National Cycle Network Plan
Summary Report
# Contents

1. Introduction 4
2. Vision for the National Cycle Network 5
3. Overview of the National Cycle Network 7
4. Design Principles for the National Cycle Network 11
5. Delivery of the National Cycle Network 12
Introduction

On behalf of the Department of Transport (DoT), Transport Infrastructure Ireland (TII) with the support of AECOM Ltd has produced the National Cycle Network (NCN) Plan with the aim of linking cities and towns of over 5,000 people with a safe, connected and inviting cycle network. The NCN Plan proposes a cycle network of approximately 3,500km, connecting more than 200 settlements and 2.8 million people nationally. The NCN will also link to destinations such as transport hubs, centres of education employment, leisure, and tourist destinations. The network will facilitate increased cycling and walking amongst leisure users, tourists and commuters alike.

The NCN Plan was developed in the context of national policies which recognise Ireland’s declaration of a Climate Emergency in 2019. In particular, the State’s legally binding commitment under the Climate Action and Low Carbon Development (Amendment) Act 2021 to pursue and achieve a target of net-zero greenhouse gas emissions no later than 2050 (i.e. our National Climate Objective). This is further emphasised by the carbon budget programme and sectoral emissions ceilings established by Government to ensure 51% GHG emissions abatement by 2030.

In line with these national commitments, the Climate Action Plan 2023 highlights the need to facilitate a 50% increase in daily walking and cycling journeys as part of the transport sector’s own decarbonisation pathway.

To support transport decarbonisation and encourage a shift to walking and cycling, there is a need to significantly improve the infrastructure networks used for these travel modes.

It is within this context that the need for the development of a coherent and connected NCN Plan was identified.

Development of the plan was informed by assessment of the existing and planned cycle networks, analysis of population densities and likely travel demand. Identifying the needs of end users was a high priority in development of the plan, determined through market research and an assessment of international best practice from Denmark, the UK and Hungary.

The development of the NCN Plan was a collaborative process that involved many key stakeholders. Delivery partners included DoT, TII, the National Transport Authority (NTA) and the County and City Management Association (CCMA). Other key stakeholders included: Fáilte Ireland, Waterways Ireland, Sport Ireland, Cycling Ireland, cyclist.ie and Cara (Sport Inclusion Ireland). Input from stakeholders was provided throughout the development of the proposed network including the definition of destinations and corridors.

In addition to stakeholder consultation, a five-week public consultation was undertaken in May and June 2022 to receive feedback on the draft network. The consultation was conducted online and over 1,400 submissions were received.

1 Based on 2016 Census data
The vision for the National Cycle Network (NCN) Plan is to:

"Develop a safe, connected, and inviting cycle network between urban areas and key destinations to achieve accessible, sustainable, and high-quality routes that will help to reduce the carbon impact of transport and promote a healthy and inclusive society."

The NCN primarily links cities and towns of over 5,000 people with a safe, connected and inviting cycle network.

The NCN will optimise the potential for people to cycle as part of their daily activities, such as travelling to work or educational commuting and it will integrate with existing and proposed cycling infrastructure. Both road safety, and the safety and security of users, will be central to the development of the NCN.
The NCN will act as the core network connecting towns, cities and destinations across Ireland

The proposed NCN is around 3,500km length

The NCN will connect over 200 cities, towns and villages

The NCN will link to transport hubs, centres of education and employment, leisure, and tourist destinations

The NCN will integrate with other cycle infrastructure, including Eurovelo routes, CycleConnects and greenways nationally
Overview of the National Cycle Network

The NCN is composed of 85 corridors across approximately 3,500km and connects to over 200 settlements, with a combined population of over 2.8 million people.

With 80% of households and 89% of jobs located within 5km of the network, it provides an excellent level of connectivity nationally.

The proposed network is as follows:

- **Existing infrastructure:** Over 400km of the NCN is currently in use as existing greenways or other cycling infrastructure.
- **Proposed/planned greenways:** Over 900km of the NCN is currently included in the National and Regional Greenways Programme.
- **Remaining network:** The remaining 2,200km of the NCN will require the provision of new infrastructure outside the National and Regional Greenways Programme and associated funding.

Three broad types of nodes, or areas, were identified for inclusion in the NCN, as follows:

- **Primary nodes,** consisting of cities and / or large towns with a population of over 20,000 people.
- **Secondary nodes,** consisting of medium sized towns with a population of between 10,000 and 20,000 people, as well as major tourist attractions outside urban areas.
- **Other nodes,** including small towns and settlements of less than 5,000 people, and strategic destinations such as transport hubs, centres of education and employment.

The identified NCN corridors are approximately four kilometres in width and provide an indicative alignment for the development of future routes. For each corridor, further work will be required to identify and assess specific options to determine a preferred route.
As well as contributing to Ireland’s commitments to sustainability and decarbonisation, successful implementation of the NCN Plan will provide many benefits for cyclists and communities across Ireland, including:

- Ensuring delivery of a high-quality cycle network which will promote safety, comfort and increased participation in cycling.
- Improving sustainable connectivity nationally through providing links with other networks such as CycleConnects, EuroVelo and Northern Ireland networks.
- Supporting both urban and rural economies through increased leisure and tourism cycling.
- Improving public health through the well documented benefits of more active travel.
- Guiding how local authorities prioritise investment in cycling infrastructure nationally.
- Making use of existing infrastructure wherever possible including greenways, road infrastructure, and declassified roads where safe and appropriate cycle experiences can be achieved.
The NCN aligns with the NTA’s CycleConnects programme of urban and county-level cycle networks, as well as other cycle routes and networks in various stages of development. These include the EuroVelo routes, greenways, and the Strategic Plan for Greenways in Northern Ireland.

The NCN Plan complements other networks and establishes a core spine of infrastructure to encourage further development of cycling projects in the future.

As an inter-urban network, the NCN aims to provide connections between different urban centres.

Where an urban cycle network already exists (or is planned), the NCN will connect with the highest quality route to the urban centre (e.g. connecting with a segregated cycle track rather than an unprotected cycle lane).

This approach will ensure that the NCN is successfully integrated with existing and planned urban networks across the country, thereby facilitating an increase in inter-urban cycle trips by allowing users to undertake point-to-point journeys along defined and consistent routes. Ultimately, this will contribute to a modal shift away from cars.
4 Design Principles for the National Cycle Network

One of the key factors to successful delivery of the NCN is that it should provide a consistent user experience nationally. It is therefore important to define the types of infrastructure that are considered appropriate for use on the NCN.

Based on feedback received through public and stakeholder consultation, as well as available national guidelines for the delivery of cycling infrastructure and international best practice, preferred infrastructure types for the NCN have been identified.

The defining characteristic of the preferred infrastructure types is that they are all segregated, allowing cyclists to travel in their own space, away from road vehicles with a higher level of safety and comfort.

By providing safe, segregated cycling infrastructure wherever feasible, the NCN will improve cycling confidence and in turn the number of trips by bike and cycling mode share.

It is acknowledged that it may not always be possible to provide one of the preferred infrastructure types in some locations due to site and/or other constraints. In such circumstances, a departure from the preferred infrastructure types may be acceptable, subject to site-specific evaluation.

Consideration has also been given to the potential use of “quiet roads” as part of the NCN. These are existing roads where traffic volume and speed could be managed to provide a cycle friendly environment.

<table>
<thead>
<tr>
<th>Preferred Infrastructure Type</th>
<th>Suitable Location</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle Trail</td>
<td>Rural &amp; Urban</td>
<td><img src="cycle_trail_example.png" alt="Image" /></td>
</tr>
<tr>
<td>Off-Road Cycleway (cycle track)</td>
<td>Rural</td>
<td><img src="off-road_cycleway_example.png" alt="Image" /></td>
</tr>
<tr>
<td>Standard Cycle Track – one-way, two-way and raised or behind verge</td>
<td>Urban</td>
<td><img src="standard_cycle_track_example.png" alt="Image" /></td>
</tr>
</tbody>
</table>
The NCN will be planned and delivered as a single programme, rather than a series of inter-related projects. This will ensure an integrated approach to delivery. The focus of the delivery programme will be on providing a coherent network, with regional balance.

Delivery will be supported by a branding and marketing strategy to raise awareness of the network and encourage use of it.

Delivery of the NCN will be across three phases from 2023 to 2040. Various corridors have been assigned to each delivery phase based on results of a multi-criteria assessment, which considered a range of factors, including: potential demand along each corridor, corridor length, network coherence, safety and social benefits.

<table>
<thead>
<tr>
<th>Phase 1 (2023-2025)</th>
<th>Phase 2 (2026-2030)</th>
<th>Phase 3 (2031-2040)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximate kilometres delivered</td>
<td>330km</td>
<td>660km</td>
<td>2,510km</td>
</tr>
</tbody>
</table>

An indicative cost estimate for the delivery of the NCN is between €1,490m and €1,910m, depending on the infrastructure types used across the network. Approximately €30m will be required to upgrade the existing infrastructure to the NCN design standard, including additional signage. The cost of planned greenways is €940m while the remaining infrastructure would cost between €520m and €940m, depending on the type of infrastructure required.2

Successful delivery of the NCN will rely on clear governance over its implementation and ongoing management. A single organisation or dedicated programme management office will be responsible for providing the oversight and management required for delivery.

2 All of these are 2022 figures with no allowance for inflation
Environmental Assessment

Environmental considerations and evaluation were integral to the development of the NCN Plan. In addition to incorporating environmental and biodiversity criteria in the plan objectives and network development, a Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) guided development of the NCN Plan. These assessments were submitted to the relevant authorities for review as part of a public consultation process and the NCN Plan was updated based on the feedback received.

Both the SEA and AA highlight that all future NCN projects must adhere to all the required environmental processes and procedures including, but not limited to:

- Where new corridors are proposed, they must undergo a robust route selection process to ensure environmental constraints are avoided insofar as possible.
- Routes bought forward under each of the corridors will require AA screening to determine the effects on the integrity of European sites either alone or in combination with other plans and projects. In determining the final route alignment, new construction within 200 metres of European sites will be avoided insofar as possible and no project that has an adverse effect on the integrity of a European site will be progressed.
- No projects or plans giving rise to significant cumulative, direct, indirect, or secondary impacts on Natura 2000 sites shall be permitted.
- The risks to the Natura 2000 network during the planning and design stage of any future NCN routes should be addressed by the inclusion of mitigation measures that prioritise the avoidance of impacts in the first place and mitigate impacts where these cannot be avoided.
- Each project will be required to produce a Construction Environment Management Plan (CEMP) in accordance with all relevant legislation, serving the purpose of compliance.