

Rialtas  
na hÉireann  
Government  
of Ireland

Tionscadal Éireann  
Project Ireland  
2040

AECOM

NTA  
Údarás Náisiúnta Iompair  
National Transport Authority

# EU Green Deal

Under the new European Green Deal, presented in December 2019, the European Union (EU) aims to be the first climate neutral continent by 2050. It will result in a cleaner environment with more affordable energy and smarter transport.

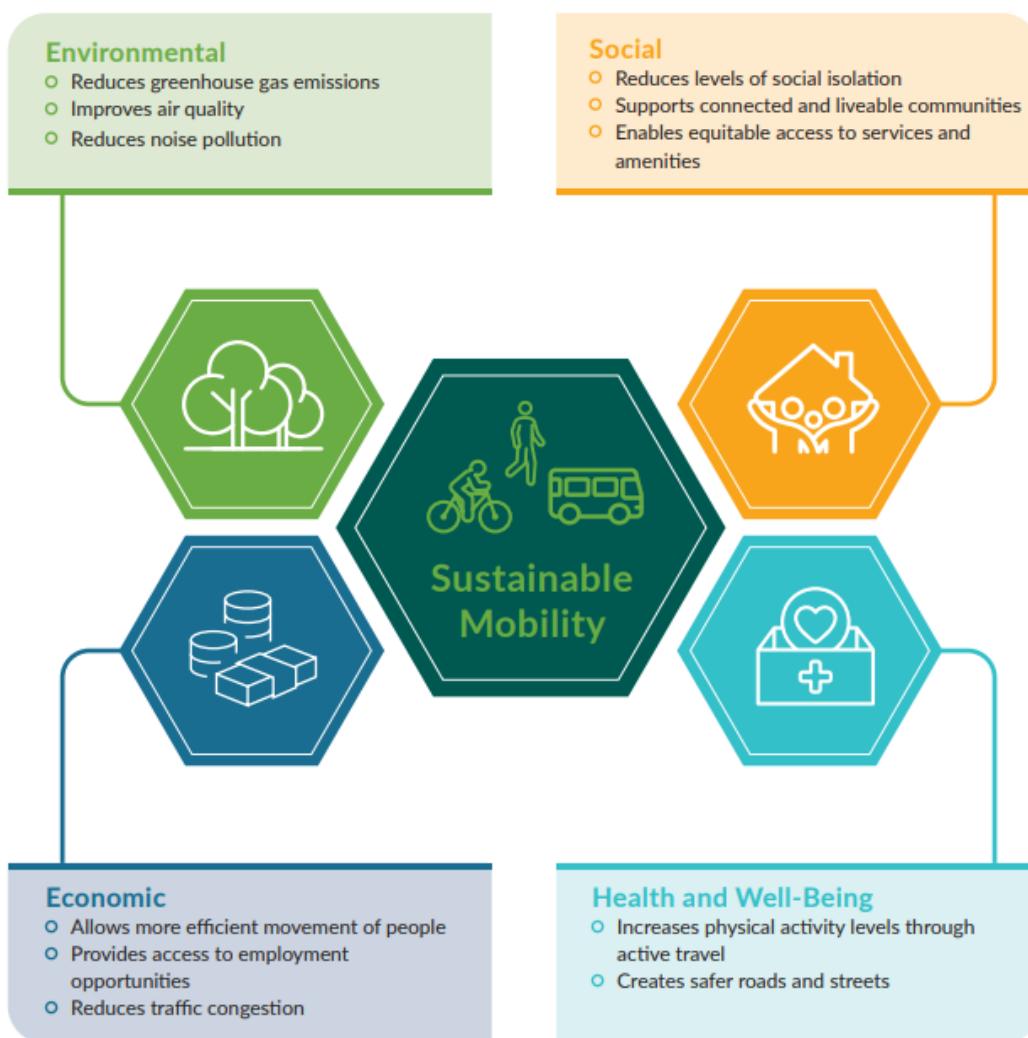
Transport contributes 5% to EU GDP and employing more than 10 million people in Europe. However, it also contributes to greenhouse gas and pollutant emissions, noise, road collisions and congestion. As part of the goal to be climate neutral by 2050, changes in transport and travel behaviour are required. It also aims to reduce greenhouse gas emissions by 90% by 2050.

All large and medium-sized cities are to put in place their own sustainable urban mobility plans by 2030. There are to be 100 climate neutral cities in Europe by 2030, including Cork and Dublin in Ireland. There is to be investment in transport infrastructure across all the EU Member States.

The European Commission proposes a 55% reduction in emissions from cars and 50% reduction in emissions from vans by 2030. It also promotes the growth of the market for zero- and low- emissions vehicles. In addition to this, it is important to promote alternative transport choices, and make these more accessible and available to the population.

## National Sustainable Mobility Policy 2022-2025

The National Sustainable Mobility Policy allows for an opportunity to change travel choices by making it easier for people to avail of sustainable modes of transport. Sustainable Mobility is connecting people and places in a sustainable way by supporting safe, accessible, comfortable, and affordable journeys to and from home, work, education, shops, and leisure. It also involves supporting travelling by cleaner public transport and by encouraging a shift away from private cars to active travel and public transport. This Policy aims to support this modal shift between now and 2030, through infrastructure and service improvements, as well as demand management and behavioural change measures. It aims to set out a framework to achieve a 51% reduction in carbon emissions by the end of the decade. These aims are necessary to meet climate change commitments. They also provide for the reorientation of communities to become people focused. There are numerous benefits to sustainable mobility including improved health, economic growth, and improved quality of life.



**Figure 1.1 Benefits of Sustainable Mobility (National Sustainable Policy)**

The Vision of the Policy is as follows:

*"To connect people and places with sustainable mobility that is safe, green, accessible and efficient."*

This Vision is supported by 3 key principles, which are underpinned by 10 goals.

- Safe and Green Mobility:
  1. Improve mobility safety
  2. Decarbonise public transport
  3. Expand availability of sustainable mobility in metropolitan areas
  4. Expand availability of sustainable mobility in regional and rural areas
  5. Encourage people to choose sustainable mobility over the private car
- People Focused Mobility:
  6. Take a whole of journey approach to mobility, promoting inclusive access for all
  7. Design infrastructure according to Universal Design Principles and the Hierarchy of Road Users model
  8. Promote sustainable mobility through research and citizen engagement
- Better Integrated Mobility:

9. Better integrate land use and transport planning at all levels
10. Promote smart and integrated mobility through innovative technologies and development of appropriate regulation

To support green mobility and safe mobility, the Policy puts forward the following cycling proposals:

- Continuing to protect and maintain the safety of existing walking, cycling and public transport networks and ensuring that new sustainable mobility infrastructure meets the highest safety standards.
- Developing pedestrian enhancement plans and cycle network plans to guide investment in new active travel infrastructure and retrofitting of existing infrastructure.
- Expanding walking and cycling options across the country, including greenways.
- Rolling out the Safe Routes to School Programme.
- Rebalancing transport movement in metropolitan areas and other urban centres away from the private car and towards active travel and public transport.
- Expanding behavioural change measures including the Smarter Travel Workplaces and Campus Programmes and Cycle Right training programme.

To support people focused mobility, the Policy puts forward the following cycling proposals:

- Continuing to make existing and new walking, cycling and public transport networks more accessible for all users.
- Implementing a universal design approach in the design of walking, cycling and public transport infrastructure and in the retrofitting of older infrastructure.
- Reviewing, updating, and developing existing guidelines, standards and supporting legislation, where necessary, to allow for a range of solutions to be developed for the reallocation of road space use to prioritise walking, cycling and public transport.

To support better integrated mobility, the Policy proposes the following rated to cycling:

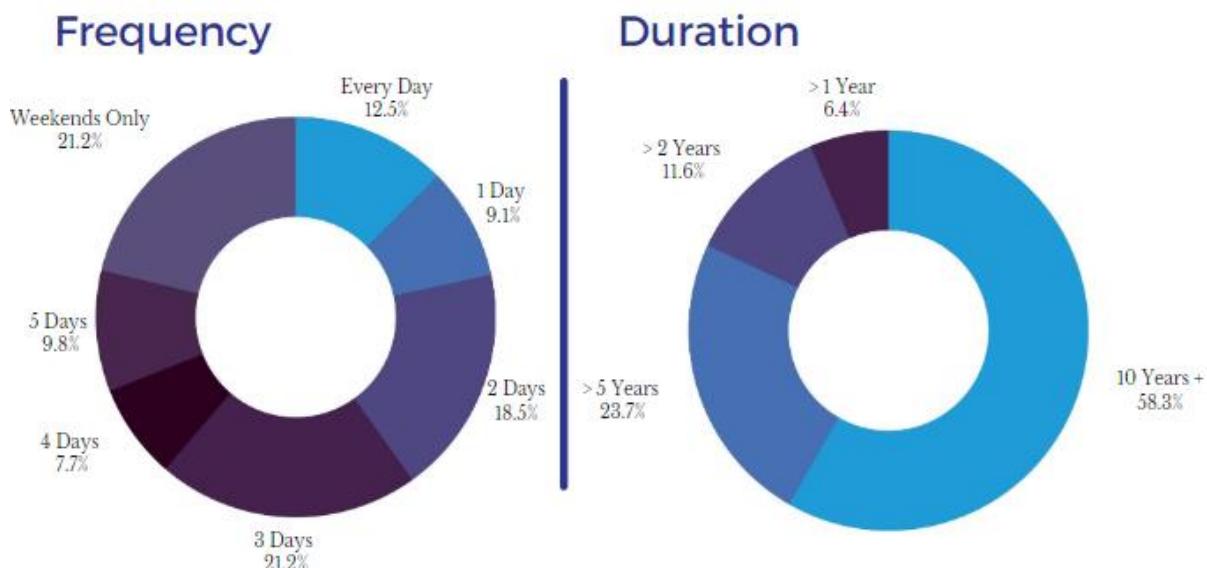
- Delivering metropolitan area transport strategies in the five cities and preparing local transport plans for the regional growth centres and key towns.
- Expanding the transport planning remit of the National Transport Authority (NTA) to all of the five cities.
- Developing a governance framework for Mobility as a Service (MaaS).

National Sustainability Policy Action Plan outlines a number of goals and actions. Under Goal 4: Expand availability of sustainable mobility in regional and rural areas, is Action 27: Develop and implement an active travel infrastructure programme for regional growth centres and key towns outside of the Greater Dublin Area. This action is to be carried out by TII and the NTA by 2023. Action 28 notes that the NTA are to develop and publish cycle network plans for all counties by 2023. In addition to this, TII and the NTA are to expand greenway network establishing linkages with towns and villages in line with the strategic national cycle network.

## Ireland's Cycling Potential

The National Travel Survey in 2019 found that only 15% of respondents chose to undertake bike journeys, with 2.2% at least 5 times a week, while 1.8% do so 3 to 4 times a week and 2.8% 1 to 2 times a week. It found that men tend to cycle longer journeys than women. The main motivating factor behind cycling was the enjoyment of cycling, accounting for 55.7% of respondents, and exercise, accounting for 49% of respondents. Other factors included more reliable journey times (7.4%), convenience (16.5%) and helping the environment (12.8%). The survey also noted that safer cycling routes is the main factor noted (31.7%) that would encourage respondents to cycle more in the future. Other factors included better health (20.5%) and the introduction of more cycling specific routes (17.3%).

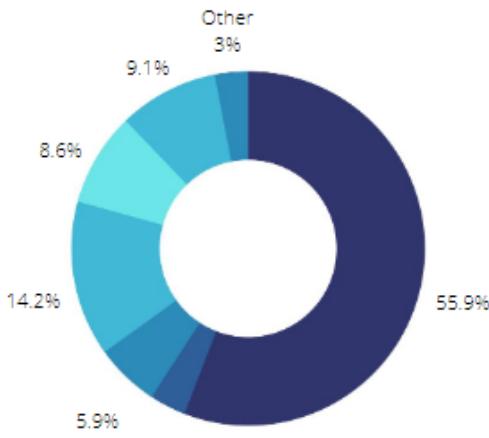
Cycling Ireland published the Big Bike to Work 2021 Poll Report. It had 1,380 respondents, 64.1% of which were male. Of the 1,380 people 45.5% cycled in urban areas, 23.9% cycling in rural and 1.7% in a mixture of both. The report notes that 35.6% of responders cycle between 5-10km. Additionally, 251 (18.2%) respondents cycle over 20 km to work, of these 118 cycle in rural areas.



**Figure 1.2: Frequency and duration of cycle trips undertaken ([The Big Bike to Work Poll](#))**

It found that only 3.1% had cycle lanes available on 100% of their route, 23.8% (329) said that there were no cycle lanes on their route. Of these 65% (214) regularly cycle in rural locations. The respondents were also polled about their perception of safety, with 69.8% feeling moderately safe and 5.3% not feeling safe at all. Factors that would improve safety are highlighted in Figure 1.3. The presence of bike lanes influences 62.1% of respondents' routing decisions. Other factors that impact routing decisions include road quality (49.1%), traffic speed/avoiding main roads (38.8%) and terrain (19%).

- Improved road infrastructure for cyclists (cycle lanes & pathways) - 771 / 55.9%
- Lower Car Speed - 46 / 3.3%
- More secure bicycle parking facilities - 81 / 5.9%
- More driver education in how to safely share the road - 192 / 14.2%
- Introduce technology that prevents drivers texting while driving - 118 / 8.6%
- More stringent laws that protect cyclists - 126 / 9.1%
- Other - 42 / 3%



**Figure 1.3: Factors that would improve cyclist safety ([The Big Bike to Work Poll](#))**

During the Covid 19 lockdowns and restrictions implanted as part of the Covid-19 pandemic, the number of passenger trips on public transport dropped. During this time, the number of cyclists increased, particularly for short distance trips. CSO data showed that in off peak periods the number of cyclists in 2020 was comparable to that of 2019. The restrictions led to a change in travel behaviour and a modal shift to more active and socially distanced methods of transport.

## National Cycle Manual (NTA)

The National Cycle Manual (NCM) is the primary design manual for all cycle routes in Ireland. It was originally published in 2013 to provide a design guide for cycle projects being developed as part of the NCPF. The National Cycle Manual is currently undergoing an update by the NTA. This update will include additional guidance on rural cycling guidance. It is due to be published by the end of 2022.

The NCM denotes the purpose of a cycle network to connect the main zones of origin and destination in an urban area, providing effective through movements for cyclists. Green routes are provided in a network specifically for tourists, but they can also service everyday trips. These should be connected to the Cycle Network. Additionally, the connections between the National Cycle Network and Urban Cycle Network should be clear and recognisable in the urban area.

Central to this manual are the 5 principles of sustainable safety. These were developed in the Netherlands in 1992. They are as follows.

- **Functionality:** the principle of functionality is that the design which is fit for purpose is safer. Urban streets and roads are multi-functional, these functions can be movement related or place related. Movement related functions include pedestrians, cycling and vehicular traffic. Place related includes housing and access, parks and open spaces, and communication and information points.
- **Homogeneity:** relates to the reduction of the relative speed, mass and directional differences of various road users that are sharing the same space, in order to improve safety. Where these are not homogenous, different road users may need to be segregated.
- **Legibility:** relates to a road environment that all road users can read and understand being safer. A legible design will be self-evident, self-explanatory and self-enforcing. This is necessary on both shared and segregated environments.

- **Forgivingness:** relates to environments that contribute to benign outcomes of accidents being safer. This includes falling, evasion room, cross falls, physical hazards, and lighting.
- **Self-awareness:** relates to road users being aware of their own abilities and limitations in negotiating a road environment, making the environment safer. This involves providing a higher quality of service close to locations where cyclists are less experienced or are more limited. Additionally, site specific information and signage, as well as alternative routes that match reduced ability can aid this.

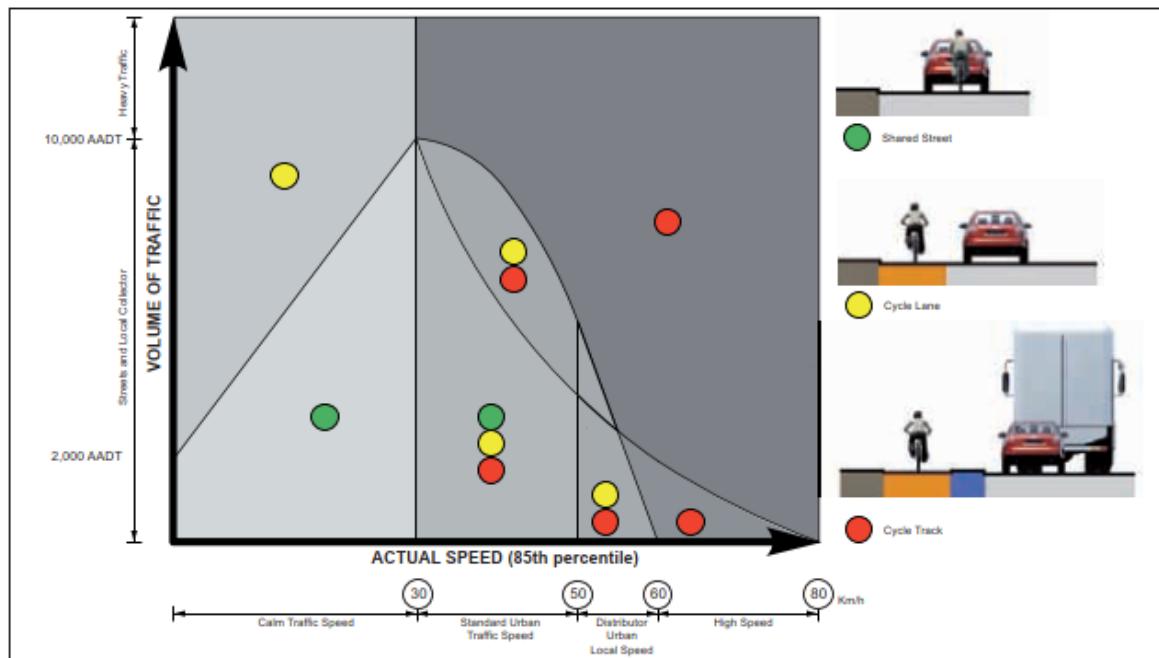
These principles underpin the NCM and provide a base line for the start of any road design. These are used for urban link selection and will be used in the development of routes for the County Cycle Networks, particularly urban links.

The five needs of a cyclist are also outlined by the NCM. Safety, coherence and directness are considered central to planning a network. Comfort and attractiveness, while not as significant, remain important. The NCM notes directness to be the most important requirement for network planning, as cyclists can be intolerant to detours due to the time and effort involved in undertaking a cycle journey.

Cyclist Need	Implications for Cycle Network Planning
Directness	Offer as direct a route as possible, keeping detours or delays to a minimum. Provide a shorter average distance (or journey time) over short distances as compared to other modes.
Safety	Provide for the safe passage of cyclists and other road users. Provide socially safe route choices at night-time
Coherence	Link all main origin zones and destinations. Aim to carry the majority of cycle traffic (in cycle-km terms). Offer route choice, with at least one risk-averse option for key journeys

**Figure 1.5: 3 Needs of a cyclist (for network planning)**

From reviewing the NCN, the majority of the design criteria relates to urban roads with speeds less than 60kmh. However, some diagrams such as what is shown in Figure 1.6 below give an indication of design is required for roads greater than 60 km/h. This recommends a similar layout to what the TII guidance recommends in separating cyclists from general traffic with a raised kerb/grassed strip.



**Figure 1.6: NCM Guidance Graph (National Cycle Manual)**

Therefore, while the basic principles of sustainable safety and five needs of a cyclist can be referenced when developing the interurban network, additional information may be needed when selecting a particular route between origins and destinations on rural roads. An update is the NCM is expected in 2022 where additional information on designing and selecting cycle routes in rural areas is expected to be available.

## National Cycle Network (TII)

TII has developed a network for strategic route corridors, connecting towns with a population of over 5,000 people (2016 Census results). Its aim is to produce a safe, connected and inviting cycle network. It includes plans to create cycle routes to destinations such as transport hubs, centres of education, centres of employment, leisure and tourist destinations.

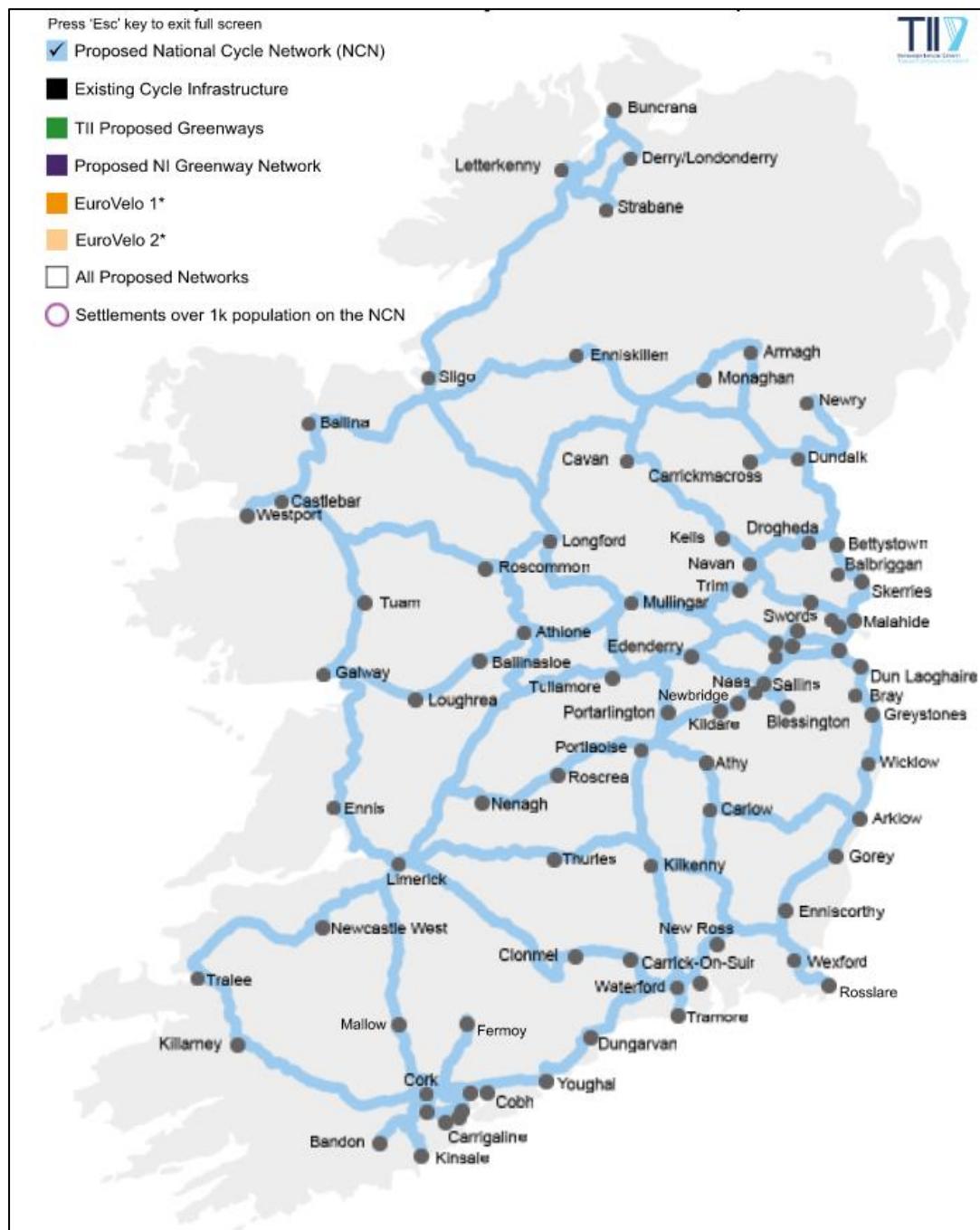
It builds on the previous cycle network developed by TII and is to align with the work being undertaken by the National Transport Authority (NTA) in developing the CycleConnects cycle network. It will act as a core spine that other networks and routes can connect to. The National Cycle Network (NCN) is to integrate with other cycle routes in development such as the EuroVelo routes, greenways and the Strategic Plan for Greenways in Northern Ireland.

The routes on the NCN will be comprised of various infrastructure types. These include greenways, segregated cycle tracks, shared road.

The NCN aims to generate a number of benefits for cyclists and communities across Ireland, including:

- Being the core cycle network for Ireland, connecting towns and destinations to which other cycle networks will connect.
- Acting as a multifunctional network available for commuters, leisure users and tourists.
- Establishing a coherent and coordinated network that integrates with existing and proposed cycle routes being developed by TII and other bodies.

- Helping inform how local authorities prioritise Exchequer-funded investments in cycle infrastructure.
  - Making use of existing infrastructure wherever possible including greenways and declassified roads where there is enough space to provide safe and appropriate cycle facilities.
  - Providing high-quality cycle infrastructure to promote safety, comfort and increased participation in cycling. Minimum design standards will be developed for how the network will be built.
  - Clearly signposting the network to identify and distinguish it from other cycle facilities.



**Figure 1.4: Proposed NCN Route Corridors (NCN 2022 Consultation )**

The NCN will guide the development of cycle infrastructure in Ireland over the coming years. The NCN itself will be delivered via a series of rolling, five-year phases by local authorities. An assessment will identify corridors to be delivered in each implementation phase. The first implementation phase will run from 2023-2025. Subsequent phases will run every five years, starting in 2026-2030.

## Greenways & Cycle Routes Ancillary Infrastructure Guidelines (DOT)

This guidance document on greenway development was created to support the national strategy for the future development of national and regional greenways. It was published by the Department for Transport (DOT) in 2018. The guidelines are informed by international and national best practice and are consistent with the European Certification Standards for EuroVelo Cycle Routes.

It defines a greenway as “a recreational or pedestrian corridor reserved exclusively for non-motorised journeys, developed in an integrated manner which enhances both the environment and quality of life of the surrounding area. These routes should meet satisfactory standards of width, gradient and surface condition to ensure that they are both user-friendly and low-risk for users of all abilities.” (Lille Declaration, European Greenways Association, 12 September 2000)

A cycle route, that is not a greenway, is defined as a route which is designated for the use of cyclists, ideally traffic free or on very low traffic roads and providing a pleasant and enjoyable outdoor experience.

The needs and expectations of the cyclists who uses the routes need to be at the centre of the decision making during the route design. Examples of such are:

- Routes should be safe/ perceived to be safe.
- Routes should offer an attractive pleasant experience: with aesthetic. Route design, good scenery, integrating with its surroundings, and opportunities to visit local attractions and include places for resting, refreshment and stopping off.
- Routes should be accessible via public transport at critical points, and convenient to use, with due consideration given for the needs of individuals with disabilities.
- Routes should be part of a coherent trail or network with signposted Routes and destinations and be continuous and recognisable with consistent standards.
- Routes should be appropriate, in that it is easy to use, well maintained and addresses user recreation and/or their commuting expectations.

## Code of Best Practice National and Regional Greenways (DOT)

This document was produced by the DOT in 2021 to provide comprehensive information in relation to the process involved in planning, designing and constructing National and Regional Greenways.

The document mentions the “Five S” criteria outlined in Strategy for the Future Development of National and Regional Greenways 2018. The Five S’s are as follows:

**Sustainable:** The Government’s Tourism Policy Statement notes the importance of sustainable development of tourism. This includes the development of greenways and other facilities to increase the attractiveness of Ireland as an active tourist destination.

**Strategic:** Greenways developed using these guidelines should be strategic and should have the potential to link into a larger cycling and walking network. This also allows for projects that don't meet the see and do and the scenic criteria can still provide strategic links to a cycle network.

**Segregated:** The best practice would be that all Greenways be fully segregated from vehicular traffic, however there is an allowance for situations where full segregation is not possible. The greenways are to be shared use between cyclists and pedestrians.

**Scenic:** Fáilte Ireland's research indicates that visitors cycling while on holidays want their cycling routes to be scenic and have pleasant views and landscapes.

**Lots to See and Do:** Fáilte Ireland's research also indicates that visitors cycling while on holidays want their trips to have lots of things to see and do along the route.

## Regional Spatial and Economic Strategy (RSES)

The RSES sets out the strategic regional development framework for the Region, with a primary aim to implement Project Ireland 2040 - the National Planning Framework, at the regional tier of Government and to support the achievement of balanced regional development. It is a long-term strategic development framework for the future physical, economic, and social development of the different regions of the Country. The country is split into several different regions; The Southern, the Northern and Western and the Eastern and Midland Regional Assemblies.

The Southern Regional aims to promote sustainable mobility through, the transforming of the transport system towards sustainable integrated public transport, walking and cycling and electric vehicles. To achieve this the Region aims to meet the following objectives related to cycling:

- To provide for the integrated development of sustainable transport infrastructure, including walking, cycling (including emerging e-modes) and public transport to accommodate the necessary switch from the private car, for the travel needs of all individuals in the Region, in line with the stated government transport policy
- To develop a comprehensive network of safe cycling routes in the three cities and their metropolitan areas and to provide similar facilities in other towns and villages where appropriate

To ensure that future developments are planned and designed to maximise their accessibility by public transport, walking and cycling.

The Eastern and Midland Assembly aims "*To create a sustainable and competitive Region that supports the health and well-being of our people and places, from urban to rural, with access to quality housing, travel and employment opportunities for all.*"

There are three main principles set out in RSES:

- Healthy Placemaking
- Climate Action
- Economic Opportunity

To promote Healthy Placemaking sustainable travel, including cycling, should be prioritised in the planning and design process. Promoting Climate Action and reducing emission requires a modal shift towards walking cycling and public transport.

As part of promoting green infrastructure, local authorities should be providing links between walking and cycling routes, particularly in areas with higher numbers of amenities. Policies to

promote sustainable transport such as walking and cycling are necessary to promote a modal shift. RSES supports the development of the National Cycle Plan within the region.

One of the aims of the Northern and Western Regional Assembly is to “to provide a quality nationwide community based public transport system in rural Ireland which respond to local needs” through the Local Link Rural Transport Programme Strategic Plan 2018-2022. The priorities of this programme are focused on addressing rural social exclusion and the integration of rural transport services with other public transport services.

The Strategy aims to facilitate a modal shift to more sustainable transport. This includes cycling and walking. It plans to achieve this through:

- Preparation and implementation of Local Transport Plans for Galway Metropolitan Area, Regional Growth Centres and Key Towns, which shall encourage a travel mode shift from private vehicular use towards sustainable travel modes of walking, cycling and use of public transport.
- Safe walking and cycle infrastructure shall be provided in urban and rural areas, the design shall be informed by published design manuals, included the Design Manual for Urban Roads and Streets (DMURS) and the NTA Cycle Manual.
- Development of a network of Greenways.

## Northern Ireland Transport Policies

Additional details to Northern Ireland Cycle Policy and Development Strategies can be noted in the following documents:

- Changing Gear – A Bicycle Strategy for Northern Ireland (2015)
- Exercise, Explore, Enjoy – A strategic Plan for Greenways (2016)
- Department for Infrastructure Strategic Plan for Greenways – AECOM Report (2016)

### Regional Development Strategy (2012)

The RDS provides an overarching strategic planning framework to facilitate and guide the public and private sectors.

It takes account of key driving forces such as population growth and movement, demographic change, the increasing number of households, transportation needs, economic changes, climate change and the spatial implications of divisions that still exist in our society. It seeks to inform and guide the whole community in the drive to create a dynamic, prosperous, and progressive Northern Ireland.

The following regional guidance has been extracted due to its associations with cycling infrastructure development.

#### **RG4: Promote a sustainable approach to the provision of tourism infrastructure**

- Promote a balanced approach that safeguards tourism infrastructure while benefiting society and the economy.

#### **RG9: Reduce our carbon footprint and facilitate mitigation and adaptation to climate change whilst improving air quality**

- Reduce greenhouse gas emissions from transport.

Strategic Guidance has been developed to provide long term policy directions and the following Spatial Framework Guidance (SFG) references greenways. This includes:

**SFG5: Protect and enhance the quality of the setting of the BMUA and its environmental assets:**

- **Protect and enhance the network of open spaces in the BMUA.** Opportunities should be taken for connections to an enhanced network of pedestrian paths, cycle-ways and ecological corridors.

**SFG9: Protect and enhance the quality of the setting of Londonderry City and the North West and its environmental assets**

- **Protect and enhance the network of open spaces in the North West.** The Opportunities should be taken for connections to an enhanced network of pedestrian paths, cycle-ways and ecological corridors.

**Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation**

The primary purpose of this document was to set out the department for regional developments new approach for regional transportation and particularly future decisions on investment.

Within this plan the Department has set three High Level Aims for transportation along with twelve supporting Strategic Objectives, covering the economy, society and the environment.

The following strategic objectives relate to the development of cycling infrastructure.

**Strategic Objective 3 – Better maintain transport infrastructure**

We want a reliable transportation network that allows people and freight to move safely and to have reliable journey times. To do this, we need to regularly maintain roads and railways. To make public transport, walking and cycling attractive options, we need to make sure that the infrastructure is safe, clean, well maintained and well lit.

**Strategic Objective 4 – Improve access in our towns and cities**

Good transport links are important to the economy and to society. We want to ensure that people have the opportunity to access education, training and employment as well as key services such as health, cultural, shopping, sporting and leisure activities. These facilities and services are usually located in, or around, towns and cities. Recognising that not everyone has access to a car, a more inclusive society will require high quality and affordable public transport with appropriate infrastructure or walking and cycling routes which enable people to access these key services.

**Strategic Objective 7 – improve Safety**

We want to reduce the number of people killed or seriously injured on our roads, for car users, pedestrians and cyclists. We also want to improve the attractiveness of public transport, walking and cycling by making it safer. Feelings of safety can be improved by well-designed, well-lit infrastructure which discourages crime and anti-social behaviour.