

Infrastructure and Transport: Transportation

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**Regional
Development**
www.drdni.gov.uk

Organisational Context

11 Government Departments

- | | |
|------------------------------------|--|
| 1. Agriculture & Rural Development | 7. Finance & Personnel |
| 2. Culture, Arts & Leisure | 8. Health, Social Services & Public Safety |
| 3. Education | 9. Policing & Justice |
| 4. Employment and Learning | 10. Regional Development |
| 5. Enterprise, Trade & Investment | 11. Social Development |
| 6. Environment | 12. Office of the First Minister & deputy First Minister |

BUT - no single department for Transport

Organisational Context

DRD:

- Roads
- Public Transport

DOE:

- Licensing
- Testing
- Road Safety

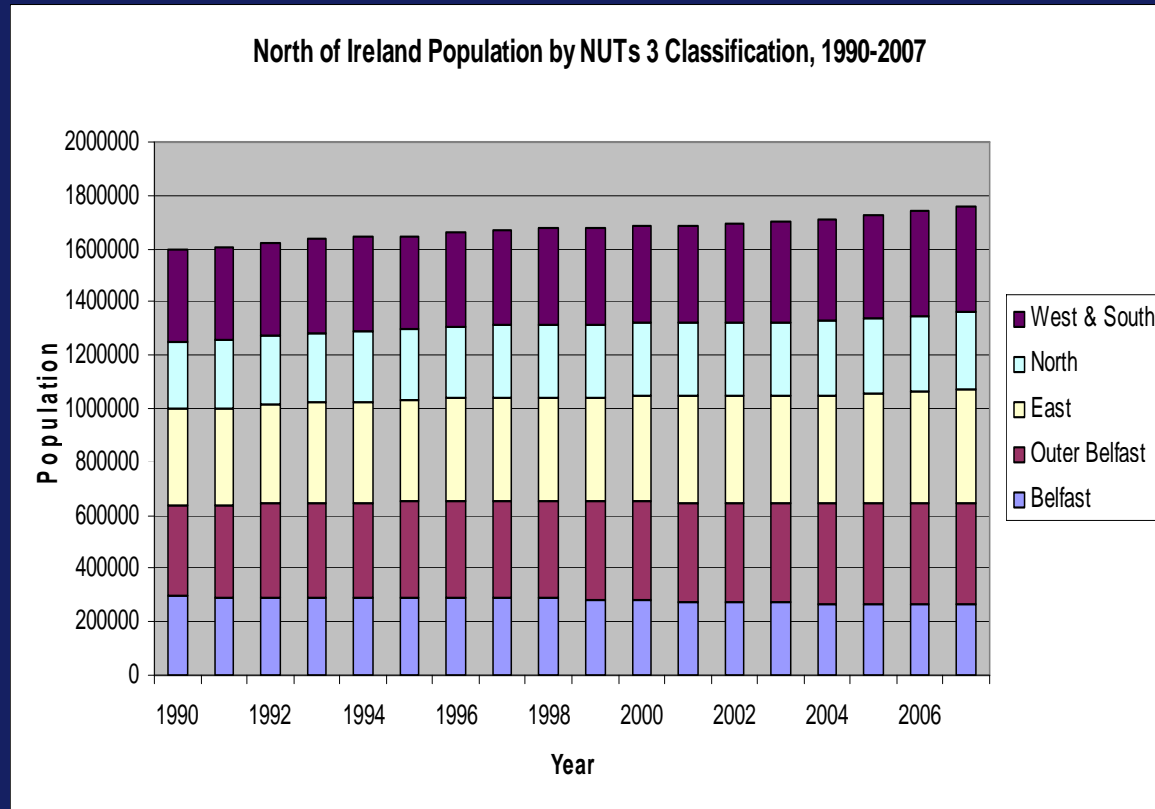
DETI:

- Fuel / Energy

- Significant gaps in transport policy, particularly in relation to sustainability
- Need identified for more integrated and strategic focus with an immediate focus on sustainable transport



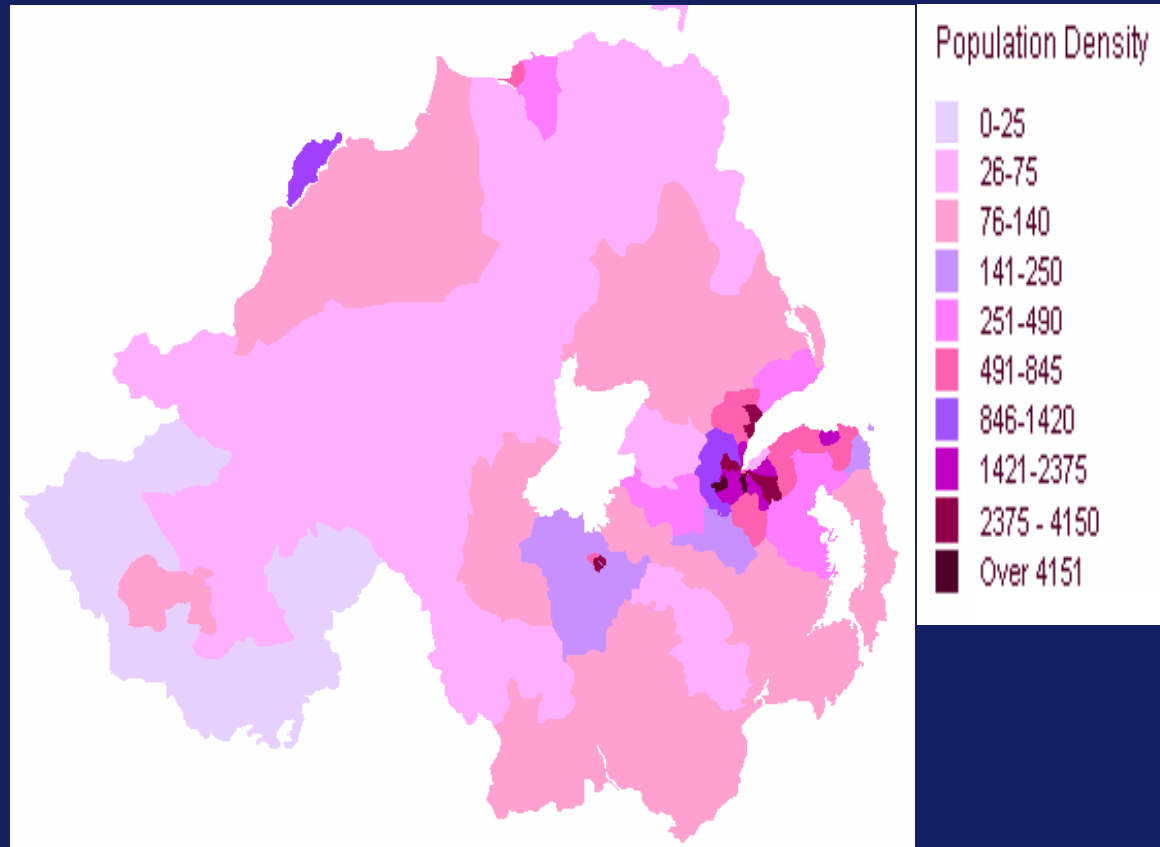
Population



- High rate of growth
- 630,000 households
- 1.7m population
- Little change in settlement patterns



Population Density



- 1/3 resident in Greater Belfast Area

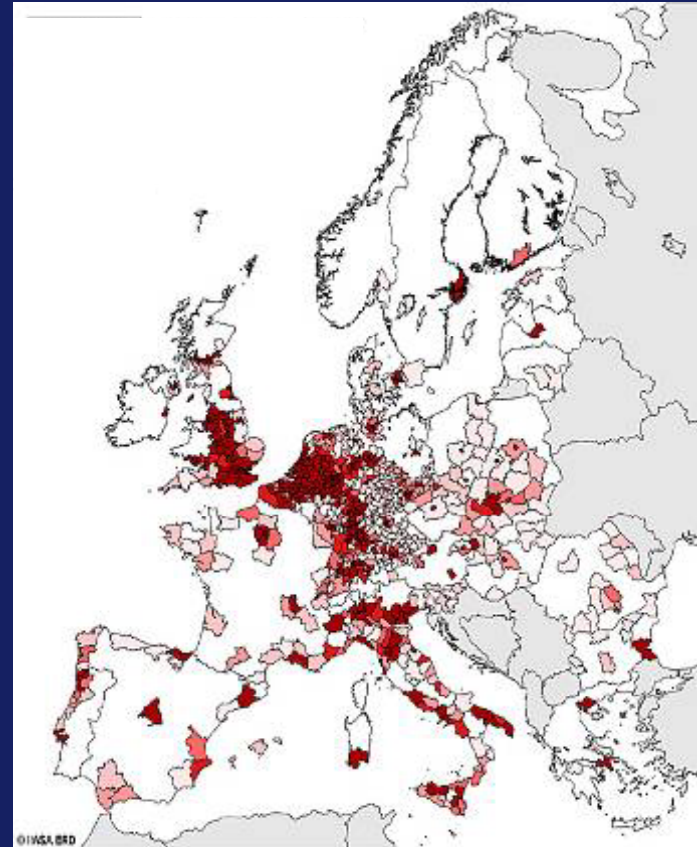
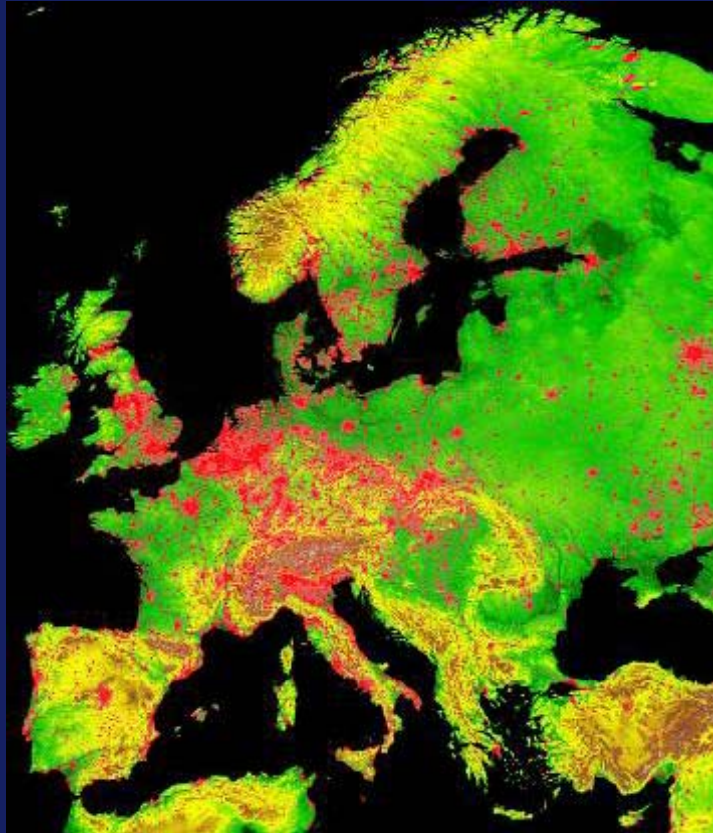
- Highly dispersed population with low population density – particularly in the west

- 35% of population rural based



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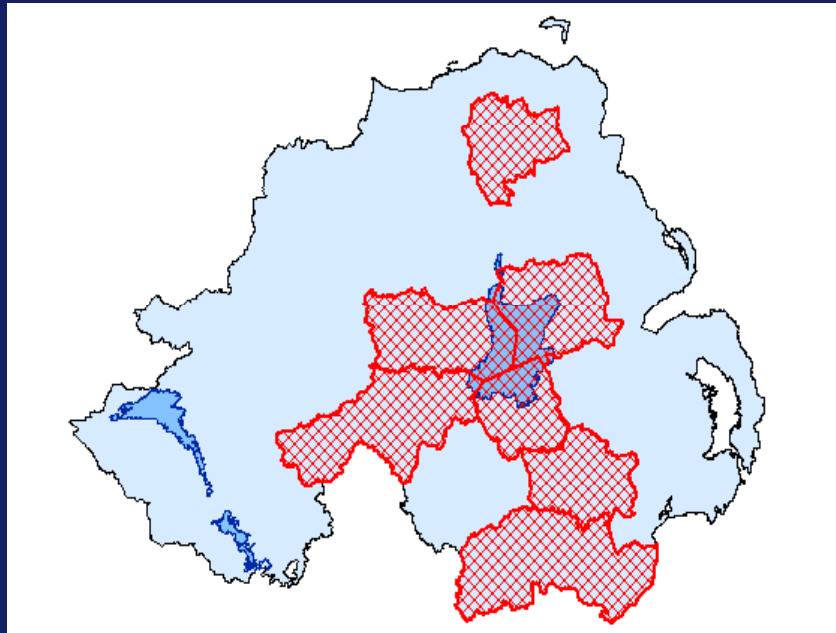
Population Density - Europe



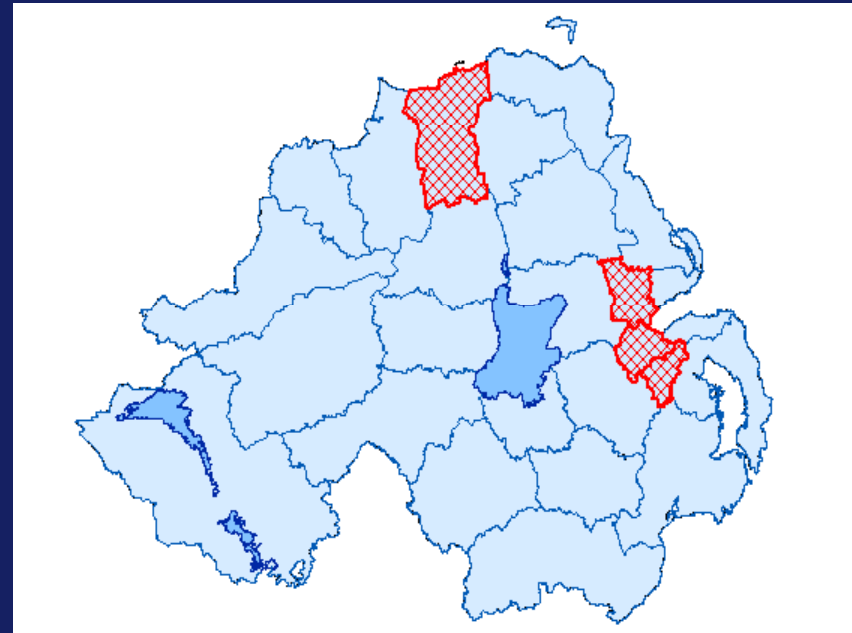
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Projected Growth to 2025

Highest rate of growth
(22-44%) in south and
west



Expected to decrease in
Belfast



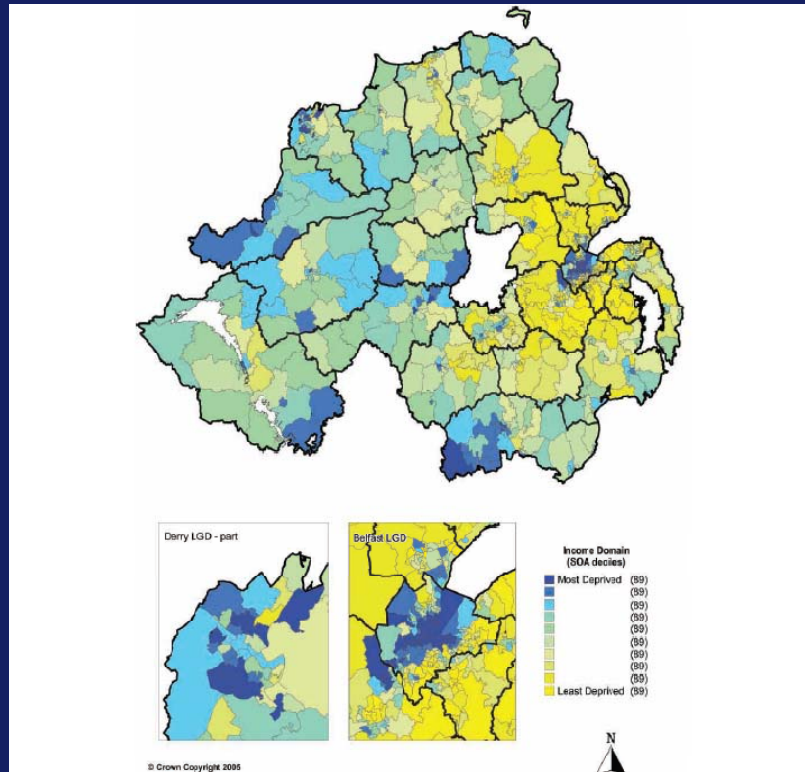
Population in the west is growing faster than
the number of jobs, further increasing
commuting



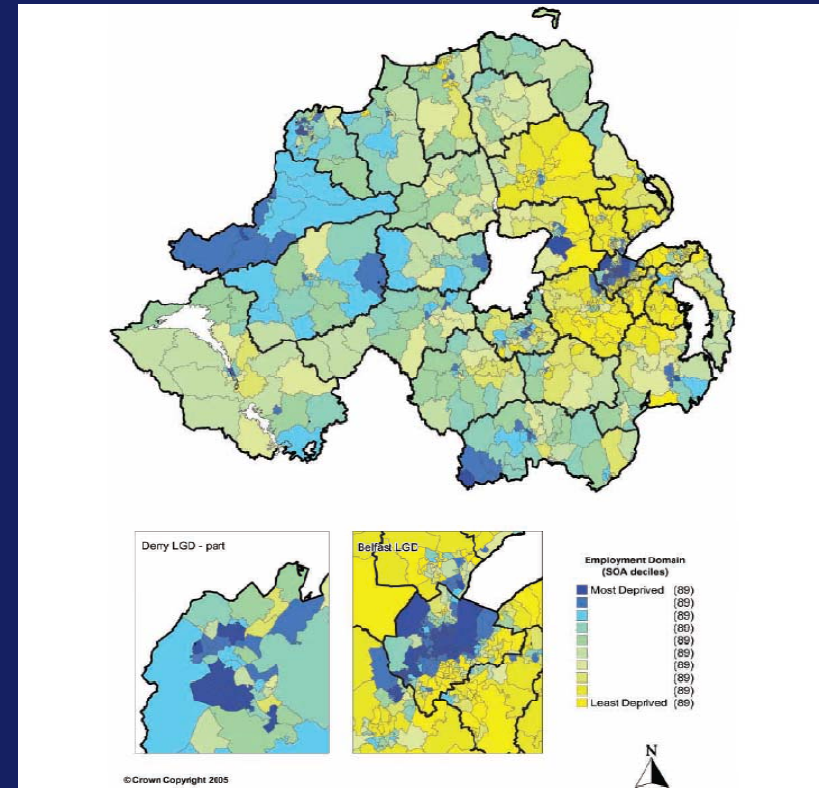
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Sub-regional Differentials

1. Income

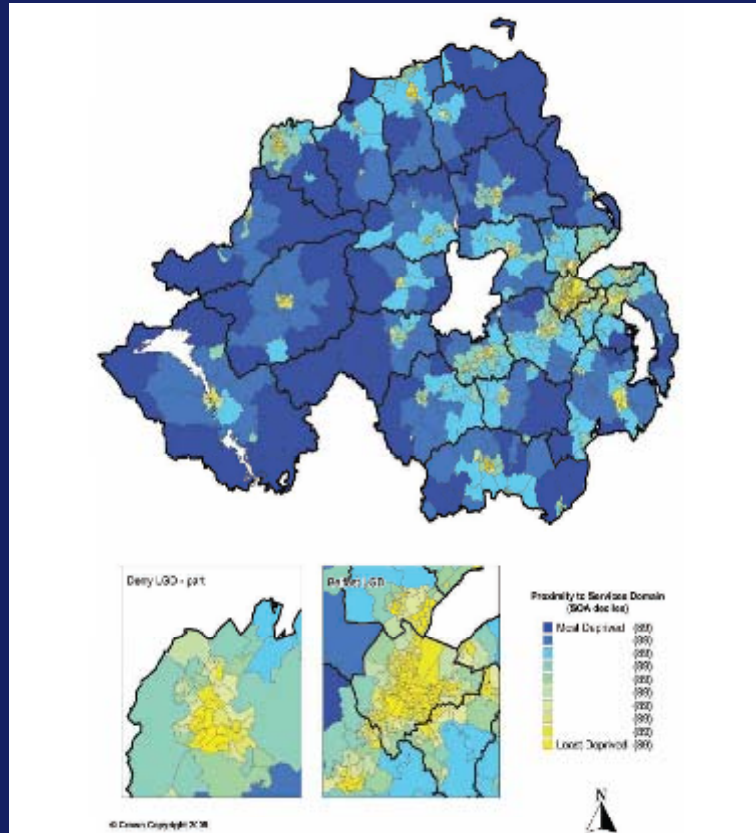


2. Employment



Sub-regional Differentials

3. Proximity to services

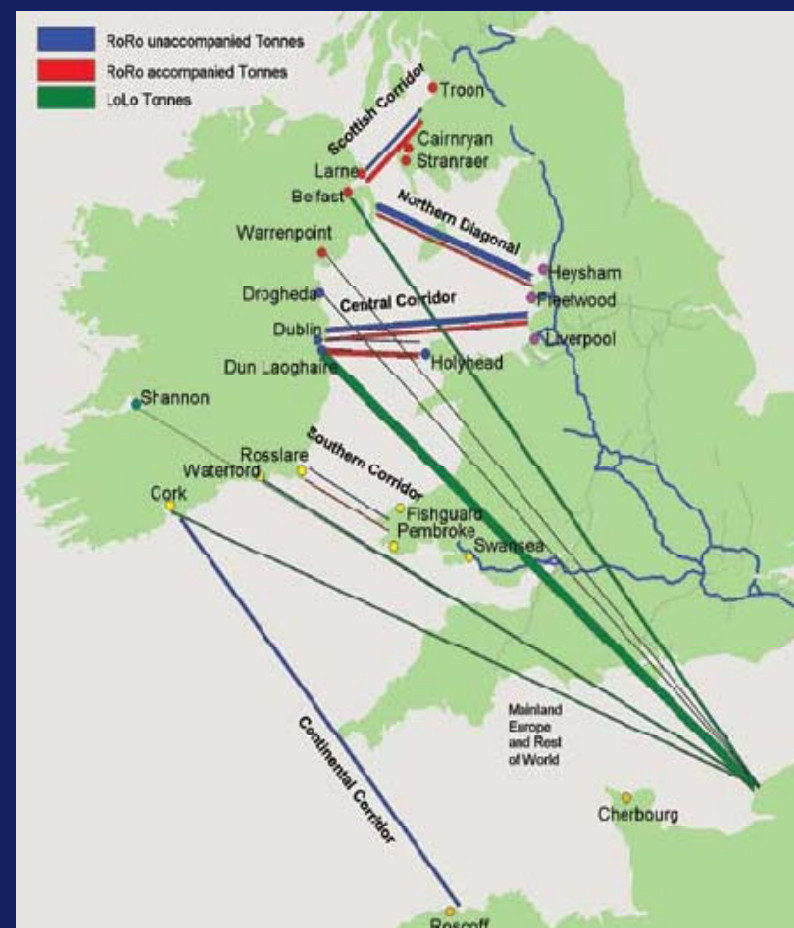
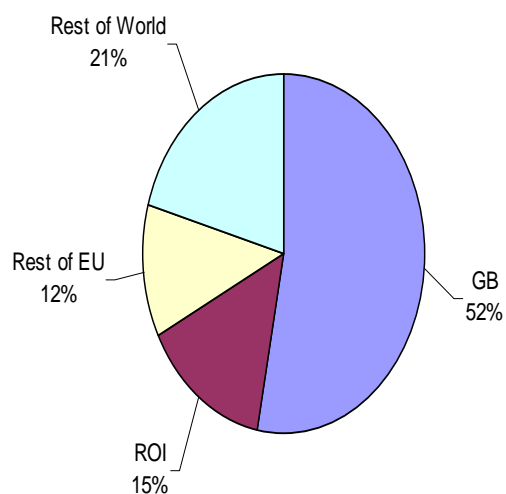


- Significant variations in income, employment and access to services – higher levels in East
- Majority of employment and FDI has tended to locate in Greater Belfast Area -
- Executive have set out their commitment to promote more balanced regional growth – implications for transport?



Main Markets & Gateways

Broad Destination of North of Ireland Sales 07/08

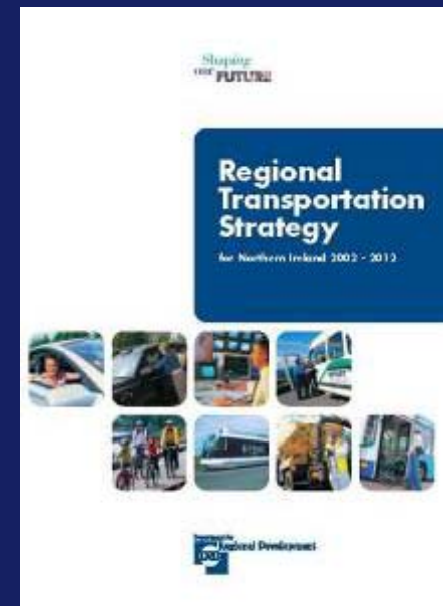


Socio-economic Context: Emerging Key Issue(s)

- **Highly dispersed population / low levels of population density**
- **Continued movement of population out of Belfast area**
- **Significant socio-economic differentials at sub-regional level**
- **Sub-regional economic growth requires effective access to main gateways – primarily located in the Greater Belfast Area**
- **Economic growth requires an efficient sustainable transport infrastructure providing continued access to key markets**

Regional Transportation Strategy for Northern Ireland 2012 (July 2002)

- Identifies strategic investment priorities
- Recognises years of underinvestment in transport infrastructure and public transport



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DIAGRAM 11

**REGIONAL
STRATEGIC
TRANSPORT
NETWORK**

Regional Gateways

International/European Port



Ports



Belfast International Airport



Airports



Regional Strategic Transport Network

Key Transport Corridors



Link Corridors



Trunk Roads



Railways



Belfast Metropolitan Area



- 25, 000 km of road
- 380 kilometres of rail
- 10 million passenger journeys were made on our railways
- 70.5 million passenger journeys on buses
- 320 million journeys by car (estimated)





- £2 200 million

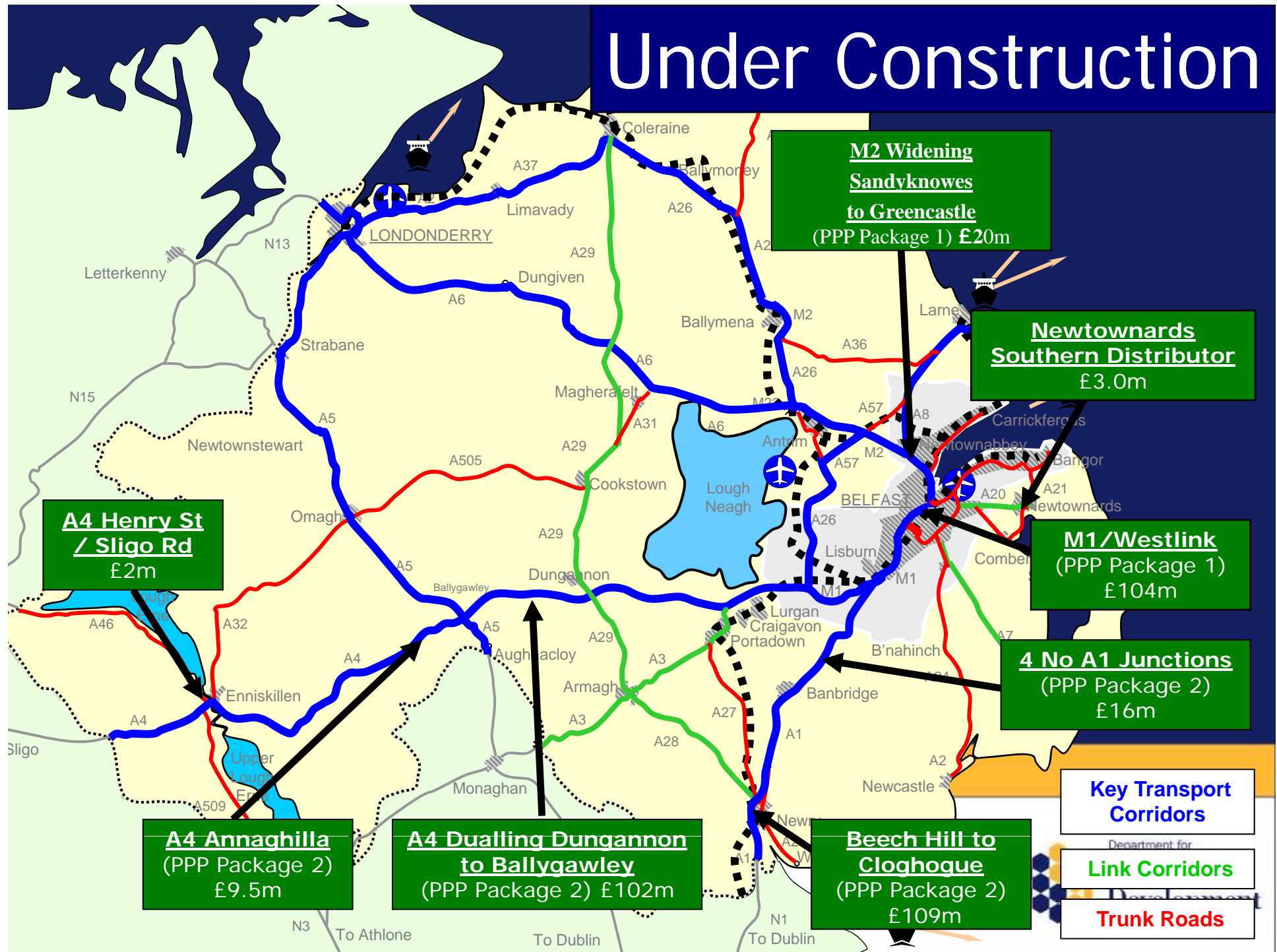


- £511 million

- £544 million



Under Construction



Eastern Seaboard Corridor

Proposed

A8 Colemans Corner to Kilraughts £102m

14.0km of Dual Carriageway

M2 / A8(M) Sandyknowes Junction

£10m - Direct link Between A8(M) & M2

Westlink / York Street Flyover £50m

Grade Separated Junction linking
Westlink / M2 / M3 / York Street

M1 Slip Roads at Blacks Road £5m

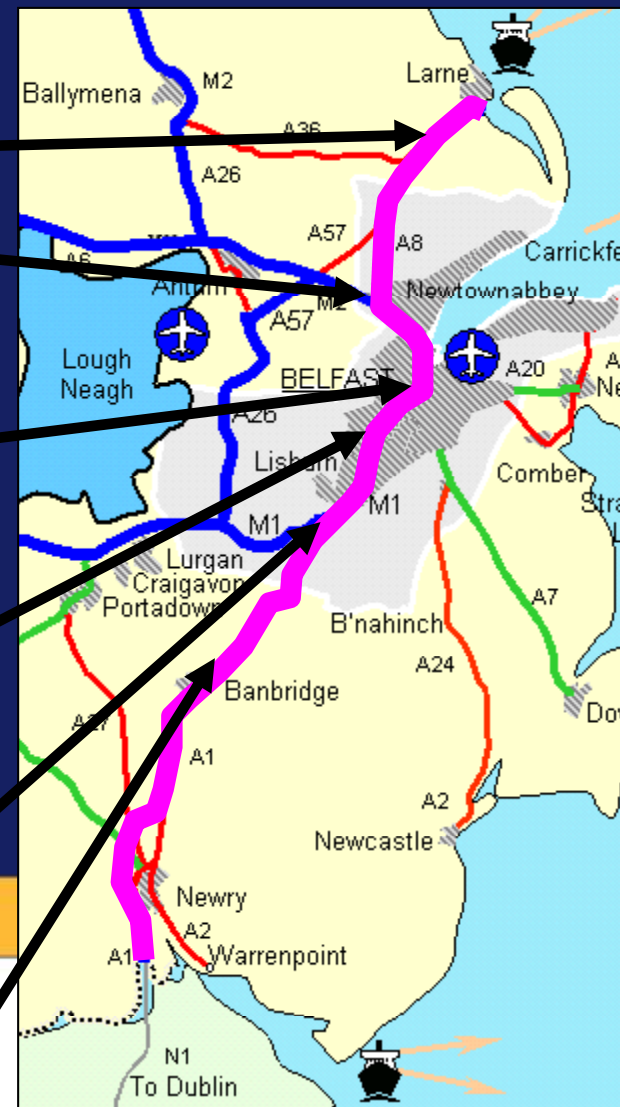
2 West Facing on/off slip roads

M1 / A1 Sprucefield Bypass £45m

4km high standard dual carriageway
Bypassing Sprucefield Retail Park

A1 Junctions £22m

Grade separate 4 A1 junctions
Close all at grade crossings



Northern Corridor

Proposed

A2 Broadbridge Dualling £25m

6 km dual carriageway
Maydown R't - Eglinton Airport

A2 Ballykelly Bypass £30m

6 km 2+1 carriageway

A26 Ballymoney - Coleraine £35m

7.0 km dual carriageway
Portrush Road Roadabout - Windyhall

A26 Glarryford - A44 £33m

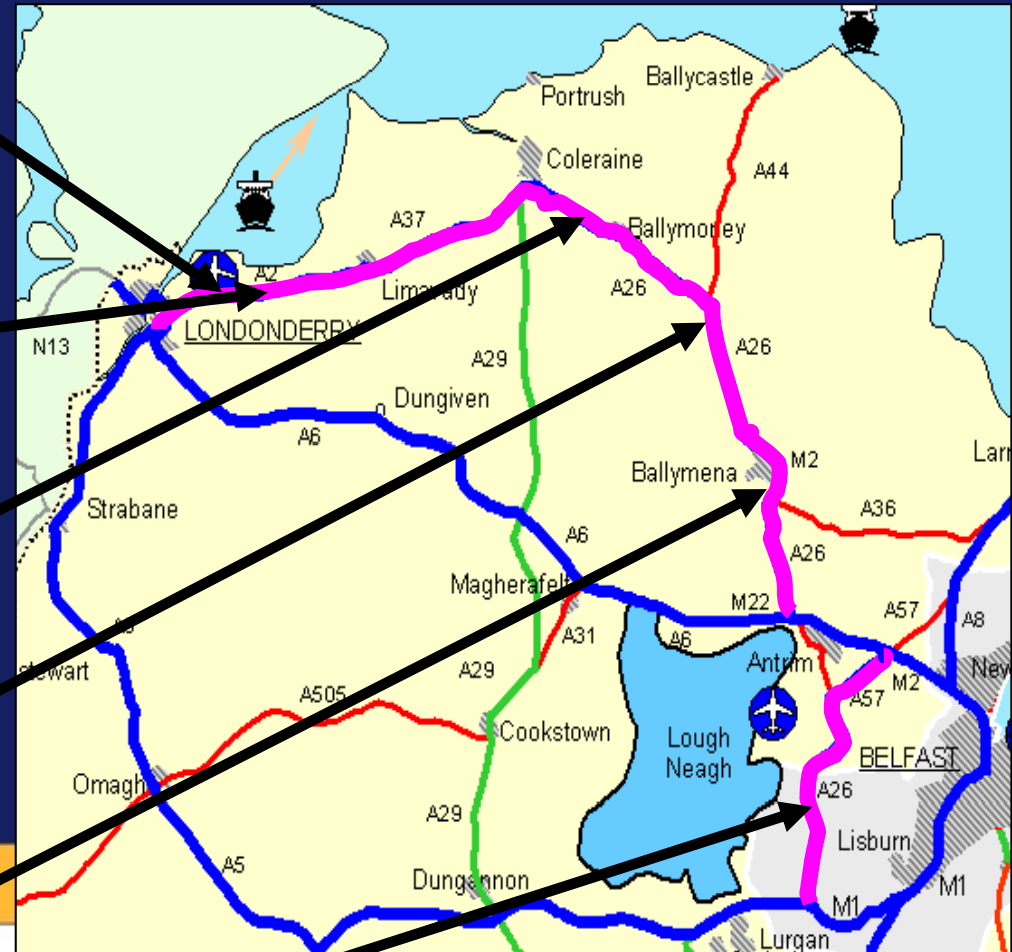
7.0 km dual carriageway

A26/M2 Ballee Road East £7m

1.5km dual carriageway

A26 Nutts Corner to M1 Moira £15m

2+1 carriageway widening schemes



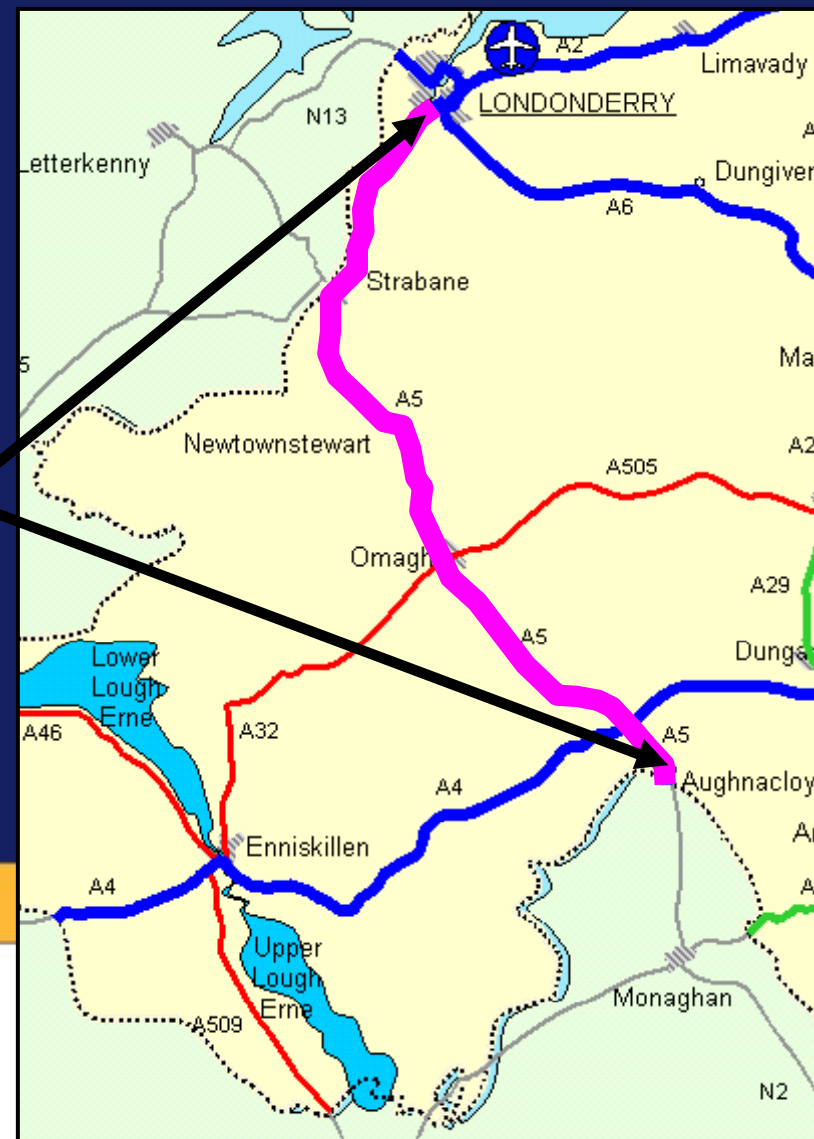
Western Corridor

Proposed

A5 Londonderry – Aughnacloy

£560m

88 km dual carriageway



North Western Corridor



Proposed

Buncrana Road

£18m

Border – Skeoge Link –
Pennyburn Rbt

Proposed

**A6 Londonderry to
Dungiven**

£250m

30km dual carriageway

Proposed

**A6 Randalstown to
Castledawson**

£70m

14km dual carriageway



South Western Corridor



Proposed

A4 Enniskillen
Southern Bypass
£18m
3.2km 2+1
carriageway

Proposed

A4 Fivemiletown
Bypass
£12m
3.4km 2+1
carriageway

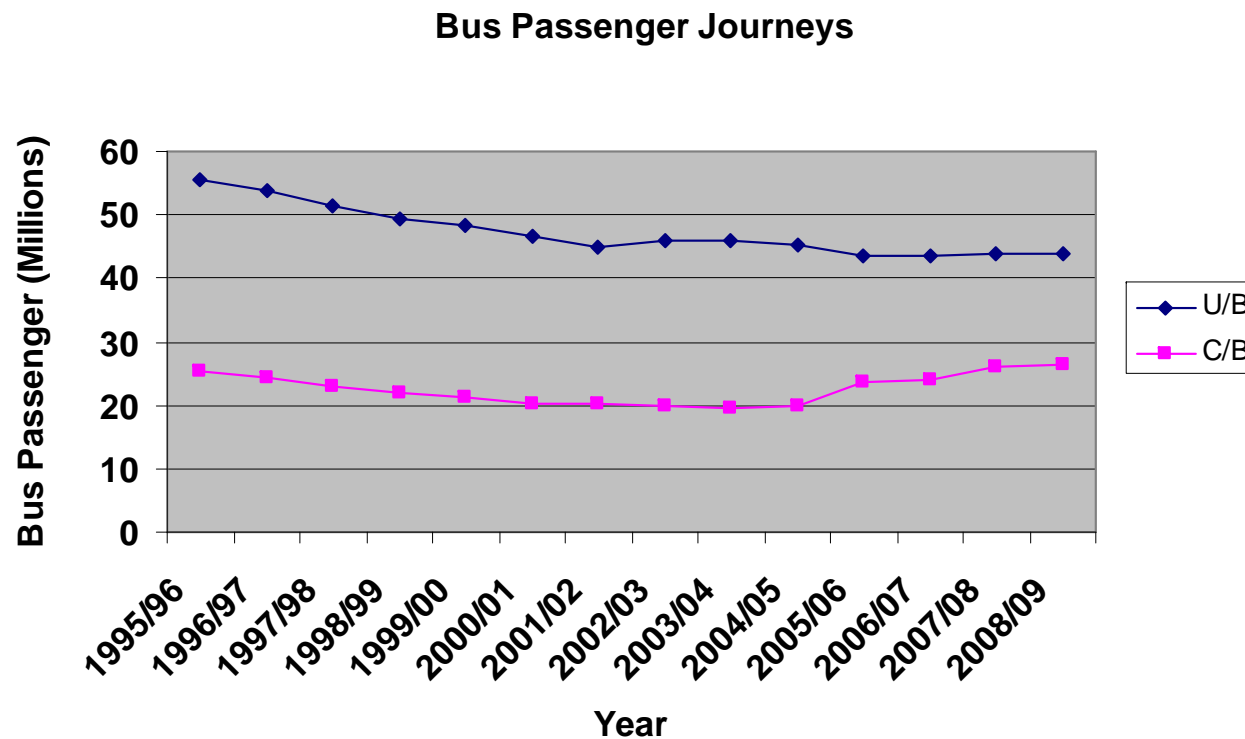


Trends in Transport

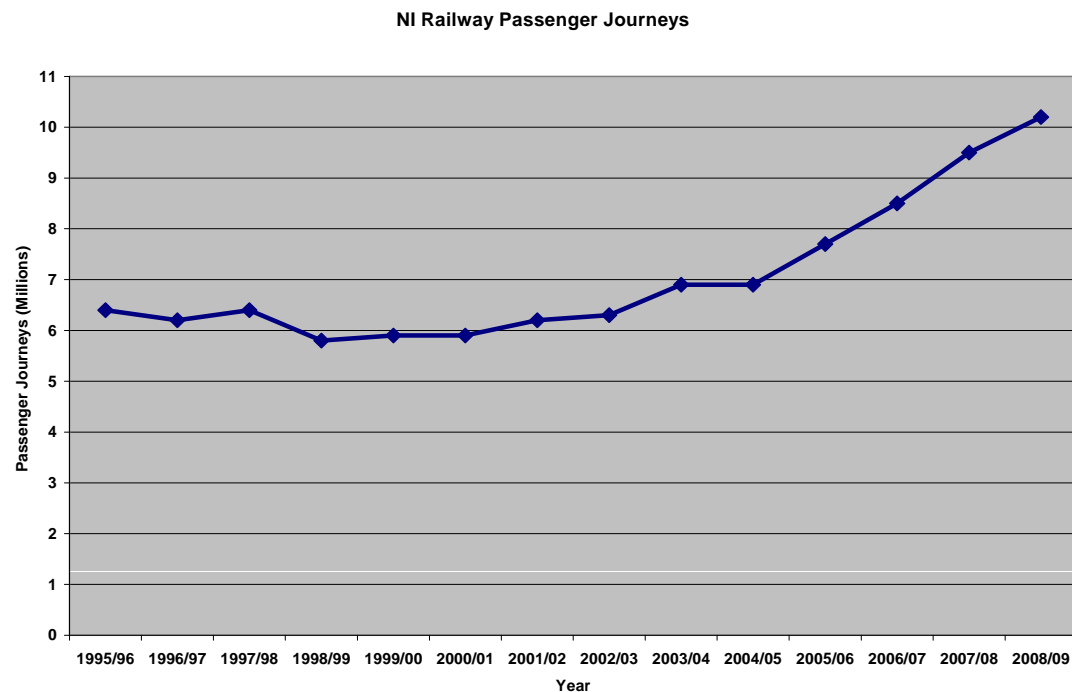


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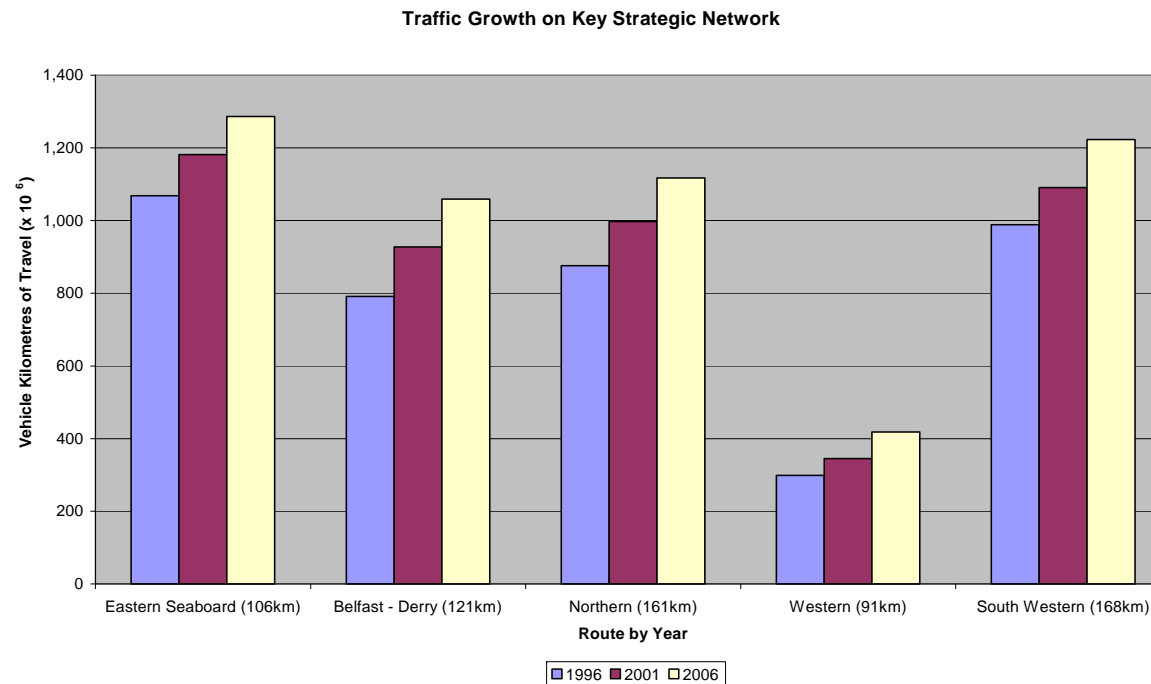
Bus Passenger Journeys



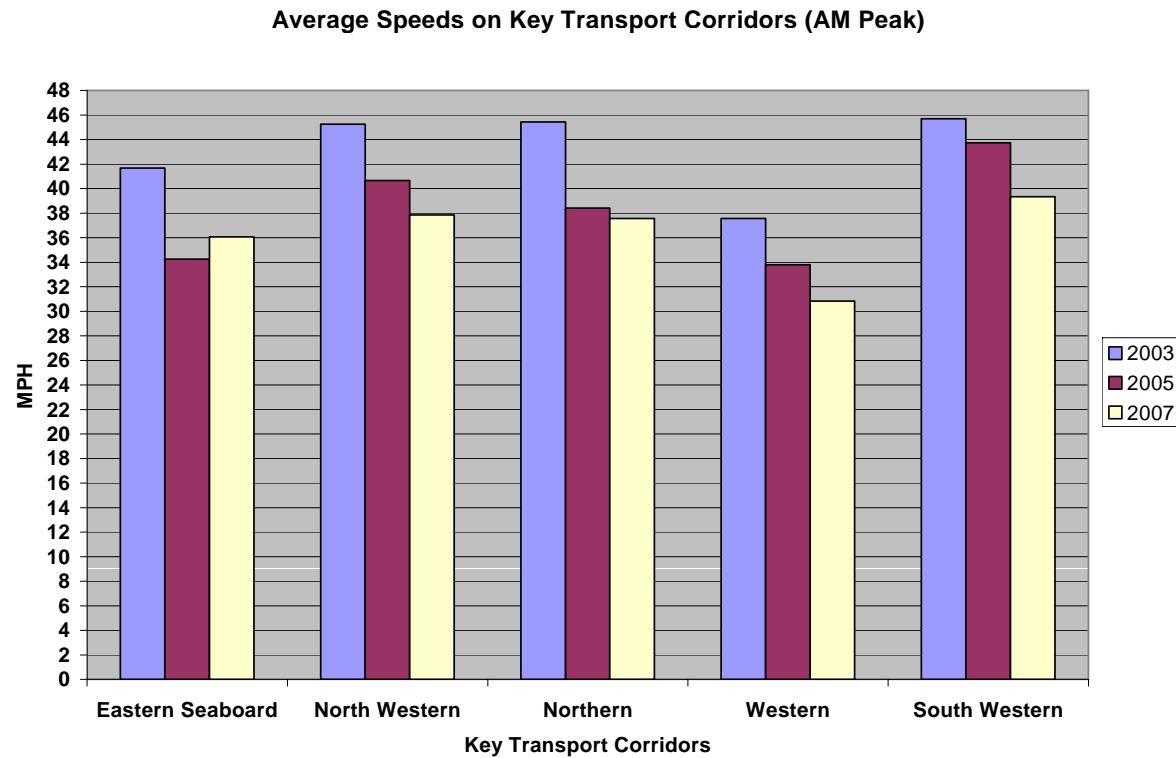
NI Railway Passenger Journeys



Traffic Growth On The Key Transport Corridors

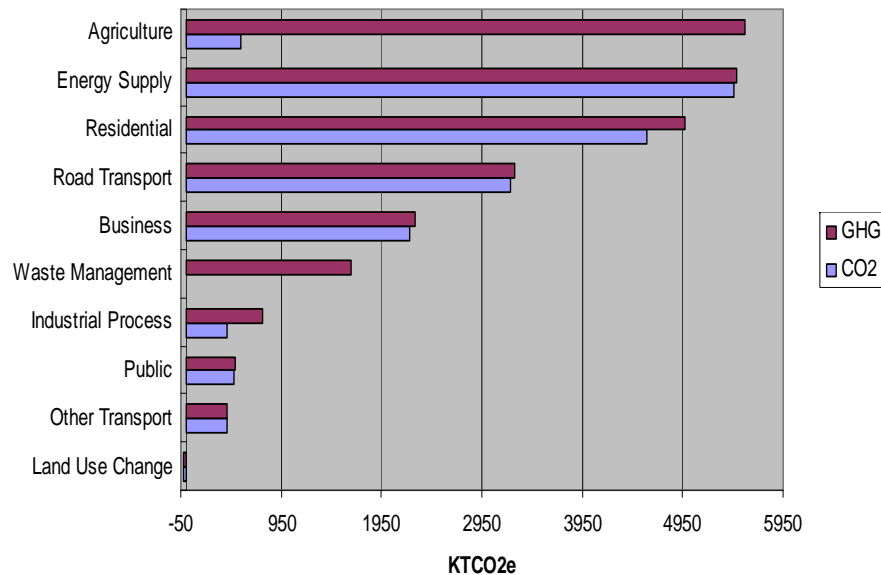


Average Speeds on Key Transport Corridors

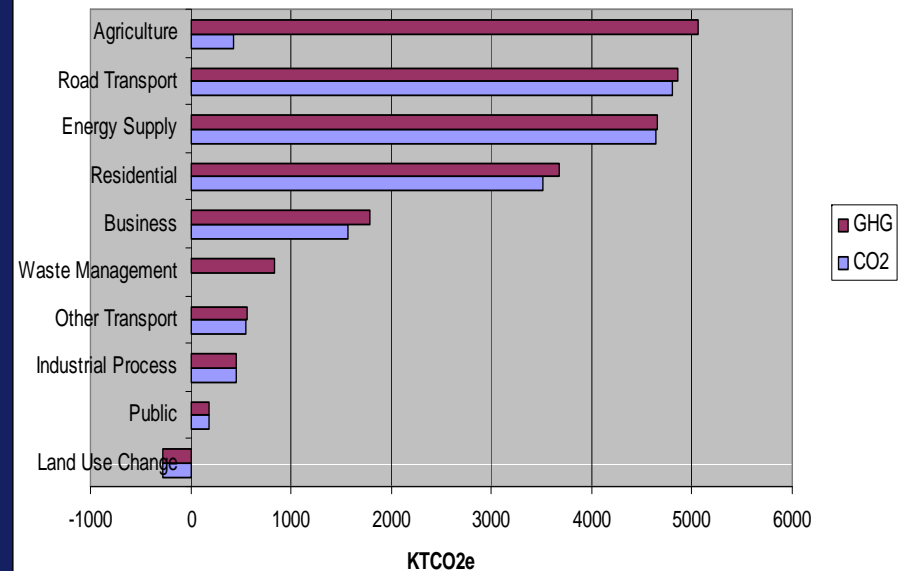


GHG & CO₂ Emissions 1990 - 2007

GHG & CO₂ Emissions by Sector 1990



GHG & CO₂ Emissions by Sector 2007



Overall GHG and CO₂ emissions decrease by 13% and 9% respectively

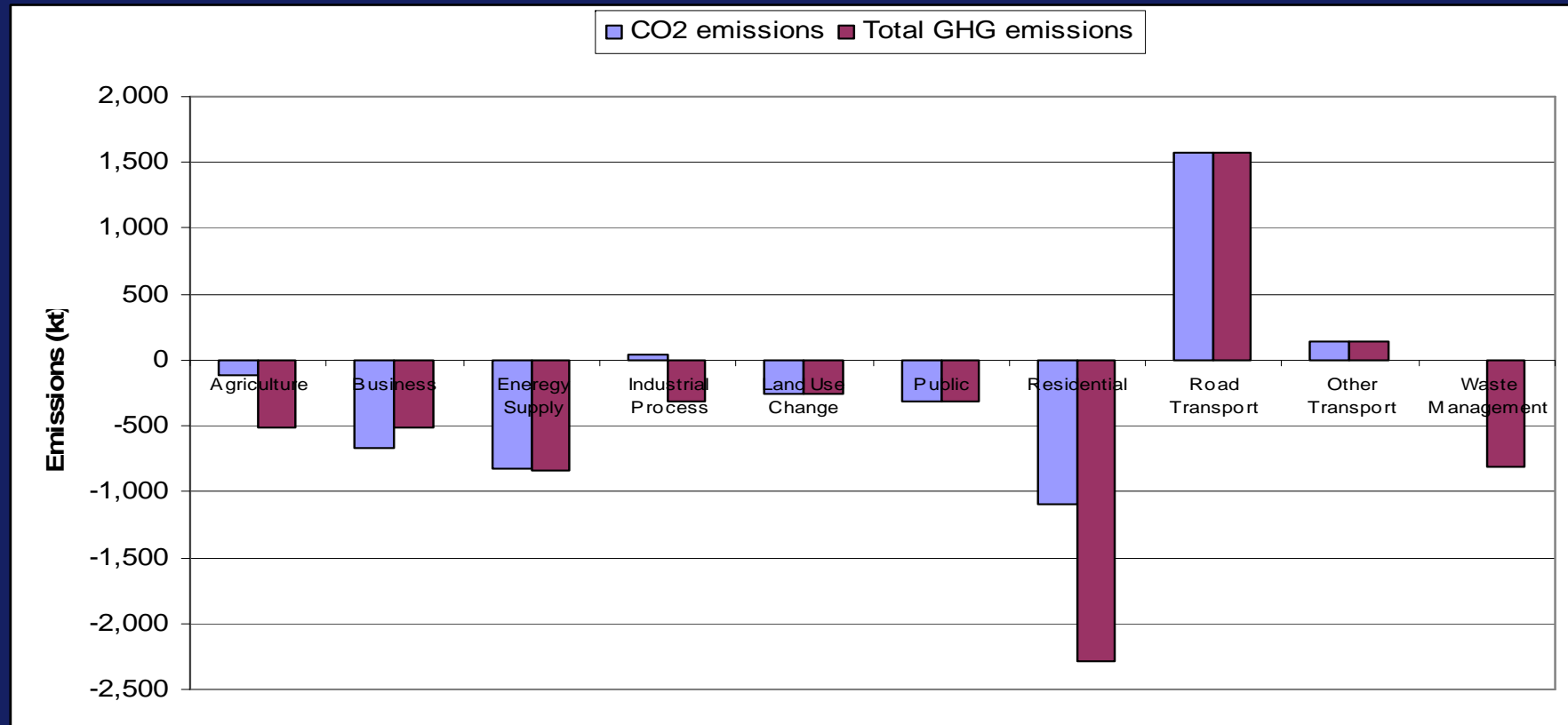
Transport Increases by 47% (GHG) and 49% (CO₂)

Emissions data in presentation taken from:

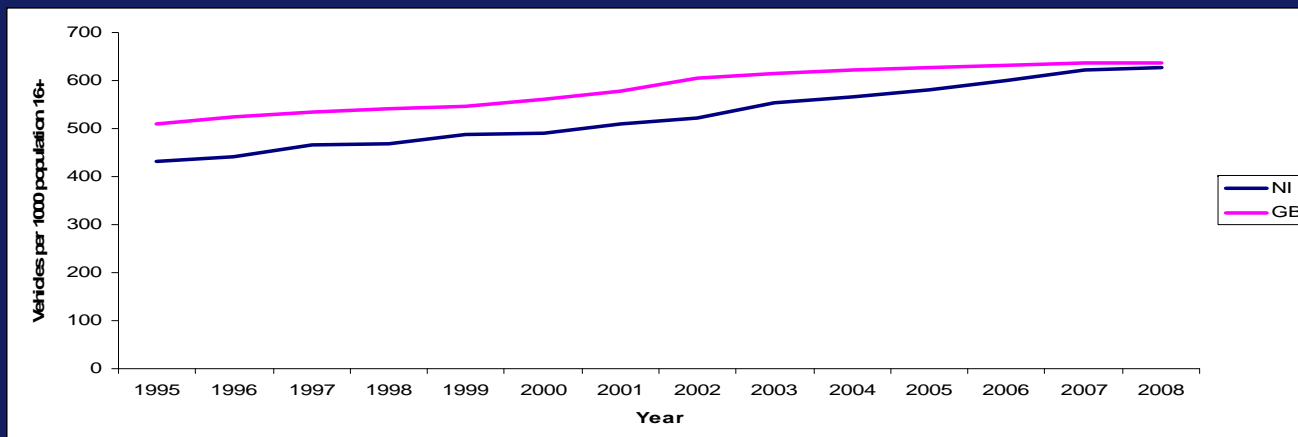
Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland 1990-2007 (September 2008). Estimated and published by AEA Technology on behalf of DEFRA, The Scottish Executive, The Welsh Assembly Government and DoE.

Available at www.naei.org.uk/reports.php?list=GHG

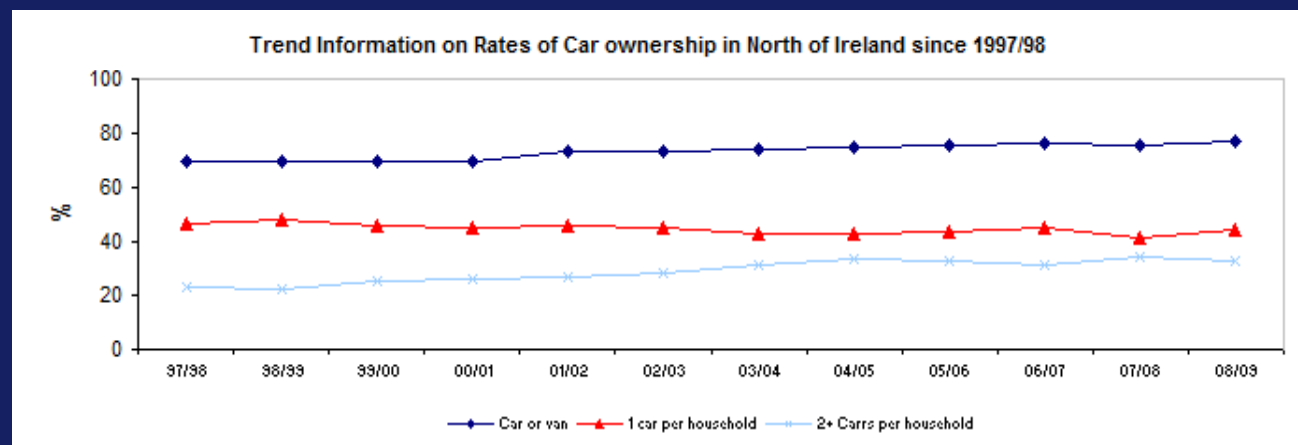
Change in GHG / CO₂ Emissions 1990-2007



Trends in Vehicle Ownership

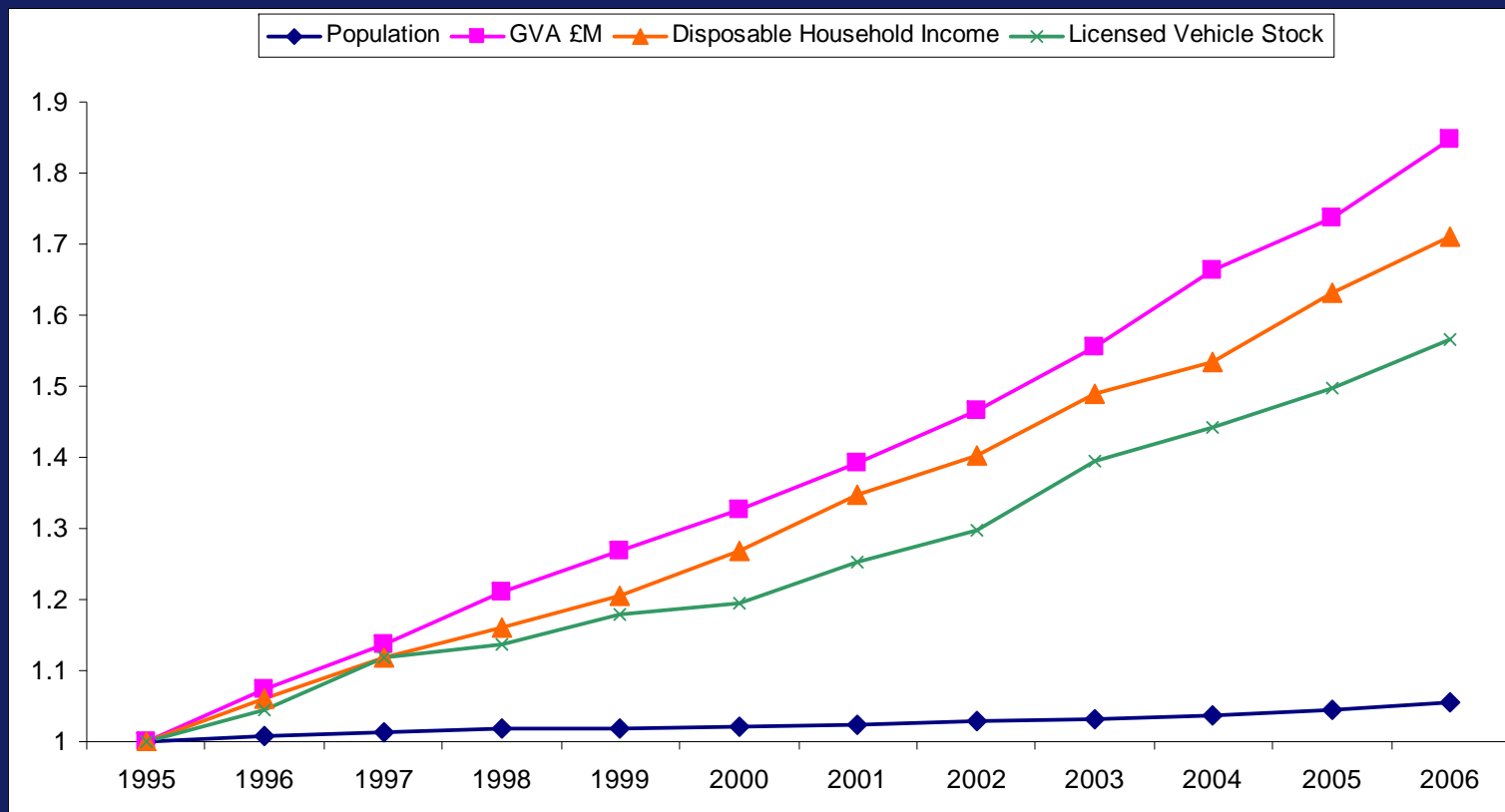


- Significant increase in number of registered vehicles, with potential for further growth

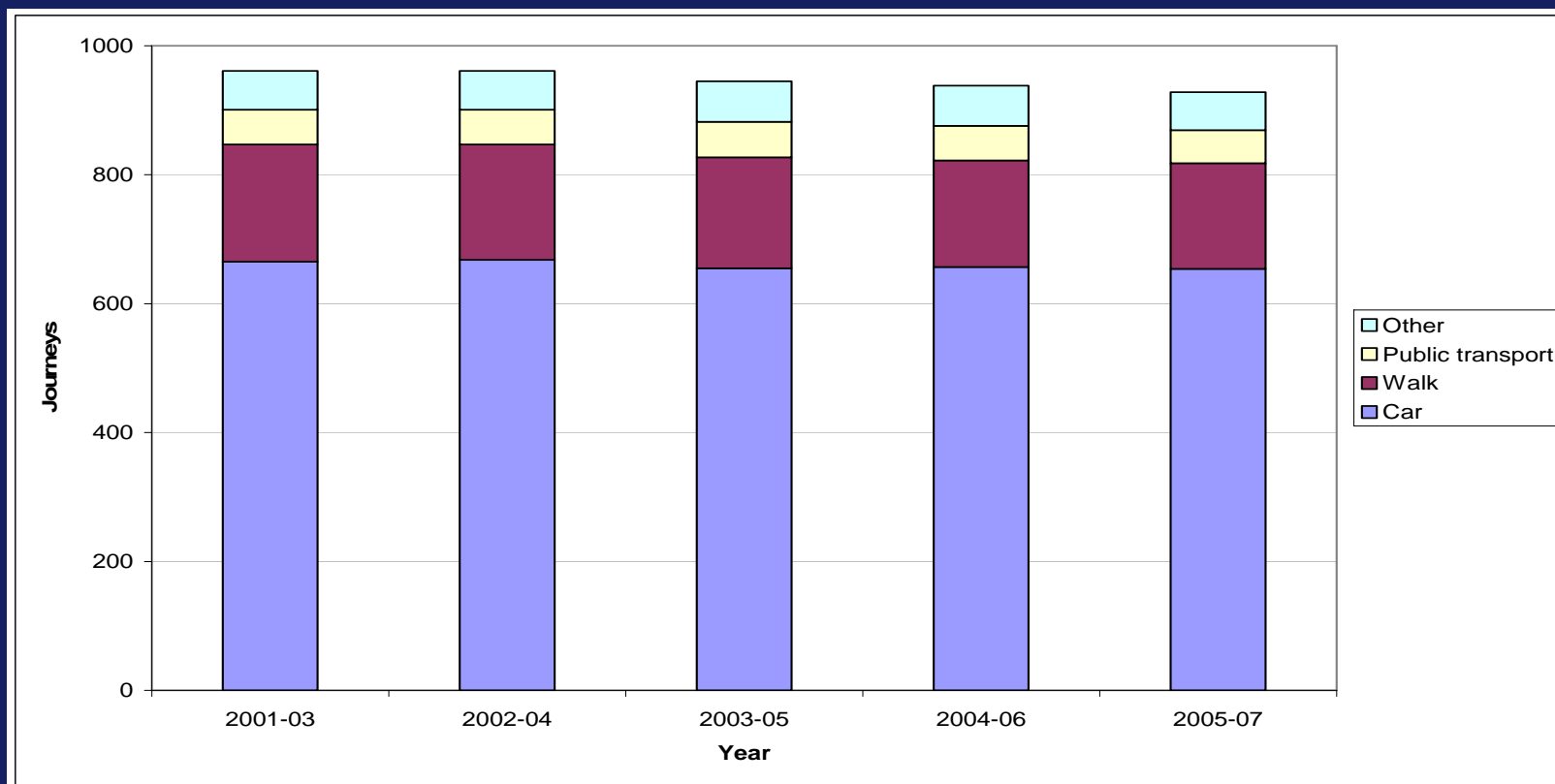


- Significant increase in the proportion of households owning 2 or more cars

Trends in Vehicle Ownership

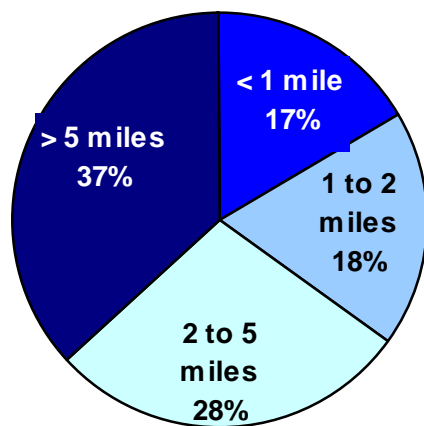


Average Number Of Journeys Per Person 2001-2007



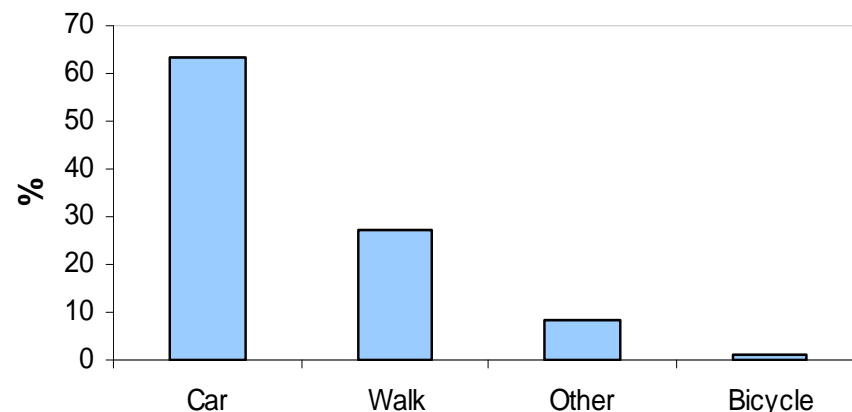
Journeys by Distance

Proportion of Trips by Distance



6 out of 10 trips are less than 5 miles

Modal split of Trips under 5 miles



65% of all trips under 5 miles are made by car

30% of all trips under 1 mile are made by car

The Future

- Need to change behaviour
 - public transport
 - Park and Ride
 - car sharing
 - walking or cycling
 - Intelligent transport systems



Plan for Belfast



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RAPID TRANSIT VEHICLE



Streetcar - Wrightbus



Bus Rapid Transit

Bus Rapid Transit is high-quality, customer-orientated bus transit that delivers fast, comfortable and low-cost urban mobility.



Characteristics

- Segregated/high priority bus lanes
- Rapid boarding and alighting
- Efficient fare collection
- Comfortable shelters and stations
- Clean bus technologies
- Modal integration
- Sophisticated marketing identity
- Excellence in customer service

Why Bus Rapid Transit?

- **Customer Focus**

- Reliable, safe, convenient service
- Competitive in cost, reliability and travel time to attract car drivers

- **Costs**

- Lower costs per km than LRT or Metro
- Avoids major relocation of utilities and track construction
- Lower vehicle costs



The Economics of Bus Rapid Transit



Bus Rapid Transit
\$1-10 million / km



Metros & Light Rail
\$20-207 million / km

BRT Systems in Operation

Latin America America

Bogota
Curitiba
Quito
Sao Paulo

Asia

Istanbul
Nagoya
Jakarta

Europe

Bradford
Eindhoven
Essen
Grenoble
Ipswich
Leeds

Montpellier
Nancy
Rouen
Nantes

N.

Miami
Seattle
Ottawa

Oceania

Adelaide
Brisbane



Guidance

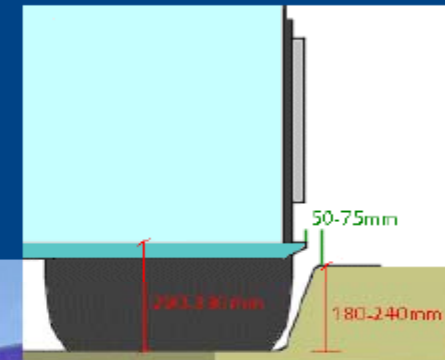
Optical
Rouen, France
TEOR



Mechanical
Leeds, UK

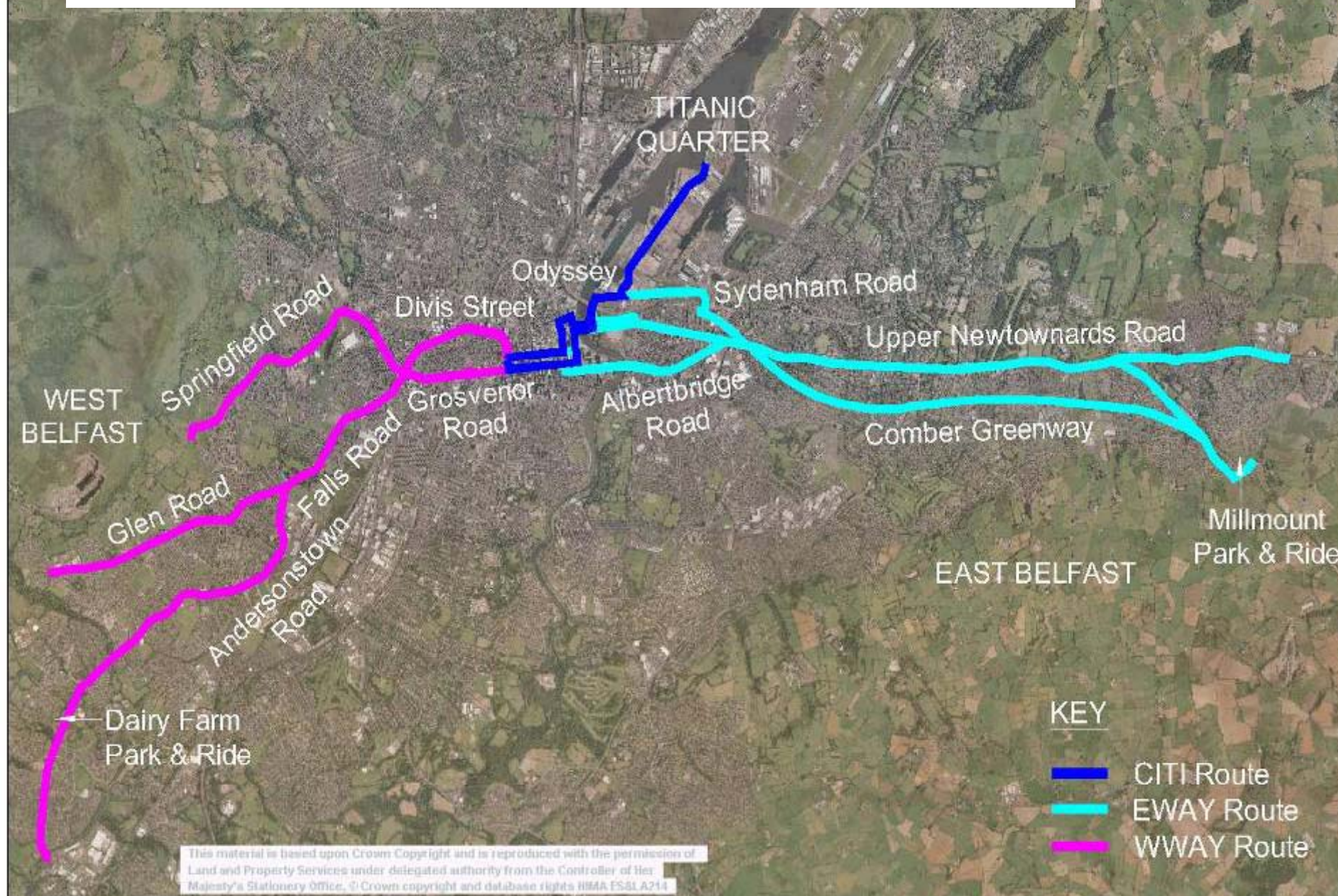


Kassell Kerb
Amsterdam
Zuidtangent



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Belfast Rapid Transit Pilot Route Options



Regeneration / Integration

- an inclusive citywide identity
- driver for the regeneration of Belfast;
- high quality access and connectivity between major regeneration projects
- link the most deprived communities to key employment locations, shopping facilities, leisure, health and education services.
- facilitate the growing integration and partnerships between the different communities across the city.



Questions?

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