

# Town Bypasses

TII National Conference 2022

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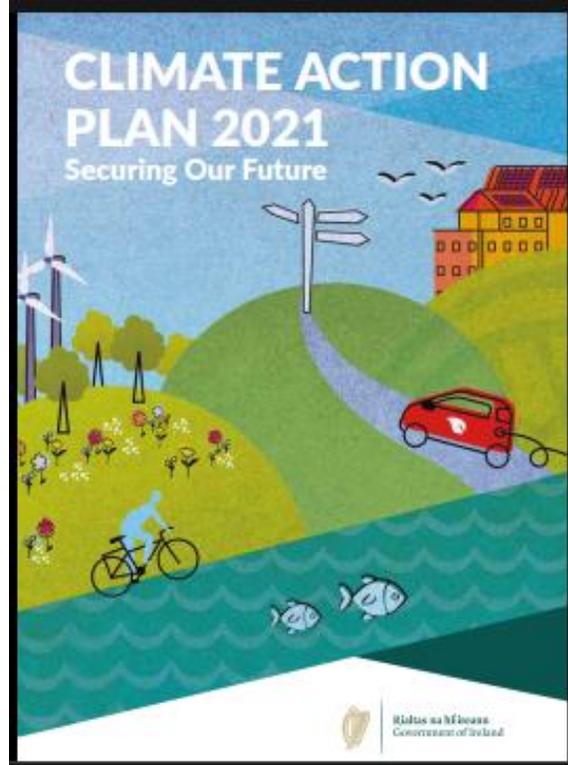
September 2022



# Evolving Policy

## Worldwide Policy Change

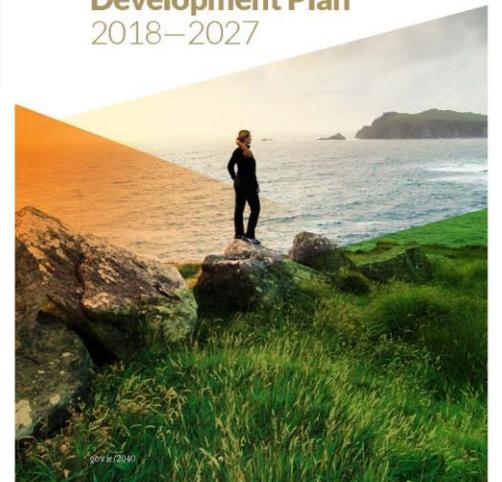
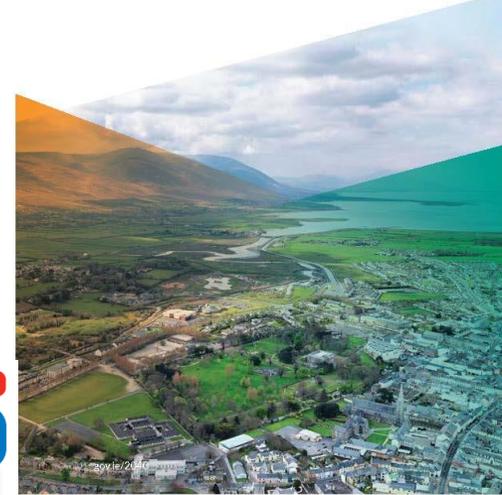
- Change is constant
- Climate Change
- Compact Growth
- Circular Economy
- Transport?



RPO 176

**10-minute" city and town concepts**

It is an objective to attain sustainable compact settlements with the "10-minute" city and town concepts, whereby, a range of community facilities and services are accessible in short walking and cycle timeframes from homes or are accessible by high quality public transport services by connecting people to larger scaled settlements delivering these services. Local authorities should ensure that decision making in relation to new infrastructure for improved connectivity is informed by an appropriate level of environmental assessment.



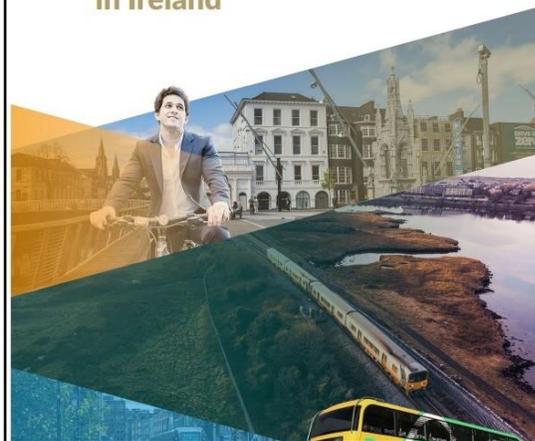
# Transport?

Adapt to Change

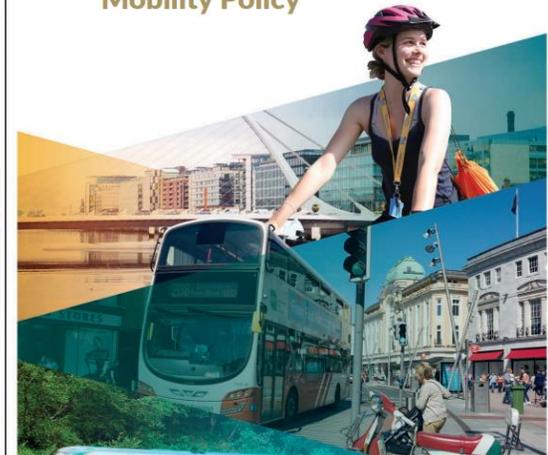
National Investment Framework for Transport in Ireland Investment Priorities



## National Investment Framework for Transport in Ireland



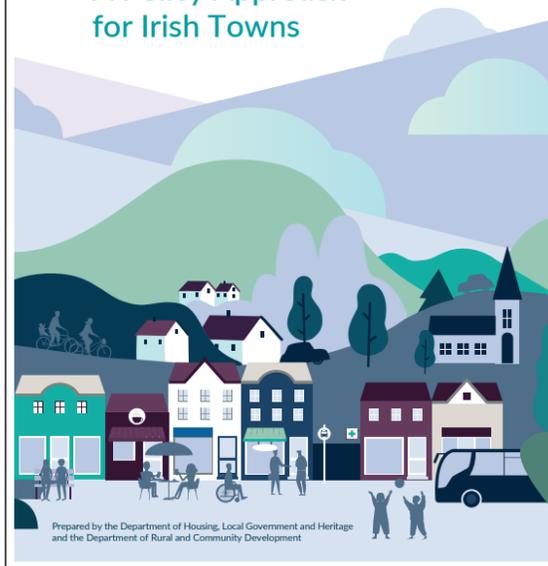
## National Sustainable Mobility Policy



## Our Rural Future Rural Development Policy 2021-2025



## Town Centre First A Policy Approach for Irish Towns



# Transport

## Changed Approach

*Move away from the preconceived solution focus*

*Identify the problem*

*Understand the setting and evolution of the project*

*Set the Project Objectives*

*This approach gives a different answer to the exam question!*



# Transport

## Changed Outcome

*No longer only about adding vehicular capacity*

*Manage the demand for the trip in the first place*

*Cater for the demand with the appropriate mode*

*Effective modal interchange with better integration between land use and transport planning*

*A sustainable project which can be delivered in line with need which makes it affordable*



# The N4 in the Context of Ireland's TEN-T Comprehensive Network

# N4 Carrick-on-Shannon

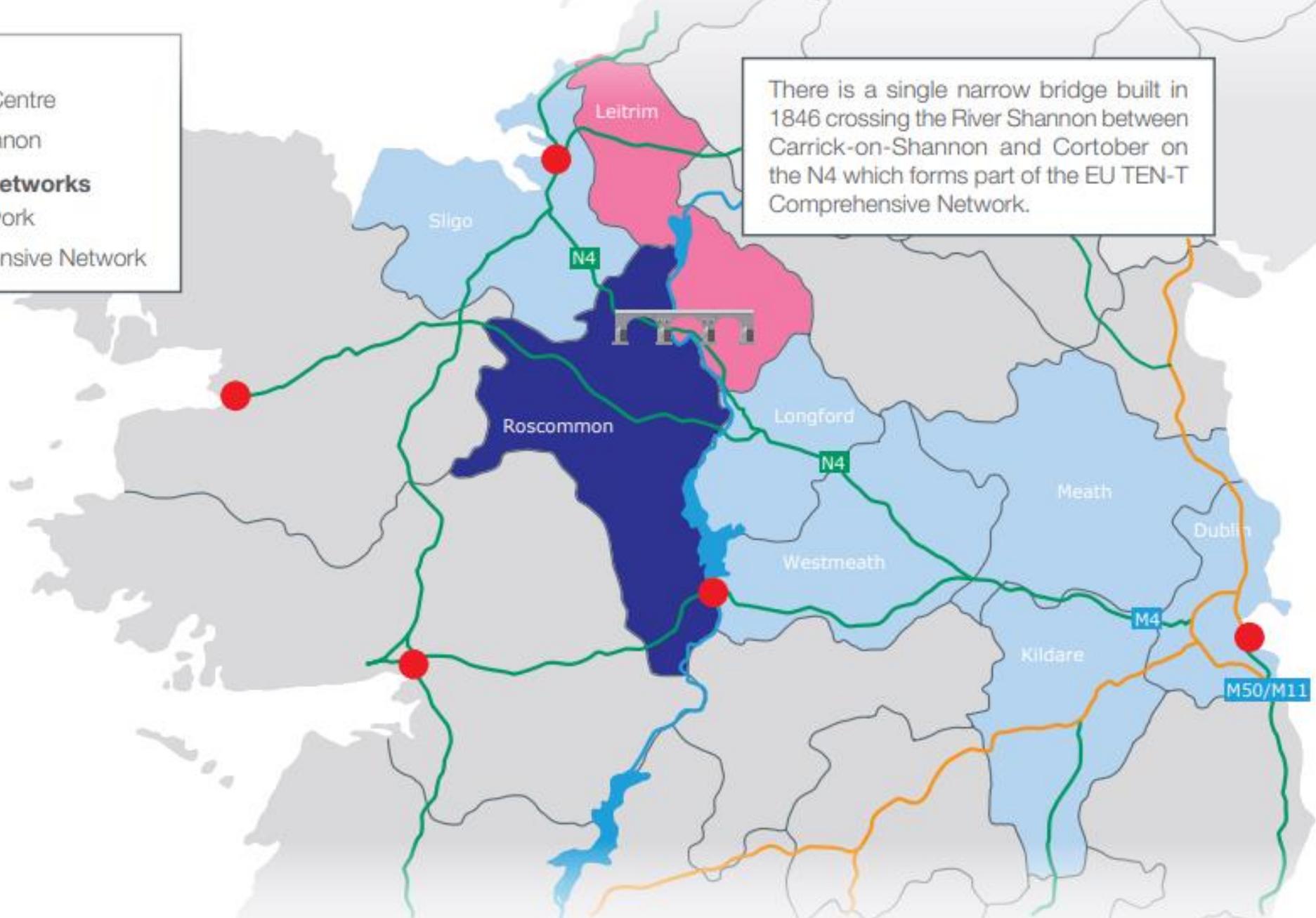
**Legend**

- Regional Centre
- River Shannon

**TEN-T Road Networks**

- Core Network
- Comprehensive Network

There is a single narrow bridge built in 1846 crossing the River Shannon between Carrick-on-Shannon and Cortober on the N4 which forms part of the EU TEN-T Comprehensive Network.





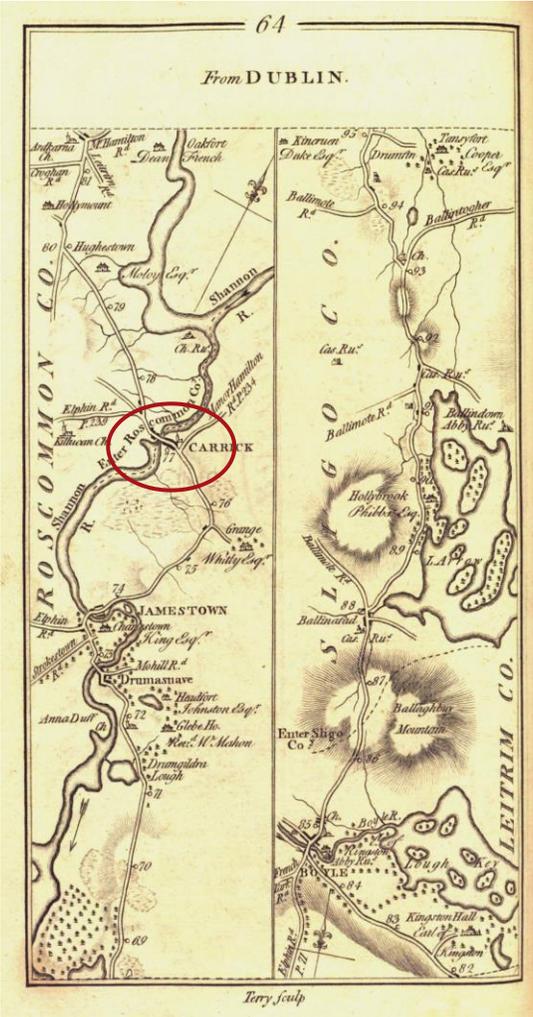
Courtesy Kevin Geoghegan, LCC



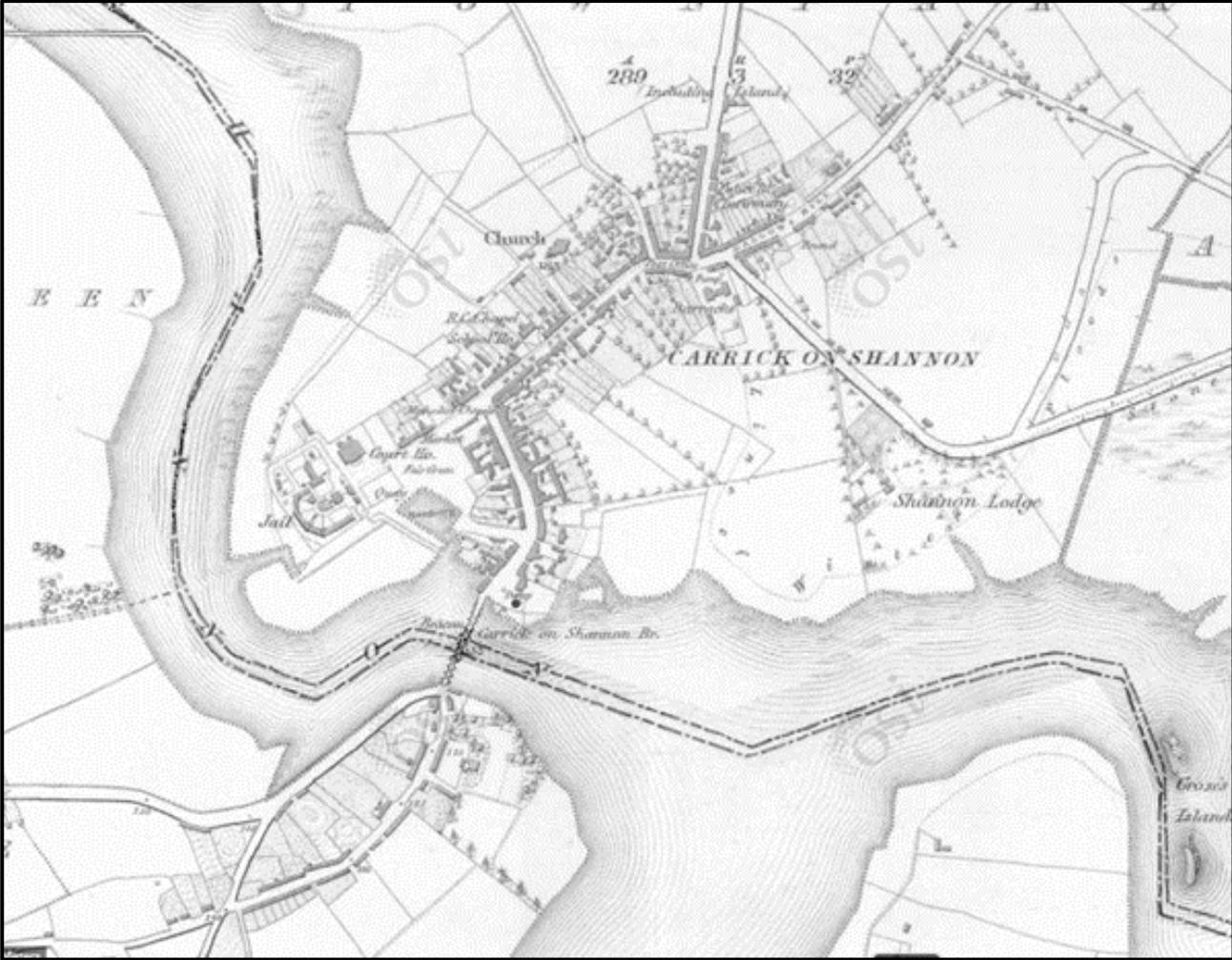
Courtesy Kevin Geoghegan, LCC

# Carrick-on-Shannon

Maps of The Roads of Ireland, 1777



First Edition Six Inch Maps (1829 to 1842)



# Carrick-on-Shannon

Six Inch Map Series - 1910



# Carrick-on-Shannon

Ordnance Survey - 1995



# Carrick-on-Shannon

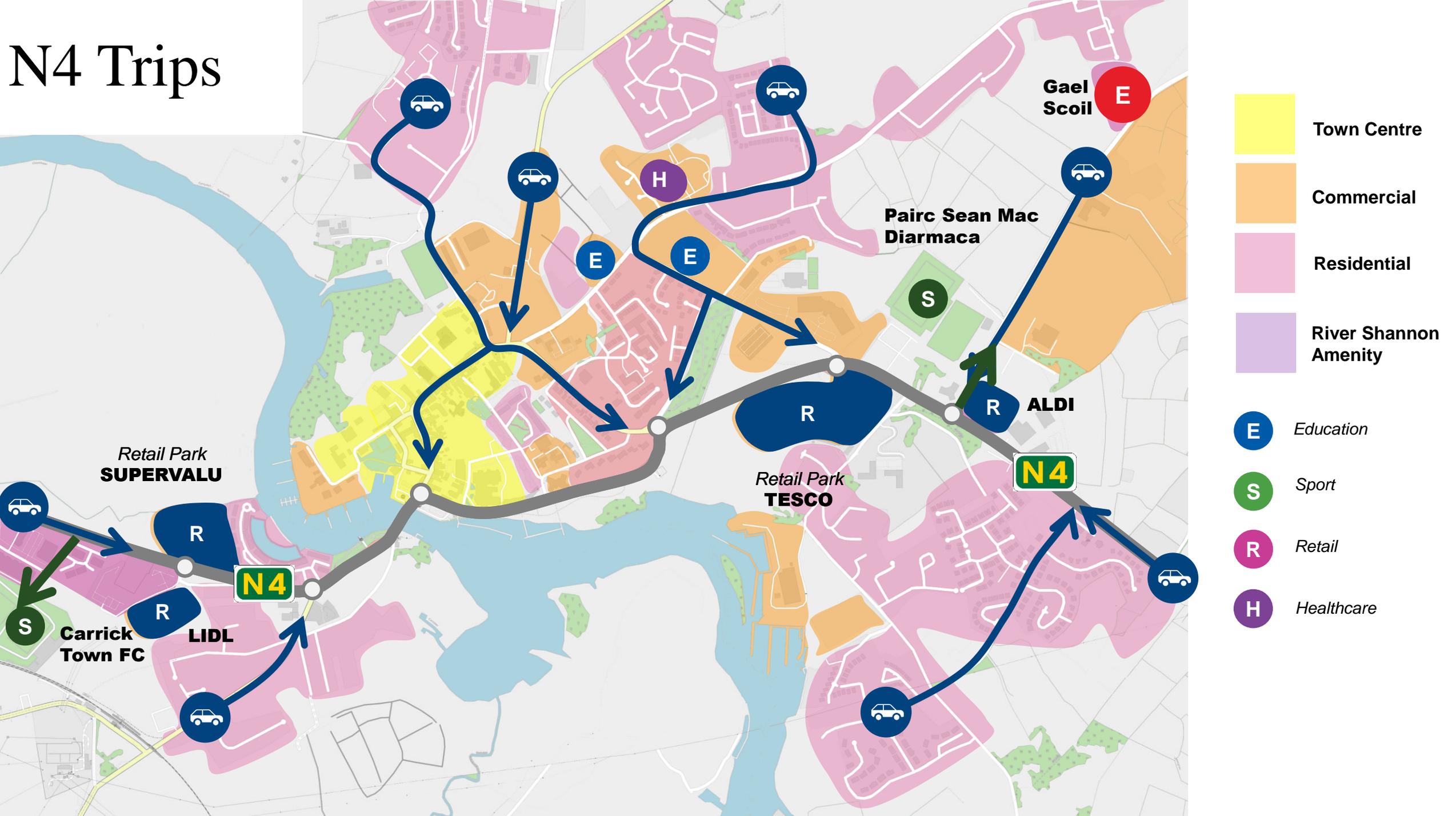
Aerial Mapping 2005



# Carrick-on-Shannon and Cortober



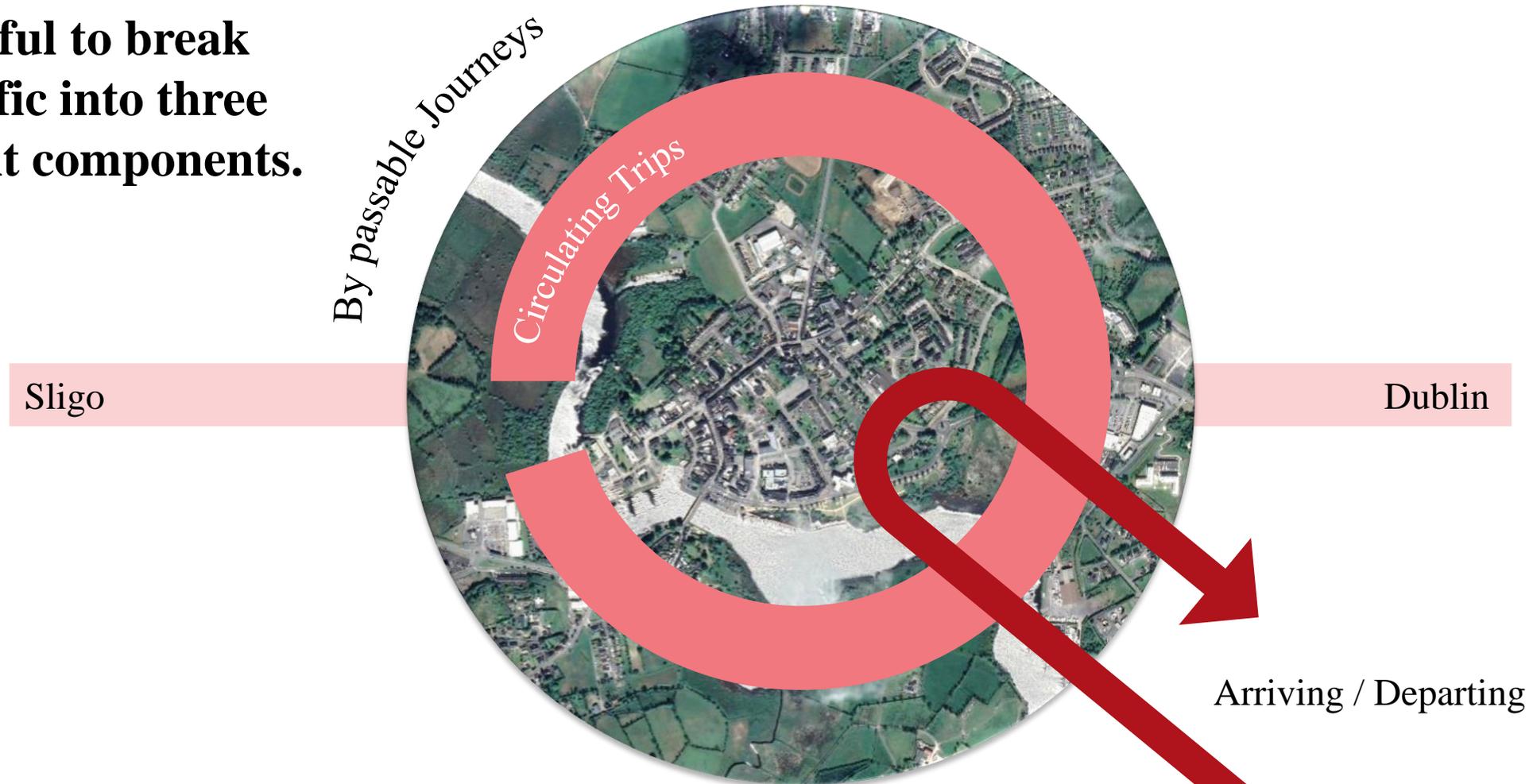
# N4 Trips



# N4 Carrick-on-Shannon

**N4 – local or strategic?**

**It is useful to break the traffic into three different components.**



**Each component requires analysis**

# Volume and Capacity

## Trip identification

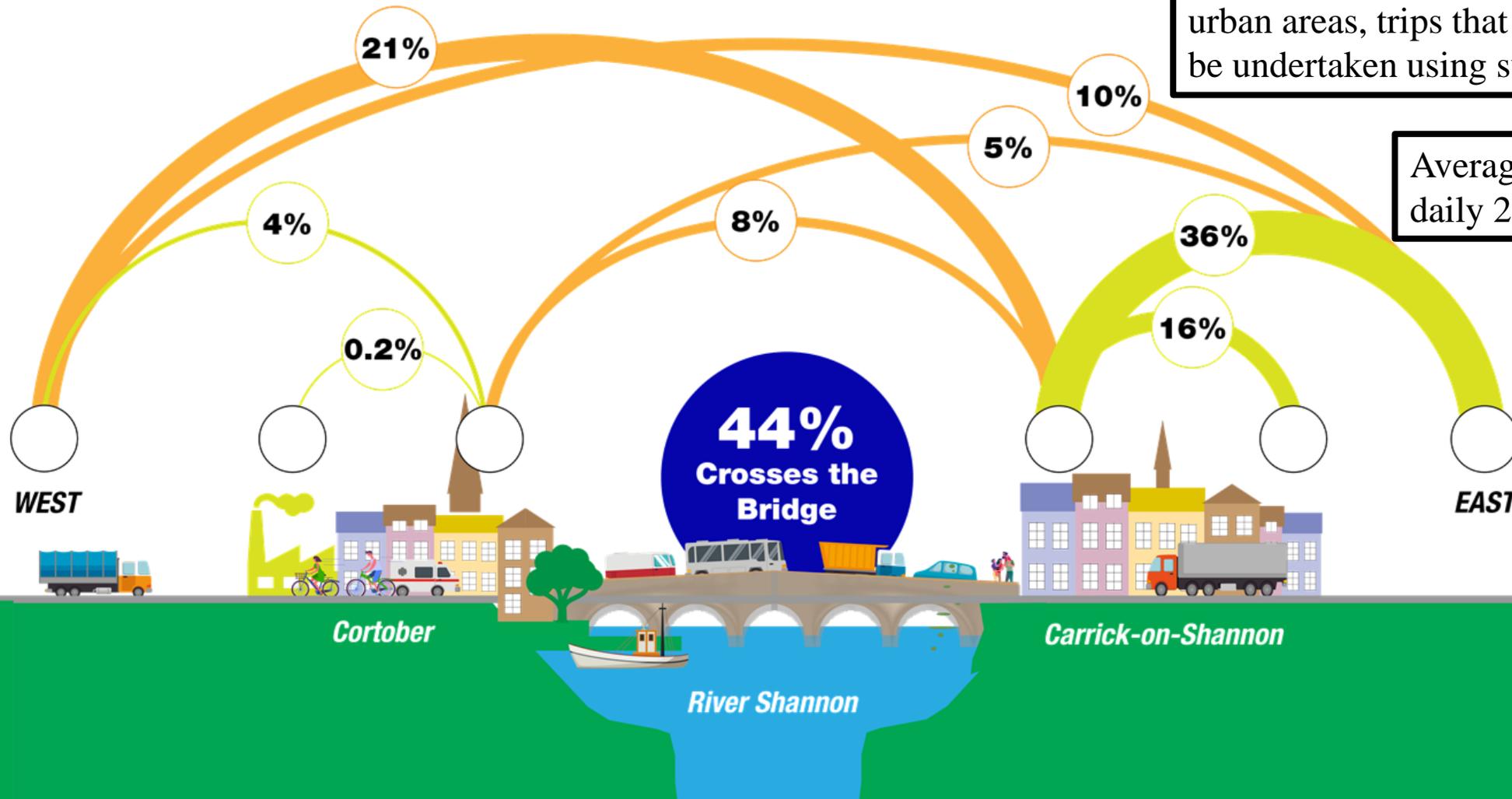
- Traffic volume alone should not determine capacity and dictate a cross-section
- Reduce size: When planning an alteration to the network think about what can be done to reduce the volume so that the capacity can be brought down to fit a reduced cross-section
- Reduce Distance: Can the individual components of predicted demand be catered for separately? Shorter journeys are more likely to be active

# N4 Carrick-on-Shannon

## N4 – analysis of trips

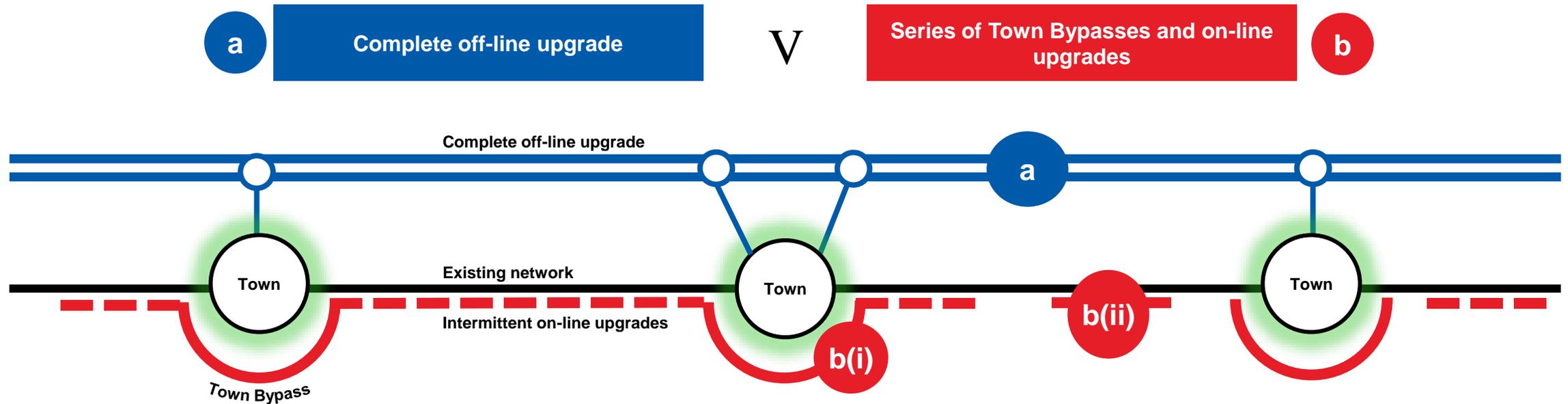
One quarter of vehicle movements are travelling less than 3km within the urban areas, trips that could be undertaken using sustainable modes.

Average 850 walking daily 2015-19



# N4 Carrick-on-Shannon

## N4 – Approach to Route Upgrade



An economic assessment of a v b shows overall costs and benefits are similar

However an economic assessment of **b(i)** now and **b(ii)** later can give much greater benefits as delays are in villages and towns

The issue that then must be addressed is taking care of the route consistency and safety issues

b is much more likely to be a single carriageway

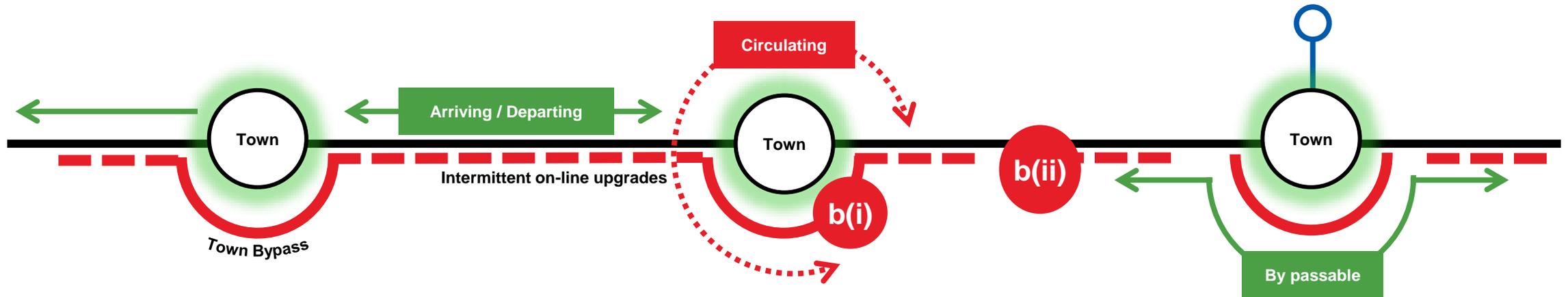
# N4 Carrick-on-Shannon

## N4 – Town Bypass and On-line Upgrade

- Forces you to think about keeping volume lower
- Reduces increase in road capacity
- Reduces time savings

Series of Town Bypasses and on-line upgrades

b

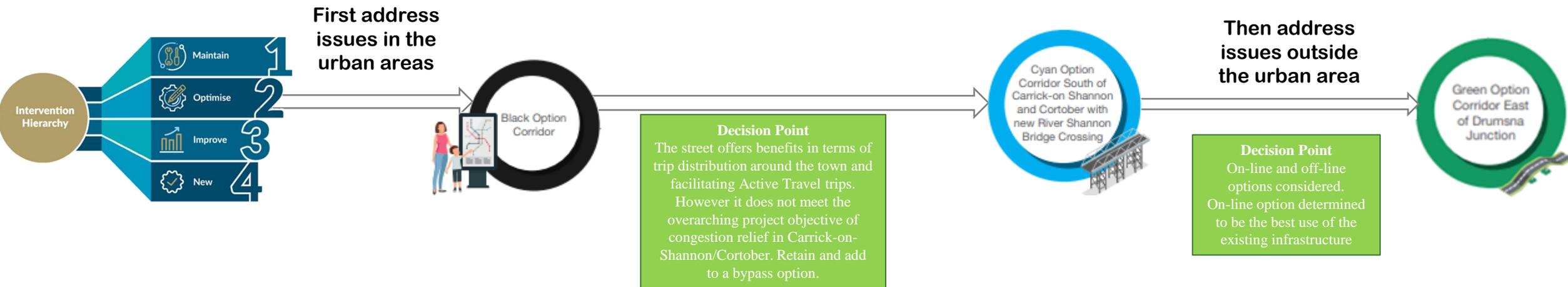
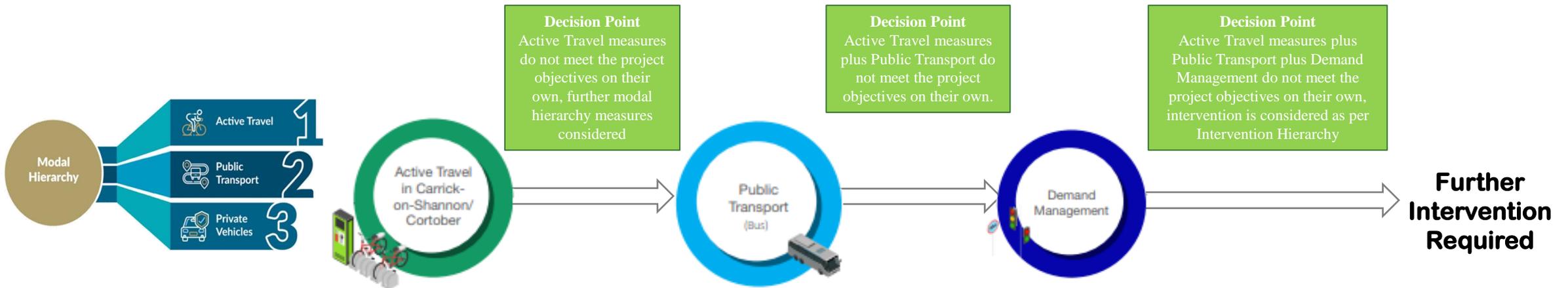


**This approach forces you to think about other solutions**

- Internal roads to remove circulating traffic
- Mode shift
- Better land use planning

# N4 Carrick-on-Shannon

## N4 – Town Bypass and On-line Upgrade

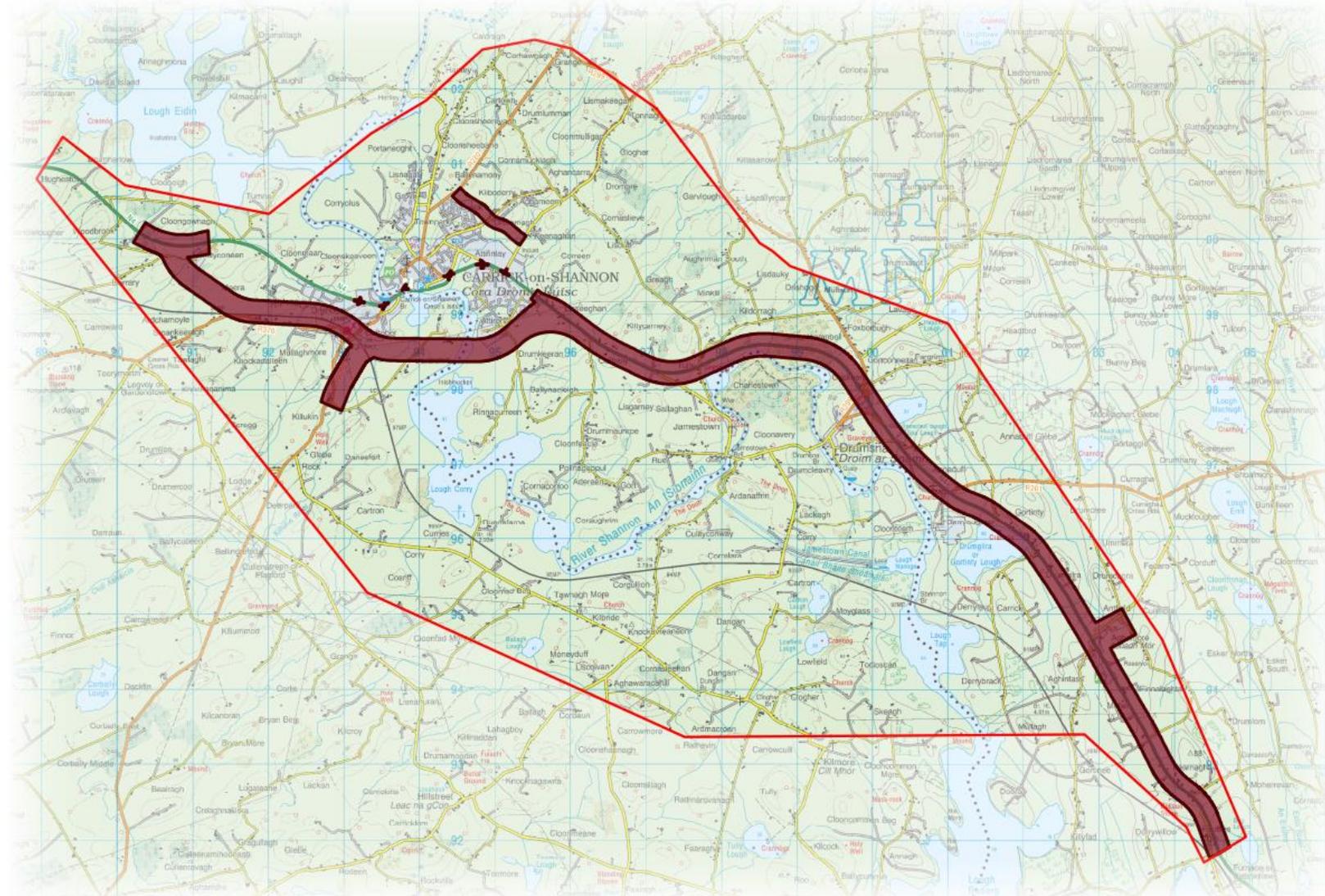


# N4 Carrick-on-Shannon

## Preferred Transport Solution

- Project website

<https://carrickdromod.ie/>



ARUP