:** Data for Bus Éireann, Dublin Bus, Irish Rail and Luas from CSO. Specific sources for each operator are listed below. Data on commercial bus services and Rural Transport Programme from [NTA Commercial Bus Statistics](#).

**Leap Cards Issued and Total Spend:** Data from NTA (by request).

**Leap Card Journeys (as a Percentage of Total Passenger Journeys):** Data from NTA (by request).

**Luas Passenger Numbers:** Data for 2007-2015 from [CSO Transport Omnibus](#) (including previous editions) 2016 data is provisional from the [NTA](#).

**Total Heavy Rail Passengers:** Data for 2008-2015 from the [CSO Transport Omnibus](#). 2016 is provisional from the [NTA](#). Decrease in passengers in mainline and other services and resultant increase in passengers in Dublin suburban services in 2012 due to reclassification of Kildare, Navan and Wicklow previously included in mainline services now included in Dublin suburban.

**Dublin Bus Passengers:** Data for 2007-2015 from [CSO Transport Omnibus](#) (and previous editions). 2016 PSO services is provisional from [NTA](#).

**Bus Éireann Passengers:** Data for 2007-2015 from [CSO Transport Omnibus](#) (and previous editions). 2016 PSO services is provisional from [NTA](#).

**Public Bike Schemes:** Data on numbers of bikes provided by NTA and DCC (by request). Data on journeys and annual subscribers for Dublin and regional bike schemes available from [CSO Transport Omnibus](#).

**Mode Shares – Dublin, non-Dublin and State:** Data from [CSO National Travel Survey](#).

**Walking and Cycling Trips into Dublin City Centre:** Data from [NTA Canal Cordon Count](#).

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#### Section Four: Land Transport – Freight

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**Road Freight:** Data from [CSO Transport Omnibus](#).

**Heavy Rail Freight Traffic:** Rail freight data from the [CSO Transport Omnibus](#).

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#### Section Five: Land Transport – Safety

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**Road Fatalities:** Data from the RSA for [long run](#) and for [recent data](#). 2014, 2015 and 2016 data is provisional and may be subject to revision.

**Road Fatalities per Billion Private Car Passenger km:** Data from [Eurostat](#) and [European Commission](#). Estimation of road fatalities per billion passenger km is compiled by EFEU based on Eurostat road safety data and European Commission road use data.

**Light Rail Incidents:** Data from [Railway Safety Commission](#).

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#### Section Six: Aviation

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**Airport Infrastructure Definition:** From DTTaS [National Aviation Policy](#) (2015).

**Number of Airports:** Data is from [Eurostat](#) and airports are classified as being larger than 150,000 passenger movements annually.

**Commercial Flights Handled:** Data is from [CSO Aviation Statistics](#). Main Airports is defined by CSO as an airport through which in excess of 150,000 passengers fly per annum. The five main airports in Ireland are Dublin, Cork, Shannon, Knock and Kerry.

**Aviation Passengers Handled, Region and Routes:** Data is from the [CSO Aviation Statistics](#). CSO Aviation Statistics are compiled from data supplied by all Irish airports with more than 15,000 passengers handled per year. The following Irish airports provide data to the CSO: Dublin, Cork, Shannon, Kerry, Knock, Waterford, Connemara, Donegal and Inishmore.

**Air Freight:** Data is from [CSO Aviation Statistics](#).

**Flights Handled by Irish Air Traffic Control:** Data from IAA (by request).

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#### Section Seven: Maritime

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**GB & NI Trade To/From Irish Ports, 2015:** Data is from [CSO Maritime Statistics](#).

**Goods Handled, Forwarded and Received at Irish Ports, 2015:** Data from [CSO Maritime Statistics](#).

**Maritime Trade by Region, 2015:** Data from [CSO Maritime Statistics](#).

**Port Infrastructure Definition:** From DTTaS [National Ports Policy \(2013\)](#).

**Total Freight Handled at Tier 1 and 2 Ports, 2015:** Data from [CSO Maritime Statistics](#).

**Arrivals at Irish Ports:** Data from [CSO Maritime Statistics](#).

**Number of Ships Registered Under Irish Flag:** DTTaS data as of 15<sup>th</sup> March 2017.

**Total Maritime Freight & Total Maritime Freight by Type:** Data from [CSO Maritime Statistics](#).

**Maritime Freight Handled Per Capita:** Data from [Eurostat](#).

**Maritime Passengers:** Data from [Eurostat](#). A main port is a statistical port which has annual movements of no less than 200,000 passengers or recording more than one million tonnes of cargo.

**Cruise Ships and Passenger Visits:** Data from [CSO Maritime Statistics](#).

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## Section Eight: Energy and Emissions

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**Transport Sector Emissions Profile:** Data from [EPA Greenhouse Gas Emissions Projections](#). The 'With Measures' scenario includes the impact of VRT and Motor Tax changes, public transport efficiencies, carbon tax, improved fuel economy of cars, 5.5% of transport energy demand coming from biofuels by 2020. The 'With Additional Measures' scenario assumes 8% of transport energy demand coming from biofuels by 2020. It also includes the provisions of the Biofuels Obligation Scheme 2010 and the roll out of electric vehicles (10,000 by 2020).

**Shares of New Private Cars in Each Emissions Band:** Data from SEAI [Energy in Ireland \(2016\)](#).

**Biofuels as a Proportion of Transport Energy:** Data from SEAI [Energy in Ireland \(2016\)](#).

**EVs Licensed for the First Time:** Data from [CSO](#). EV charging stations data provided by ESB.

**Transport CO<sub>2</sub> Emissions by Mode:** Data from SEAI [Energy in Transport \(2014\)](#) with update supplied directly from EPSSU.

**Specific CO<sub>2</sub> Emissions of New Cars:** Data from SEAI [Energy in Ireland \(2016\)](#).



Irish Government Economic & Evaluation Service



**An Roinn Iompair  
Turasóireachta agus Spóirt**

**Department of Transport,  
Tourism and Sport**