TII Road Performance Indicators
National Roads Network Indicators Report

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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 стратегический планирование/
What data informs the Network Indicators?

Uses Primary data sources within TII control

- National Transport Model
- Traffic Monitoring Units
- Weather Stations
- MMaRC 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

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

Growth by Region
- All Vehicles
- HGV

2017
- Border: 3.8%, 4.3%
- Mid-West: 3.9%, 3.4%
- South-East: 3.3%, 4.6%
- South-West: 1.1%, 2.9%
- West: 2.1%, 0.9%
- Dublin: 2.8%, 4.6%

2018
- Border: 0.4%, 3.4%
- Mid-West: 2.4%, -0.8%
- South-East: 0.5%, 3.0%
- West: -1.1%, -1.2%
- Dublin: 0.1%, 3.2%

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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
Performance of the network – Volume / Capacity

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

National Primary

National Secondary

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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

Pavement Surface Health KPI

Motorway / Engineered
Subnetwork 0-1

Urban
Subnetwork 2

Legacy: High / Low Volume
Subnetwork 3-4
Performance of the network – Pavement Surface Safety

Motorway / Engineered
Subnetwork 0-1

Urban
Subnetwork 2

Legacy: High / Low Volume
Subnetwork 3-4

Pavement Surface Safety KPI
Pavement Surface Health KPI
Performance of the network—Pavement Structural Health

Motorway / Engineered

Urban

Legacy: High / Low Volume

Pavement Structural Health KPI

Subnet 0-1

Subnet 2

Subnet 3-4

Target

2014 2015 2016 2017 2018

Pavement Structural Health KPI

Subnet 0-1

Subnet 2

Subnet 3-4

Target
Performance of network - Safety

2018; 52 Fatalities

Drivers: 7 (Motorway), 3 (National Primary), 19 (National Secondary)
Passengers: 2 (Motorway), 2 (National Primary), 2 (National Secondary)
Motorcyclists: 1 (Motorway), 1 (National Primary), 2 (National Secondary)
Cyclists: 1 (Motorway), 2 (National Primary), 2 (National Secondary)
Pedestrians: 3 (Motorway), 6 (National Primary), 8 (National Secondary)

Total of 288 serious injuries

Vulnerable road users serious injuries: 92

*Pedestrian on Motorways include individuals who have left their vehicles

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High Volume Routes – 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 – 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

N40 Schematic Layout
2018 Annual Average Daily Traffic (%HGV) on N40

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High Volume Routes – N40

N40 South of Jack Lynch Tunnel - Mean Speeds / 5 min interval (Oct 2013 / 2018)

- 2013 Northbound Mean Spot Speed (kph per 5 min interval)
- 2018 Northbound Mean Spot Speed (kph per 5 min interval)

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Thank You
Questions?