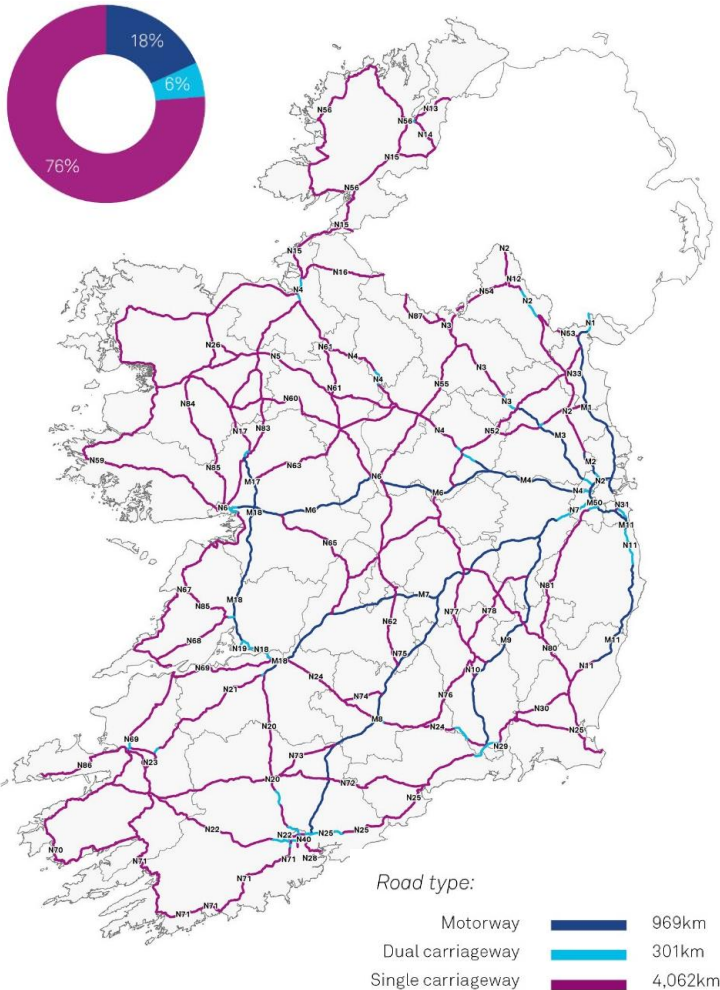


TII Road Performance Indicators

National Roads Network Indicators Report

Eoin Gillard
Head of Strategic & Transport Planning,
Transport Infrastructure Ireland

The National Roads Network Overview



National Roads = 5,300km Motorway, Dual & Single Carriageway

- Represents ~ 6% of total road network in Ireland
- Caters for ~45% of all traffic in Ireland (vkm)
- Motorways cater for ~ 17% of all traffic in Ireland (~44% of National Roads Traffic)
- M50 ~40km long caters for ~20% of all motorway traffic
- National Secondary Roads represent 46% of National Roads Network catering for ~20% of National Roads traffic

What are the National Roads Network Indicators?

A set of performance indicators which are updated annually including:

- Traffic Volumes
- Traffic Conditions
- Traffic Growth
- Pavement Condition
- Bridge Condition
- Safety

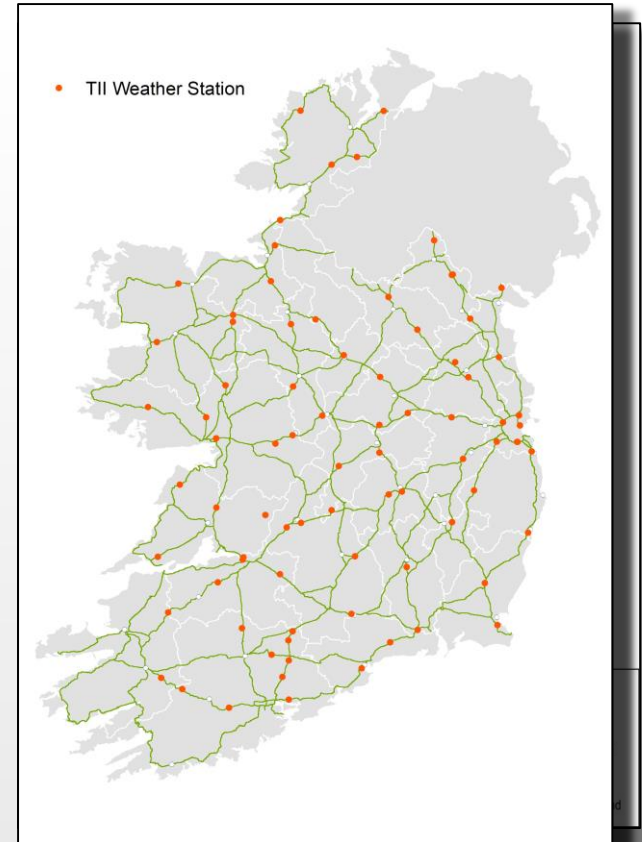


<https://www.tii.ie/tii-library/strategic-planning/>

What data informs the Network Indicators?

Uses Primary data sources within TII control

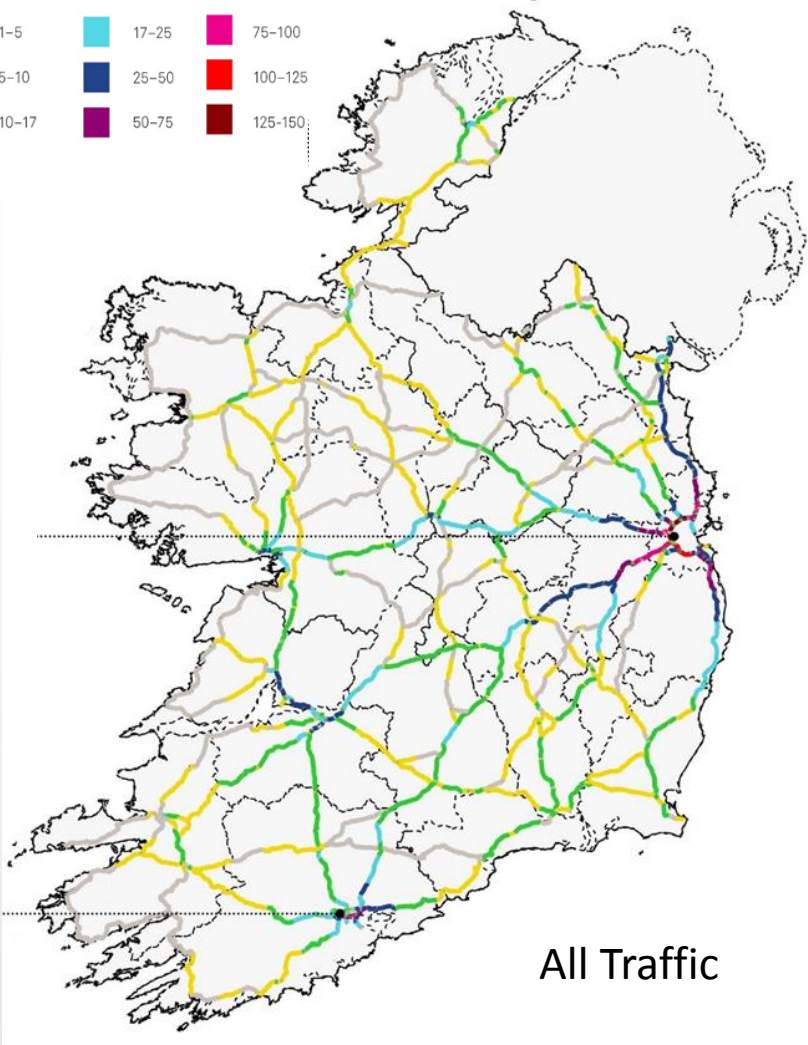
- National Transport Model
- Traffic Monitoring Units
- Weather Stations
- MMapRC incident database
- Safety (RSA / AGS / TII)
- Pavement Asset Management System
- Eirspan Bridge Management System



Early versions used 3rd party data which was not produced annually and / or was not available in a timely fashion

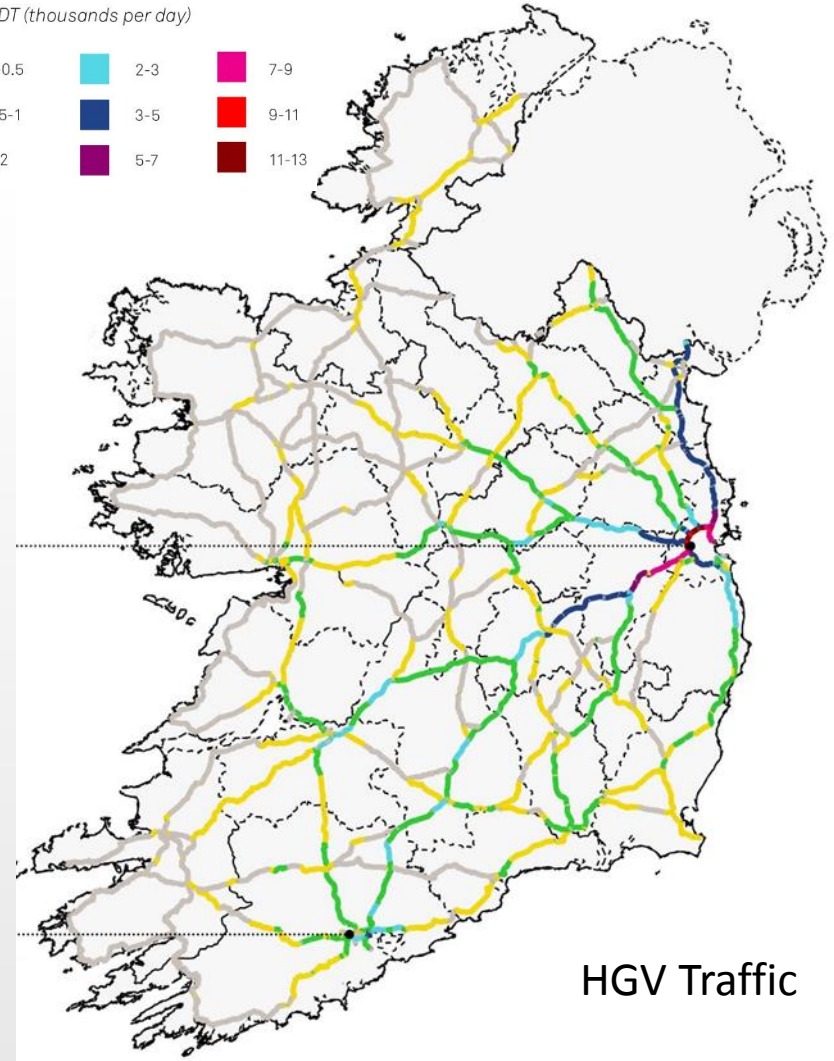
Annual Average Daily Traffic

AADT (thousands per day)



All Traffic

HGV AADT (thousands per day)



HGV Traffic

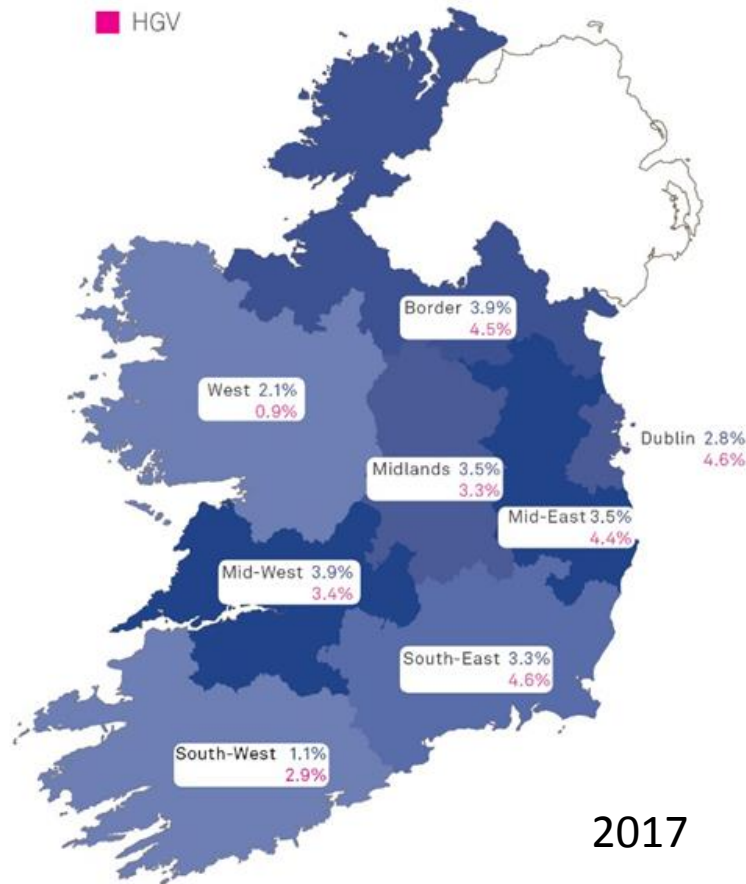
- Detailed AADT Estimates can be requested from the National Transport Model
- AADT for over 370 sites available from www.nratrafficdata.ie

Traffic Growth

Growth by Region

■ All Vehicles

■ HGV

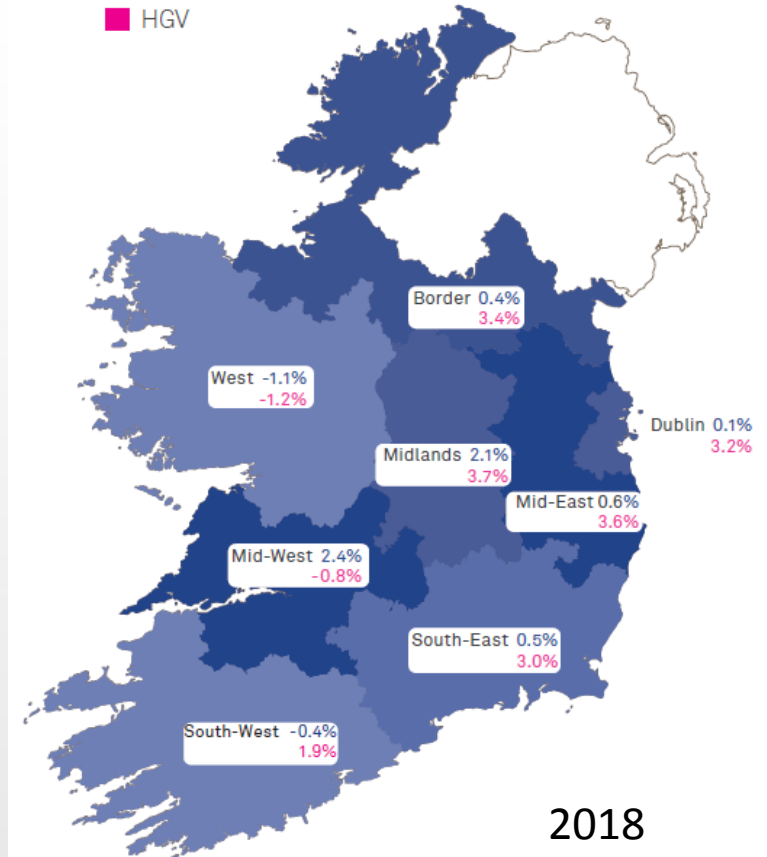


2017

Growth by Region

■ All Vehicles

■ HGV



2018

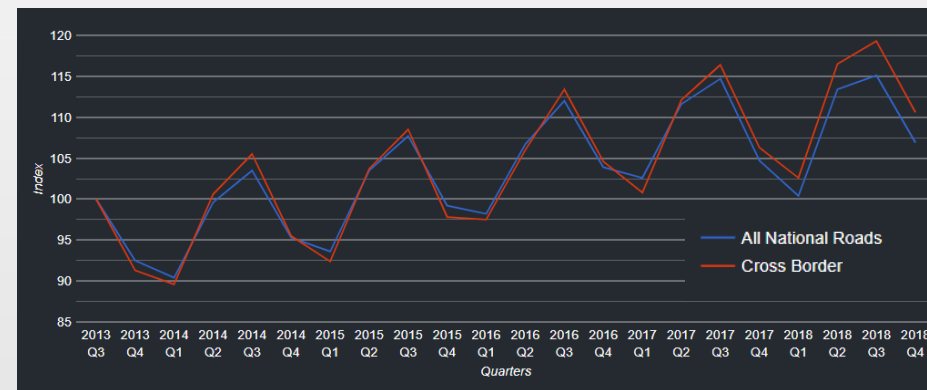
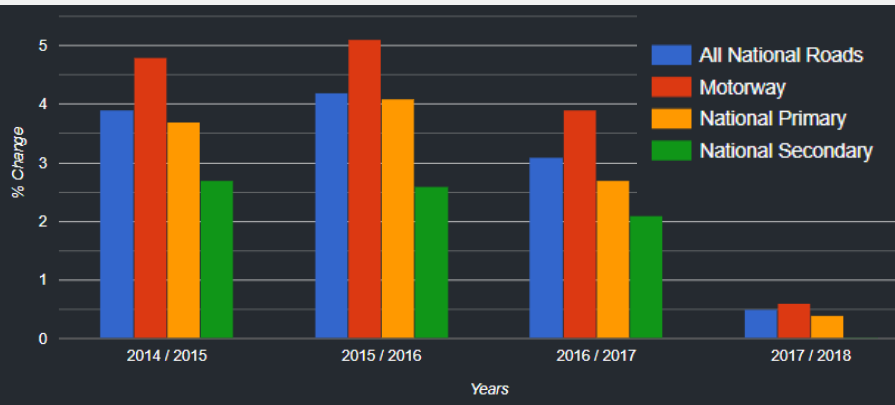
Traffic Growth

Detailed analysis available on new TII Traffic Index website

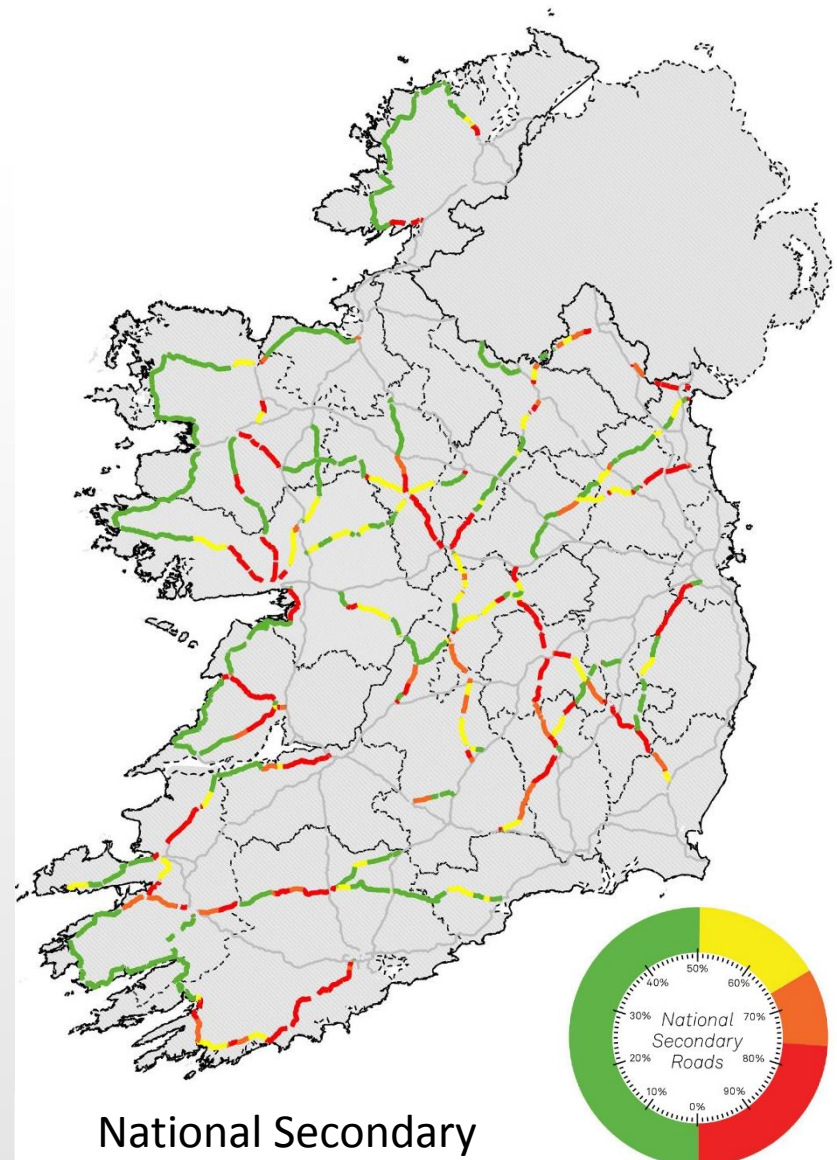
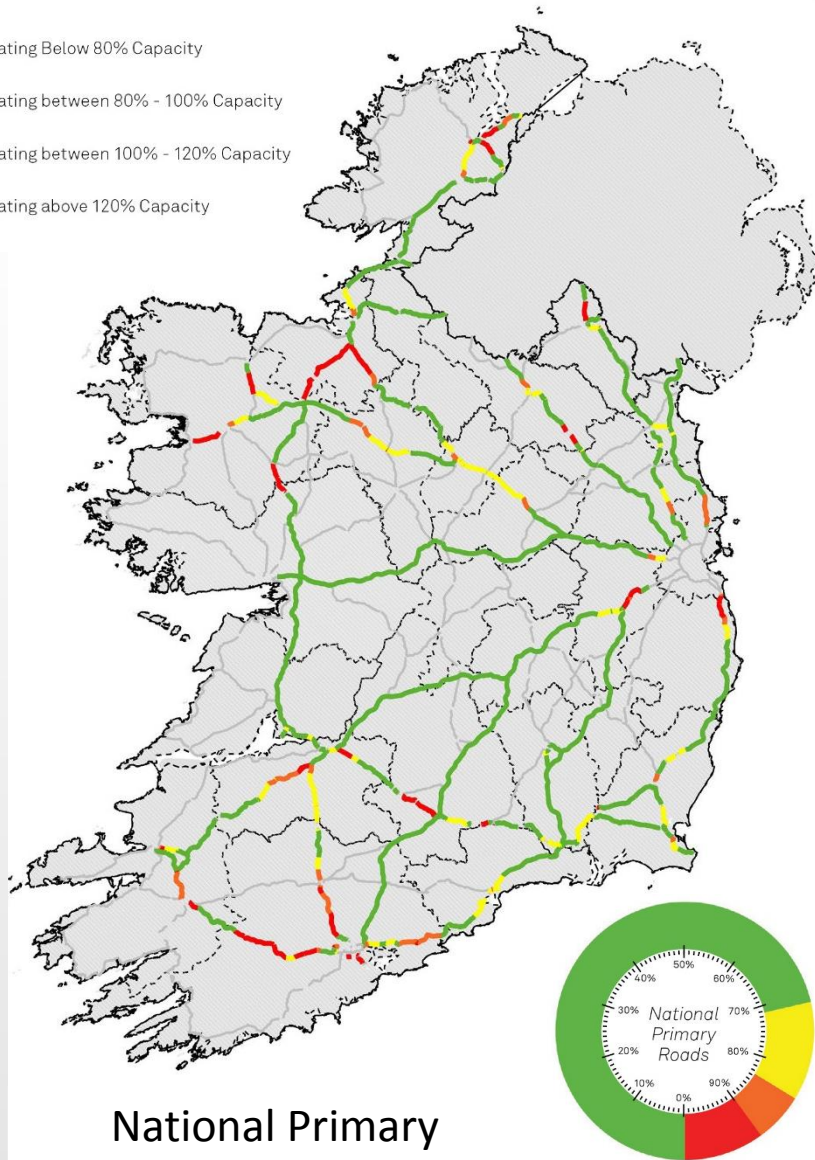
<https://data.tii.ie/indices/index.html>

- Tracking growth since Q3 2013
- Index for road type, region and other road categories
- Updated quarterly

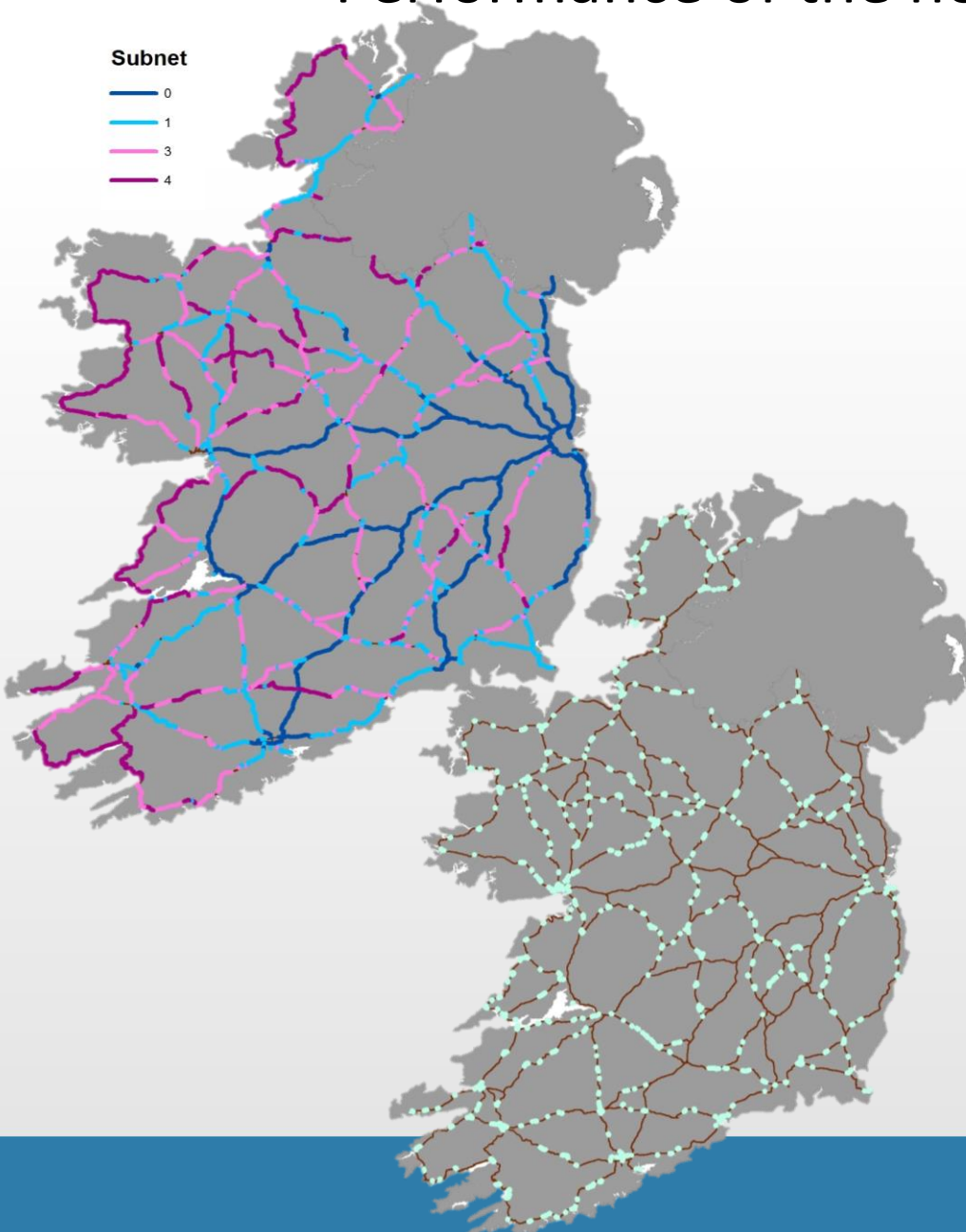
The screenshot shows the 'Traffic Indices' page on the Transport Infrastructure Ireland (TII) website. It includes a header with the TII logo and navigation links for 'HOME' and 'ABOUT'. Below the header, there is a descriptive paragraph about the index. A section for filtering data includes dropdown menus for 'From' (set to 2013 Q3), 'To' (set to 2018 Q4), 'Breakdown' (set to All National Roads), and 'Vehicles' (set to All Vehicles). A 'Display' dropdown is set to 'Quarterly Indices'. A 'Submit' button is located at the bottom of the filter section.



Performance of the network – Volume / Capacity



Performance of the network - Pavement



New pavement indicators developed in 2018

Roads Classified in 5 subnetworks:

- 0 – Motorway
- 1 – Other Engineered Pavement
- 2 – Urban Areas
- 3 – Legacy Pavements: High Traffic
- 4 – Legacy Pavements: Low Traffic

3 Primary Performance Indicators

- Pavement Surface Health
- Pavement Surface Safety
- Pavement Structural Health

Performance of the network - Pavement



Subnet 0: Motorway/Dual Carriageways



Subnet 1: Other Engineered Pavements



Subnet 2: Urban Areas

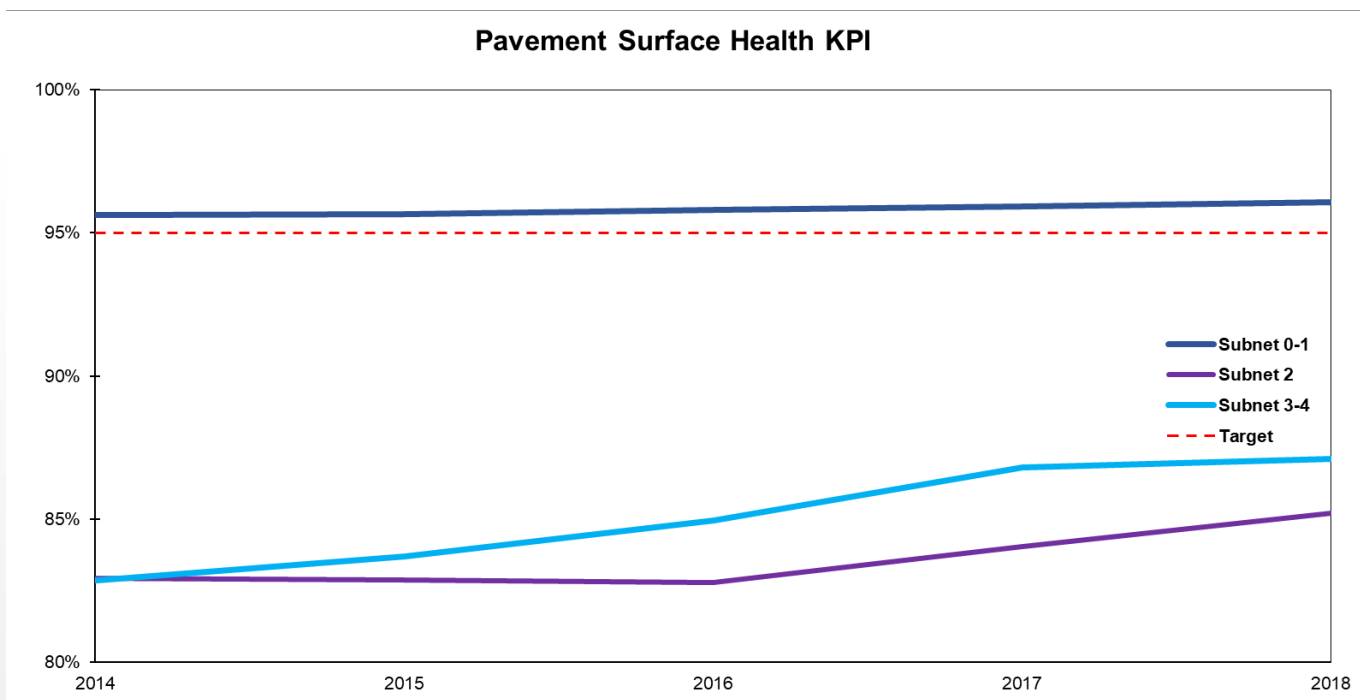


Subnet 3: Legacy Pavements: High Traffic



Subnet 4: Legacy Pavements: Low Traffic

Performance of the network – Pavement Surface Health



Motorway / Engineered

Subnetwork 0-1



Urban

Subnetwork 2



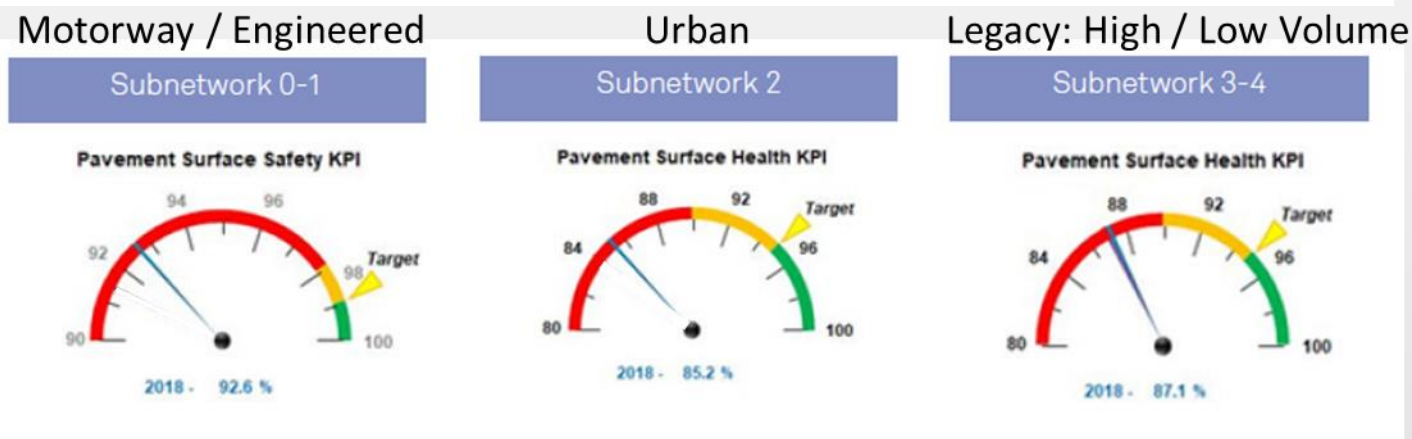
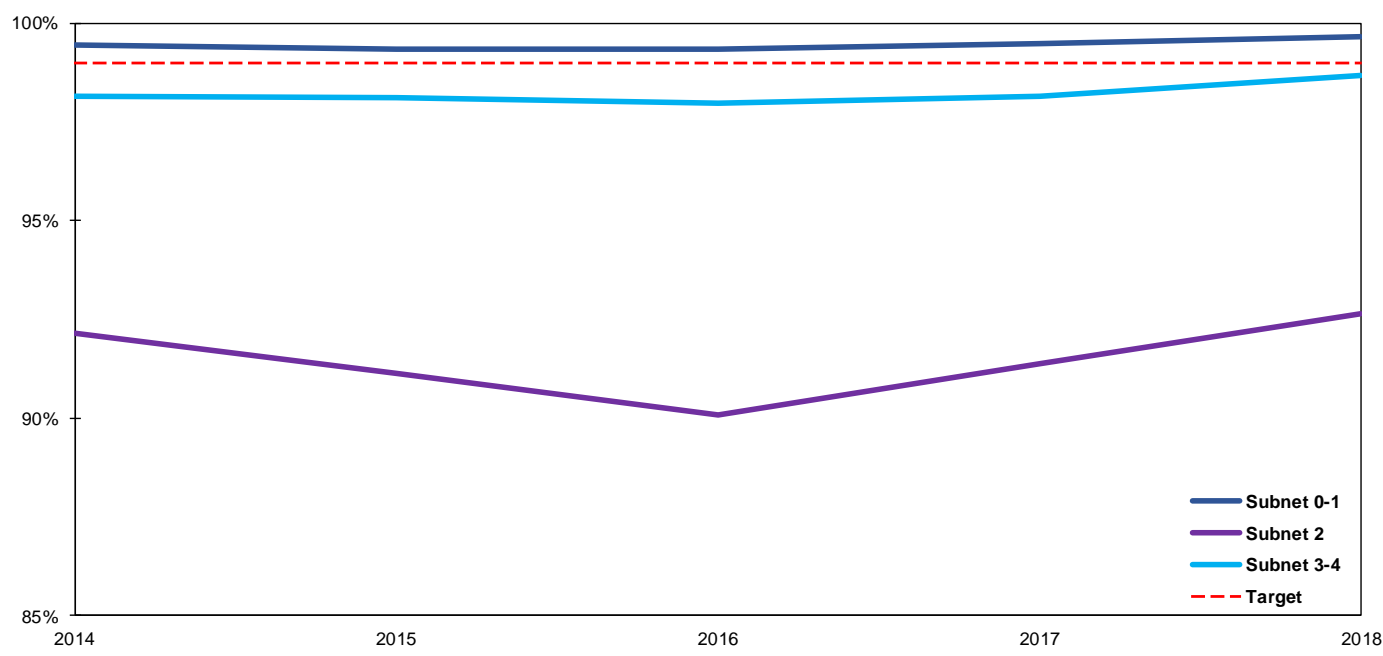
Legacy: High / Low Volume

Subnetwork 3-4

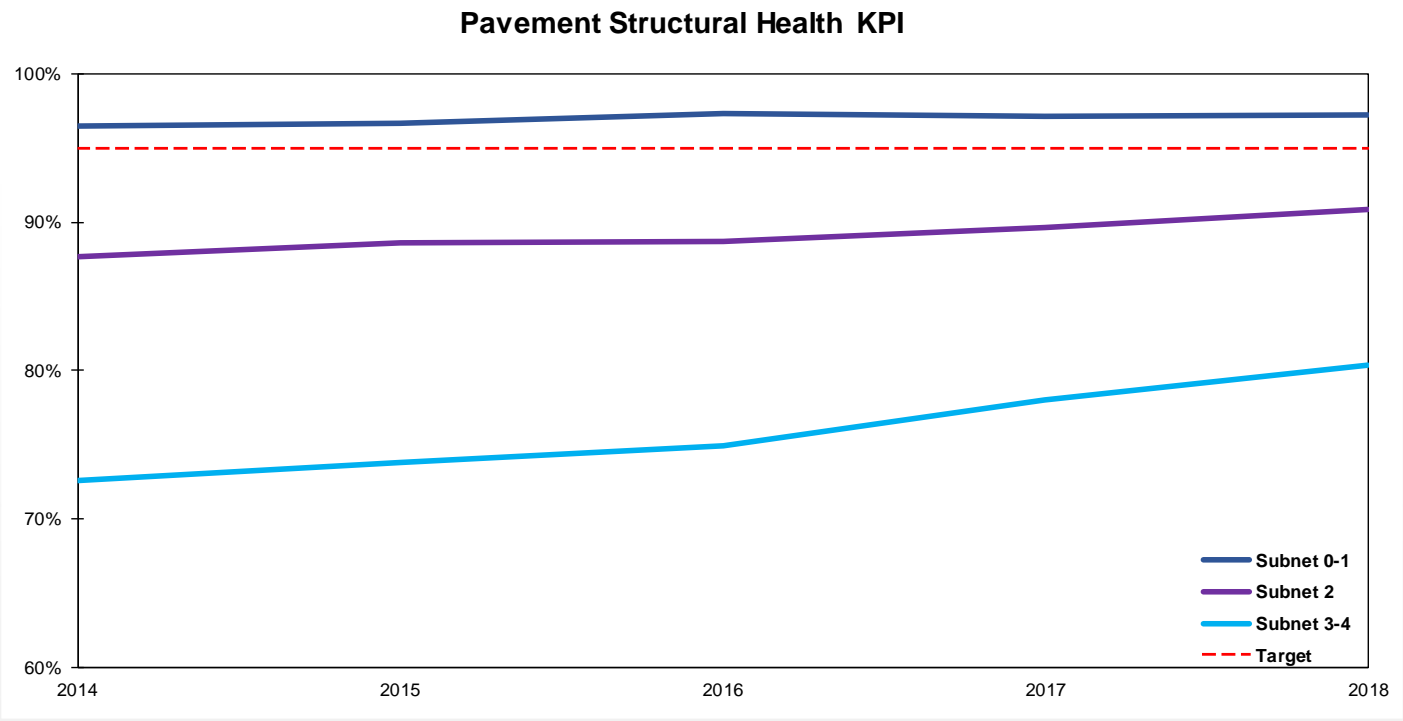


Performance of the network – Pavement Surface Safety

Pavement Surface Safety KPI



Performance of the network–Pavement Structural Health



Motorway / Engineered

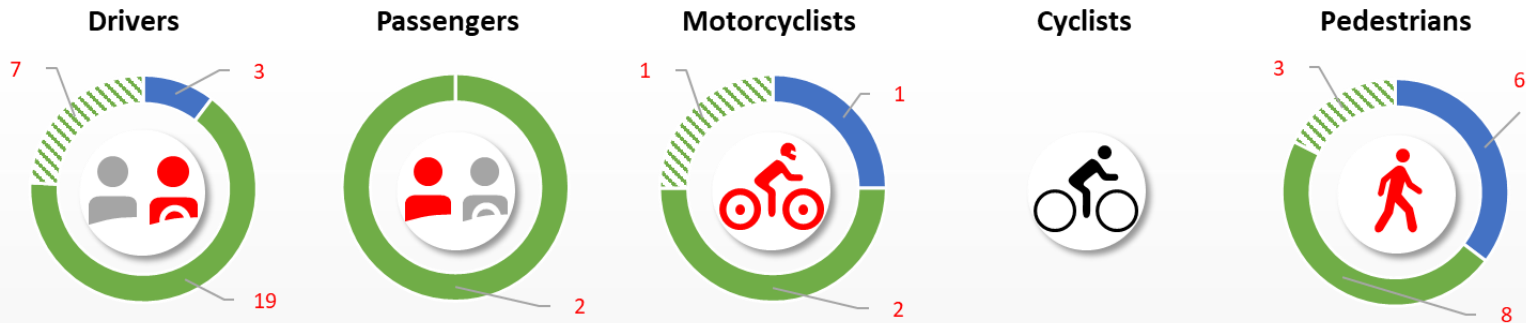
Urban

Legacy: High / Low Volume



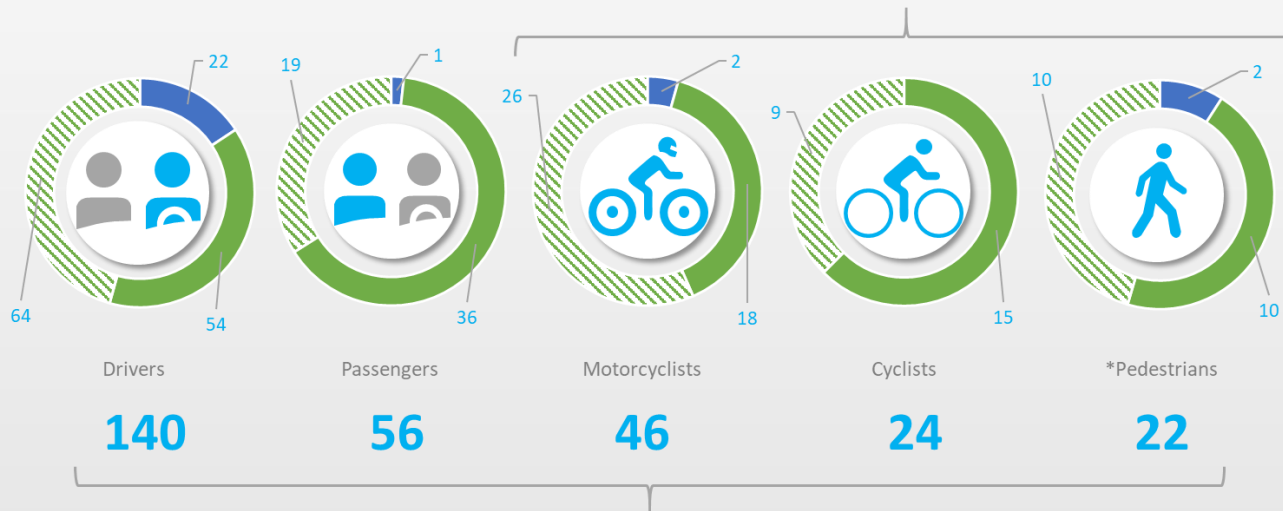
Performance of network - Safety

2018; 52 Fatalities



92

Vulnerable road users serious injuries



Total of 288 serious injuries

Motorway National Primary National Secondary

* Pedestrian on Motorways include individuals who have left their vehicles

High Volume Routes – M50



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



178,770

Highest Daily Flow Recorded between the N3-N4



13,345

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



1,164

Total No. of Incidents of which **541** were Traffic Collisions



1.5 billion

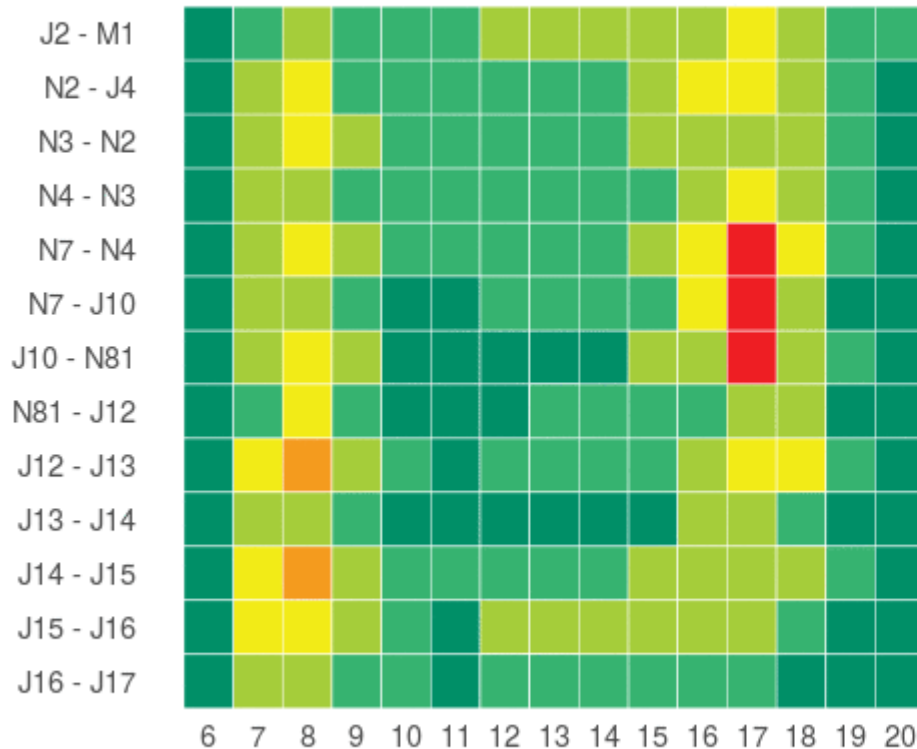
Vehicle km travelled

High Volume Routes – M50

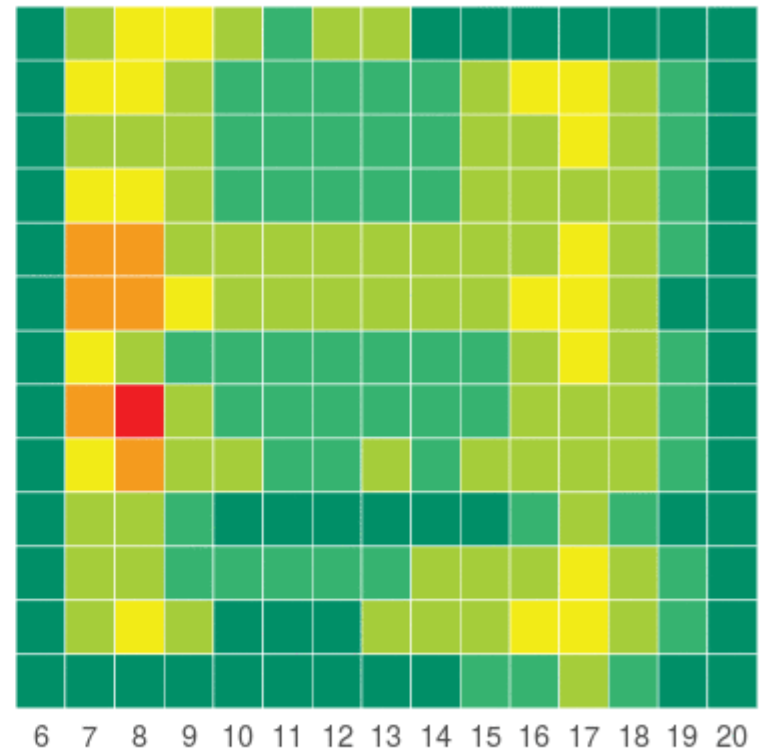
M50 Level of Service
Typical working day in 2014



Northbound

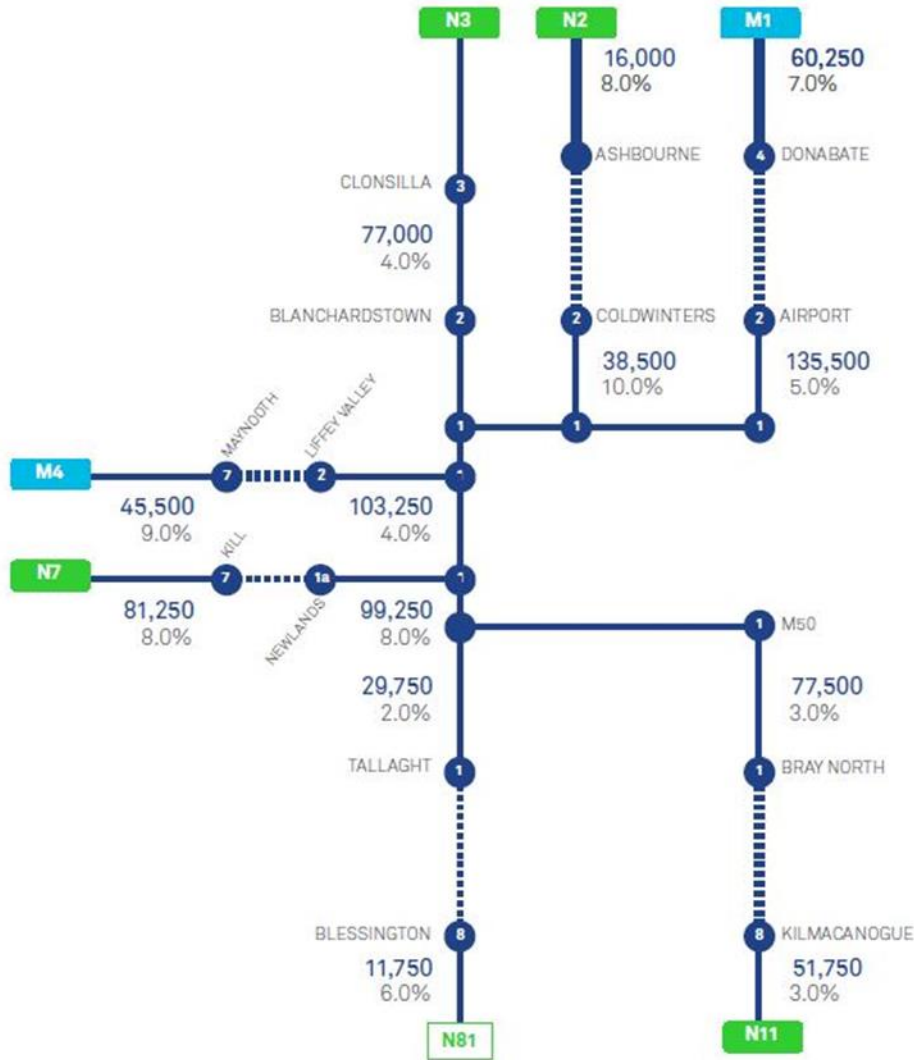


Southbound

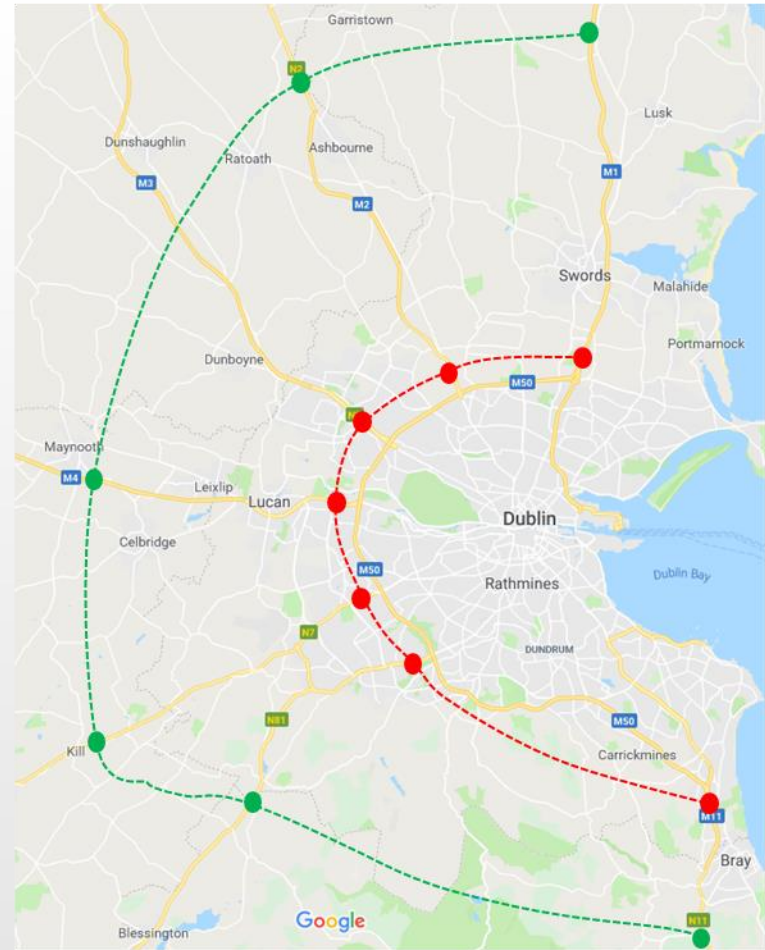


■ Free flow
 ■ Reasonably free flow
 ■ Stable flow
 ■ Approaching unstable flow
 ■ Unstable flow
 ■ Breakdown

High Volume Routes – Dublin Radials



Highest Recorded Daily Flow – 159,916
(M1 on 15th June 2018)



High Volume Routes – N40



103,812

Highest Daily Flow Recorded
on the Kinsale Rd - Douglas
section on 20th December



8,889

Highest hourly flow recorded
on the Kinsale Rd - Douglas
section between 08:00 and
09:00 on 7th March



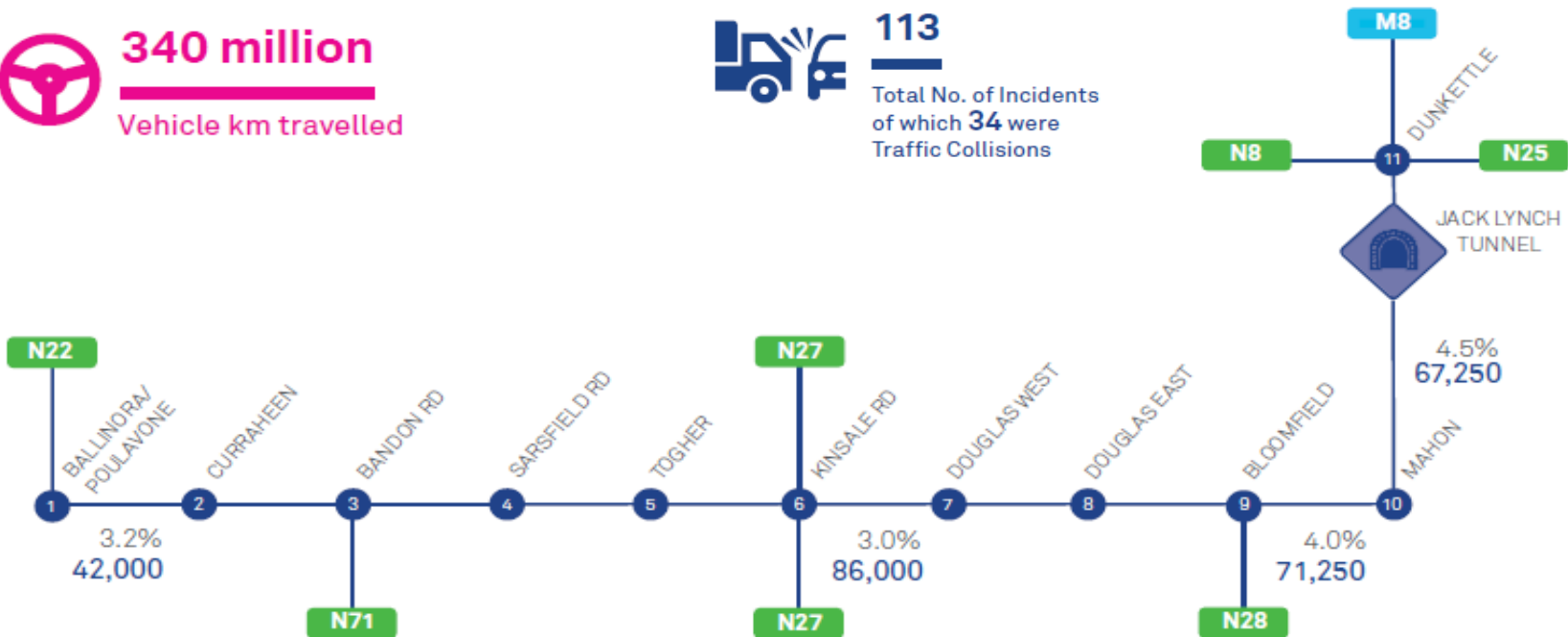
340 million

Vehicle km travelled

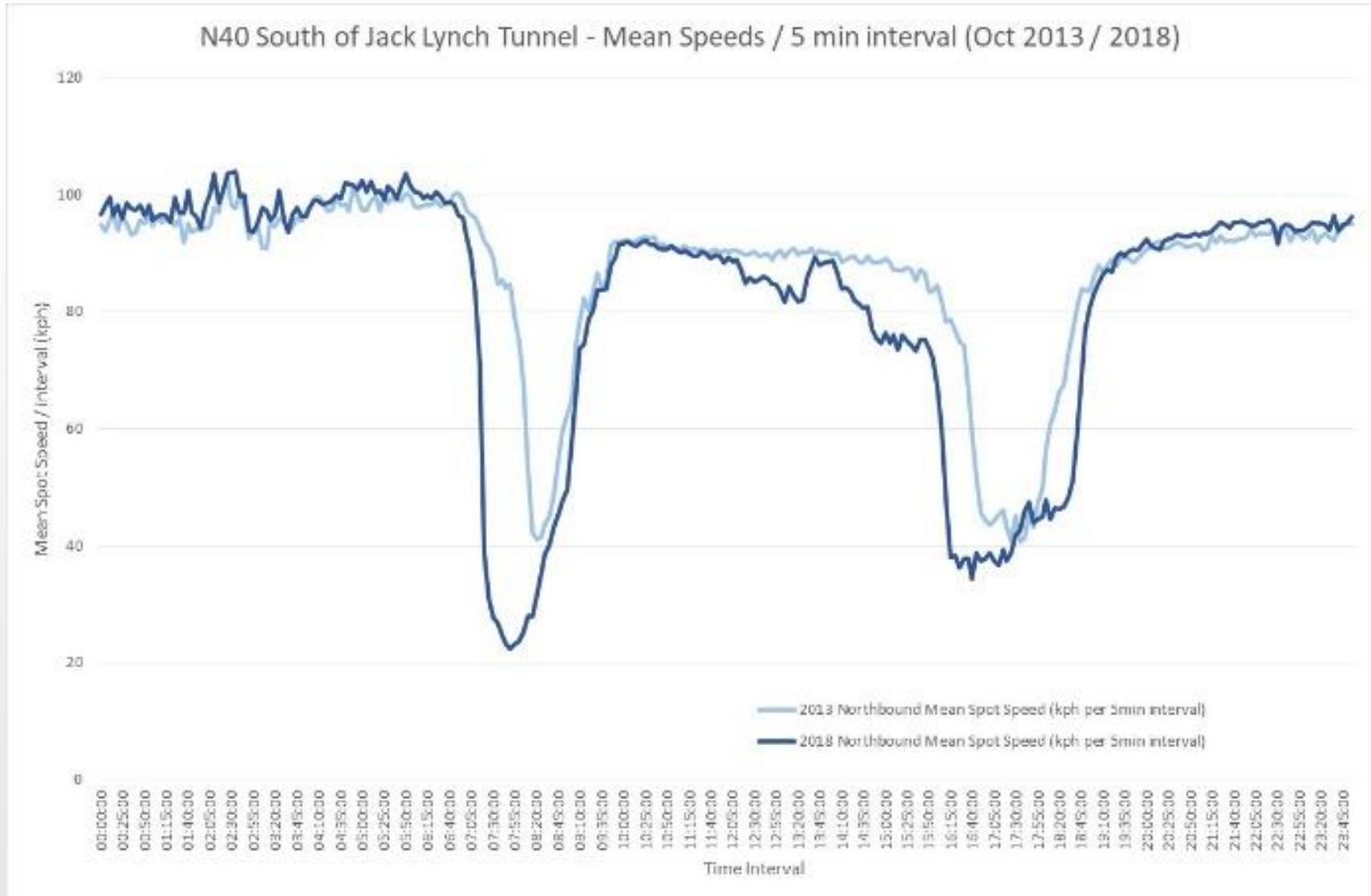


113

Total No. of Incidents
of which **34** were
Traffic Collisions



High Volume Routes – N40



Thank You
Questions?