

TRANSPORT INFRASTRUCTURE IRELAND

# NATIONAL ROADS NETWORK INDICATORS

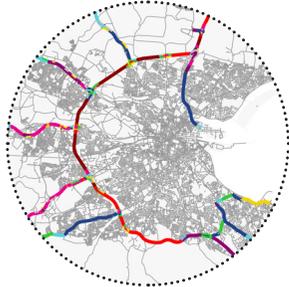
## 2018



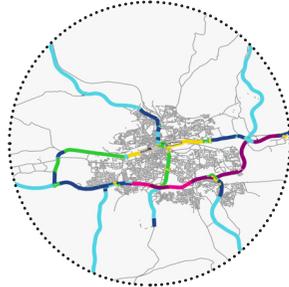
# A: KEY TREND SUMMARY

## TRAVEL HOTSPOTS:

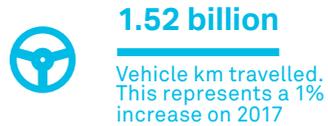
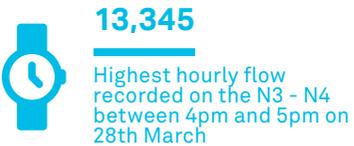
**M50 Dublin area:**  
145,000 vehicles per day  
Hotspot: ■



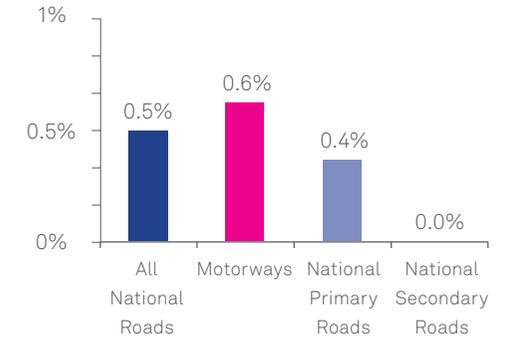
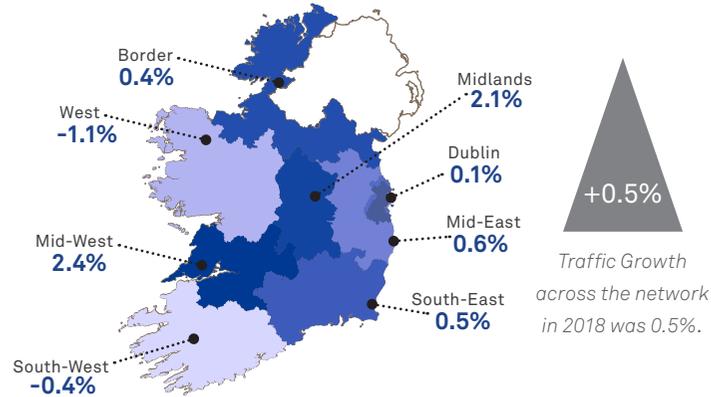
**N40 Cork area:**  
85,000 vehicles per day  
Hotspot: ■



## M50 KEY NETWORK STATISTICS

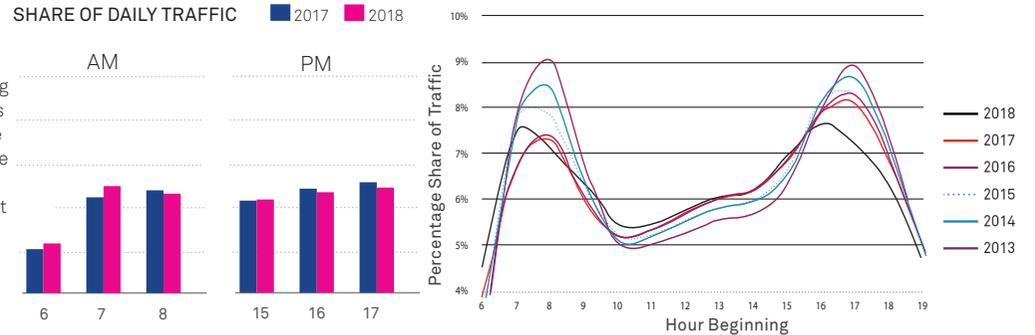


## TRAFFIC GROWTH:



## CHANGES IN PEAK HOUR SPREAD M50:

The peak hours remain the same as 2018: 6.30 - 9.30 and 15.30 - 18.30, with peak spreading occurring resulting in an increased share of trips between 6.00 and 8.00 in the morning and a slight increase between 15.00 and 16.00 in the evening. This was a result of continued growth on the National Roads network and traffic demand reaching previously unreached levels especially on the M50.

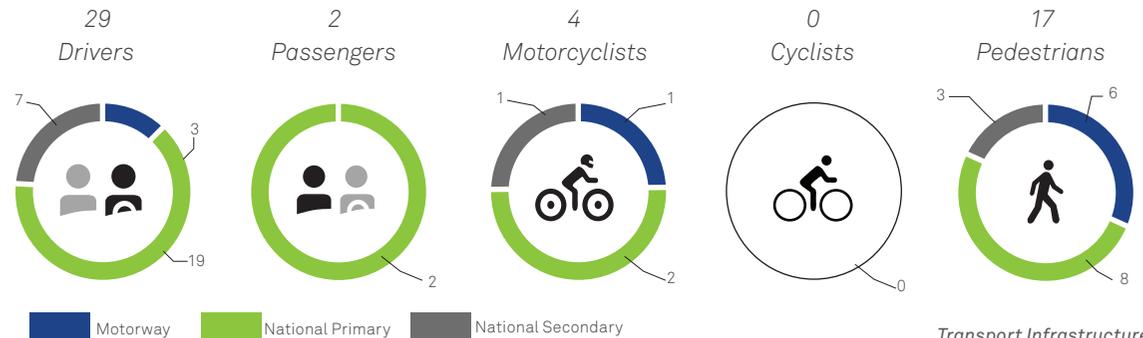


## FATAL COLLISIONS ON THE NATIONAL ROADS NETWORK 2014 - 2018

Total fatal collisions on National Roads:



## TOTAL FATALITIES ON THE NATIONAL ROADS NETWORK IN 2018



## B: NEWS & INFORMATION

### News

#### Traffic Indices

The TII Traffic Indices represent a measure of global traffic demand over time for a particular grouping of traffic monitoring units (TMUs) on the National Roads Network. An index is a statistical measure of changes in a representative group of individual data points over a time period.

TII Traffic Indices for all traffic and HGVs only are available nationally, by region, by road type, by TEN-T network status and for certain corridors of interest. This allows for broad estimates in traffic growth trends on a national or regional basis and on the basis of road type, route corridor and vehicle type.

The traffic indices are produced on a quarterly basis and annual growth rates can also be output. The base for the TII Traffic Indices is Q3 2013. The Traffic Indices can be found at [indices.tii.ie](http://indices.tii.ie)

#### National Transport Model (NTpM)

Since its release in 2013 the NTpM is updated annually using data from the Traffic Monitoring Unit network. An updated version of the NTpM representing 2016 traffic patterns and demand is due for release in Q2 2019. The updated model has been used in the production of these 2018 Network Indicators. Documentation regarding the National Transport Model can be located on the TII website at [www.tii.ie/tii-library/strategic-planning/](http://www.tii.ie/tii-library/strategic-planning/)

### Information

#### Traffic Monitoring Units

TII now has over 370 Traffic Monitoring Units around the country which are used to monitor traffic patterns and to plan future interventions. A programme of work to deliver a further 30 sites was ongoing in 2018 with data from these sites going live in Q2 2019.

See website: [www.nratrafficdata.ie](http://www.nratrafficdata.ie)

#### Motorway Service Helpline

A Motorway Service Helpline has been set-up to assist roads users in difficulty on a Motorway. All calls are directed through the Motorway Traffic Control Centre (MTCC) and the number is:



0818-715-100 or;  
[operator@nraits.ie](mailto:operator@nraits.ie)

Further information and live traffic updates are available on [www.tiittraffic.ie](http://www.tiittraffic.ie)

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<b>4. SAFETY</b>	<b>P34</b>
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# INTRODUCTION

Transport Infrastructure Ireland’s mission is to deliver transport infrastructure and services that contribute to the quality of life of the people of Ireland and support the country’s economic growth

For this purpose, TII has overall responsibility not only for the planning and supervision of the construction and maintenance works on these roads, but also for ensuring the efficient use and safe operation of the National Roads network.

Efficient use of the National Roads network provides benefits to road passengers and road freight users in the form of shorter journey times, reduced congestion and

reductions in the cost of operating vehicles. Society as a whole benefits from increased economic productivity, reduced energy consumption and a better environment.

If the National Roads network is operated to a high standard, then road users will enjoy safe journeys with predictable journey times.

Transport Infrastructure Ireland considers it important to monitor the performance and use of the National Roads network and to share this information with the public.

This publication sets out some key indicators of performance and usage of the National Roads network.

# ONE: ROAD NETWORK



# A: LENGTH OF NATIONAL ROADS NETWORK

Length of National Roads network by road type 2018

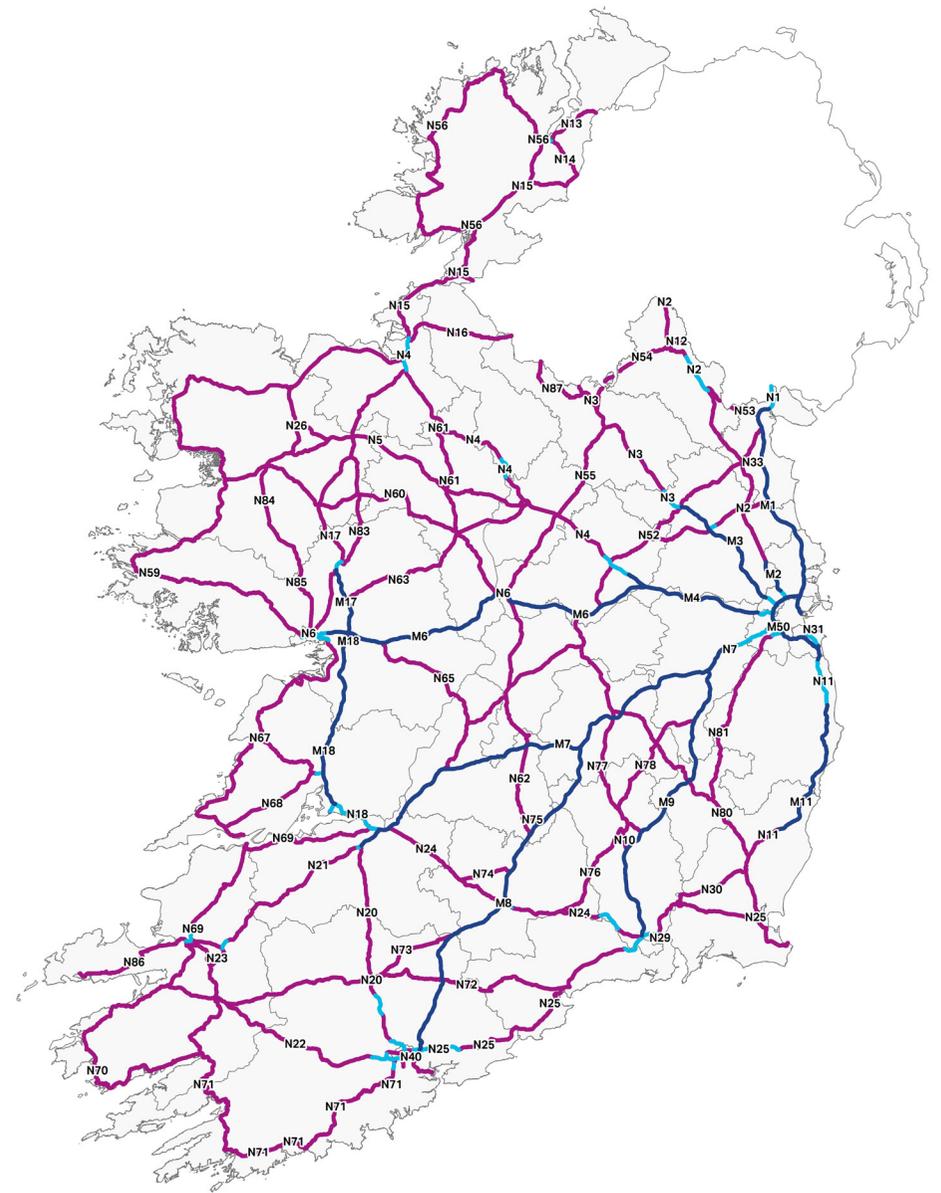
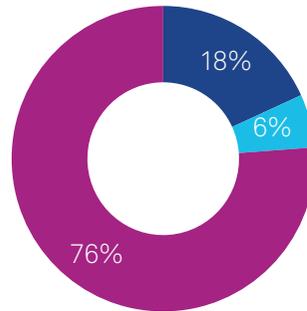
*There are in excess of 5,300 kilometres of National Roads network in Ireland.*

The National Roads network is comprised of 969 km of motorway, 301km of dual carriageway and 4,062km of single carriageway.

The actual length of the National Roads network fluctuates year on year due to road reclassification, realignments to existing National Roads, completion of new roads and analysis/updating of data in the TII Roads Database.

Road type:

Motorway		969km
Dual carriageway		301km
Single carriageway		4,062km



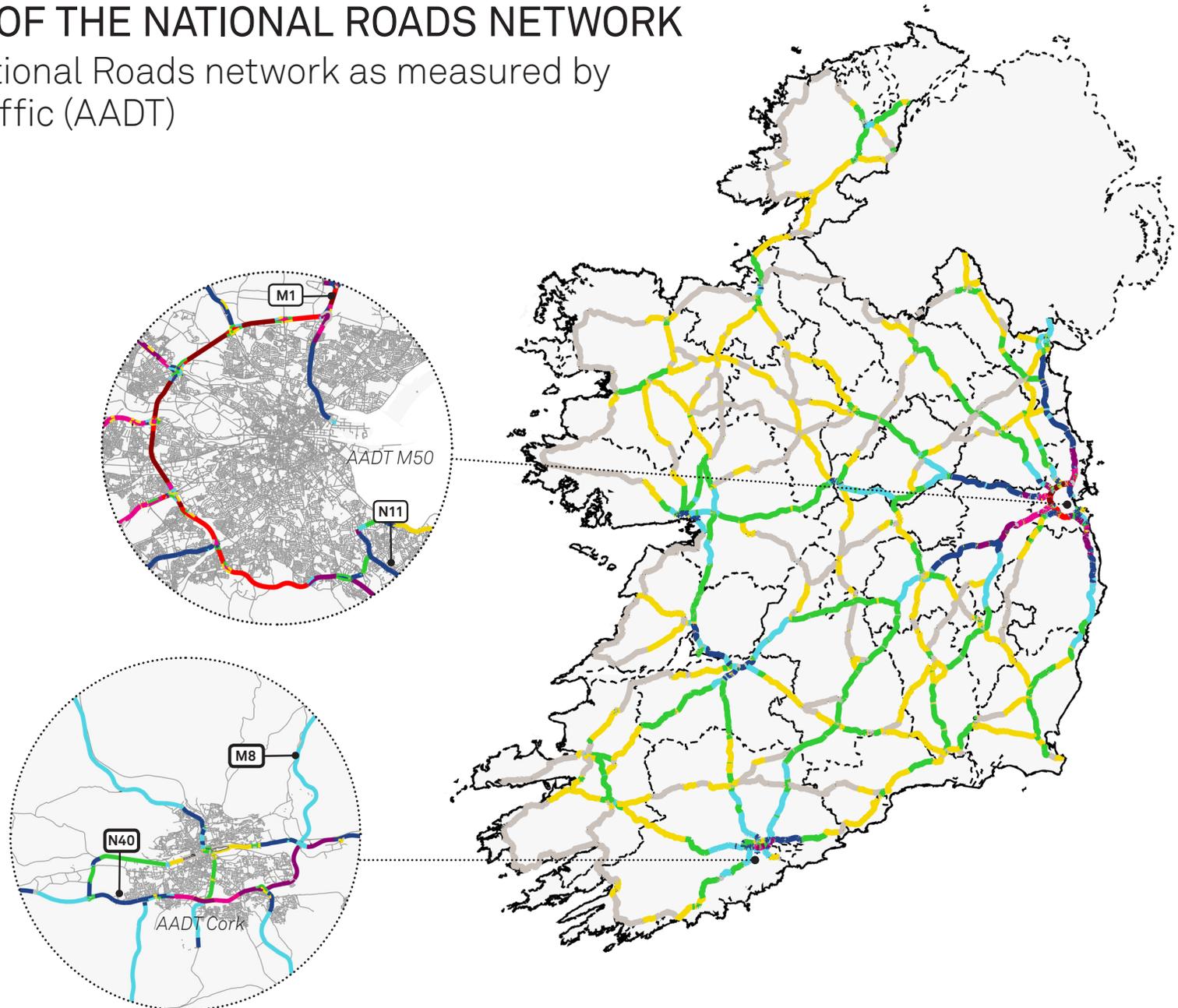
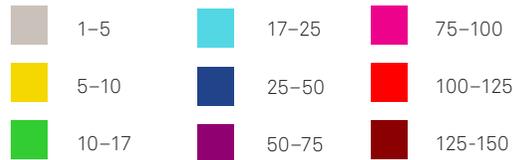
# B1: LEVEL OF USAGE OF THE NATIONAL ROADS NETWORK

Level of usage of the National Roads network as measured by Annual Average Daily Traffic (AADT)

*The continued growth in the Irish economy is reflected by the growth in traffic on the National Roads network.*

In Dublin, the M50 continues to experience growth in levels of usage as measured by Annual Average Daily Traffic (AADT) flows, with the section between Junction 5 (N2) and Junction 9 (N7) carrying in excess of 140,000 AADT. Increased economic activity outside of the Dublin region is also apparent with further AADT growth being experienced on the N40 (Cork South Ring Road) in 2018.

AADT (thousands per day)

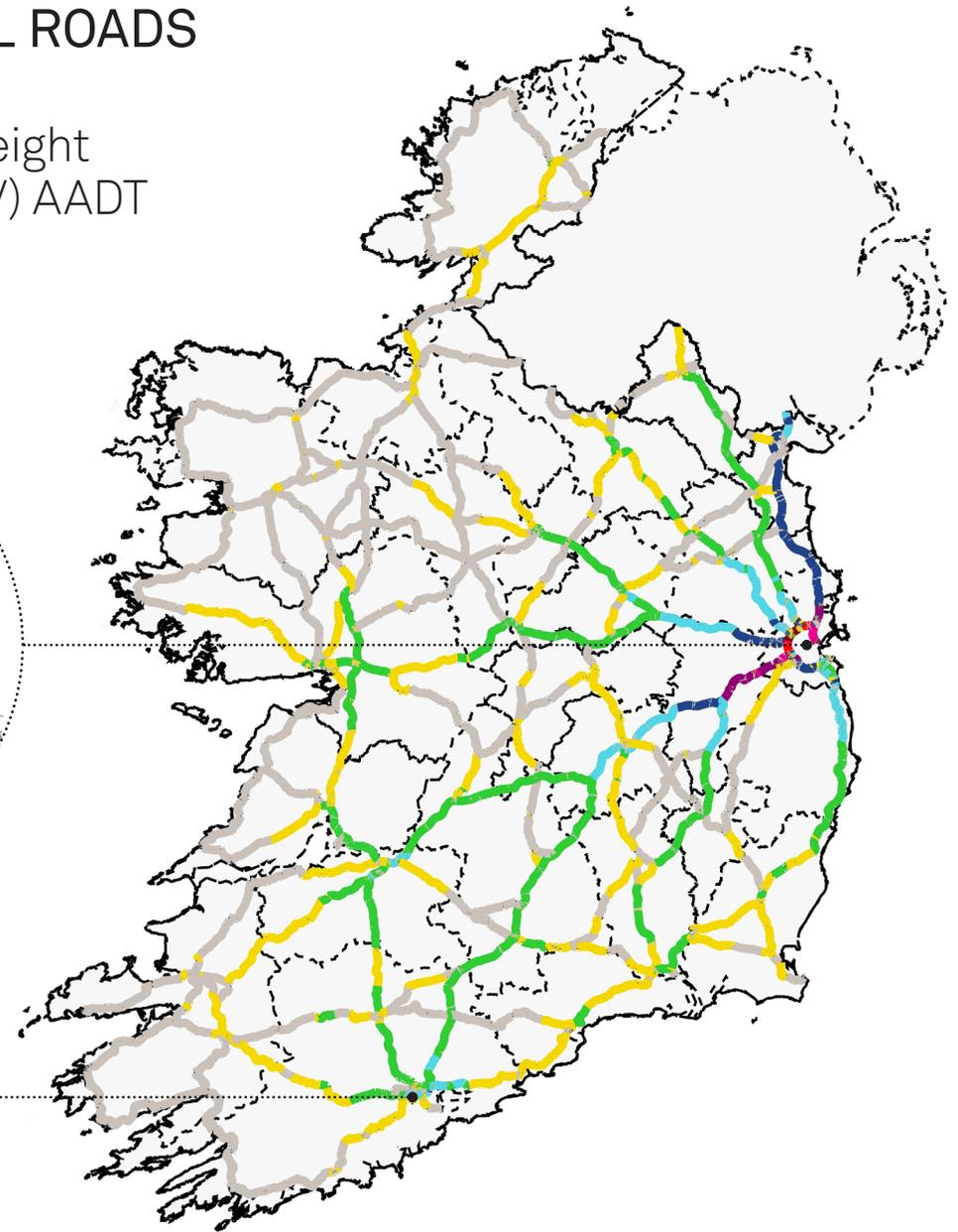
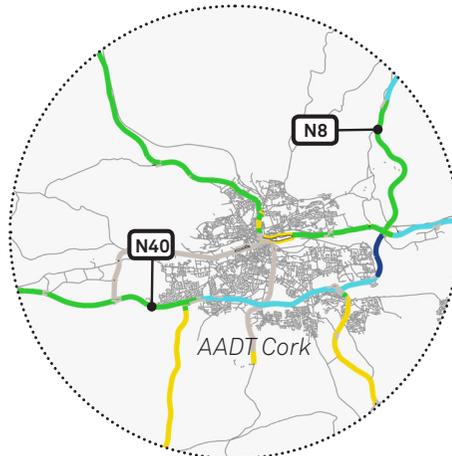
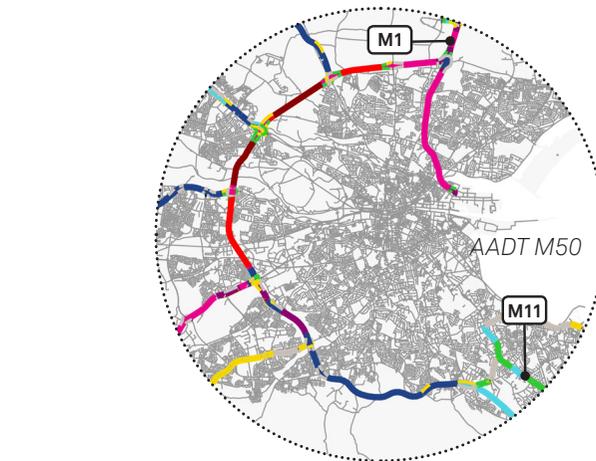
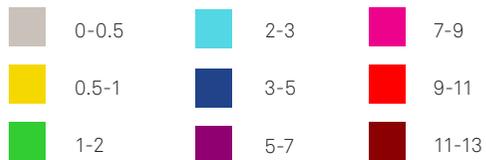


## B2: FREIGHT MOVEMENTS ON THE NATIONAL ROADS NETWORK

Level of usage of the National Roads network by freight vehicles as measured by Heavy Goods Vehicle (HGV) AADT

*The level of usage of the National Roads network by freight vehicles, as measured by Heavy Goods Vehicles (HGV) AADT, continues to experience growth particularly in economic centres near major ports.*

HGV AADT (thousands per day)



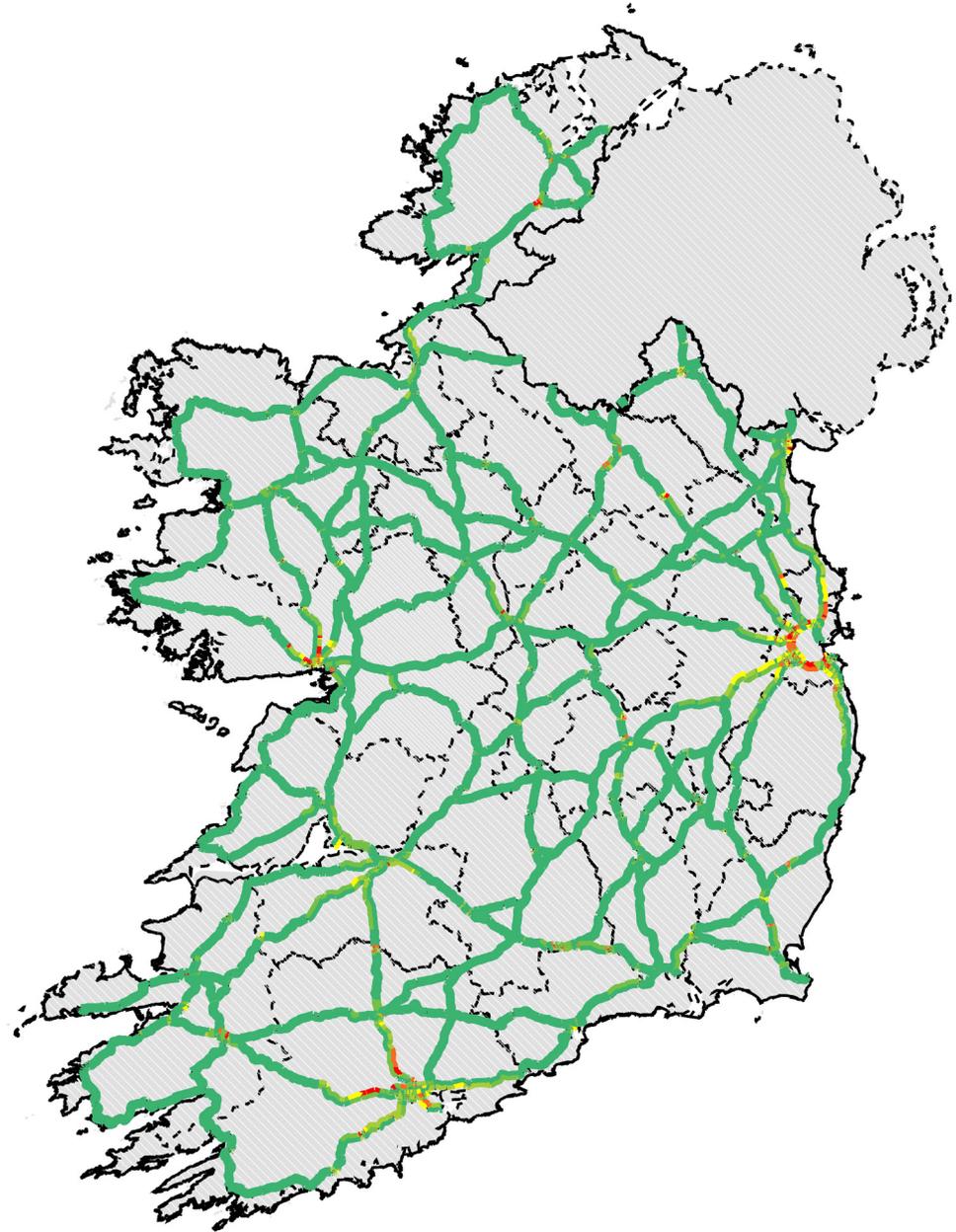
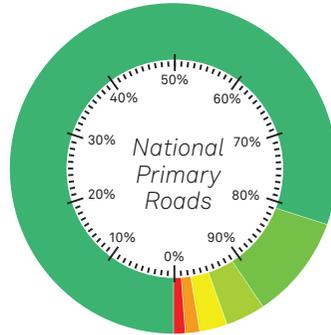
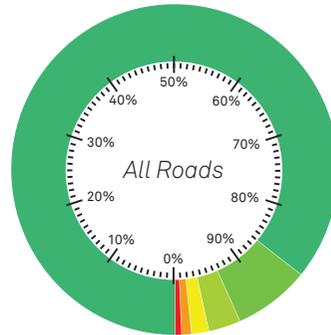
# C1: LEVEL OF SERVICE: MORNING RUSH-HOUR, NATIONAL ROADS

Proportion of the National Roads network operating under each level of service condition

The level of service (LOS) provided by roads may be assessed using recognised international standards. LOS is a quality measure describing operational conditions within a traffic stream. Following the substantial investment in National Roads in recent times, most route sections are operating to the highest standard of service.

For further information see: Transport Research and Information Note: A Study of Lane Capacity, online at [www.tii.ie/tii-library/strategic-planning](http://www.tii.ie/tii-library/strategic-planning)

- A. Free flow
- B. Reasonably free flow
- C. Stable flow
- D. Approaching unstable flow
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- F. Forced or breakdown flow



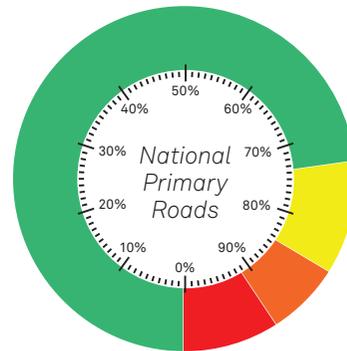
# C2: VOLUME TO CAPACITY RATIO: NATIONAL PRIMARY ROADS

Proportion of the National Primary Roads network operating at each level of capacity

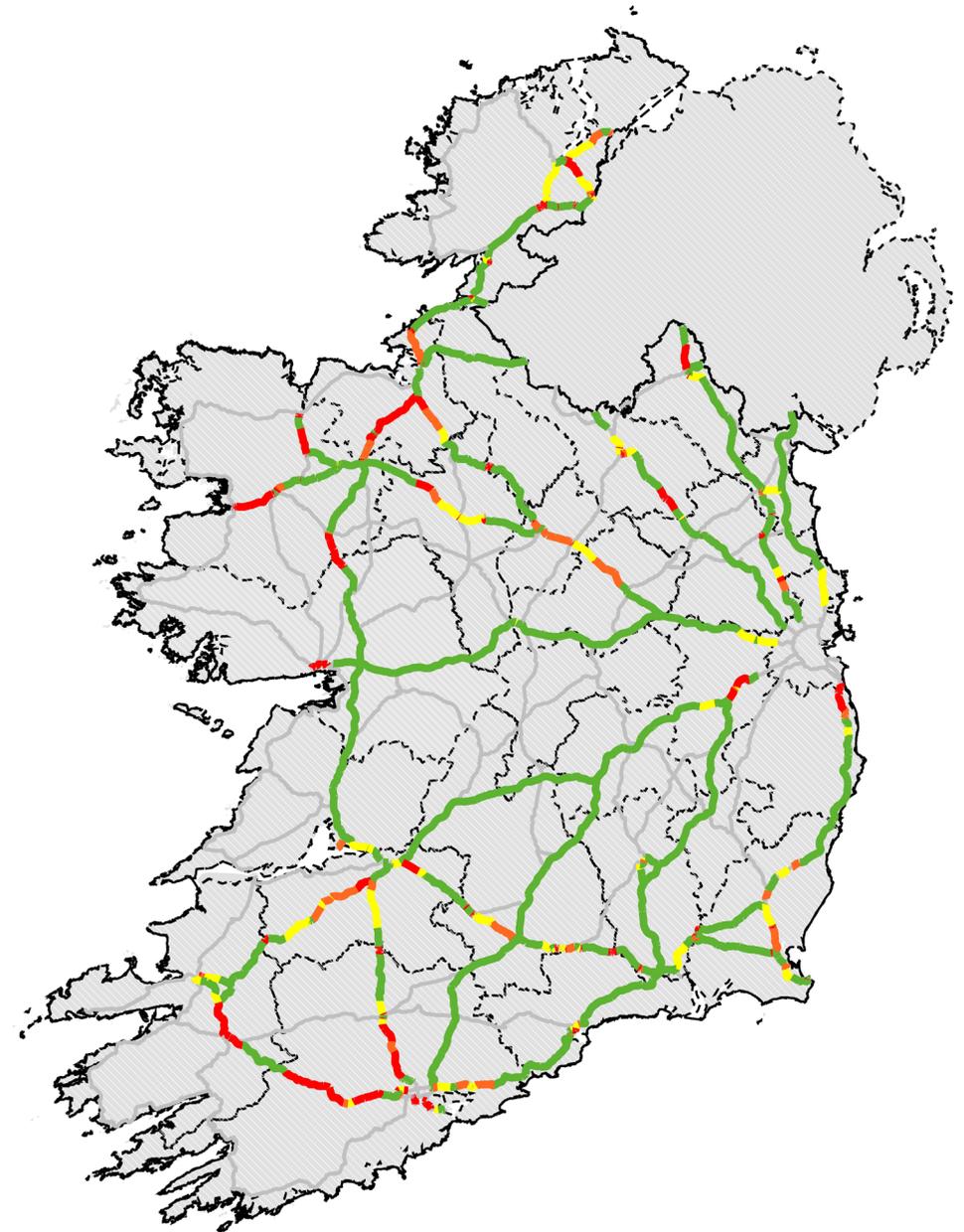
The Volume to Capacity (V/C) Ratio relates the AADT volume carried on a section of road to its daily operational capacity.

The V/C Ratio for the National Primary Roads network indicates that over 70% of the network is operating at or below 80% of its daily capacity. This reflects the significant investment made in the National Primary Roads network in recent times.

\*Capacity based on TII Rural Road Link Design Standard Table 6.1 (DN-GEO-03031)



- Operating Below 80% Capacity
- Operating between 80% - 100% Capacity
- Operating between 100% - 120% Capacity
- Operating above 120% Capacity



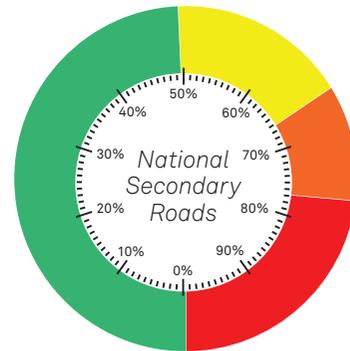
# C3: VOLUME TO CAPACITY RATIO: NATIONAL SECONDARY ROADS

Proportion of the National Secondary Roads network operating at each level of capacity

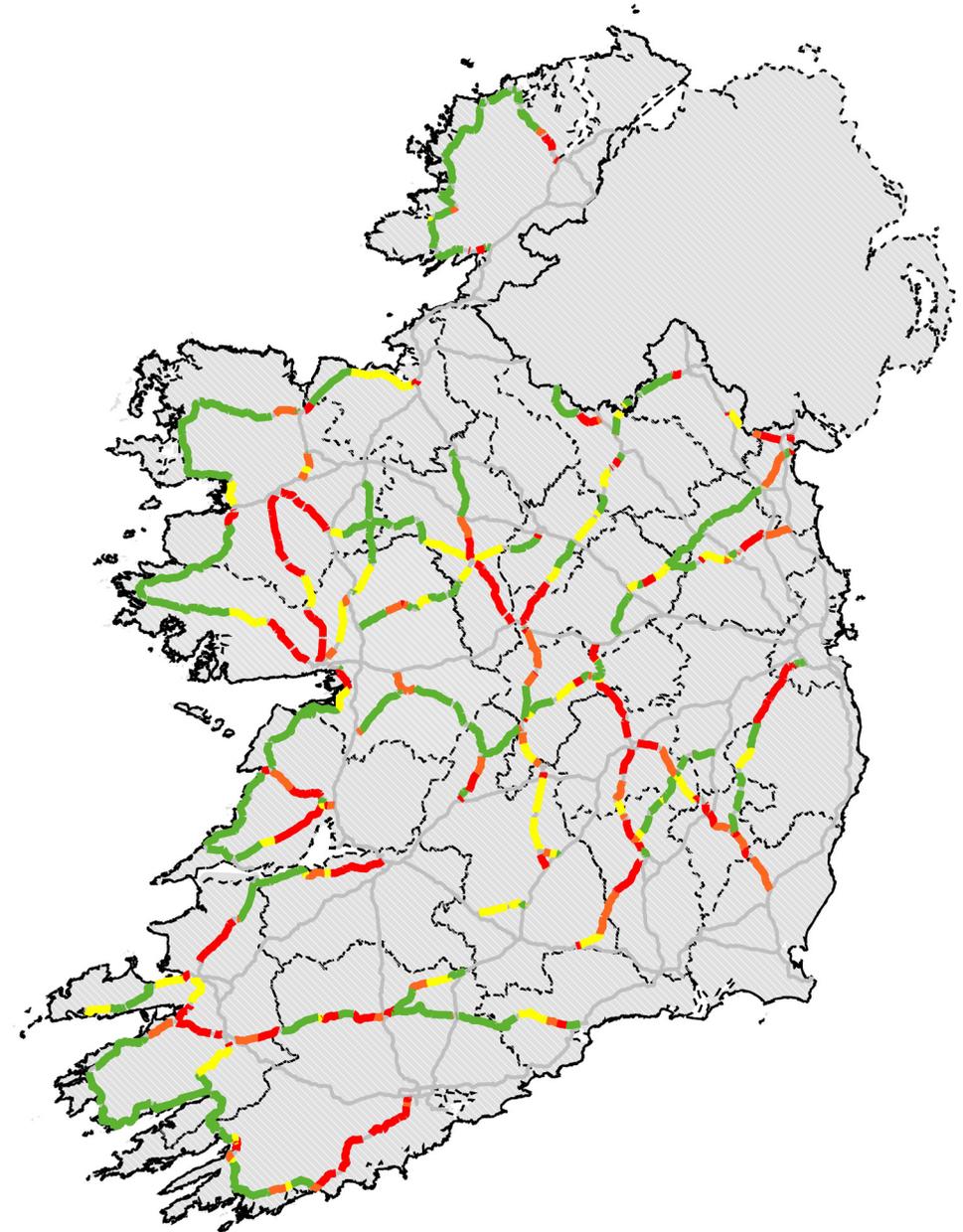
The Volume to Capacity (V/C) Ratio relates the AADT volume carried on a section of road to its daily operational capacity.

The V/C Ratio for the National Secondary Roads network indicates that just under 50% of the network is operating at or below 80% of its daily capacity. This indicates that investment is required in the National Secondary Roads network to match the performance of the National Primary Roads network.

\*Capacity based on TII Rural Road Link Design Standard Table 6.1 (DN-GEO-03031)



- Operating Below 80% Capacity
- Operating between 80% - 100% Capacity
- Operating between 100% - 120% Capacity
- Operating above 120% Capacity



# D1: M50 PERFORMANCE SUMMARY

## 2018 Key network statistics

The M50 is the most heavily trafficked road in the country with nearly 145,000 vehicles using several sections on an average day.



**13,345**  
Highest hourly flow recorded on the N3 - N4 between 4pm and 5pm on 28th March



**1.52 billion**  
Vehicle km travelled. This represents a 1% increase on 2017



**178,770**  
Highest Daily Flow Recorded on M50 between the N3-N4



**1,164**  
Total No. of Incidents of which **541** were Traffic Collisions



**FRIDAY**  
Busiest Typical Day



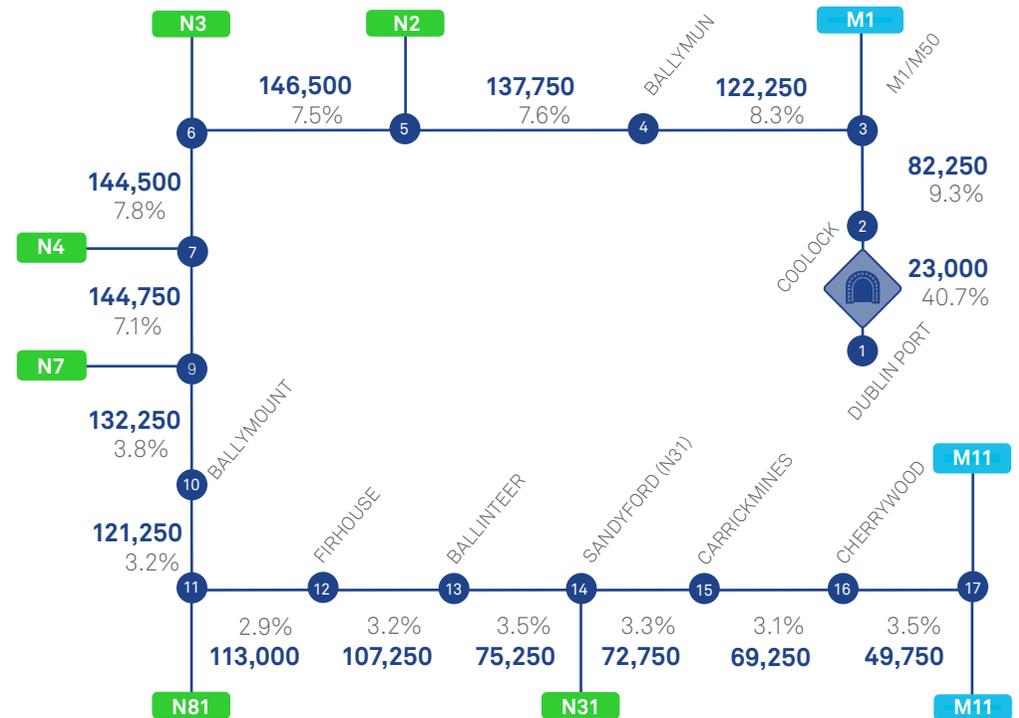
**13 minutes**  
Average Response Time



**16:00 -18:00**  
Peak Incident Time



**30 minutes**  
Median Duration of Incidents



M50 Schematic Layout  
2018 Annual Average Daily Traffic (%HGV) on M50

# D2: M50 PERFORMANCE SUMMARY

Traffic growth and typical working day conditions represented by level of service

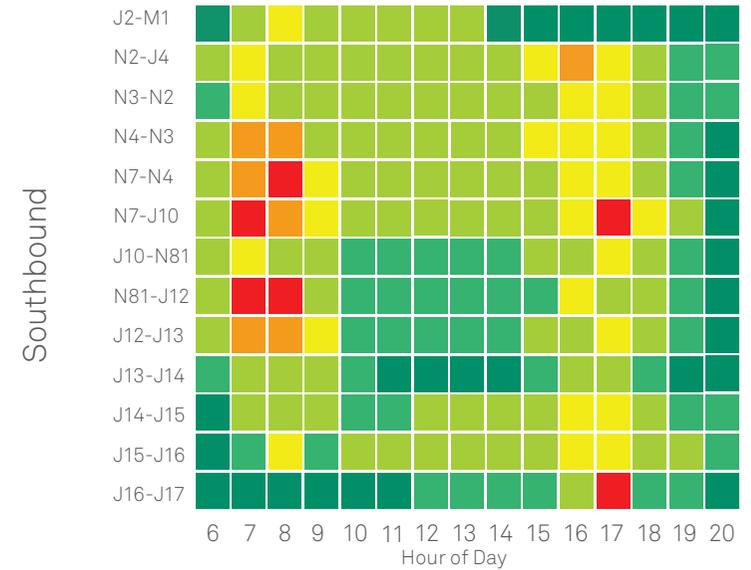
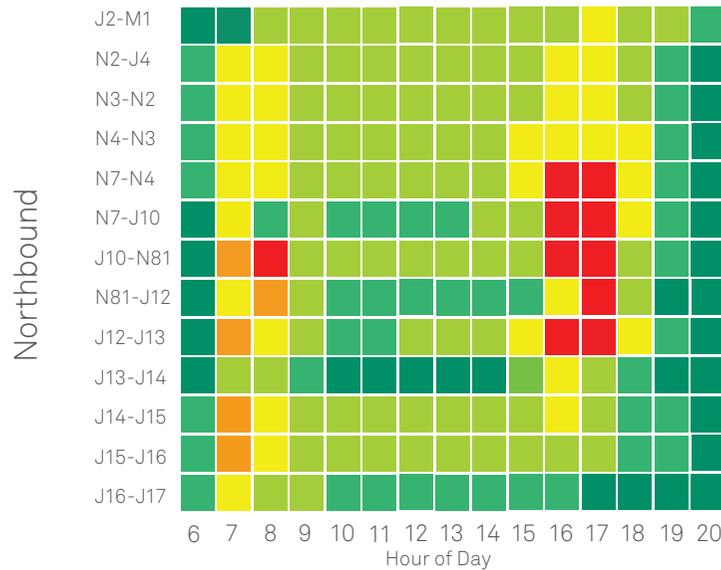
The level of service (LOS) provided by roads may be assessed using recognised international standards. LOS is a quality measure describing operational conditions within a traffic stream.

Average hourly levels of service for the full year were analysed from TII Traffic Monitoring Units which give an indication of what the busiest times of a typical day were, and what sections of the M50 were most congested in 2018. A typical working day in 2018 refers to all weekdays excluding school holidays and public holidays.

MADT at M50 (e-flow toll between J6 & J7)



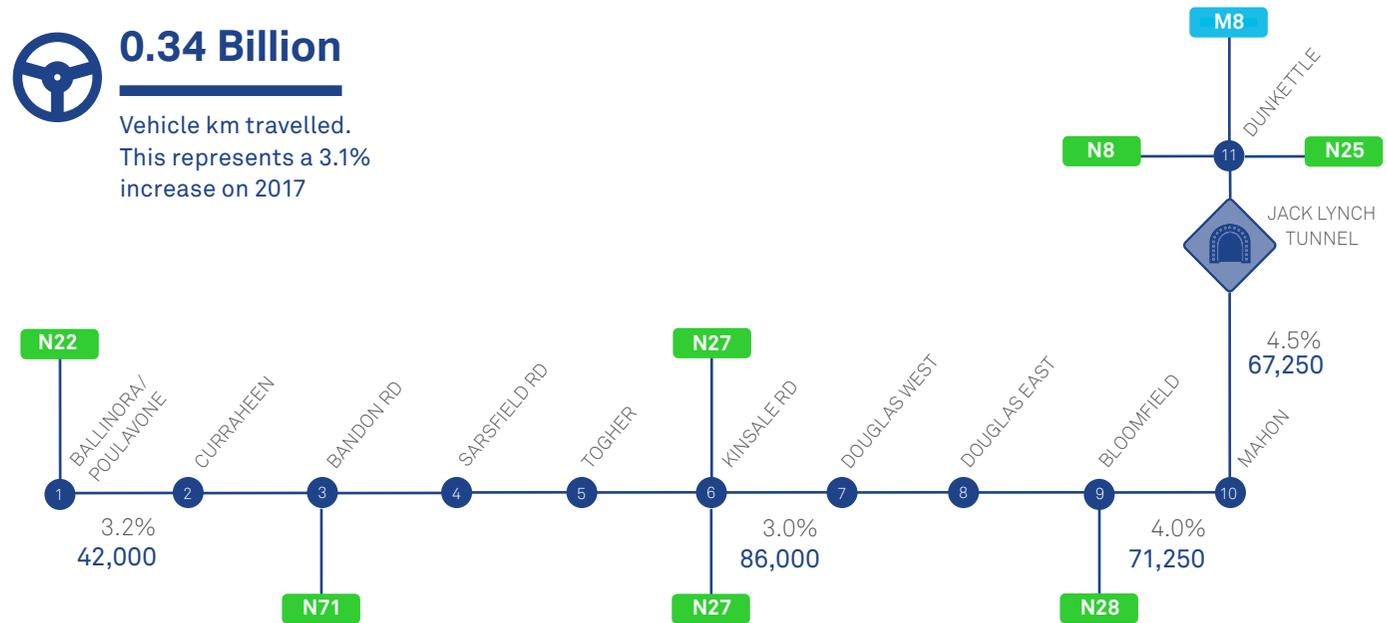
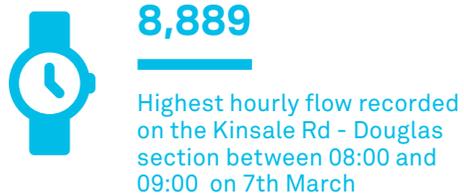
- A. Free flow
- B. Reasonably free flow
- C. Stable flow
- D. Approaching unstable flow
- E. Unstable flow
- F. Forced or breakdown flow



# D3: N40 PERFORMANCE SUMMARY

## 2018 Key network statistics

Several sections of the N40 Cork Southern Ring Road carry in excess of 80,000 vehicles on an average day

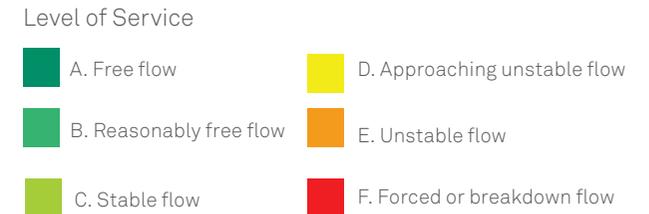
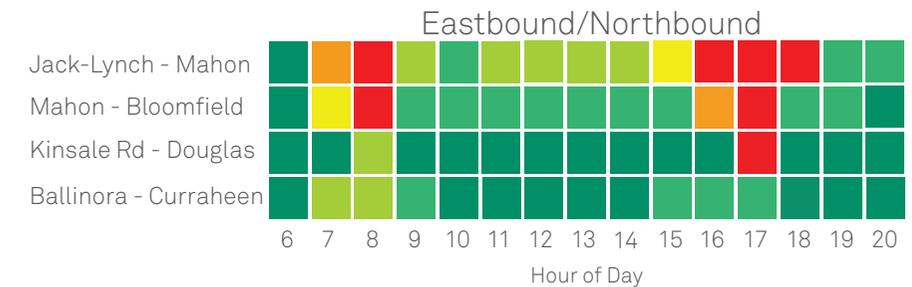
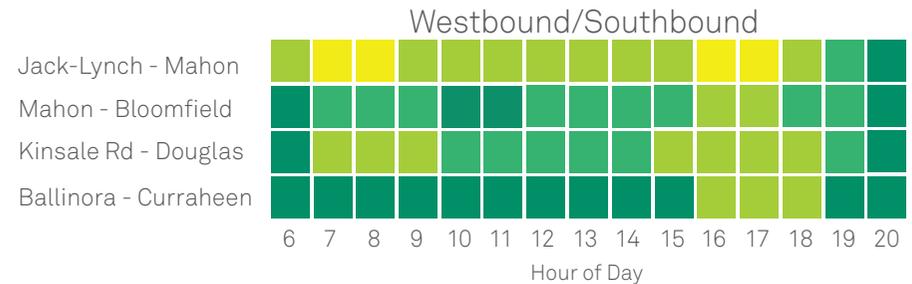
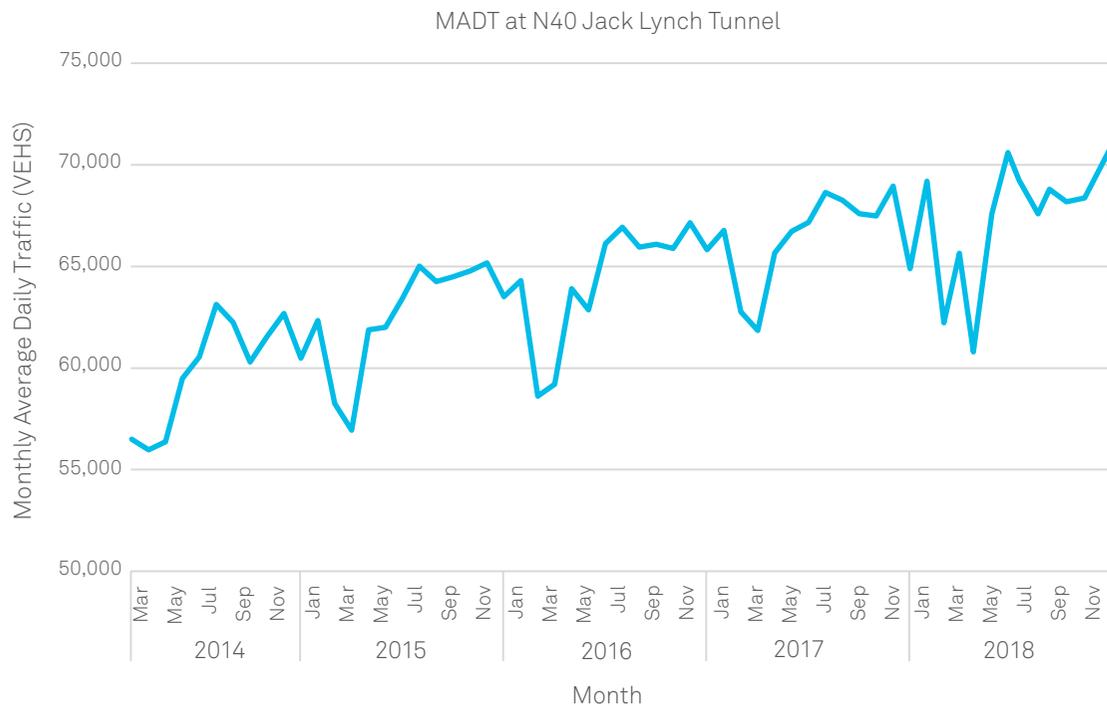


# D4: N40 OPERATIONAL PERFORMANCE

Traffic growth and typical working day conditions represented by level of service

The level of service (LOS) provided by roads may be assessed using recognised international standards. LOS is a quality measure describing operational conditions within a traffic stream.

Average hourly levels of service for the full year were analysed from TII Traffic Monitoring Units which give an indication of what the busiest times of a typical day were, and what sections of the N40 were most congested in 2018. A typical working day in 2018 refers to all weekdays excluding school holidays and public holidays.



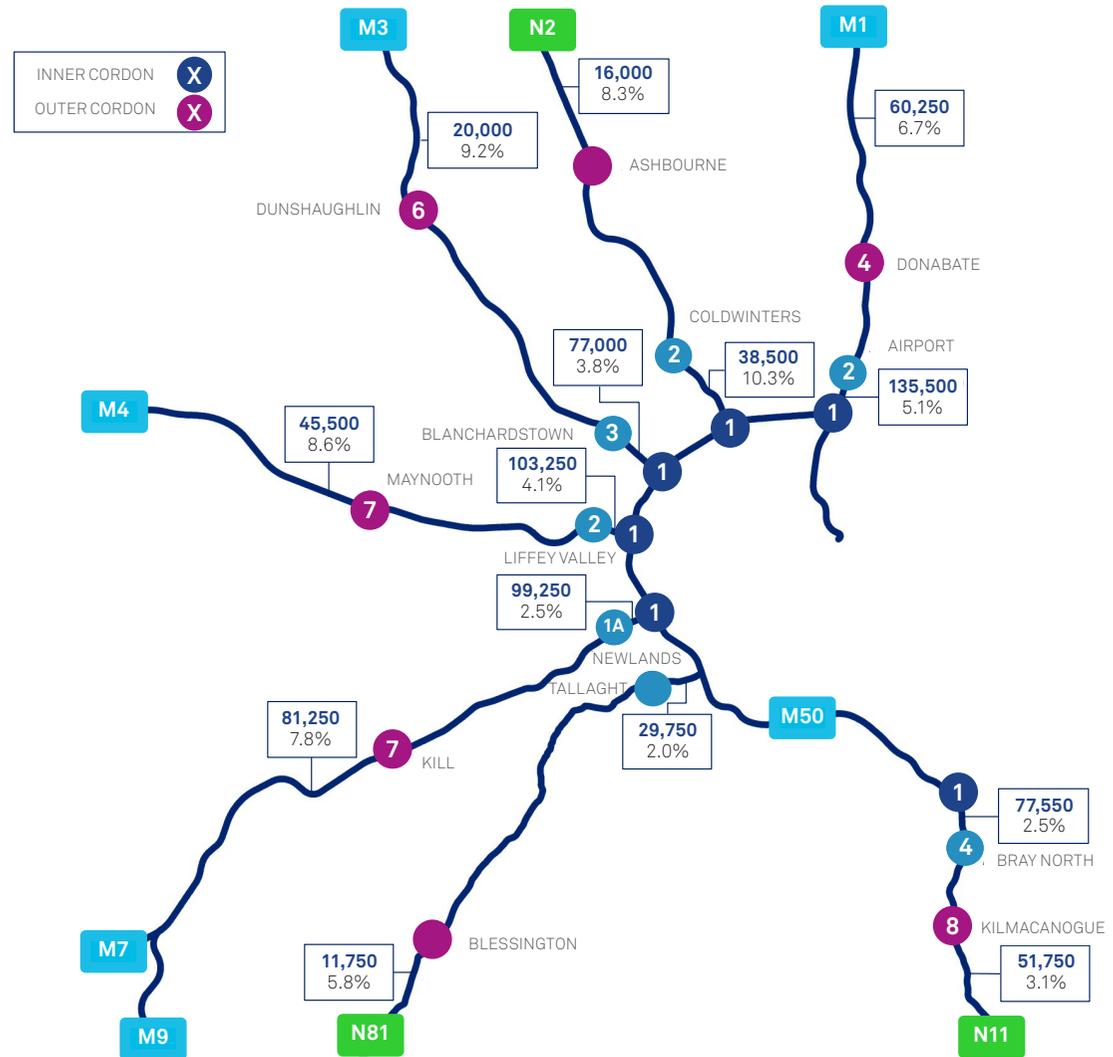
# D5: DUBLIN RADIALS PERFORMANCE SUMMARY

Traffic growth and typical working day conditions represented by level of service

The Dublin Radials represent a system of routes providing access to the Dublin Area, converging onto the M50. They are made of National Primary Routes designated M1 to M11 as one travels anticlockwise around the M50.

The Dublin Radial Routes consisting of the M1, N2, N3, M4, N7, N81 and M11 are some of the busiest routes in the country. The schematic on the right contains AADT data of these routes for 2018 from the Traffic Monitoring Units which are displayed as inner and outer cordons on the map of the Greater Dublin Area. Generally there is a very significant drop off in traffic demand between the inner and outer cordons as you would expect as the population and job densities decrease.

The N7 shows significant traffic demand at the outer cordon. Traffic demand at the M1, M4 and N11 outer cordon locations is lower than the N7 but still remains reasonably high.



Dublin Radials Schematic Layout  
2018 Annual Average Daily Traffic (%HGV) on Dublin Radials

**May 25**  
Highest Daily Flow Recorded on the M4 between the M50 and Liffey Valley  
**120,556**

**Jun 15**  
Highest Daily Flow Recorded on the M1 between the M50 and Dublin Airport  
**159,916**

**Mar 29**  
Highest Daily Flow Recorded on the N7 between the M50 and Newlands  
**124,335**

**May 25**  
Highest Daily Flow Recorded on the M11 between the M50 and Bray North  
**92,242**

# D6: DUBLIN RADIALS PERFORMANCE SUMMARY

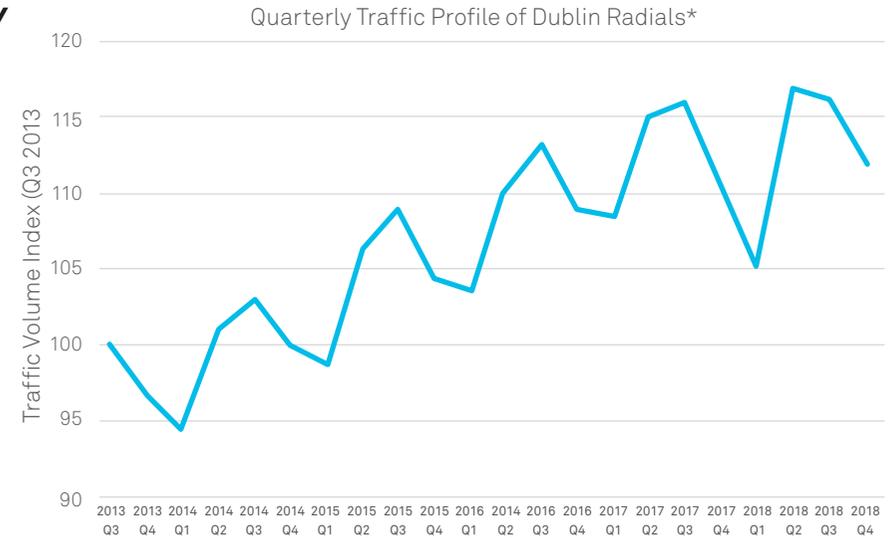
## Traffic growth and typical working day conditions represented by level of service

The level of service (LOS) provided by roads may be assessed using recognised international standards. LOS is a quality measure describing operational conditions within a traffic stream.

Average hourly levels of service for the full year were analysed from TII Traffic Monitoring Units which give an indication of what the busiest times of a typical day were, and what sections of the Dublin radial routes were most congested in 2018. A typical working

day in 2018 refers to all weekdays excluding school holidays and public holidays.

The LOS figures show congestion occurring at inner cordon locations during the peak periods. Congestion at the outer cordon location is limited to the evening peak at specific locations where TII currently have schemes at the construction/design stage.

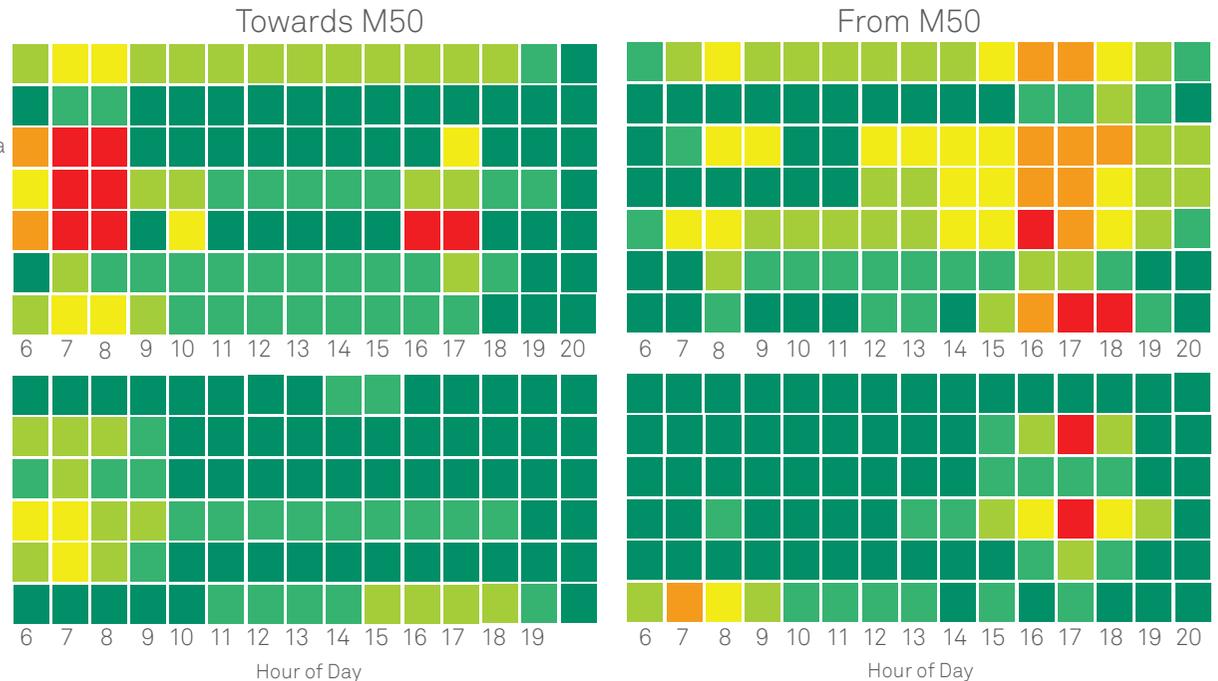


\*These values represent an index baseline at 100 in Q3 2013. An index is a statistical measure of changes in a representative group of individual data points over a time period.

- A. Free flow
- B. Reasonably free flow
- C. Stable flow
- D. Approaching unstable flow
- E. Unstable flow
- F. Forced or breakdown flow

- M1-M50 to Airport
- M2-M50 to Coldwinters
- N3-M50 Blanchardstown to Clonsilla
- N4-M50 to Liffey Valley
- N7-M50 to Newlands
- N81-M50 to Tallaght
- N11-M50 to Bray North

- M1- Donabate to Balbriggan
- N2- Ashbourne to Slane
- M4- Maynooth to Kilcock
- N7- Kill to Johnstown
- N81- Tallaght to Blessington
- N11- Kilmacanogue to Glen of the Downs



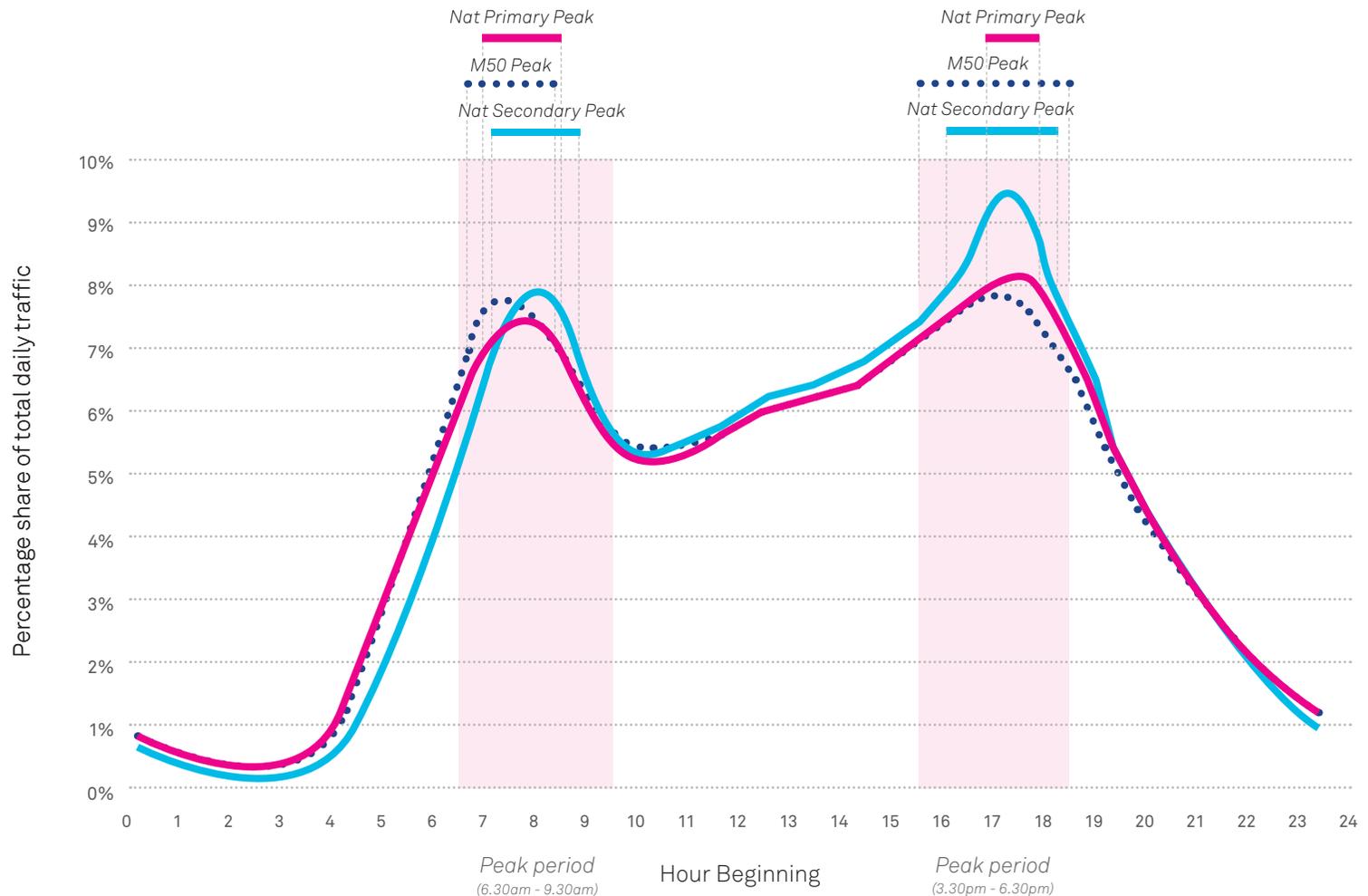
# E: ROADS USAGE OVER THE DAY

Profile of the usage of the National Roads network by time of day

*The peak periods on our National Roads are extending outwards due to increased demand and congestion.*

In the morning, the peak period lasts between 6.30am and 9.30am whilst in the evening, the peak covers the period between 3:30pm and 6:30pm. Peak traffic hours have a level of traffic some 30% to 50% above off-peak levels. The M50 is the most used road in the country with daily weekday traffic of up to 146,000 along its busiest sections. The peaks on the M50 are more prolonged than other roads with significant traffic flows being maintained during off-peak periods. The trend of 'peak hour spreading' continued in 2018, with the peak period share of total daily M50 traffic reducing by 0.4% in both the AM and PM Peaks compared to the previous year.

- M50 Motorway
- National Primary
- National Secondary
- Peak period



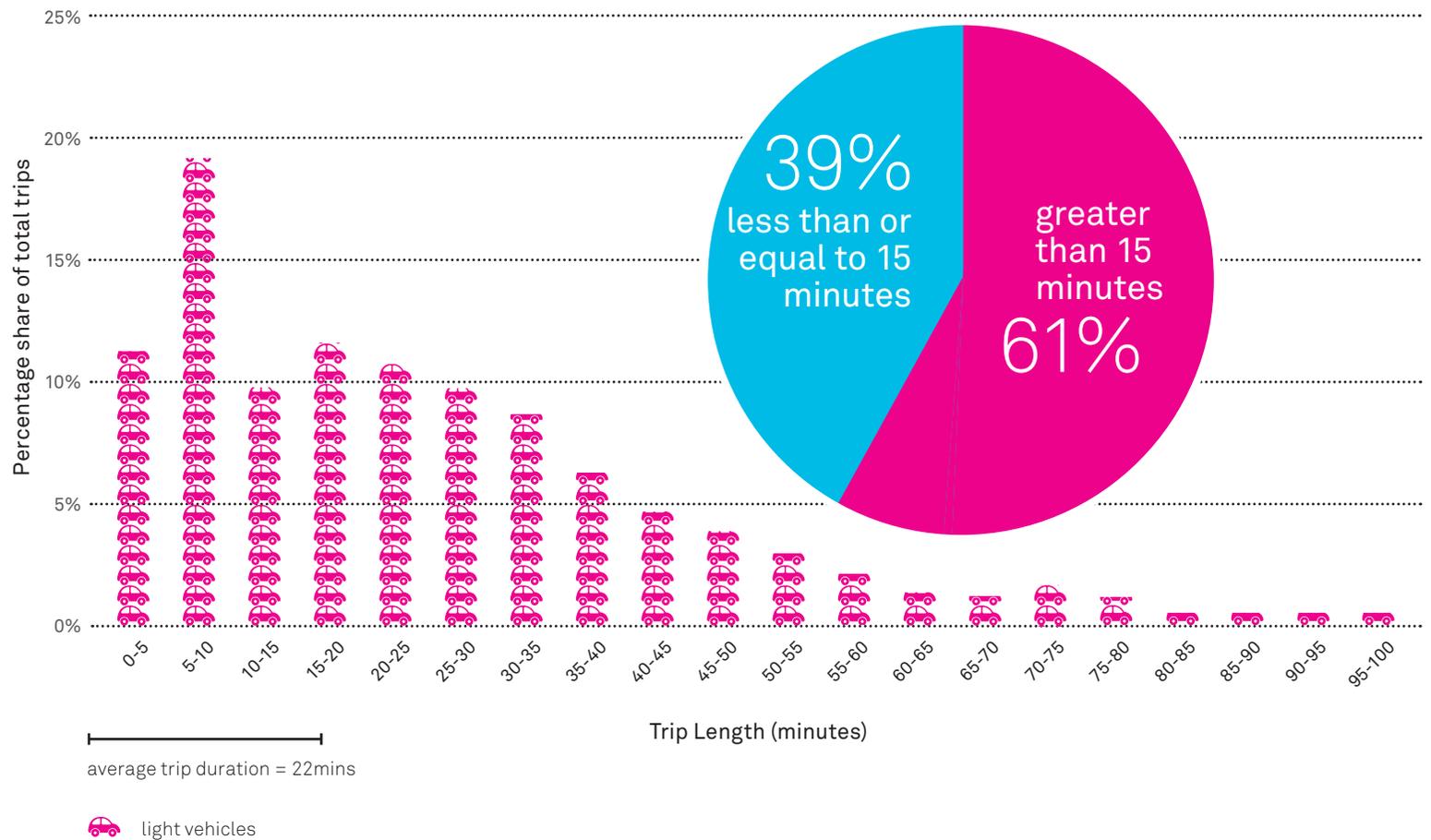
Source: TII National Transport Model, 2018

# F: TRIP DURATION

## NATIONAL ROADS AND REGIONAL ROADS - AM PEAK

Profile of the trips made on the National and Regional Roads network by their duration

Across the road network, a significant portion of trips that people make are of short duration. In total, 39% of trips are of 15 minutes duration or less.



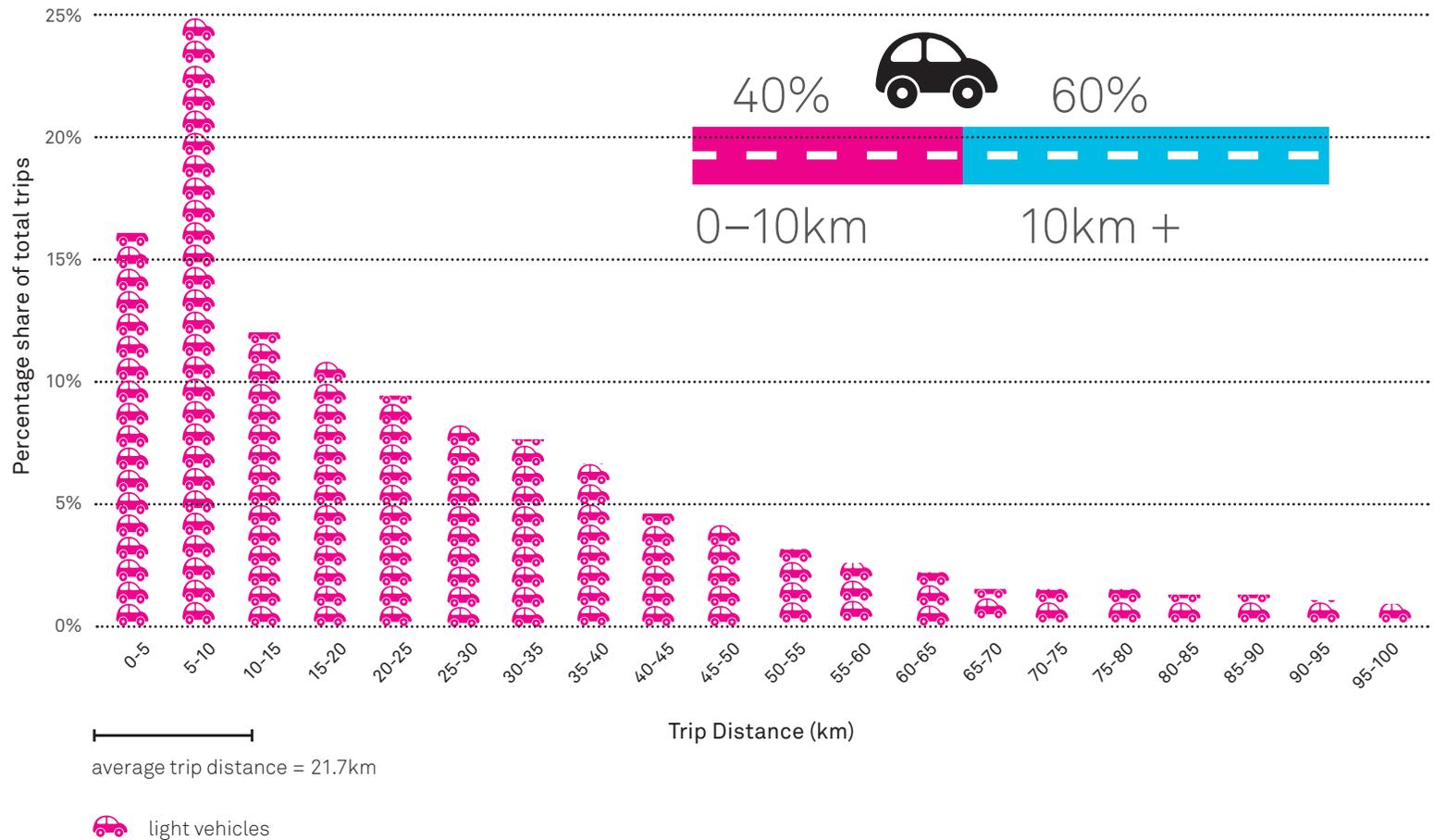
Source: TII National Transport Model, 2018

# G: TRIP DISTANCE

## NATIONAL AND REGIONAL ROADS - AM PEAK

Profile of the trips made on the National and Regional Roads network by their distance

Across the road network, a significant portion of trips that people make are short distance. In total, just over 52% of trips are 15 kilometres or less.



Source: TII National Transport Model, 2018

# H: ANNUAL TRAFFIC GROWTH RATES

## Annual Traffic Growth 2017-2018

*Traffic growth was 0.5% across the network in 2018.*

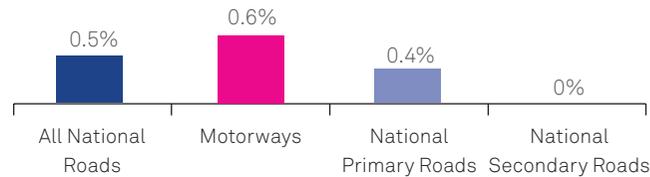
Weather had a significant impact on year and year growth in 2018 with significant weather events i.e. Storm Emma, occurring in Q1 2018 which led to limited use of National Roads for extended periods.

The highest regional growth recorded in 2018 was in the Mid-West with 2.4% for the year. The Midlands also experienced significant growth at 2.1%. The South-West and West experienced negative year on year growth at -0.4% and -1.1% respectively.

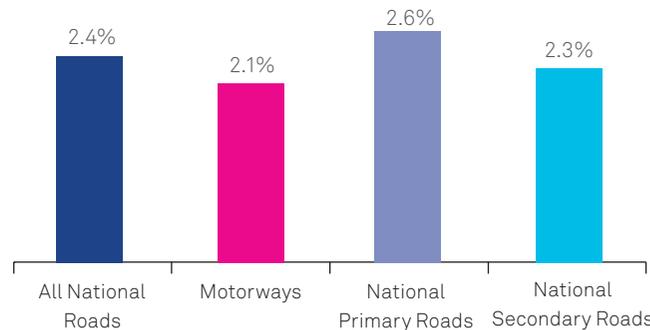
For HGVs the Midlands and Mid-East recorded the highest regional growth at 3.7% and 3.6% each. The West and Mid-West had negative year on year growth at -1.2% and -0.8% respectively. The lower growth in 2018 can be partially attributed to extreme weather events in early 2018.

The greatest year on year traffic growth for all vehicles by road type was recorded on motorways; where traffic has increased 0.6%. For HGVs however, the greatest growth by road type was on National Primary Roads with 2.6% for HGVs.

Growth by Road Type (All Vehicles)

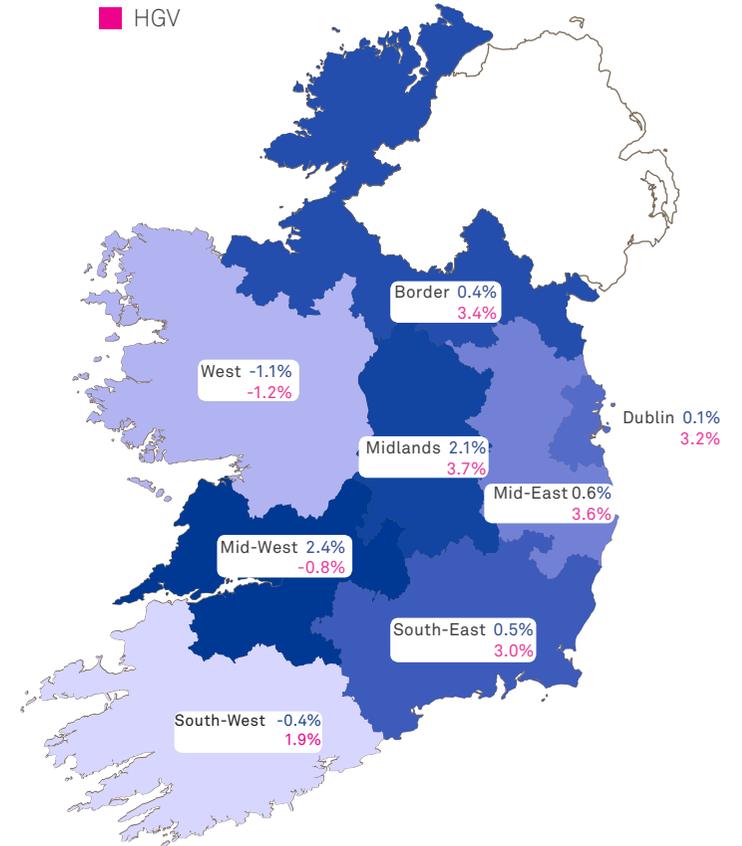


Growth by Road Type (HGVs)



Growth by Region

- All Vehicles
- HGV

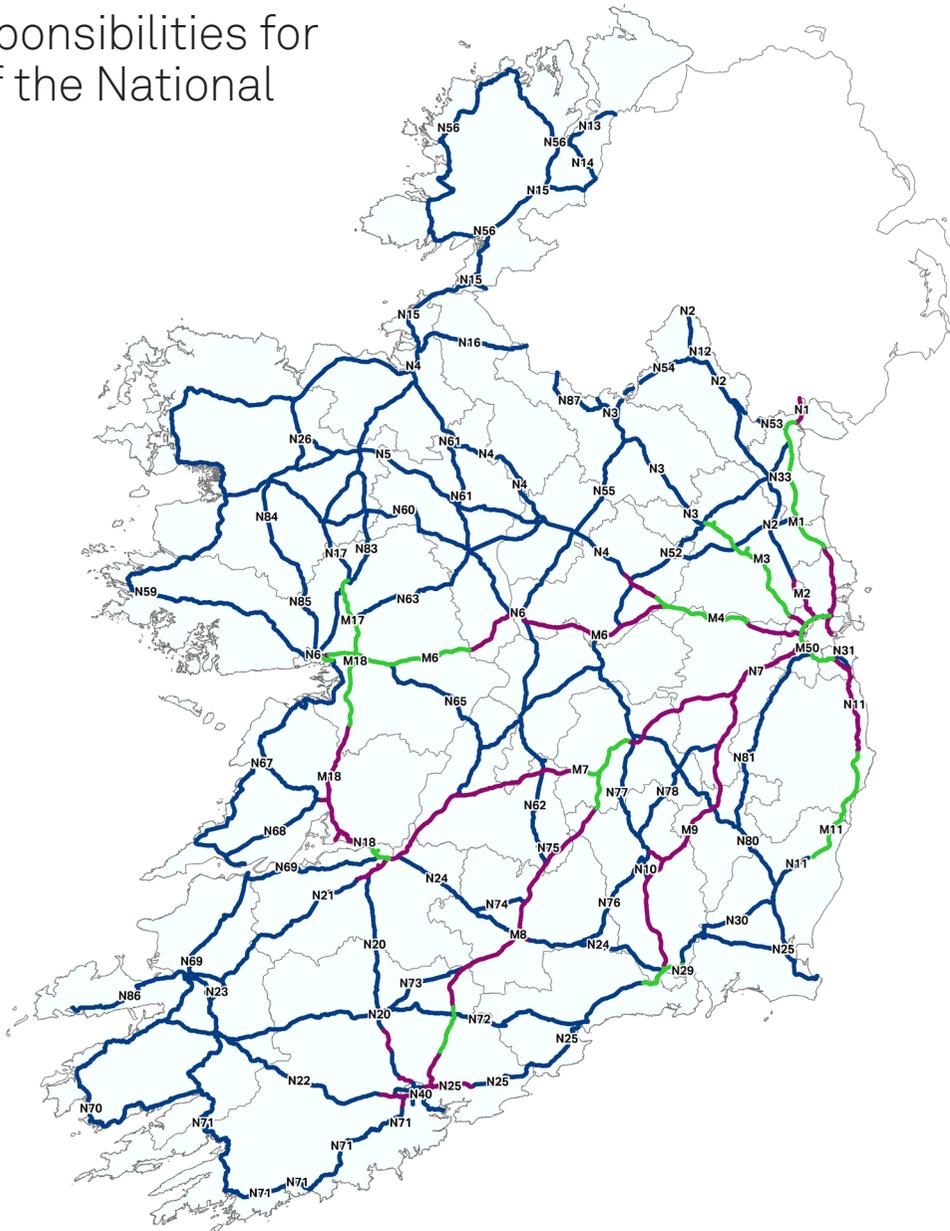


Source: TII Traffic Monitoring Units

# I: NETWORK MANAGEMENT

## Overview of the responsibilities for the Management of the National Roads network

The management of the National Roads network is assigned to a number of bodies with the majority share of National Primary and National Secondary roads being managed by Local Authorities. Motorways are managed under the Motorway Maintenance and Renewal Contracts (MMaRCs) or by PPP Concession companies. TII manages the maintenance of 2,709 bridges, which includes all bridges on National Roads other than on PPP roads. PPP Concession companies manage a total of 472 bridges.

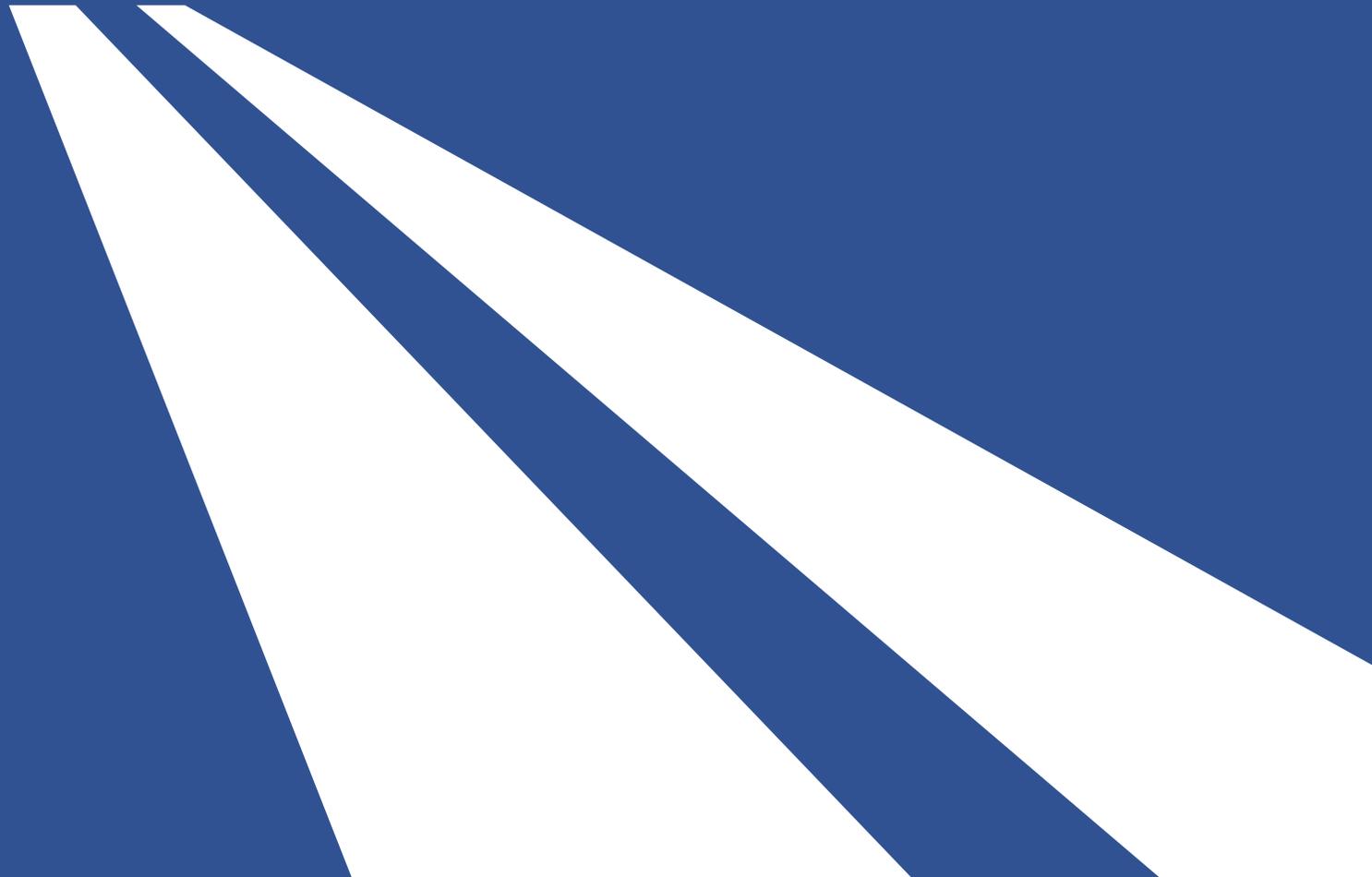


Routes managed by:  
 MMaRC   
 PPP   
 Local Authority 

Key facts:

 <b>327</b> demountable snow ploughs Our winter service fleet consists of:	 <b>9,430</b> all emergency calls received by Motorway Traffic Control Centre including SOS phones	 <b>103</b> nights in 2018 where the temperature reached below zero
 <b>360</b> salt spreaders	 <b>1,478</b> SOS phones in the country	 <b>110</b> weather stations in operation on the National Roads Network
 <b>58,179</b> tonnes of salt were used on National Roads Network in 2018		

# TWO: ECONOMIC



# A: ECONOMICS TRENDS AND TRANSPORT

## Recent Trends

In the period up to the peak of the economic boom in 2008, vehicle kilometres of travel on all roads grew at an annual average rate of 4.6% per annum. In aggregate, vehicle kilometres of travel increased by 43% between 2000 and 2008.

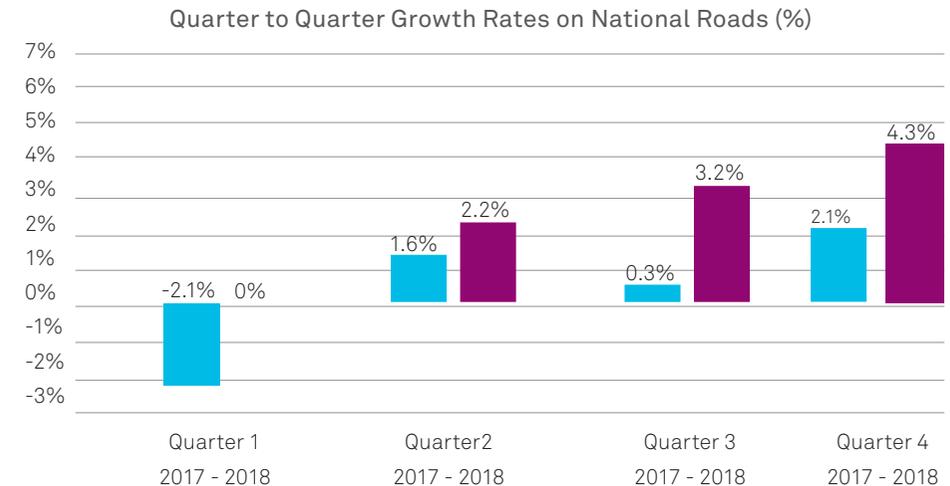
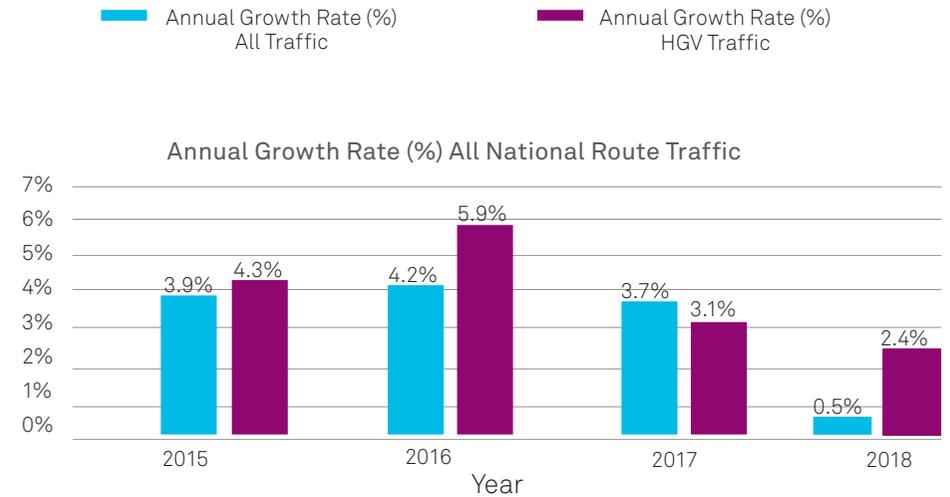
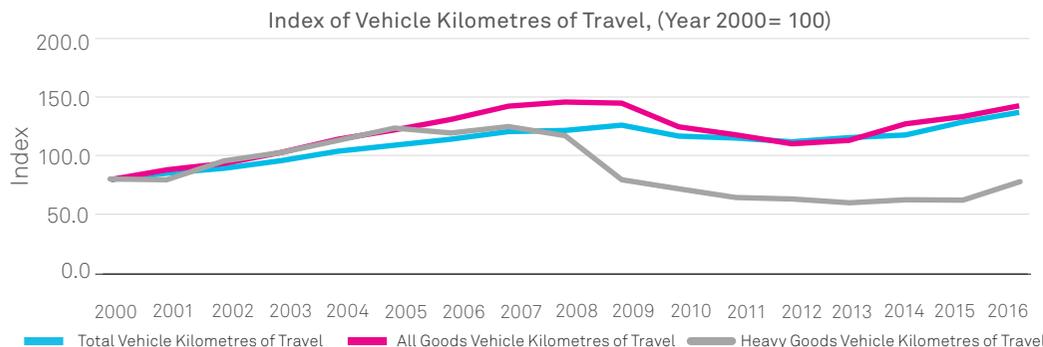
When the economic and financial crisis occurred, vehicle kilometres of travel in total declined by 10% and goods traffic by 22%. The greater decline in goods traffic reflected in part the near collapse of the building and construction sector. Economic growth began to recover in a sustained way in 2012 and employment levels a year later. By 2015, total vehicle kilometres of travel had recovered its pre-crisis levels. Goods traffic vehicle kilometres has still not quite attained its previous peak levels.

Overall transport demand comprises both personal travel and carriage of goods. With regard to personal travel, a

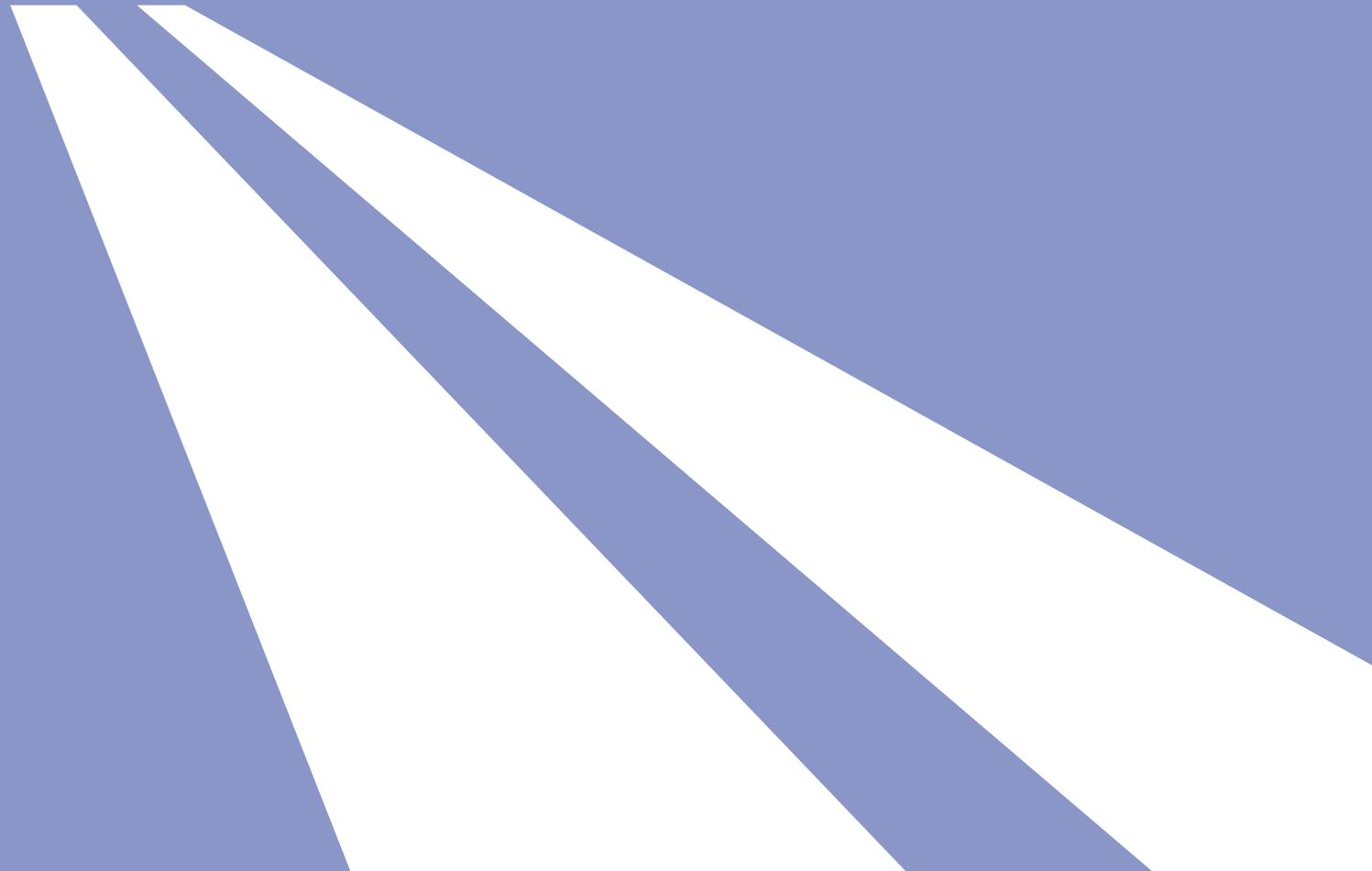
broad distinction may be made between commuting and non-commuting. Trends in overall employment in the economy drive commuting traffic and personal incomes are the major determinant of non-commuting traffic.

With regard to the carriage of goods, economic output is the major determinant and, particularly, the output of the building and construction sector, which is very transport intensive. The slow initial recovery in the building and construction sector is the reason why goods vehicle traffic is still slightly below its former peak level.

The annual growth in traffic does not reflect economic trends due to the influence of Storm Emma, it is anticipated that the rate of growth will be higher in 2019 compared to 2018 but that the trend of reducing rates of growth will continue as growth in the economy slows.



# THREE: ROAD CONDITION



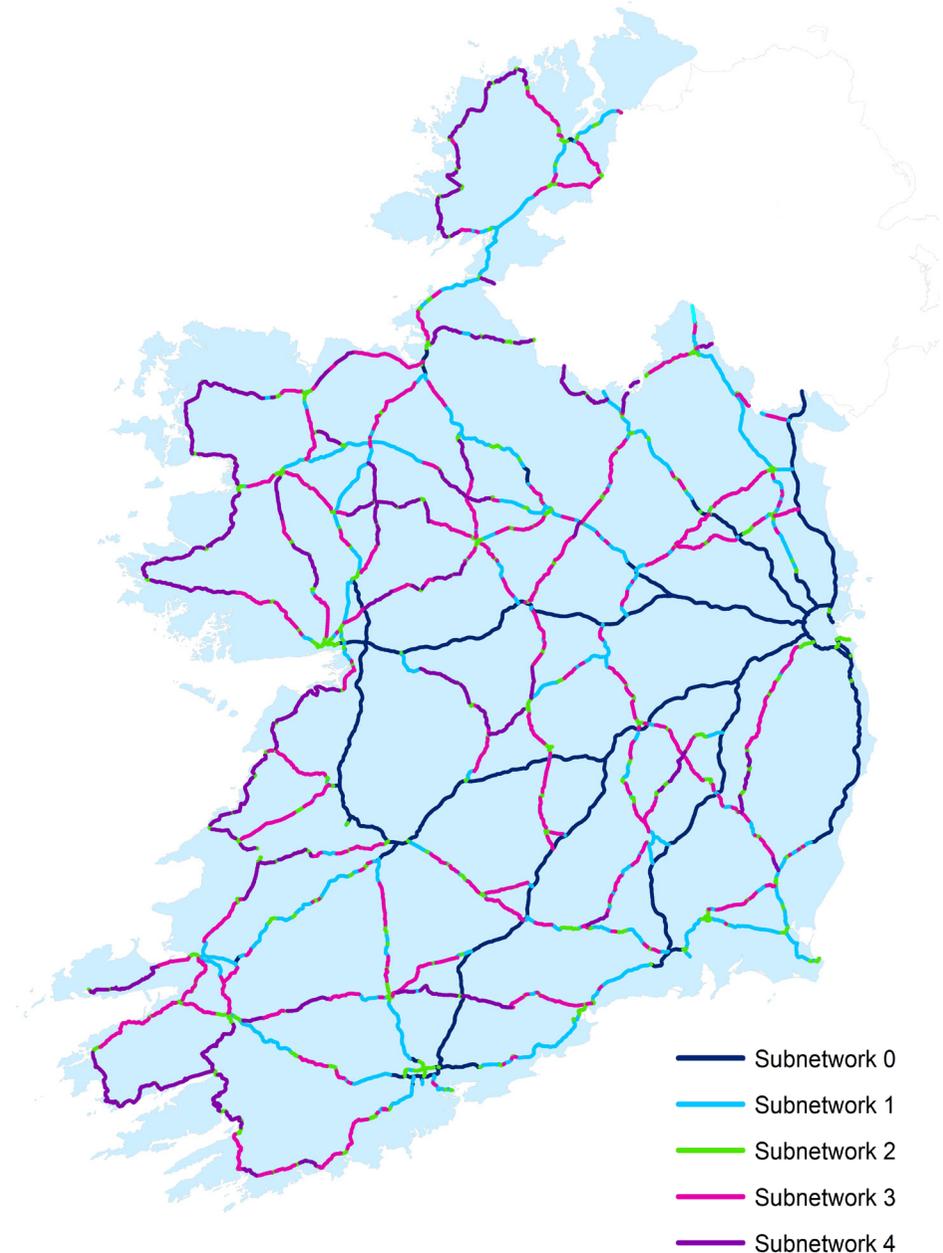
# A1: PAVEMENT MAINTENANCE

## Overview of subnetwork classification of National Roads network

The National Roads network consists of over 5,300 kilometres of road pavements. There is a very significant variation across the TII network in terms of pavement construction, pavement age, carriageway width, lane width, geometric design and traffic volumes carried.

In order to effectively manage this diverse network, a series of 5 subnetwork types have been defined to significantly reduce the variation in pavement condition, traffic and construction type within each subnetwork.

Subnetwork	Classification	% of Network	
0	Motorways + dual carriageways	High speed, high volumes pavement, made up of Motorway and Dual Carriageway sections of the network. Much of this subnetwork is less than 10 years old.	22%
1	Engineered pavement	Significant geometric and pavement design has taken place in the construction and/or rehabilitation of the pavement sections. Typically carry reasonably large volumes of traffic, and are identified by presence of hard shoulders adjacent to the carriageway.	22%
2	Urban Areas	Low to medium speed, typically short sections through towns that are not bypassed, also includes longer sections within the cities and larger towns where National Roads start and end.	13%
3	Legacy pavement – high traffic	Legacy subnetwork, typically constructed without formal geometric or pavement design. Typically carries traffic volumes less than 10,000 AADT.	24%
4	Legacy pavement – low traffic	Legacy subnetwork, typically constructed without formal geometric or pavement design. Typically carries traffic volumes less than 5000 AADT.	18%



## A2: MEASURING PERFORMANCE OF PAVEMENTS ON NATIONAL ROADS NETWORK

### Overview of the strategic indicators used across the National Roads network pavement sub networks

Road pavement condition is a critical element in ensuring the safety and efficiency of the National Roads network. In order to maintain acceptable performance levels of road pavement significant investment is required annually.

Road pavements are made up of different layers. The surface layer is key in the road-wheel interface and influences both the safety and overall condition of the pavement. Timely upgrade of the pavement surface can prolong the lifecycle of the sub-surface / structural layers of the pavement.

Various engineering parameters are used to measure the performance of aspects of the pavement but these do not give an understanding of overall performance of the pavements on the network.

TII has therefore developed strategic level performance indicators which address three key characteristics – Pavement Surface Health; Pavement Surface Safety, Pavement Structural Health.

Within the pavement sub networks, pavement condition is ranked on a five point scale:  
Very Poor, Poor, Fair, Good , Very Good.

TII research indicates that on average it takes approximately 7 years for a pavement to transition between points on the scale.

To ensure the safety and efficiency of the network TII have set performance targets for each of the subnetwork categories under each of the performance indicators.



### Pavement Surface Health



### Pavement Surface Safety



### Pavement Structural Health

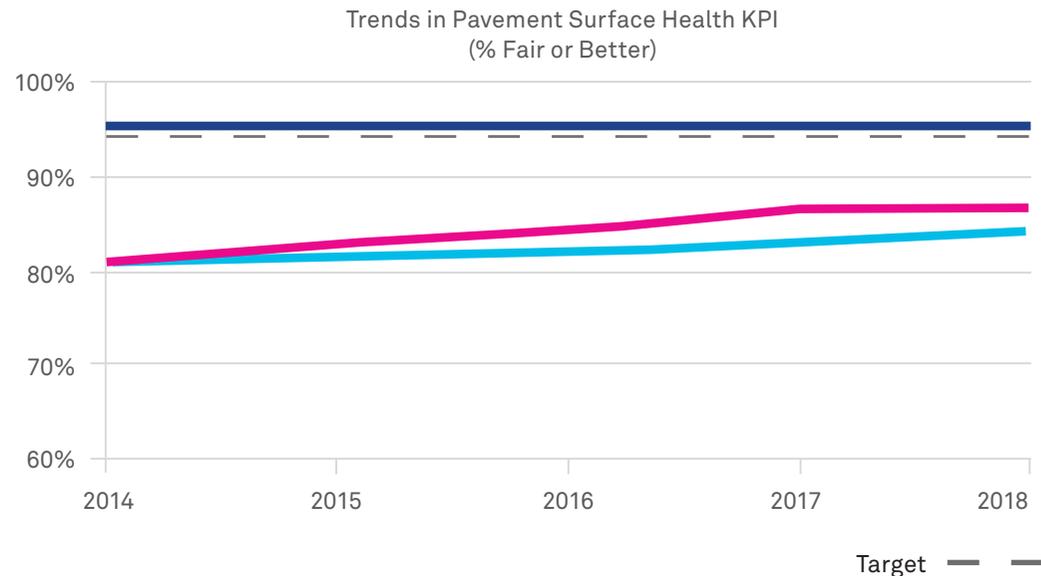
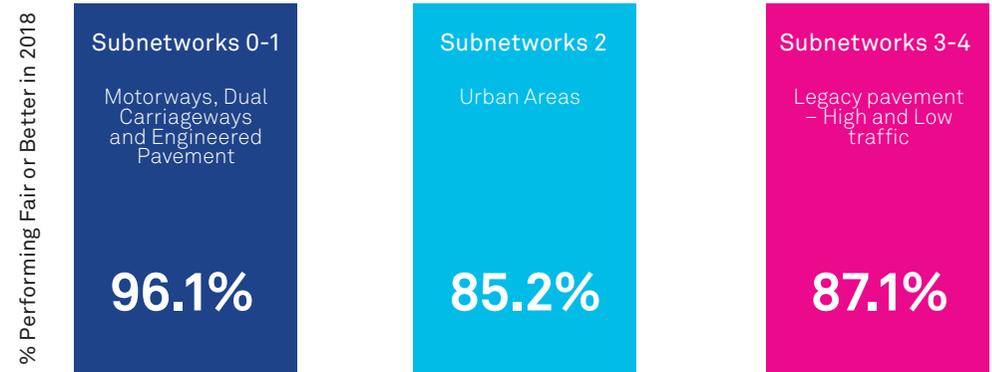
# B1: CURRENT STATUS OF THE ROADS PAVEMENT CONDITION

## Pavement Surface Health

The Engineered pavement subnetworks are consistently above the target level over the five year analysis period. The remainder of the network is at a higher KPI level than the Pavement Structural Health parameter, but the rate of improvement in performance is lower than that seen with Structural Health. An increased investment in the Legacy Subnetworks shows an improved upward trend line.



TII target 95% performing fair or better for all sub-networks



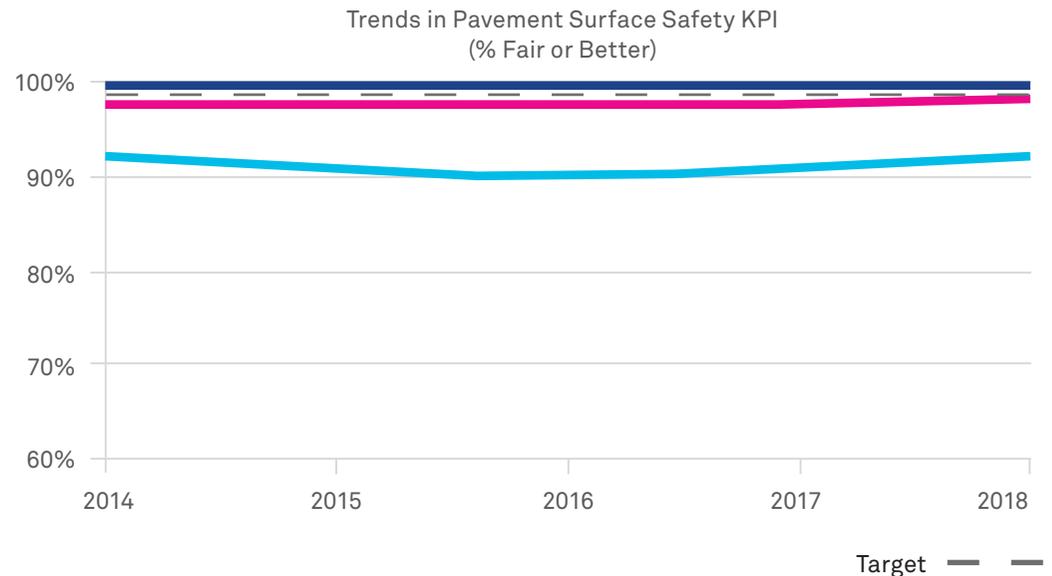
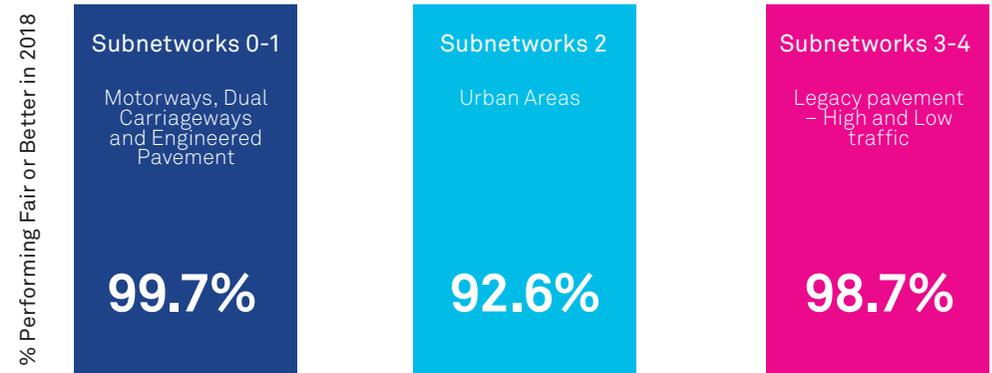
# B2: CURRENT STATUS OF THE ROADS PAVEMENT CONDITION

## Pavement Surface Safety

This KPI is derived from network level Skid Resistance surveys. The target level is set to have 99% of the network in a safe condition based on annual skid resistance measurements. This has been consistently achieved on the Engineered Subnetworks (0 and 1) over the 5 year period as seen by the trend line. The Legacy Subnetworks are below but close to the target line, the trend line is generally flat but has improved in 2018. The Urban subnetwork is considerably below the remainder of the network. There has been an increased emphasis on treatment within urban areas in the past 2 years, and this has produced an improvement in the KPI level.



TII target 99% performing fair or better for all sub-networks



Source: TII Pavement Condition Report

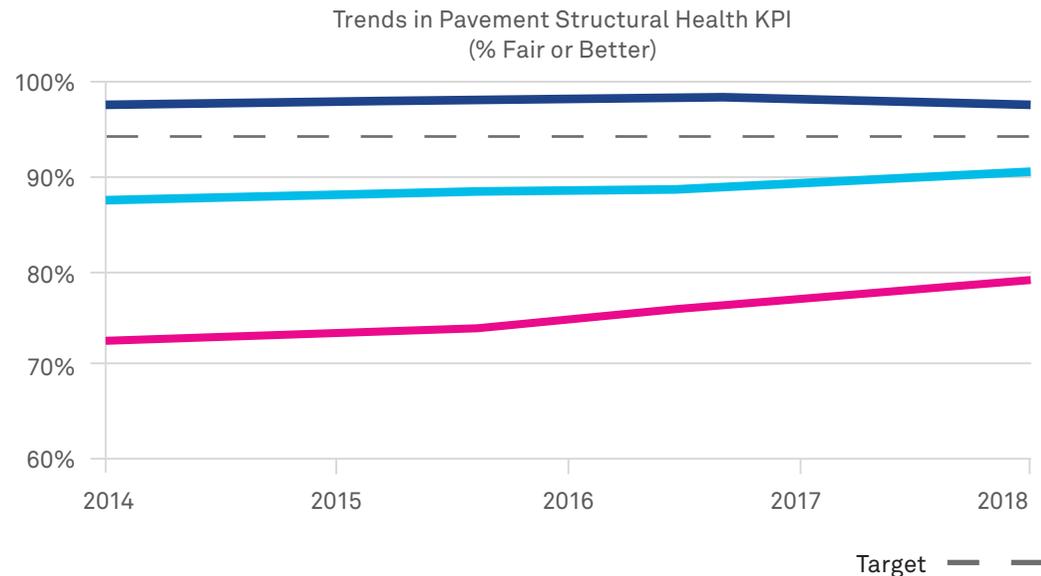
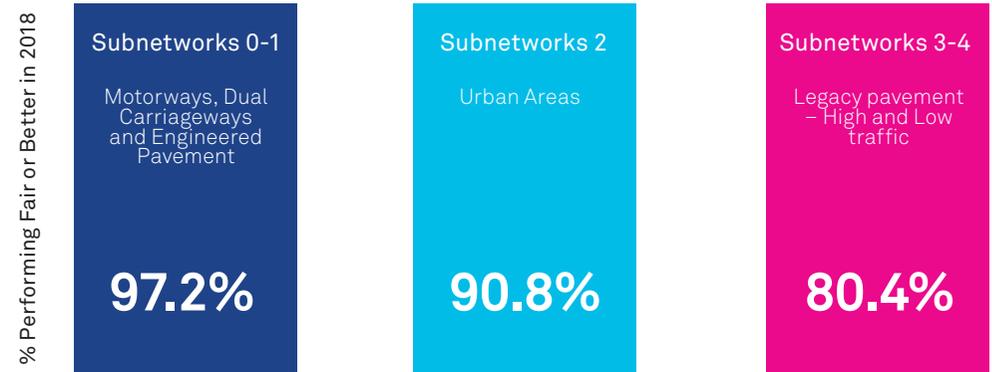
# B3: CURRENT STATUS OF THE ROADS PAVEMENT CONDITION

## Pavement Structural Health

There is a very clear difference between Subnets 0 and 1 (Engineered Pavements) and the remainder of the network. Subnet 0-1 is consistently above the target of 95% in Fair or Better condition, reflecting the relatively new age profile of the majority of the road sections in this category. The Urban subnetwork (Subnet 2) is in significantly better condition than the Legacy Subnetworks (subnets 3 and 4). The 5 year trend lines show an overall upward trend, reflecting a concentration on improving the worst-performing sections over the five year period.



TII target 95% performing fair or better for all sub-networks



# C: NATIONAL ROAD BRIDGE STRUCTURES

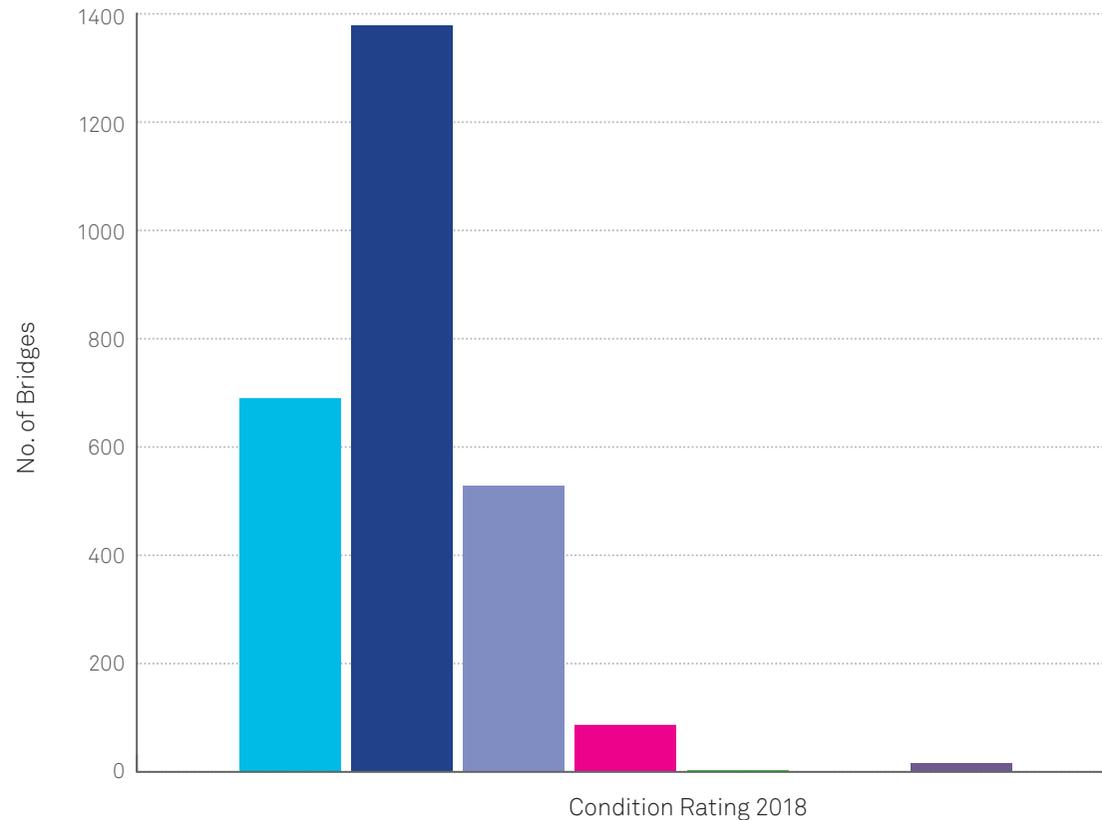
Overview of the quantum and condition of bridge structures on the National Roads network

*Bridges are key elements of the National Roads system and maintenance and rehabilitation of bridges is a key part of the TII's asset management strategy.*

The National Roads network includes approximately 2,700 bridge structures of which 472 are on roads provided by public private partnerships.

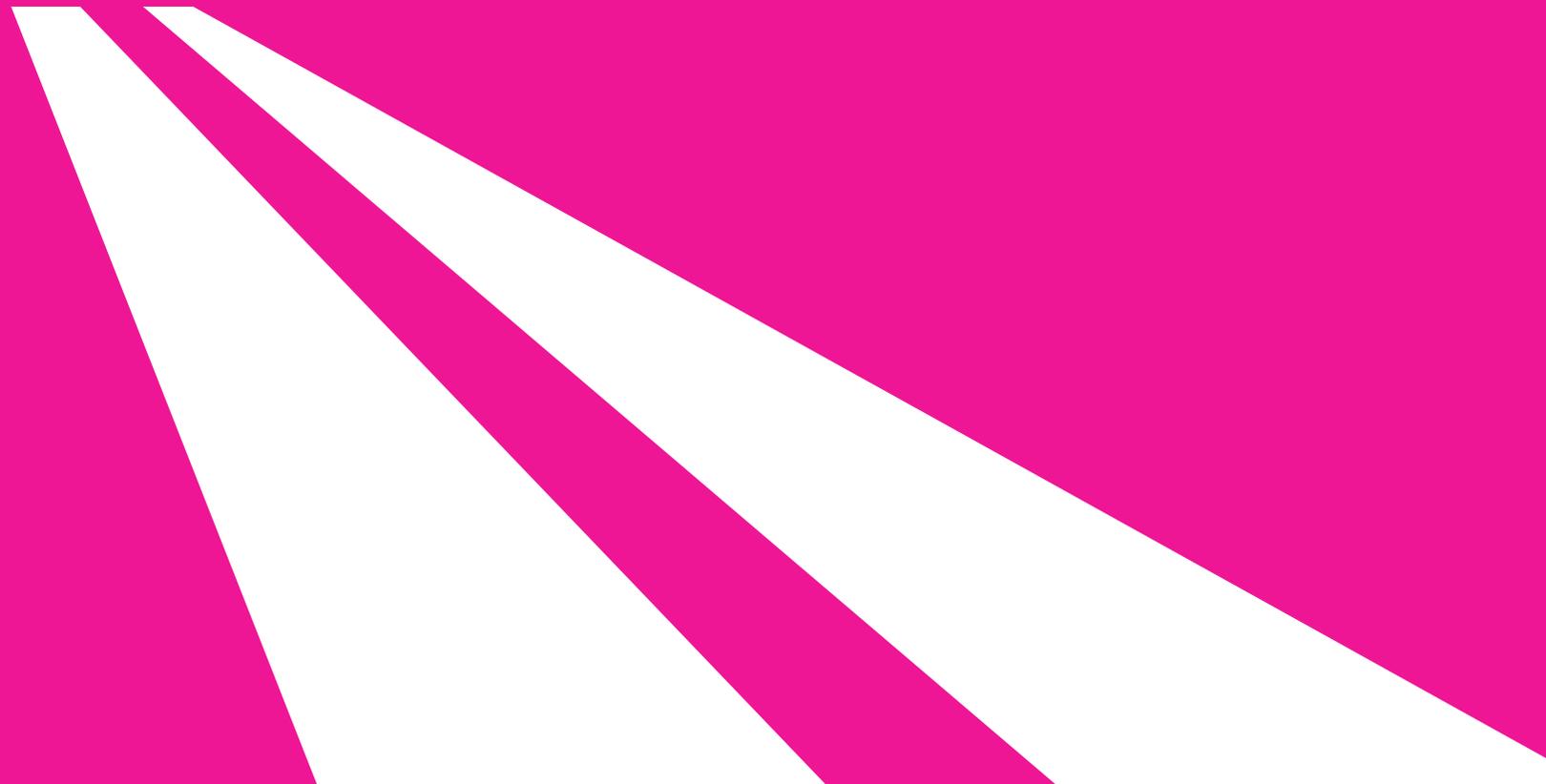
Bridges are inspected on a regular cycle. Bridge components which are allocated a condition rating of 0 or 1 do not require repair work, whereas those assigned a rating of 2 or higher are scheduled for future repair.

The amount of bridges in the CR0 and CR1 categories has remained constant since 2017



- CR 0: No or insignificant change.
- CR 1: Minor Damage but no need of repair.
- CR 2: Some Damage, repair needed when convenient.
- CR 3: Significant Damage, repair within next financial year.
- CR 4: Damage is critical, repair at once.
- CR 5: Ultimate Damage. The component has failed or is in danger of total failure.
- N/A: Data not available due to access restrictions.

# FOUR: SAFETY



# A: FATAL COLLISIONS ON THE NATIONAL ROADS NETWORK:

Key Statistics\* for 2018 are presented. For further details on road safety and national trends please see [www.rsa.ie](http://www.rsa.ie)

Fatal Collisions



Fatalities



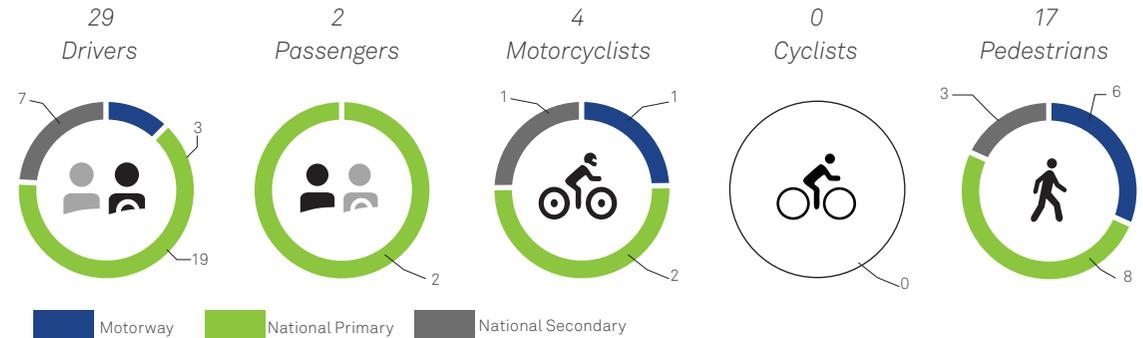
Head-On Fatalities - 13



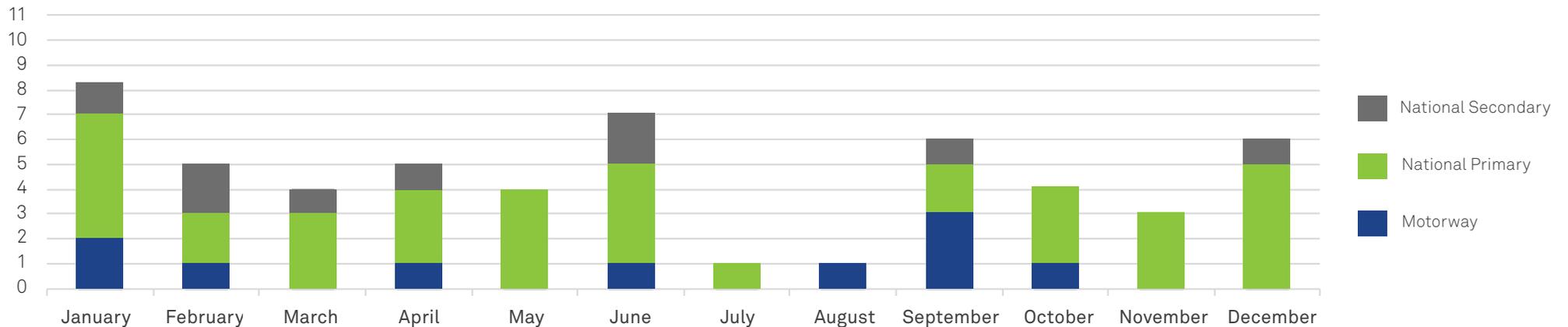
Non Motorised User Fatalities - 17



All Other Reported Fatalities - 22



2018 National Roads fatalities by month

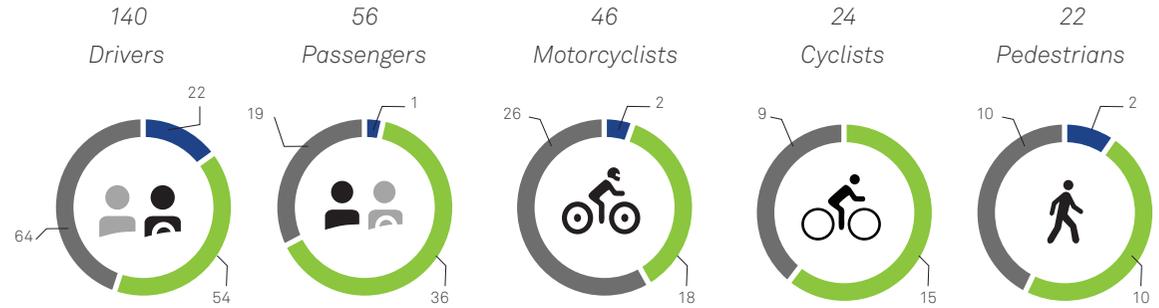


\*Pedestrians on Motorways include individuals who have left their vehicle. All figures shown are provisional and subject to revisions.

# B: SERIOUS INJURIES ARISING FROM COLLISIONS ON THE NATIONAL ROADS NETWORK

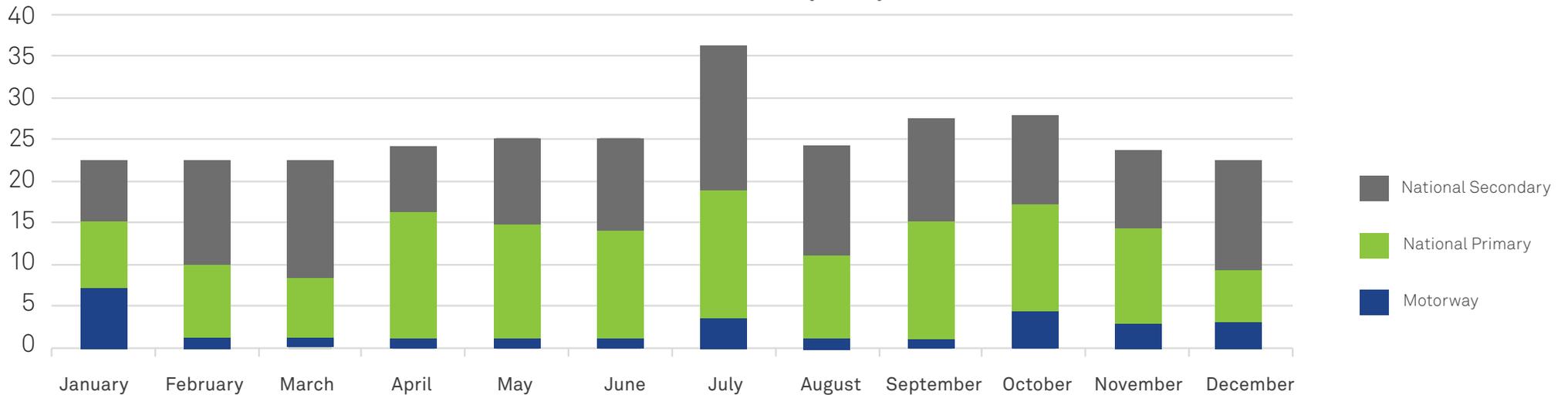
Key Statistics\* for 2018 are presented. For further details on road safety and national trends please see [www.rsa.ie](http://www.rsa.ie)

Serious Injuries



Motorway National Primary National Secondary

2018 National Roads serious injuries by month



\*The RSA have noted in their recent reports the increase in reported serious injuries and have said the increase "is attributable in part to enhanced reporting and validation system" and they say that "it will take around five years' before any appreciable trends in the data can be confirmed. As a result this should be considered as a break in the time series for the data on the number of injuries and injury collisions". The RSA and An Garda Síochána continue to use the historic definition of serious injuries: An injury for which the person is detained in hospital as an 'in-patient' or any of the following injuries whether or not detained in hospital: fractures, concussion, internal injuries, crushing, severe cuts and lacerations, severe general shock requiring medical treatment.

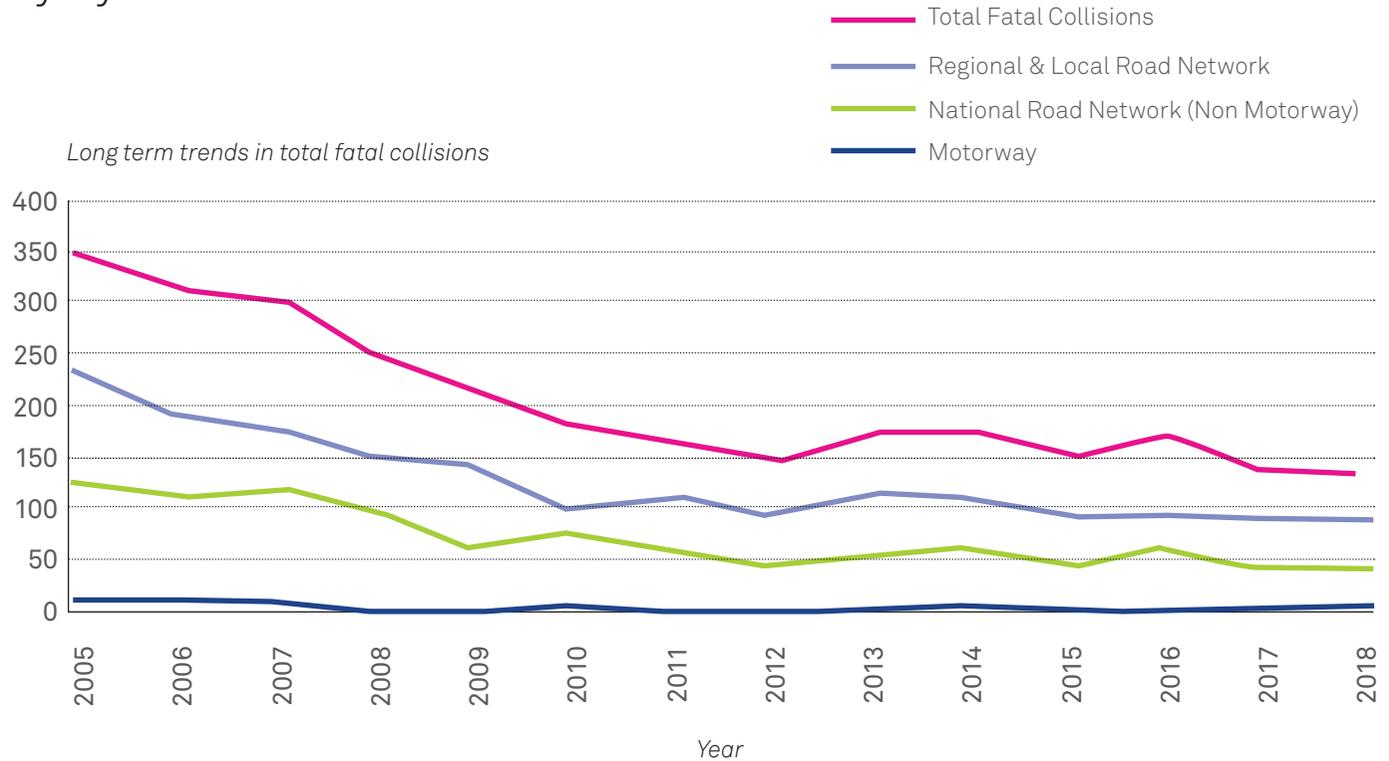
# C: TRENDS ON NATIONAL ROADS NETWORK

Trends in fatal collisions nationally by road type and collision type\*

Total fatal collisions on National Roads:



Long term trends in total fatal collisions

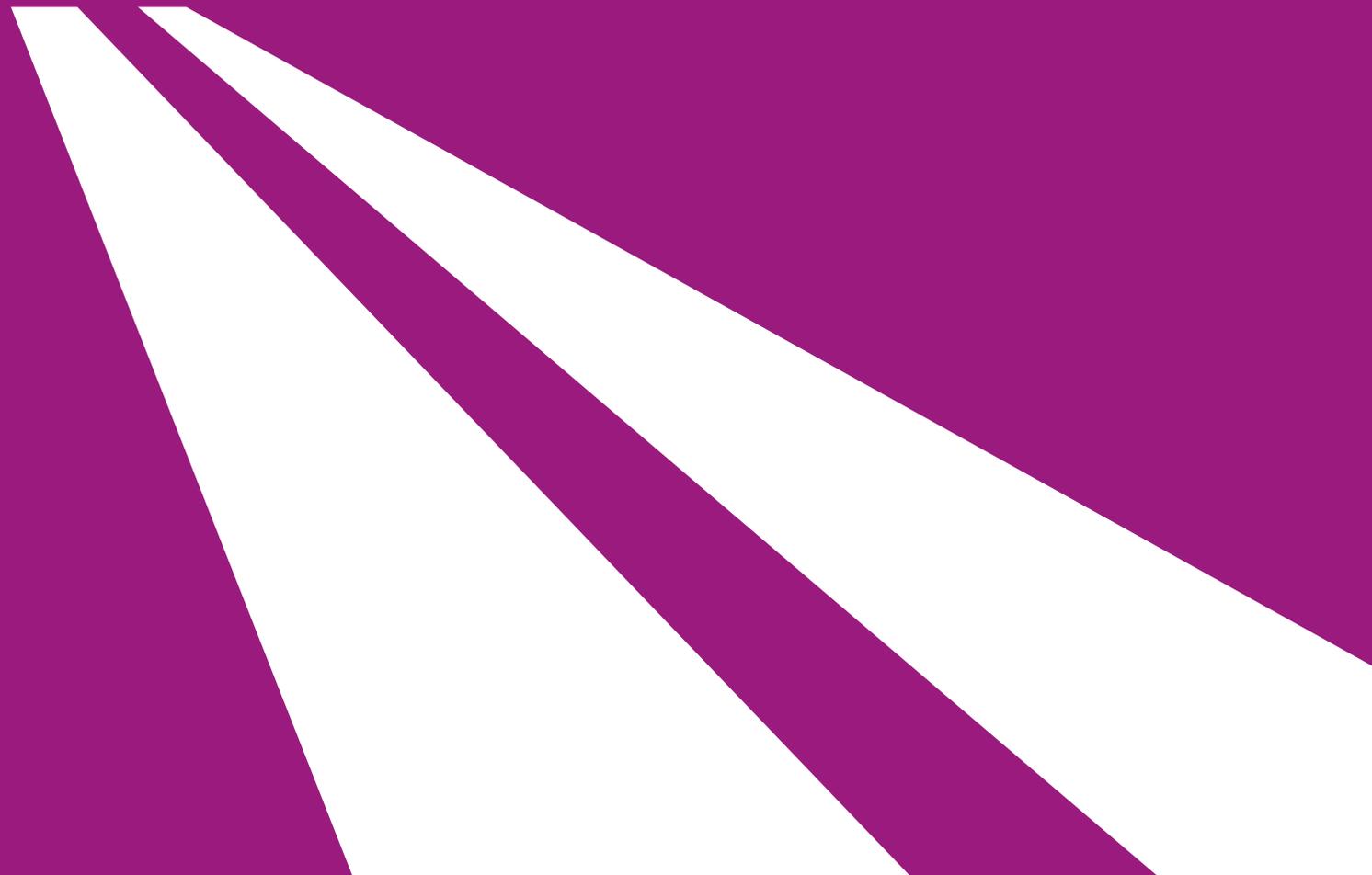


Recent trends in total fatalities\* on National Roads:



\* Fatal collisions 2015-2018: AGS data (not verified by RSA)

# FIVE: ACCESSIBILITY + ENVIRONMENT

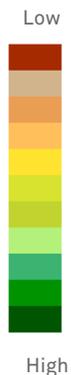


# A1: IMPACT OF ROAD INVESTMENT ON EMPLOYMENT ACCESSIBILITY

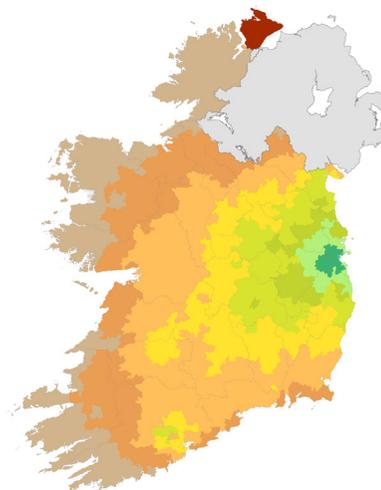
## Key milestones in the development of the National Roads network

*Building on the methodology put forward within the TII Transport Research and Information Note: Impact of Improvements in the Road Network on the Accessibility & Economic Potential of Counties, Urban Areas, Gateways & Hubs, 2012; TII has plotted accessibility to jobs for a number of key milestones in the development of the National Roads Network.*

Employment Accessibility Score by NTM Zone

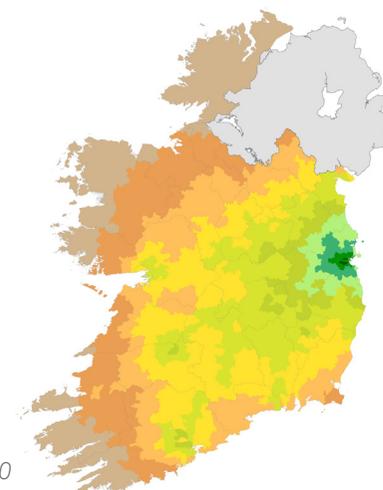


2006



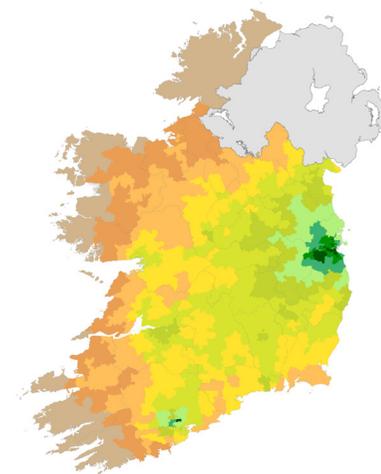
In 2006, prior to the completion of the Major Inter Urban (MIU) corridors linking the capital to the other cities; accessibility to jobs within peripheral regions was weak.

2010



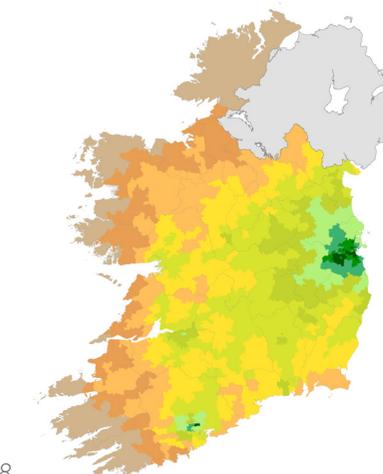
By 2010 the development of the MIUs delivered significant improvements in terms of accessibility to jobs in some of the more peripheral areas.

2016



Since 2016, there are only subtle changes in accessibility, related to the reduced capital spend on National Roads infrastructure during that time.

2018



The addition of the M17/M18 has enhanced accessibility in the West of Ireland since its opening in 2017 but there has been no other major schemes completed in 2017 or 2018

# A2: IMPACT OF ROAD INVESTMENT ON EMPLOYMENT ACCESSIBILITY

## 2016 versus 2018

*A significant proportion of the road capital spend from 2016 to 2018 was within the west of the country and this has resulted in improved employment accessibility for these areas.*

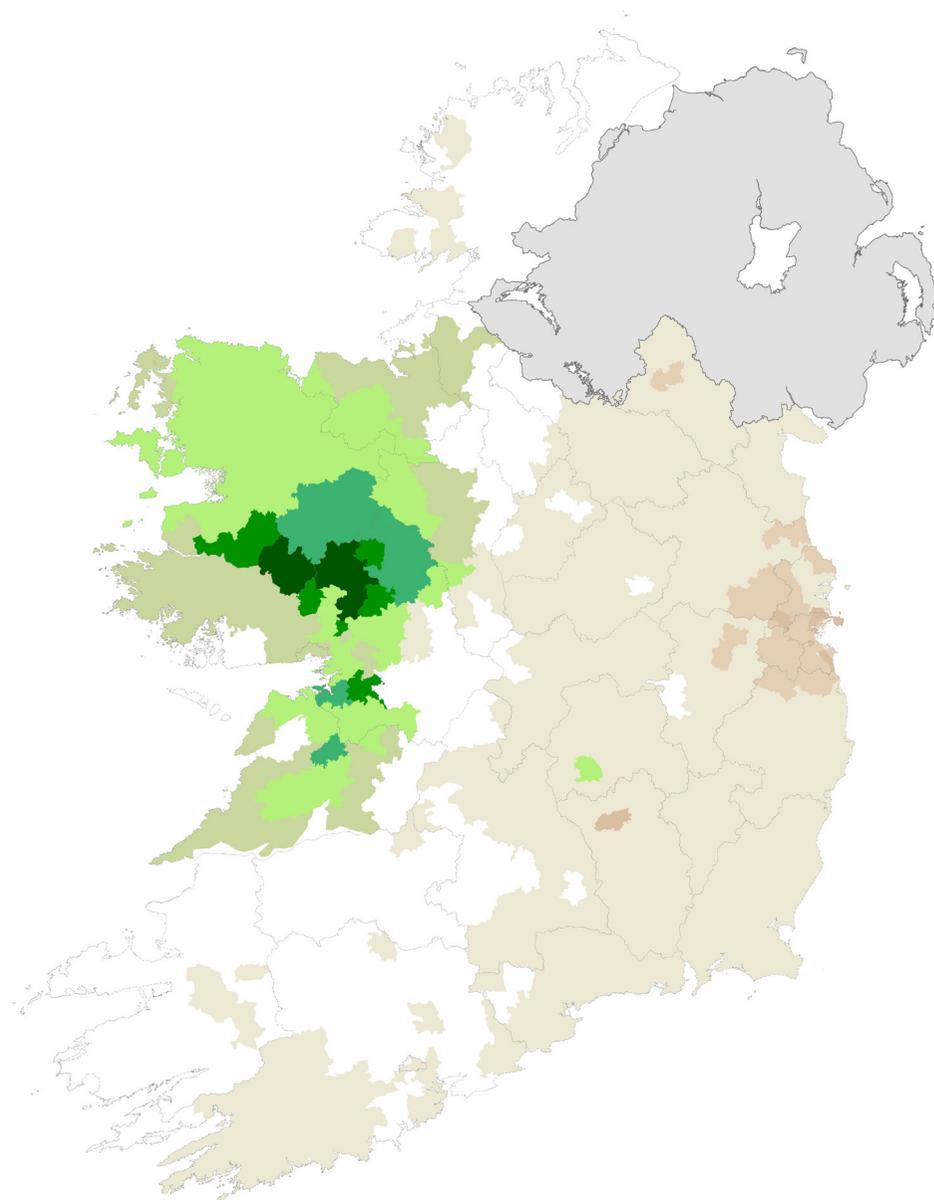
Difference in Accessibility:



The image compares accessibility to jobs between 2016 and 2018 (relative percentage change), and effectively presents two stories:

- 1) An improvement in accessibility to jobs in the West related to the recent completion of the M17/M18.” investments.
- 2) Ongoing traffic growth in the east, particularly on the routes into Dublin has contributed to increased journey times and in turn slight reductions in accessibility to jobs in the Greater Dublin Area.

Despite the above, peripheral areas in North-West, West and South-west and South-East still tend to suffer from poor accessibility to jobs as shown on Accessibility + Environment - A1.



\*Assessment based on the change in accessibility to employment only as a result of the network investment. Employment levels have been held constant at 2016 levels as part of the assessment.



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