Transport Trends
An Overview of Ireland’s Transport Sector

- April 2016 -

IGEES
Irish Government Economic & Evaluation Service

An Roinn Iompair Turasóireachta agus Spóirt
Department of Transport, Tourism and Sport
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The data underlying this report was collected in February/March 2016 and was the most up to date published data available at that time. As such, users of the document should check with the data sources as to whether more up to date data is available.
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).

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Transport Trends reveals a consistent development emerging across the various transport sectors in Ireland. Analysing the number of people on public transport; the amount of freight being moved by road, sea or air; the amount of tourists arriving at our airports and ports; or the number of people commuting to work all reveal a sector that has firmly returned to growth following a number of years of decline and stagnation.

**Roads:** Ireland’s road network has become busier over the past two years with consistent expansions in the total kms being driven and a 1.7% increase in 2014. There has also been a renewed increase in the number of vehicles licensed with a 31% growth in new cars in 2015.

**Public Transport:** 2015 saw a further growth in passenger numbers across the various modes of public transport with an extra 7.7 million passenger journeys on bus, rail and light rail services. This growth was spread across operations, with each mode increasing patronage.

**Maritime:** Ireland’s port system has had to cater for an increased level of demand. The increase in freight handled, up 1.6% in 2014, and the increase in the number of people arriving by ferry, is indicative of growth in the sector and the wider economy.

**Aviation:** Irish airports are dealing with renewed growth which accelerated in 2015. Provisional data indicates that 2015 was Dublin Airport’s busiest year on record with 25 million passengers handled. This increase in traffic has facilitated a record high in tourists visiting Ireland.

**Sustainable:** Positive trends are evident in Dublin with the number of Dublin Bikes journeys more than doubling since 2013 and a rise of 74.5% in the number of cyclists entering the city in the morning compared to 2010. However, sustainable transport outside the capital and the renewed growth in the level of emissions from transport remain challenges.

The growth witnessed across Ireland’s transport network is a strong indicator of, and contributor to, the wider economic recovery. However, it is also evident that a number of constraints and challenges remain and have emerged. Private car is clearly still the dominant mode of travel, particularly outside Dublin. Expenditure in the transport sector is still constrained and remains below other comparable countries as well as the identified level required to maintain the current system. Emissions and climate change targets will continue to be a challenge for the sector as increased travel demand imposes higher energy use and emissions.

In summary, the 2016 edition of Transport Trends details a significant return to growth across the transport sector. The trends detailed throughout this report are indicative of the state of play within a sector that is central to Ireland’s economic, spatial and social development.
The following section lists the latest headline figures for the transport sector in Ireland and is taken from the referenced sources highlighted throughout the subsequent sections of the report. Percentage changes refer to previous year unless otherwise stated.

### Roads

<table>
<thead>
<tr>
<th>Kms of Road</th>
<th>Number of Dublin Bus Passengers (2015*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,306 National; 13,120 Regional; 80,472 Local</td>
<td>119.5 Million (Up 2.8%)</td>
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<table>
<thead>
<tr>
<th>Vehicle Kms Driven (2014)</th>
<th>Number of Bus Eireann Passengers (2015*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.5 Billion Kms (Up 1.7%)</td>
<td>30.2 Million (Up 1.7%)</td>
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<table>
<thead>
<tr>
<th>Road Freight Tonne-Kms Driven (2014)</th>
<th>Number of Luas Passengers (2015*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.8 Billion Tonne-Kms (Up 6.9%)</td>
<td>34.6 Million (Up 6.1%)</td>
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<table>
<thead>
<tr>
<th>Number of Road Fatalities (2015*)</th>
<th>Number of Irish Rail Passengers (2015*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>166 (Down 14%)</td>
<td>39.8 Million (Up 5.3%)</td>
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<table>
<thead>
<tr>
<th>Car Share of All Journeys (2014)</th>
<th>PT Share of All Journeys (2014)</th>
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</thead>
<tbody>
<tr>
<td>74.4% (Down from 76.5% in 2012)</td>
<td>5.8% (Up from 5.2% in 2012)</td>
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<table>
<thead>
<tr>
<th>Gross DTTaS Expenditure 2015</th>
<th>Gross DTTaS Expenditure 2015</th>
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</thead>
<tbody>
<tr>
<td>€772 Million</td>
<td>€573 Million (a)</td>
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### Maritime

<table>
<thead>
<tr>
<th>Total Number of Vessel Arrivals (2014)</th>
<th>Total Air Passengers Handled in Ireland (2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,204 (Up 2.2%)</td>
<td>26.5 Million (Up 6.9%)</td>
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</table>

<table>
<thead>
<tr>
<th>Total Gross Tonnage of Vessel Arrivals (2014)</th>
<th>Air Passengers Handled at Dublin Airport (2015*)</th>
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<tbody>
<tr>
<td>223 Million Tonnes (Up 6.3%)</td>
<td>25 Million (Up 15%)</td>
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<tbody>
<tr>
<td>47.5 Million Tonnes (Up 1.6%)</td>
<td>217,100 (Up 6.2%)</td>
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<tbody>
<tr>
<td>2.8 Million (Up 0.3%)</td>
<td>5 Airports</td>
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<tbody>
<tr>
<td>202,819 (Down 2.5%)</td>
<td>139,000 Tonnes (Up 8.5%)</td>
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<table>
<thead>
<tr>
<th>Gross DTTaS Expenditure 2015</th>
<th>Gross DTTaS Expenditure 2015</th>
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<tbody>
<tr>
<td>€76.2 Million</td>
<td>€22 Million</td>
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### Aviation

<table>
<thead>
<tr>
<th>Sustainable Transport</th>
<th>Wider Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.4% (Up from 14.8% in 2012)</td>
<td>€203.5 billion (Up 7.8%)</td>
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<tr>
<th>Emissions from Transport Sector (2014)</th>
<th>Unemployment Rate (February 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.3m Tonnes of CO2 Equivalent (Up 2.5%)</td>
<td>8.8% (Down from 10% February 2015)</td>
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<table>
<thead>
<tr>
<th>Gross DTTaS Expenditure 2015</th>
<th>Tax Revenue Associated with Transport (2015*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>€21.4 Million (a)</td>
<td>€4.55 billion (Up 2.6%)</td>
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</table>

(a): Expenditure on Sustainable Transport related projects is under both Sustainable Transport and Public Transport sub-heads. In particular the Sustainable Transport Measures Grants (€25.4m in 2015) and the Regional Cities Programme (€12.7m in 2015) are contained within the Public Transport budget but largely focus on investments in cycling and walking infrastructure. (b) Main Airports: As defined by CSO - Dublin, Cork, Kerry, Knock, Shannon. PSO: Public Service Obligation or State Subsidised. *: Provisional Data
This section provides some overview information on the transport sector in Ireland. This includes details on how and to what extent we travel, historical developments, recent headline expenditure trends, revenue associated with the transport sector and the wider international context.

Trends within the transport sector are closely linked to the performance of the wider economy. 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 in GDP and GNP terms, was associated with significant growth in cars licensed, passenger kms on road and public transport, and energy use/emissions in the transport sector, as shown in the figure (left). Following a number of years of contraction, both the economy and the transport sector are experiencing a recovery.

By looking at specific modal trends (right) we can further observe the recent increases in transport demand. The number of passengers using public transport* increased by 3.6% to 224.1 million in 2015. Total road kms driven was up by 1.7% in 2014 to 42.5 billion kms.

The total tonnage of freight handled at Ireland’s primary ports increased by 1.6% in 2014 to 47.5 million tonnes. There was a 15% increase in the number of aviation passengers departing and arriving at Dublin Airport in 2015 to a total of 25 million. It is evident throughout this document’s analysis that transport demand is increasing across the various transport modes.

The return to growth in transport demand is something that can be seen to be taking hold across various countries, as global economic conditions improve. This further highlights the link between transport demand and economic performance.

Looking at the total level of land passenger kms (road and public transport), one can observe a similar trend in Ireland and the EU, albeit with starkly different magnitudes. Following a number of contractionary years transport demand is picking up across countries with increases between 2012 and 2013.

* : Luas, Irish Rail, Bus Éireann (PSO Only), Dublin Bus (PSO Only).
Use of private car is clearly the dominant mode of travel in Ireland. 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. Again it shows the primacy of private car use although the modal share has decreased slightly from 76.5% in 2012 to 74.4% in 2014. Public transport has increased slightly from 5.2% (2012) to 5.8% (2014) while walking/cycling has also increased – 14.8% (2012) to 16.4% (2014).

In terms of journey profiles we can observe from the National Travel Survey that both the average journey distance and the average journey duration have increased between 2012 and 2014. The average journey distance across Ireland has increased from 13.6 kms to 14.6 kms while the average journey duration has increased from 21.7 minutes to 22.7 minutes. Of note, is the fact that journeys in Dublin are shorter in distance and time with the average being 10.3 kms and 23.7 minutes in 2014. Average speed nationally has increased from 37.6 km/hour in 2012 to 38.5 km/hour in 2014.

The most common primary journey purpose is work and education trips which have increased from a 27.8% share in 2012 to 29.5% in 2014. The second largest share of journeys was taken up by trips with shopping as their main purpose with 24% of the total in 2014.

Trips that had leisure as their main purpose accounted for 11.7% of all journeys in 2014 while visiting family/friends was 10.8%. The other categories consist of personal business (5.2% in 2014), companion/escort journeys (13.8% in 2014) and other (5.1% in 2014).

It is clear that there has been a return to growth across the transport sectors. The transport of people and goods across various modes is increasing rapidly following a number of years of decline. This increase is as a result, and a further signal of, wider economic growth in Ireland.
The way we travel continues to rely heavily on private car, although recent years have seen increases in the use of public transport and sustainable 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 decreased significantly since 2008.

Similar to other European countries, private car is the dominant choice of transport for Irish inland passenger journeys. Ireland is exactly at the EU28 average, with 83.2% of all inland passenger transport being by private car. The Eurostat data here measures the split between car, train and bus use for total journeys.

Ireland’s modal share for rail is significantly lower than other states at 2.7% while the EU28 average is 7.6%. However, the share of bus journeys is 14.1%, above the EU28 average of 9.2%. Thus, Irish journeys utilise private car to a similar extent in comparison with the EU average, while utilising bus to a greater extent and rail to a lesser extent.

Expenditure (gross, non-pay) by DTTaS increased steadily from €483 million in 2000, peaking at €3.6 billion in 2008. This was driven by increases in capital expenditure on major infrastructure projects such as the motorway network and Luas. Expenditure has since fallen to around €1.62 billion in 2015.

Over the period between 2011 and 2015 capital expenditure accounted for approximately 63% of gross departmental expenditure with current expenditure making up the other 37%. It is worth noting that the Department as currently formed only took responsibility for maritime in 2005 and sports/tourism in 2011.

In terms of the sectoral breakdown for 2015, 84% of gross non-pay expenditure was on Land Transport (€1.37 billion), 5% on Tourism Services (€81.6 million), 5% on Sports and Recreation Services (€76.4 million), 5% on Maritime Transport and Safety (€76.2 million) and 2% on Civil Aviation (€22 million).

For comparison, in 2011 the breakdown was 88% Land Transport (€1.96 billion), 5% Tourism Services (€101.5 million), 4% Sports and Recreation Services (€80.5 million), 2% Maritime and Safety (€54.9 million) and 1% Civil Aviation (€29.1 million).
The largest item of expenditure within DTTaS is land transport which is made up of roads, public transport and sustainable transport. The figure (right) gives an indicative sectoral breakdown of this expenditure area. Between 2011 and 2015, roads received an average of 61% of land transport expenditure while public transport received 38% on average.

Given the close nature of these areas it is not the case that expenditures are completely distinct and specific expenditures may cover a variety of goals or aims. In particular some spending on projects focused on sustainable transport measures is included under public transport.

When comparing Ireland’s level of investment in transport infrastructure internationally, it is evident that we are lagging behind. OECD data (left) shows that our level of investment as a % of GDP is below other OECD countries and has fallen from 1% in 2003 to 0.4% in 2013. It is likely that we are currently below this level given the decrease in investment levels since 2013.

Work carried out by DTTaS in 2014 suggests that investment in land transport is currently below our long run average and the amount required to maintain the current network in its current state. This ‘steady state’ funding gap amounted to around €300 million in 2015.

Taxation revenue associated with the transport sector has consistently outstripped expenditure. Provisional data for 2015 shows that revenue reached €4.55 billion, an annual increase of 2.6%, and significantly above DTTaS exchequer expenditure of €1.62 billion.

Associated taxation revenue fell sharply after 2007, when it peaked at €5 billion, mainly driven by VRT which went from €1.4 billion in 2007 to €379 million in 2012. This has since recovered to €648 million in 2015. The other associated tax streams have remained relatively constant. The estimated weekly household expenditure on transport is €116.31 or 14.3% of expenditure.

The decrease in transport investment since 2008 has been significant. It is now 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 needed to maintain the current system. Thus, as transport demand returns to significant growth, investment in the sector is still constrained.
The road network is a critical part of Ireland’s national transport system with a core of high quality motorways accompanied by national, regional and local roads. Private car is the dominant choice of travel for the majority of journeys, highlighting the network’s importance. This section details the primary trends surrounding road infrastructure, vehicle ownership, vehicle and freight movement and road safety.

**Road Infrastructure, 2012/13**

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

Source: CSO/TII for National in 2013 and DTTaS Internal Estimate Data for Regional and Local in 2012.

The Irish road network consists of approximately 98,898 kms of road. National roads, the primary links between cities and towns, account for 5,306 kms or 5.4% of all roads. Of this, 897 kms, or 16.6% of national roads, are motorway.

The regional and local road network is made up of 13,120 kms (13.3% of all roads) and 80,472 kms (81.4% of all roads) respectively. Gross expenditure related to roads in 2015 by DTTaS was approximately €772 million.

The figure presented (right) details the geographical breakdown of the Irish road network. The Local Authority areas containing the highest proportion of the Irish road network are **Cork County** (12,360 kms or 12.5%), **Galway County** (6,705 kms or 6.8%), **Mayo** (6,485 kms or 6.6%) and **Donegal** (6,429 kms 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.

The latest data published by the European Commission (2012) allows for a comparison of the level of road density across EU Member States. This is measured as the number of road kms per 1000 inhabitants.

As can be seen in the figure (left), Ireland’s road density is high by European comparison. With 20.9 kms per 1000 inhabitants Ireland has the 5th highest density in the EU and is significantly above the EU28 average of 9.6kms. Ireland can also be seen to have 3 times the level of the UK (6.6 kms per 1000 inhabitants). This is potentially driven by Ireland’s low level of population density, amongst other factors.
The number of licensed vehicles in Ireland has grown substantially from 914,758 in 1985 to 2.6 million in 2015 as the economy and population have expanded. In terms of fleet composition, 77.2% of licensed vehicles in 2015 are private cars and 12.9% are goods vehicles.

2015 saw a continued upward trend in the number of licensed vehicles with a 2.2% growth in comparison to 2014. The total number of private cars rose by 2.1% to just under 2 million. This follows a period of contraction when the total number of licensed vehicles decreased by 3.8% between 2008 and 2012.

The number of new vehicles licensed in 2015 was 153,850, an increase of 30.8% in comparison to 2014. This high level of renewed growth follows a large drop off when new vehicles licensed fell from 246,446 in 2007 to 73,125 in 2009. Thus, the number of new vehicles licenced is still 38% below the 2007 peak.

In new private cars made up 79% of new vehicles at 121,110. Cars being licensed is still below the 2007 peak of 180,754. New goods vehicles accounted for 14.9% of the 2015 total with 22,939.

Analysis of the latest Eurostat data (2012) suggests that the level of private car ownership is lower in Ireland than in other European states. The estimated Irish level of 425 private cars per 1000 inhabitants ranks below the average of the 24 EU Member States with available data at 454. The UK (448), Spain (476), France (496), Germany (530) and Italy (621) all have a higher density of private car ownership. Ireland’s level is the 8th lowest of countries with available data (out of 24). It should be noted that the European average is an incomplete estimate as no data was available for Denmark, Greece, Luxembourg or Austria. See data and notes section.

An analysis of road infrastructure demonstrates that by European standards Ireland has a relatively large amount of roads but has fewer cars per capita. Car licencing statistics detail a recovery in car sales and a renewed growth in the overall vehicle stock.
Private car is the dominant modal choice for travel in Ireland. Indicators for total vehicle kms driven and total road freight tonne kms display an increase in road use demand. As such, Ireland’s road network is beginning to see an increase in traffic following a decrease post-2007.

When measuring the total number of kilometres driven on the Irish road network it is evident that there has been a return to growth following a period of decline, in line with other elements of the transport network.

Total kms driven decreased consistently from 44.4 billion in 2008 to 40.6 billion in 2012. However, 2014 has seen a rise back to 42.5 billion with an annual growth of 1.7%. Private car made up 74% of total kms in 2014 with goods vehicles accounting for 16%, tractors and machinery for 4% and others the remaining 6%. The average annual kms per private car in 2014 was 16,131.

Private car remains the dominant form of transport in Ireland. However, between 2012 and 2014 we have seen a very slight decrease in car’s share of total journeys as measured by the CSO’s National Travel Survey (right).

The share of private car drivers has decreased slightly from 70.4% of all journeys in 2012 to 69.1% in 2014. Similarly the share of private car passenger journeys has fallen from 6.1% in 2012 to 5.3% in 2014.

The level of road freight activity decreased markedly after the 2007 peak but has begun to increase again in 2014.

Road freight activity, measured by total road freight tonne-kms (left) increased by 52.5% between 2000 and 2007 in line with wider economic expansion. Similarly, the level decreased after 2007 in line with wider economic contraction. The total number of tonnes kms fell from 18.7 billion in 2007 to 9.1 billion in 2013. 2014 saw renewed growth of 6.9% to 9.8 billion tonne-kms.
The types of freight being distributed through the Irish road network are quite diverse. The figure (right) displays a breakdown of road freight activity by main use.

The data shows that the primary elements making up road freight activity are import/export work (24% or 2.4 billion tonne-kms), delivery of goods to retail outlets (16% or 1.6 billion tonne-kms), delivery of goods to wholesalers (11% or 1.1 billion tonne-kms), delivery of materials and fuels to factories (10% or 1 billion tonne-kms) and delivery of goods to road works or building sites (10% or 1 billion tonne-kms).

It is clear that over the long run there has been a significant reduction in the number of road fatalities.

The number of fatalities peaked at 640 in 1972 and decreased to 387 in 1986. Between 1986 and 2005 the number fluctuated before a period of significant reduction began. The total decreased by 59% from 396 in 2005 to an all-time low of 162 in 2012. Despite minor increases in both 2013 and 2014, provisional data for 2015 puts the level at 166 which is the second lowest annual level of road fatalities recorded.

Ireland’s progress in road safety as measured by the number of annual road fatalities is a similar trend to that seen in other European countries. As the data demonstrates, the annual level of road fatalities has decreased across the selection of countries observed between 2004 and 2013. This is perhaps indicative of a number of developments including road infrastructure, car manufacturing and national focus on road safety.

Combing this data with road use data, it is estimated that Ireland’s annual road fatalities per billion car passenger kms is 4 in 2013. This has fallen from 9 in 2005 and is in a similar range to Germany (4), Spain (5), Italy (5) and the UK (3).

It is evident that the road network is fundamentally important to current travel patterns. Recent years have seen a renewed growth in both road use and vehicle ownership. Safety data also indicates that significant positive trends continue with road fatalities at a much lower level than previous years, a similar trend to other European countries.
Ireland’s public transport system primarily consists of heavy rail, light rail and bus. It provides services linking regions, cities and towns and is critical to the overall operation of the transport network by providing a sustainable alternative to private car in many areas. This section provides an overview of recent trends across the sector.

As demonstrated in previous sections, private car is the dominant choice of mode in Ireland. The CSO’s National Travel Survey, as detailed (left), demonstrates developments in the total proportion of trips taken on Bus and Rail/DART/Luas.

The proportion of total journeys being made by bus slightly increased from 3.9% in 2012 to 4.4% in 2014. The same figures for Rail/DART/Luas indicate that those modes have remained stable as a proportion of total journeys and accounted for 1.3% of trips in 2013 and 1.4% in 2014.

By analysing census data we can observe trends in public transport use before 2012. The data (right) displays the total number of commuting journeys for bus and rail as well as the share of total commuting journeys by each mode, for the population over 15 years of age at work.

The total number of commuters travelling to work by bus decreased from 109,988 in 1981 to 91,676 in 2011 and as a share of total commutes it decreased from 13% to 6% over the same time period. For rail, the share between 1981 and 2011 rose from 2% to 3% as the total number of rail commuters more than tripled from 14,374 to 52,749.

The total number of passengers travelling on public transport services (PSO* only for Bus Services) demonstrates that renewed growth has occurred in the past two years with an increase from 210 million in 2011 to 224.1 million in 2015 and an annual growth of 3.6% in 2015.

While not displayed here, further data for 2014 shows that there were 20.63 million passengers on other licensed bus services and 1.76 million passengers on the Rural Transport Programme taking the wider total for 2014 to 238.8 million.

* PSO refers to Public Service Obligation services or state subsidised services.
The heavy rail passenger network consists of 1,679 kms of line tracks linking areas and regions. The network has 144 passenger stations in total.

The number of in service vehicle kms operated on heavy rail services remained relatively constant with 15.97 million kms in 2014. However, the number of operated vehicle seat kms decreased from 7 billion kms in 2010 to 5.7 billion in 2014. Thus the data shows that total rail service was unchanged but the number of seats operated (i.e. number of carriages) decreased.

The total number of heavy rail passengers dropped from 44.7 million in 2008 to 36.7 million in 2013 in line with economic and transport demand decline. Recent years have however seen a renewed growth in rail passengers.

2014 saw an increase of 2.8%, or 1.1 million passengers, to 37.8 million. Provisional data for 2015 indicates a 5.3% annual increase, or 2 million extra passengers, to 39.8 million total passenger journeys on heavy rail services.

Heavy rail is also a means of transporting freight around Ireland. Long run data shows that the total tonnage of goods carried decreased from 3.4 million tonnes in 1985 to 578,000 in 2014. The primary categories of goods carried in 2014 are mineral ores, petrol and oil and general freight.

Focusing on the recent period between 2008 and 2014 (right), the tonnage of freight carried decreased sharply between 2008 and 2010 and has remained stagnant while total rail freight tonnes-kms fell to 79 million in 2009 but has since risen to 100 million tonnes-kms in 2014 indicating higher levels of activity, albeit with a similar total amount of freight.

Ireland’s heavy rail passenger network, consisting of 1,679 line kms of track and 144 stations, provides a mode of transport linking towns, cities and regions. As has been described, recent years have seen a renewed growth in the number of heavy rail passengers following a number of years of contraction.
The Luas is a light-rail system which connects Dublin’s suburbs with the city centre. Passenger numbers using the system have consistently increased since 2009 and stood at 34.6 million in 2015. The completion of Luas Cross City, scheduled for end-2017, will further enhance the system’s coverage, connectivity and capacity.

Luas: Key Facts (2014)

- **Red Line Length:** 20.8kms
- **Green Line Length:** 16.4 kms
- **Trams in Operation:** 66
- **Tram Capacity:** 310 People
- **Vehicle Kms:** 3.9 million
- **Passenger Kms:** 160 million

Since 2009, the Luas has experienced consistent growth in the number of passengers handled. In 2007 total passengers handled was 28.5 million and this fell to 25.4 million in 2009.

Provisional data for 2015 indicates that Luas passenger numbers increased by **6.1%, or 2 million passengers**, in comparison to 2014. The 2015 level of 34.6 million passengers is **9.2 million higher than the numbers seen in 2009**. In 2014, 57% of Luas passenger journeys were on the red line with 43% on the green line. The two busiest hours on Luas are 8-9am (13% of daily passengers) and 5-6pm (11%).

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.

The key facts are presented here (left) and detail the overall network that currently exists. As of 2014, there were **66 trams operating on 37.2 kms of track**. In 2013, work commenced on **Luas Cross City**, a 5.6 km extension linking the green and red lines. In operational terms, there were 3.9 million vehicle kms in 2014 with a corresponding level of 160 million passenger kms.

The data presented left shows trends in Small Public Service Vehicle (SPSVs) 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 NTA shows that the total **reduced by 38% from 47,222 in 2009 to 29,457 in 2014**. In terms of the number of road kms driven by SPSVs we can observe that there has been a drop from the **peak of 1.1 billion kms in 2008 to 867 million kms in 2014**. The 2014 level of kms is 0.7% lower than 2013 when the figure stood at 873 million kms.
Data from the NTA (right) provides a picture of the total level of bus service provision in Ireland. The total kms operated remained constant between 2013 and 2014 at 163.6 million vehicle kms, with a small decline in both Dublin Bus PSO services and Bus Éireann PSO services balanced by a small increase in other services.

Based on other NTA data, there were 2,597 buses providing services in 2014, up from 2,422 in 2013. 37% or 919 of the buses operating in 2014 were for Dublin Bus PSO services, 19% or 453 for operating Bus Éireann PSO services and 44% or 1,222 for operating other licensed bus services.

In terms of the total number of passenger journeys handled by Dublin Bus, we can observe a similar trend to other elements of transport demand; decline after 2007 and 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 three years have seen consistent growth and provisional data on PSO services for 2015 suggests an increase of 2.8% or 3.3 million passengers from 2014, to a total of 119.5 million.

We observe similar trends in passenger numbers between Dublin Bus and Bus Éireann. Again, there was contraction after 2007 while recent years have been marked by growth.

Total passenger numbers for Bus Éireann services increased from 77.2 million in 2012 to 81.1 million in 2014. In 2014, school services made up 54% of total passengers (43.9 million), 37% PSO services (29.7 million) and 9% other (7.5 million). Provisional data for 2015 indicates that passenger numbers on Bus Éireann PSO services increased by 1.7% (0.5 million) on 2014 to 30.2 million.

The primary element of Ireland’s public transport system is bus services. Operators vary from Dublin Bus in the capital, Bus Éireann in cities and regions and other licensed bus operators. Passenger numbers on both Bus Éireann and Dublin Bus PSO services have firmly returned to growth in recent years,
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, safety statistics and maritime passenger trends.

**Total Freight Handled at Tier 1 and 2 Ports, 2014**

**Tier 1 Ports**
- **Dublin Port**: 21.1 Million Tonnes
- **Shannon Foynes**: 10 Million Tonnes
- **Port of Cork**: 8.7 Million Tonnes

**Tier 2 Ports**
- **Rosslare**: 2 Million Tonnes
- **Port of Waterford**: 1.4 Million Tonnes

Ireland’s National Ports Policy classifies three ports as ‘Tier 1 Ports of National Significance’ in Dublin Port, the Port of Cork and Shannon Foynes. There are two ports classified as ‘Tier 2 Ports of National Significance’: the Port of Waterford and Rosslare. The remaining commercial ports are classified as ‘Ports of Regional Significance’ with the largest in freight terms, based on 2014 data, being Bantry Bay, Drogheda, Galway and Greenore.

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.

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 increased slightly in 2015 to a total of 3,282 compared with 3,251 in 2014. This represents a 1% increase. The number of merchant ships with a weight of over 100 gross tonnes stood at 133 in 2015, the same level as 2014, but is higher than the 120 recorded in 2012. It should be noted that not all registered ships are necessarily in operation.

Data on the number and size of vessels arriving at Irish ports indicates that while vessel arrivals are decreasing in number, the size of vessels is increasing.

The number of vessel arrivals has consistently decreased between 1999, when 17,645 vessels arrived at ports, and 2014, when there were only 12,204 vessel arrivals. However if we look at the gross tonnage of vessel arrivals, an indicator of total vessel size, we can see that this has increased from 190.1 million tonnes in 1999 to 223 million in 2014. 2014 saw an annual increase of 2.2% in vessel arrivals to 12,204.
The total level of maritime freight handled at Irish ports decreased sharply after a peak in 2007 and this was followed by steady growth in line with the wider performance of the economy. 2014 saw an annual increase of 1.6% or 761,000 to a total of 47.5 million tonnes handled. This is significantly higher than the 2009 trough of 41.8 million tonnes but still below the 2007 peak of 54.1 million. The data indicates that the drop off after 2007 was driven by a decrease in goods received while goods forwarded remained relatively constant. As such, the decrease was largely driven by lower imports rather than exports.

An international comparison of maritime freight activity can be made by analysing Eurostat data (right). The indicator utilised here is the level of maritime freight tonnes handled per capita at main ports and is obviously driven by many factors including geography and economic activity.

The data shows that Ireland’s freight tonnes handled per capita in 2013 was 10.2. This places Ireland above the EU28 average which is 7.4 and the United Kingdom which is 7.8. In 2013 the most maritime freight activity per capita occurred in Latvia (33.4 tonnes), Netherlands (33.2 tonnes) and Estonia (32.6 tonnes).

In terms of the share of total maritime freight handled by type, the largest element is Dry Bulk at 32% with Ro-Ro (27%) and Liquid Bulk (24%) the next biggest components. Lo-Lo (14%) and Break Bulk/Other (3%) make up the remainder.

Separate data from the CSO demonstrates the regional aspect of maritime trade. The primary destinations for goods forwarded in 2014 were Great Britain and Northern Ireland (42%) and the EU Excl. GB&NI (34%). For goods received Great Britain and Northern Ireland accounted for 33%, the Rest of the EU for 32% and Non-European countries for 24%.

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. Recent trends point towards renewed growth in the level of freight handled and that previous decreases were as a result of declining imports rather than exports.
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 also a key gateway for international tourism and the movement of people. Data from Eurostat (left) details the number of maritime passengers handled at the main Irish ports excluding cruise ship visits.

The level of maritime passengers handled at the main Irish ports actually increased between 2008 and 2010 from 2.96 million to 3.08 million which is against the general trend in the sector over that time period. Since then there has been a slight decline with numbers at 2.75 million in 2014, which has largely not changed from 2013.

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 177 in 2014. 2014 did see a drop off from the 2013 level of 204 however. This growth has seen the number of cruise ship passengers go from 105,725 in 2007 to 202,819 in 2014.

In 2014, Dublin accounted for 48% of cruise ship passenger visits up from 39% in 2007. Cork had 41% of all passengers with Waterford (5%), Killybegs (3%), Bantry Bay (2%) and Galway (1%) making up the remainder.

Maritime safety is an important priority within the sector. Data from the Coast Guard indicates that the number of incidents dealt with has increased by 47% between 2011 when there were 1,817 incidents to 2,664 in 2015. The number of people saved or assisted in 2015 was 3,899. Marine Casualty Investigation Board data reports 5 maritime fatalities in 2015 with 7 vessels involved. This is a similar level to 2014 and 2013 and significantly lower than 2012 (15).

While not necessarily indicative of overall maritime safety trends, this data does provide some insight into sectoral safety activity.
The aviation sector in Ireland is critical to Ireland’s connectivity to the rest of the world for travel, business and tourism. This section reviews the primary data in relation to airport infrastructure, passenger and flight traffic trends and aviation freight and describes the overarching trends and dynamics.

### Total Passengers Handled at State and Regional Airports, 2014

#### State Airports
- Dublin: 21.7 Million
- Cork: 2.1 Million
- Shannon: 1.6 Million

#### Regional Airports
- Knock: 703,670
- Kerry: 294,955
- Donegal: 35,415
- Waterford: 33,189

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

According to the latest available Eurostat data for 2013, Ireland has 5 airports with more than 150,000 passenger movements in a year. Amongst similar-sized European countries, Croatia (5), Finland (8) and Denmark (5) have a similar number of airports of this size. While this data does not take into account the relative size of airports it is useful in comparing the overall level of airport infrastructure.

In terms of aviation infrastructure, the National Aviation Policy, published in August 2015, highlights two categories of airports within Ireland. State Airports are the primary gateways through which aviation traffic access Ireland. Dublin Airport, Cork Airport and Shannon Airport are in this category.

The second category is termed Regional Airports. This grouping is made up of Knock Airport, Kerry Airport, Donegal Airport and Waterford Airport. In addition to these airports, there are a number of other operations catering for a variety of aviation services across the country.

The total number of passengers handled at Irish airports has resumed growth following a decline after 2008. In 2014, total passengers grew by 6.9% in comparison to 2013 to 26.5 million. This renewed growth follows a significant decline from a 2008 peak of 32.3 million to a 2011 level of 23.7 million.

Dublin Airport accounted for 82% of all passengers in 2014 at 21.7 million. It is of note that Dublin’s share of total passengers has increased from 74% in 2007. Provisional data for 2015 indicates that passenger numbers at Dublin Airport grew by 15% to 25 million.
Total commercial flights handled at main airports fell from 283,500 in 2007 to 202,300 in 2012. However, recent years have seen a return to growth with **6.2% more flights in 2014** compared to 2013 for a total level of **217,100**. Dublin Airport receives the majority of traffic with 172,600 flights in 2014, 79.5% of the total.

Separate data from the IAA suggests that the total number of commercial flight terminal movements at Dublin Airport grew by 9.7% in 2015 from 174,383 to 191,233. IAA data also indicates that total number of flights handled in Irish airspace was just over 1 million in 2015, a 5.6% annual increase.

The international dynamics of aviation demand to and from Irish airports demonstrates two primary developments. Firstly, the number of passengers going to/from **EU28 (excluding the UK)** has surpassed the **UK** increasing from 8.8 million in 2005 to 11.6 million in 2014. The UK has decreased from 11.8 million to 10.4 million over the same time period.

Secondly, the number of passengers going to/from the **USA** has increased by 28% between 2010 and 2014 from 1.8 million to 2.3 million, while the other regions experienced decline after 2009 followed by renewed growth.

In 2014, the busiest routes to and from Dublin Airport were centred on the **UK with 6 of the top 10 routes** being between these regions. London is a particularly important route with Heathrow, Gatwick and Stansted accounting for almost 3.5 million passengers.

The number of passengers travelling on routes between Dublin and Gatwick and Stansted decreased by 1.5% and 10.3% respectively compared to 2013. London-Heathrow meanwhile increased by 0.7% over the same time period. Manchester Airport grew by 21.8%, Paris Charles de Gaulle by 5.5% and New York-JFK by 2.3%.

It is clear that Dublin Airport has a primary role within the aviation sector in Ireland. In totality, we can observe a renewed level of growth in terms of the number of passengers that have been handled at Irish airports.
Airport specific data reveals the importance of the UK and Europe as origins and destinations. We can observe the importance of routes to London, the rest of the UK, Europe and the USA. Dynamics between 2013 and 2014 demonstrate the changing trends within specific routes.

For Cork Airport we can again observe the importance of the UK and specifically London. Heathrow, Stansted and Gatwick totalled 772,981 passengers in 2014 or 36.2% of total passengers.

In comparison to 2013, passenger numbers in 2014 on routes between Cork and Manchester (12.7%), London Stansted (7.4%), Faro (6.5%) and Paris-CDG (5.9%) experienced notable growth. 2014 saw a reduction in passengers on routes to/from Malaga, Amsterdam and London-Heathrow by 9.1%, 1.8% and 1.5% respectively.

Shannon Airport’s primary routes in 2014 were with the UK and USA. Flights between Shannon and New York-JFK, Newark and Boston-Logan accounted for 314,002 passengers or 20.2% of the overall number of passengers handled in 2014.

Large growth was seen on routes between Shannon and Boston-Logan (28%), Manchester (26%), New York-JFK (17%) and London-Stansted (10%) in comparison to 2013. Reductions in passenger traffic in routes between Shannon and London-Heathrow (9%), Newark (6%) and London-Gatwick (1%) were also recorded.

Ireland’s aviation infrastructure and sector provides a further avenue for the transport of goods and other freight which supplements road, rail and sea freight. Total freight handled at Irish Airports decreased from 143,600 tonnes in 2007 to 117,200 tonnes in 2009. Since then the sector has begun to grow again and, this growth continued in 2014 with an 8.5% annual increase from 2013 to a total of 139,000 tonnes handled.

In 2014, Dublin Airport handled 91.7% of total freight while Shannon accounted for 7.8% and Cork for 0.5%, further demonstrating the primary role of Dublin Airport in the sector.
Sustainable Transport

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. This section includes details on cycling and walking infrastructure and sustainable travel passenger trends.

**Estimated National Cycle Network Infrastructure (2009)**
- Off-Road: 83 km
- On-Road: 4,060 km
- **Total: 4,143 km**

Delivered by DTTaS Since 2009: Approx. 901 kms

Source: DTTaS National Cycle Network Scoping Study
(Note: Estimate Incomplete due to lack of data)

A 2009 estimate put the total kms of off-road and on-road cycleway at 4,143 kms. Although incomplete, this estimate does give an indication of the level of infrastructure in place at that time.

Since 2009 there has been approximately 901 kms of cycleway delivered from funding by DTTaS through investment programmes such as the National Cycle Network, Active Travel Towns and Smarter Travel Areas. In 2015, DTTaS gross expenditure under the budget head of Smarter Travel and Carbon Reduction was €21.4 Million with a further €38.1 million spent on related projects under the Public Transport sub-head.

The total number of bikes provided to date through the four public bike schemes is 2,240. This includes 1,500 for Dublin, 320 for Cork, 215 for Limerick and 205 for Galway. Schemes are currently in place in Dublin (since 2009) and in Cork, Galway and Limerick (since 2014).

The number of journeys on Dublin Bikes has increased from 1.2 million in 2010 to 4.1 million in 2015 in line with the expansion of the scheme. In 2015, the number of journeys for Cork was 289,426 and for Limerick and Galway respectively it was 40,118 and 19,934.

Census data indicates that the number of people cycling to work has declined significantly since 1986 with 21,000 fewer trips and a 5% fall in modal share. However, there were 5,553 more people cycling in 2011 than in 2002. Walking trips to work increased by 12.2% between 1981 and 2011 but its modal share fell from 18% to 10% due to the increase in total commuters.

There has also been an increased number of cycling trips to primary school (+29%) and college (+12%) since 2002. Over the same period the total number of cycle trips to secondary school has reduced by 41% to a mode share of 2% in 2011.
Walking has slightly increased its mode share of all journeys between 2012 (13.6%) and 2014 (14.8%) while cycling has also increased marginally over the same period (1.2% to 1.6%). The average distance cycled has risen from 5.7km in 2013 to 6.6km by 2014 with a corresponding increase in duration from 23.6 minutes to 24.6 minutes.

For walking, the average distance travelled has risen from 1.9km in 2013 to 2.3km in 2014 with duration increasing from 23.6 minutes to 24.6 minutes.

Walking and cycling are responsible for 21.9% of all journeys in Dublin and 14.1% elsewhere. Private car use is significantly higher outside Dublin at 79.4% compared to 63%.

This perhaps reflects the absence of public transport alternatives in many areas with 12.5% of journeys being made by public transport in Dublin compared to 2.8% elsewhere. In 2014, the national walking and cycling mode share stood at 16.4%. It is clear that sustainable modes are used to a greater extent in the capital than in the rest of the country.

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.

The data from the counts shows that the number of cyclists entering the city increased by 74.5% between 2010 and 2014 as it increased from 5,932 to 10,349. Furthermore the number of people walking into the City Centre increased from 14,551 in 2011 to 19,711 in 2014, a rise of 35.5%. This provides further evidence behind the increased use of sustainable travel in Dublin.

Sustainable transport has seen some positive progress over recent years with an increase in cycling numbers for those commuting to work and college and in general for trips in Dublin. Challenges remain in relation to reversing the decline in those cycling to secondary school and ensuring that investment and programmes deliver behavioural change.
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 trends in specific areas and measures in addressing the challenge of reducing emissions.

The transport sector emitted 11.3 million tonnes of CO₂ equivalent in 2014. This was a 2.5% increase on 2013 levels and the second consecutive year since 2007 in which emissions rose. The sector is the second largest contributor to national greenhouse gas emissions at 19.5%.

By 2020 it is estimated that the transport sector will emit 13.2 MT CO₂eq with current policy measures or 12.5 MT CO₂eq if additional identified measures are implemented. Transport sector emissions are projected to increase by 20% over the period 2020-2035. This is largely driven by an increase in the national car fleet and projected rise in population.

A new system of assessing private cars for VRT and Motor Tax came into effect from July 2008 and was based on the CO₂ 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 2014 the share of cars in the A and B emission bands was 94.6% and for the first ten months of 2015 it was 95.4%. The largest increase in share was in the A emission band, which rose from just 1.5% in 2007 to 68% of the new private cars sold in 2014. Data for 2015 show that this trend has continued with A vehicles making up 72% or almost three quarters of all new registrations.

The percentage 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 6% (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 2014 is 5.2% which is over half way towards meeting the national 2020 target of 10%.
Ireland set an initial target of converting 10% of its passenger and light commercial vehicle stock to electric vehicles 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 EVs in 2020. 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 brings the total number of EVs for these vehicle classes to 1,117. In parallel, a nationwide programme to rollout EV charging points has begun with 894 charge points having been installed to date in the Republic of Ireland, including 73 fast chargers.

Under the Alternative Fuels Infrastructure Directive, Member States are required to adopt and publish a National Policy Framework that will support the provision of refuelling infrastructure for alternative fuels, including electricity, hydrogen and natural gas.

Currently in the Republic of Ireland there are 3 privately operated CNG stations (2 of which are fast fill systems and 1 slow fill) with plans in place to roll out more over the coming three years. LPG infrastructure has been in place for a longer period of time with 45 publicly available stations currently in operation in the Republic of Ireland.

All new cars have CO₂ emissions ratings calculated under test laboratory conditions. Between 2000 and 2007 the average CO₂ emissions for all cars was approximately 166 g CO₂/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 117.5 g CO₂/km in 2014 which is within band A4. It is estimated that the average emissions of new cars purchased in 2015 is 116 g CO₂/km.

The transport sector had seen greenhouse gas emissions reduce over recent years but the upswing in economic activity has meant that since 2013 emissions have been on the rise again. 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 make progress towards decoupling emissions from economic growth.
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.

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<td>Annual Publication of Transport Omnibus, National Travel Survey, Various Sectoral Surveys and Bulletins</td>
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<td>Produce and Publish a Number of Statistical Bulletins and Reports</td>
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This section provides relevant notes and references for the analysis contained with *Transport Trends 2016*. 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.

### Section One: General Overview


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

**Total Inland Passenger Kms:** Data from the [European Commission](https://ec.europa.eu). It should be noted that the data is not harmonised across countries and should thus not be relied upon for definitive comparisons between countries. Inland passenger kms is total of car, bus, heavy rail and metro/tram.

**Percentage of Journeys by Mode of Travel:** Data from [CSO National Travel Survey](https://www.cso.ie). Average Journey Distance and Duration: Data from [CSO National Travel Survey](https://www.cso.ie).

**Journeys by Main Purpose:** Data from [CSO National Travel Survey](https://www.cso.ie). Mode Share of Passenger Transport: Data from [Eurostat](https://ec.europa.eu). All data relates to 2013 and represents the split between car, train and bus use.

**Gross Expenditure by DTTaS (Non-Pay):** Data from [DPER Databank](https://www.dper.gov.ie). 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](https://www.oecd.org). 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 and Israel 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 the Environment. Data for 2015 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. Weekly household expenditure on transport from the [CSO Household Budget Survey](https://www.cso.ie) 2009-2010.

### Section Two: Roads

**Total Road Kms:** National road data from the [CSO](https://www.cso.ie). Regional and Local road estimate from DTTaS for 2012.
**Road Kms Per 1000 Inhabitants**: Road length data from European Commission for 2012. 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 are a variety of definitions.

**Number of Vehicles Under Licence**: Data from CSO and refers to 31st December of each year. 2015 total vehicles licensed is provisional from DTaaS.

**Passenger Cars Per 1000 Inhabitants**: Data from Eurostat for 2012. Estimated European average represents the 22 countries with available data in 2011 or 2012. Austria, Denmark, Greece and Luxembourg unavailable. UK, Sweden, Netherlands and Belgium are 2011 data.

**Total Vehicle Kms**: Data from CSO Transport Omnibus.

**Modal Share of Car**: Data from CSO National Travel Survey.

**Road Freight**: Data from CSO Transport Omnibus.

**Road Fatalities**: Data from the RSA for long run and for recent data. 2014 and 2015 data is provisional and may be subject to revision.

**International Comparison of Road Fatalities**: Data from Eurostat. 2013 figure for Ireland from RSA. Estimation of road fatalities per billion passenger kms is compiled by EFEU based on the previously linked Eurostat road safety data and European Commission road use data.

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**Section Three: Public Transport**

**Modal Share of Public Transport**: Data from CSO National Travel Survey.

**Commuting Trips by Public Transport**: Data from CSO Census Place of Work, School or College.

**PSO Passenger Journeys**: Data from the NTA. Passenger numbers are totals for Luas and Irish Rail while both Dublin Bus and Bus Eireann figures exclude non-PSO services. 2015 is provisional.

**Heavy Rail Service Provision**: Data from NTA. Irish Rail figures do not include rail freight operations.

**Total Heavy Rail Passengers**: Data for 2008-2014 from the CSO Transport Omnibus. 2015 is provisional from the NTA. Decrease in passengers in mainline and other services and resultant increase in passengers in Dublin suburban services in 2013 due to reclassification of Kildare, Navan and Wicklow previously included in mainline services now included in Dublin suburban.

**Heavy Rail Freight Traffic**: Rail freight data from the CSO Transport Omnibus.

**Luas Passenger Numbers**: Data for 2007-2014 from CSO Transport Omnibus (including previous editions) 2015 data is provisional from the NTA.

**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

**Bus Operated Vehicle-Kms**: Data for Dublin Bus and Bus Eireann from NTA Bus Statistics. Data for other commercial services from NTA Commercial Bus Statistics.

**Dublin Bus Passengers**: Data for 2007-2014 from CSO Transport Omnibus (and previous editions). 2015 is provisional from NTA.
Bus Eireann Passengers: Data for 2007-2014 from CSO Transport Omnibus (and previous editions). 2015 PSO services is provisional from NTA.

Section Four: Maritime

Port Infrastructure Definition: From DTTaS National Ports Policy (2013)

Number of Registered Ships: DTTaS data as of 31st December 2015.

Arrivals at Irish Ports: Data from CSO Maritime Statistics.

Total Maritime Freight: Data from CSO Maritime Statistics.

Maritime Freights Handled Per Capita: 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 millions tonnes of cargo.

Maritime Passengers Excl. Cruise Ships: 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 millions tonnes of cargo.

Cruise Ships and Passenger Visits: Data from CSO Maritime Statistics.

Maritime Safety: Coast Guard statistics from internal DTTaS data. Maritime fatality/vessels involved figures from MCIB and include only incidents investigated by, or reported to, MCIB. 2012 excludes the incident at Dun Laoghaire Regatta in 2007 which involved many small boats, dinghies and ribs. 2011 excludes the incident at Clogher Head in 2011 which involved many kayaks and children.

Section Five: Aviation

Airport Infrastructure Definition: From DTTaS National Aviation Policy (2015)

Aviation Passengers Handled, Region and Routes: Data is from the CSO Aviation Statistics. Dublin Airport 2015 passengers is provisional from daa. 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.

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. A slight variance is evident between CSO and IAA data on this measure. 2015 Dublin Airport data is from the IAA and the total number of flights handled in Irish airspace, which includes Combined Commercial Terminal Movements at Dublin, Shannon and Cork, North Atlantic Communications and En Route Movements, is from the IAA.

Number of Airports: Data is from Eurostat and airports are classified as being larger than 150,000 passenger movements annually.

Air Freight: 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.
Section Six: Sustainable Transport

Estimated Cycling Infrastructure Investment: 2009 data sourced from DTTaS publication ‘National Cycle Network Scoping Study’. Note, the report states that not all Local Authorities responded to the request for information and thus the data is incomplete and not a full estimation of the size of the cycleway network in 2009. Data on Kms delivered by DTTaS from internal DTTaS records. Data is estimated based on funded projects. Note: figure may include some projects related to walking as well as cycling.

Public Bike Schemes: Data provided by NTA and DCC. Dublin Bike Scheme data also available from CSO Transport Omnibus.

Cycle to Work: Data from CSO Census Place of Work, School or College.

Cycle to Secondary School: Data from CSO Census Place of Work, School or College.

Total Journeys by Mode Share: Data from CSO National Travel Survey.

Walking and Cycling Mode Share: Data from CSO National Travel Survey.

Section Seven: Energy and Emissions

Transport Sector Emissions Profile: Data from EPA Greenhouse Gas Emissions Projections. The ‘With Measures’ scenario includes the impact of VRT and Motor Tax changes, Carbon Tax, improved fuel economy of cars, 6% of transport energy demand coming from biofuels by 2020. The ‘With Additional Measures’ scenario includes meeting the RES-T target and having biofuel at 10% of total transport fuel demand by 2020. It also includes the provisions of the Biofuels Obligation Scheme 2010, the roll out of electric vehicles (50,000 by 2020) and more efficient road traffic movements.


Biofuels as a Proportion of Transport Energy: Data from SEAI Energy in Transport (2014) with update supplied directly from EPSSU.

EVs Licensed for the First Time: Data from CSO. EV charging stations data provided by ESB.

Gas Refuelling Stations in ROI: Data for CNG provided by Gas Networks Ireland and data for LPG provided by ILPGA.

Specific CO₂ Emissions of New Cars: Data from SEAI Energy in Ireland (2015).