

# ACTIVE TRAVEL INFRASTRUCTURE ASSETS

**Advancing Your Asset Management** 

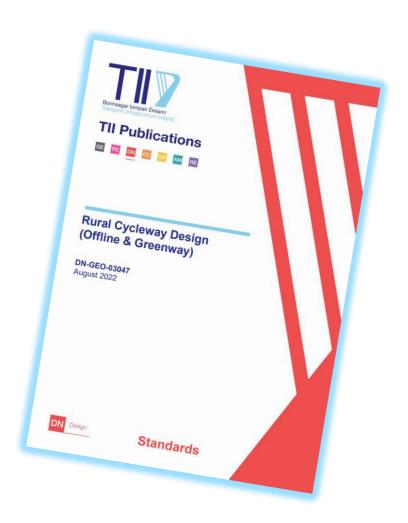
Gerard O'Dea - TII

Rob Piane - Deighton

#### **Active Travel Definition - TII**

- a) Active Travel: Walking, wheeling, and cycling for all users for all trip purposes where walking, wheeling, and cycling mean:1
  - Walking and Wheeling: Engaging in the typical act of walking plus jogging, using mobility aids (i.e., manual and electric wheelchairs as well as motorised mobility scooters), and using non-motorised scooters; and
  - ii) **Cycling**: Cycling using any type of cycle, such as bicycles, electric cycles, adapted cycles, and cargo cycles. Cycles should, except for specific situations, be treated as 'vehicles', not as 'pedestrians'.

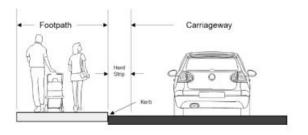
DN-GEO-03047 (tiipublications.ie)



#### **Active Travel Infrastructure - TII**

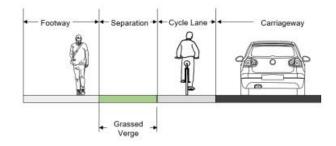
#### Footpath

A path, separated from the road / vehicular carriageway by a kerb, for use by pedestrians which does not form part of the road pavement.



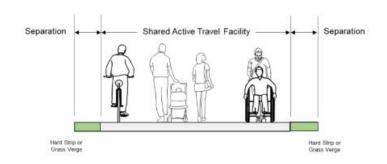
#### Footway

A path for use by pedestrians, separated from the road / vehicular carriageway by a verge, which does not form part of the road pavement.



### Shared Active Travel Facility

A cycleway, cycle track, or other that is provided for people walking, wheeling, and cycling.





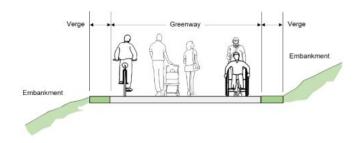




#### **Active Travel Infrastructure - TII**

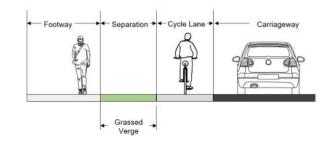
#### Greenway

A cycleway, or other, that caters for people walking, wheeling and cycling in a mainly recreational environment.



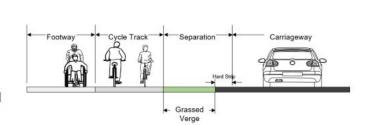
#### Cycle Lane

Part of the road pavement reserved for use by cycles. It is not a cycleway nor cycle track and therefore, generally not for the exclusive use of cycles (TII departure required).



#### Cycle Track

A part of the road cross section, separated from the road / vehicular carriageway by a verge, which is reserved for the use of cycles and from which all mechanically propelled vehicles, other than mechanically propelled wheelchairs and electric bikes, are prohibited from entering except for the purpose of maintenance and access.









### TII's Role (Greenways, NCN, Active Travel)

On the 20<sup>th</sup> September 2021, the Minister for Transport made TII the Approving Authority for Greenways. With this, the following powers were transferred to TII:

- To act as Approving Authority for all Greenway projects, under the Public Spending code (with the exception of Urban Greenways and a small number of cross-border Greenways);
- b. To work in partnership with Local/ Authorities and the NTA on Active Travel projects;
- c. To advance the development of a strategic national cycle network; and
- To develop its existing technical standards and process documents for Greenway development and Active Travel projects.

... "circa €60 million funding for Greenways is part of the overall [government] commitment to invest €360 million per year in active travel over the lifetime of the Government."

#### The ROADS ACT:

- Article 17 (1): ... safe and efficient network of national roads ...
- Article 17 (2): ... the Authority shall consider the needs of all road users ...

Preserve the Strategic Function



Reduce Active Travel Severance Home / Irish News

Ryan unveils National Cycle Network plan to create 3,500km of linked cycleways between towns and cities by 2040



Eamon Ryan on the National Cycle Network

Caroline O'Doherty

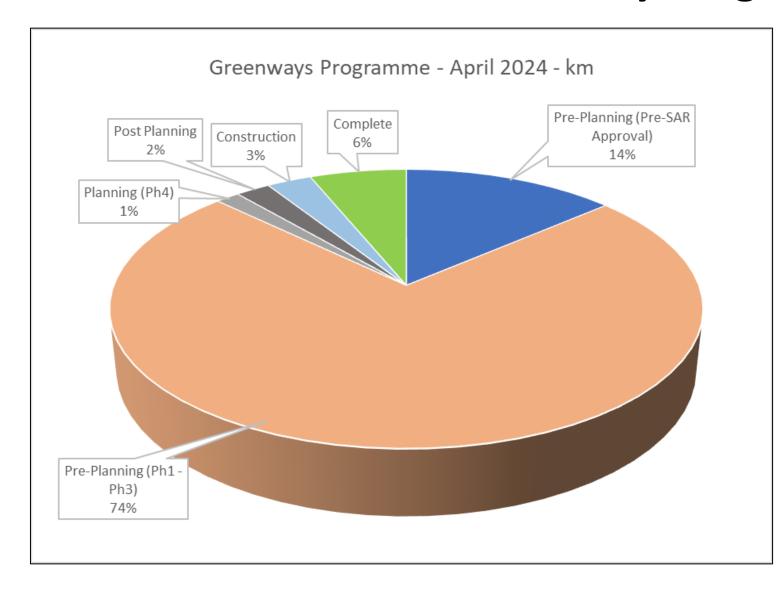
Wed 10 Jan 2024 at 13:17







### **The Greenway Programme**



#### **Approximate Current Programme:**

- Pre-Phase 1: c. 310km
- Phase 1 to Phase 3 (inclusive): c. 1,800km
- *Phase 4:* c. 40km
- Phase 5: c. 55km
- Phase 6: c. 90km
- Complete: c. 150km
- Phase 1 to 4: Complexity & Time

#### **Approximate constructionn projections:**

- *2024:* c. 55km
- *2025:* c. 80km
- *2026:* c. 90km
- *2027:* c. 170km

Nb.: Subject to approvals/ consent

### **Greenway achievements to Date**









National Cycleway Network Interface



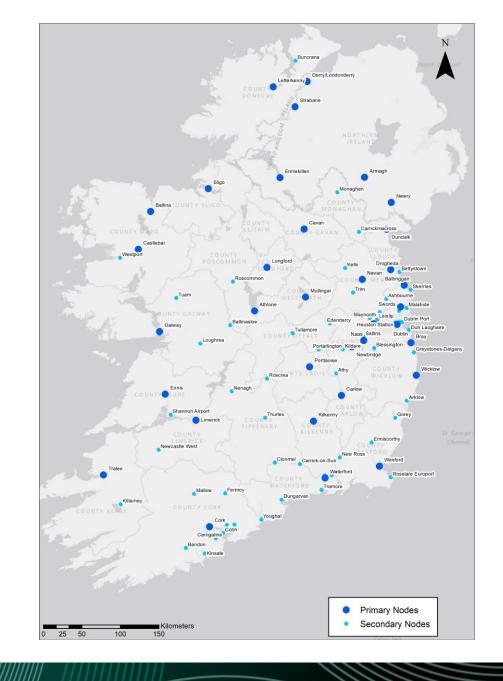
	Phase 1 (2023-2025)	Phase 2 (2026-2030)	Phase 3 (2031-2040)	Total
Approximate kilometres delivered	330km	660km	2,510km	3,500km

Greenway Retrofit	310km
New Greenways	210km
NTA Funded Urban Active Travel	165km
Dungarvan to Youghal Pathfinder	35km
Hard Shoulder Repurpose	200km
National, Regional, Local Road active travel	70km
TOTAL	990km

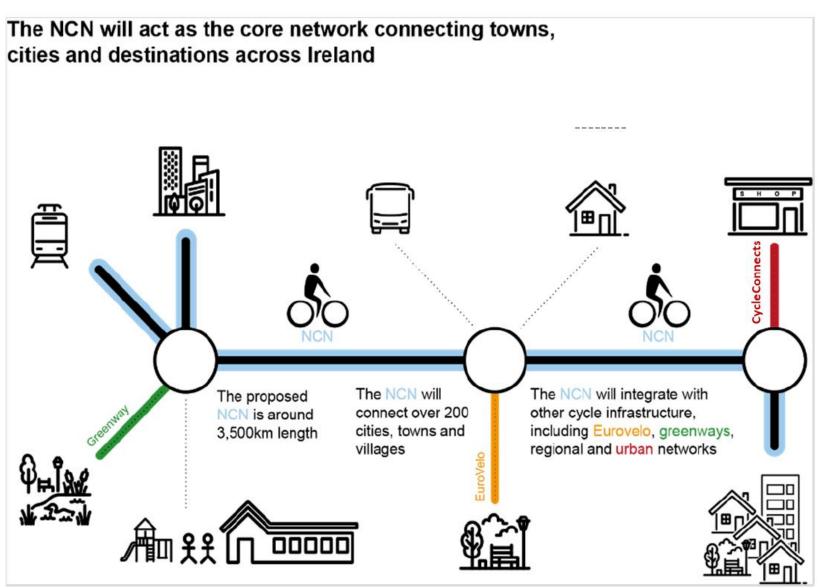
### National Cycleway Network Interface

## Determine which settlements and key destinations should be included on the NCN

- **Primary**: Cities and large towns of >20k population, also includes some towns of >10k population to ensure geographic coverage.
- **Secondary**: Medium sized towns of >10k, also includes some towns of >5k population to ensure geographic coverage. Strategic destinations (i.e., rail transport hubs, ferry/ cruise ship ports).
- **Tertiary**: Additional destinations (not shown on map) located between primary and/ or secondary nodes which will be included on the NCN where possible (e.g., transport hubs, centres of education, centres of employment, leisure destinations, and tourist destinations).



### **Corridor Selection**



### **National Road Network; Active Travel Needs**

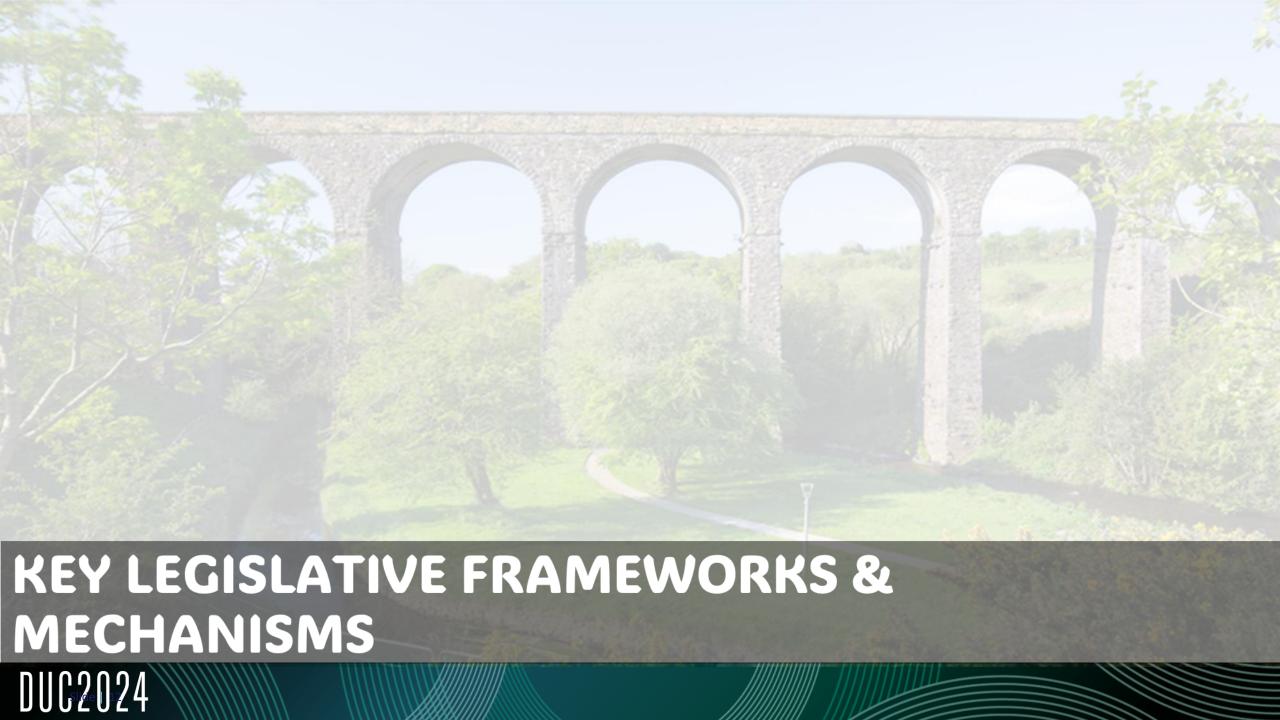


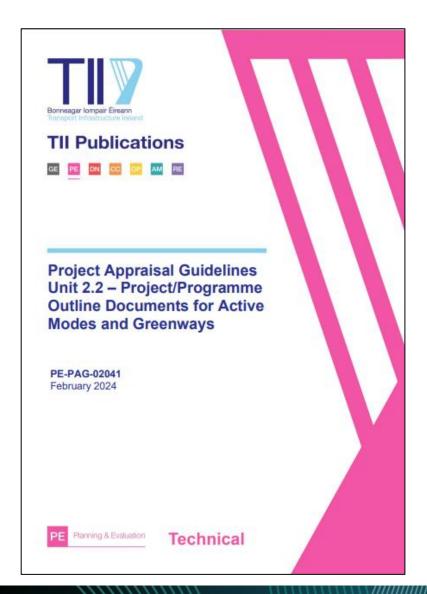












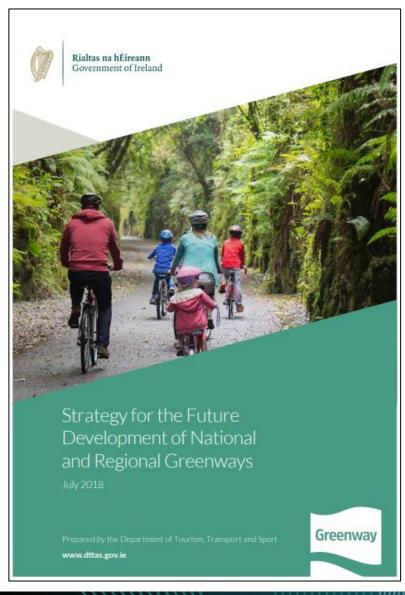
### **Policy**

Table 2.2.2 Active Modes and Greenway Policy – Relevant Examples

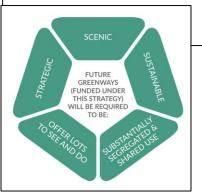
Level	Policy	
	United Nations 2030 Agenda for Sustainable Development	
International Delicy	EU Sustainable and Smart Mobility Strategy 2020	
International Policy	European Green Deal	
	EU Biodiversity Strategy for 2030	
	Project Ireland: National Planning Framework <sup>1</sup>	
	Project Ireland: National Development Plan 2021-2030	
	Strategy for the Future Development of National and Regional Greenways <sup>2</sup>	
	National Investment Framework for Transport in Ireland (NIFTI) <sup>3</sup>	
	National Sustainable Mobility Policy	
	Road Safety Strategy (latest)	
National Policy	Climate Action Plan 2021	
	Healthy Ireland / National Physical Activity Plan	
	Our Rural Future: Rural Development Policy 2021-2025	
	Tourism Action Plan (latest)	
	Shared Island Initiative	
	National Cycle Network Plan	
	Connecting Ireland	
Regional / local	Regional Spatial and Economic Strategy (RSES)	
policy	City / County Development Plans	

Level	Policy	
	<ul> <li>Local/regional transport strategies (e.g., GDA Transport Strategy, Metropolitan Area Transport Strategies, local or regional cycle network plans or Greenway strategies, etc.)</li> </ul>	
	Local / regional tourism policy (e.g., Visitor Experience Development Plans etc.)	

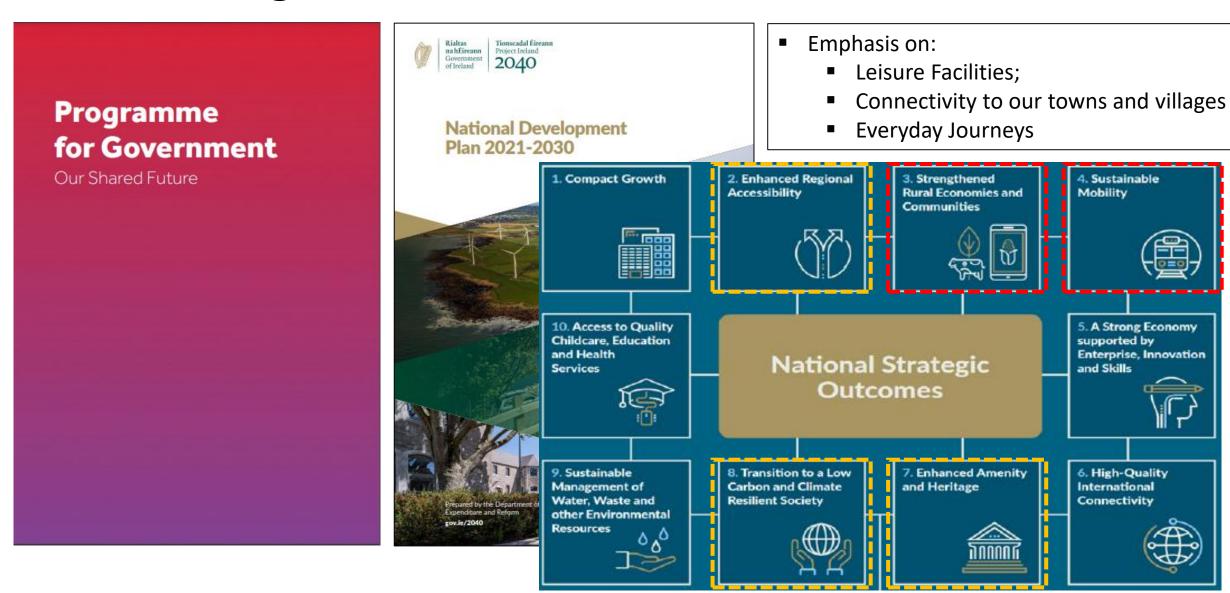
#### Strategy for the Future Development of National & Regional Greenways



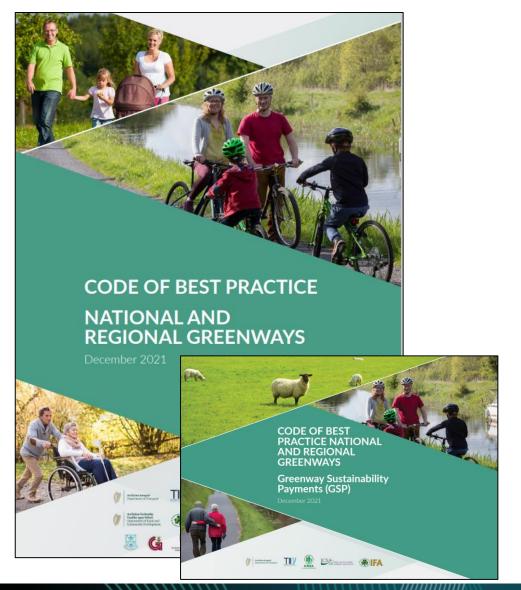
- 1. A Strategic Greenway network of national and regional routes, with a number of high-capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure;
- Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity;
- 3. Greenways that provide a substantially segregated off road experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do;
- 4. Greenways that provide **opportunities for the development of local businesses and economies**, and
- Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.



### Programme for Government, NPF & NDP



### Public Participation, Land Acquisition & Licenses

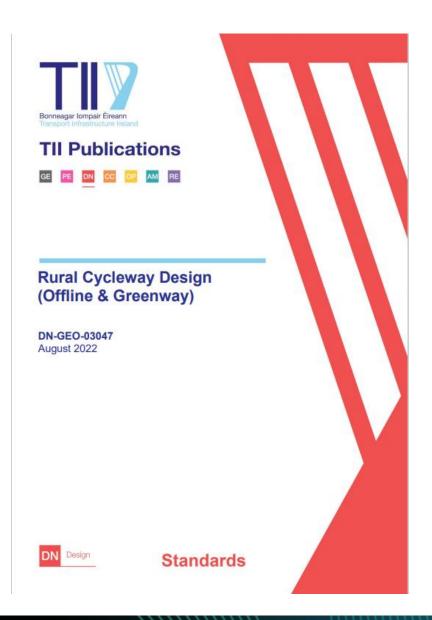




Compulsory Purchase Order



State owned land & Licences, Easements and Agreements



### **Design Principles**

#### ... Some of the main points

#### **Coherence:**

- Cycling infrastructure should form a coherent network which links origins and destinations
- Networks should be continuous and easy to navigate.
- Routes should be continuous from an origin to a destination, easy to navigate and of a consistent quality.

#### Convenience:

• A cycle network should serve main destinations and offer an advantage in terms of safety and attractiveness compared with the existing provision.

#### **Directness:**

Rural routes need to take into consideration the distance an average cyclist can travel in a day and the linking of intermediate destinations and attractions is an important consideration with respect to the route design. It should be recognised that directness has both geographical and time elements.

#### Safety:

Safe for all users including pedestrians and cyclists. The needs of all road users should be considered where cycle facilities cross roads and entrances.

#### Comfort:

Generally, cyclists prefer sheltered, smooth, uninterrupted, well-maintained surfaces with gentle gradients.
 Cycle facilities should meet surface width, quality and gradient standards and be convenient, avoiding complex manoeuvres.

#### Attractiveness:

 Designed in harmony with the environment such that the whole experience makes cycling an attractive option. Pass through interesting places and sensitive in design to environmental issues including lighting, personal security, aesthetics, environmental quality, and noise.

#### Access:

Cycling routes should link trip origins and key destinations along convenient and comfortable routes.

#### **Societal Benefits**

Equivalent to foregoing 2.2 million flights Dublin to London

The economic benefit of cycling, walking, wheeling in Ireland is +€3bn every year

160,000 tonnes of greenhouse gas emissions are saved



Source: Walking and Cycling Index 2023





# Choosing to bike instead of drive just once a day reduces your transport carbon emissions by 67%

### Your carbon output

Cycling your 4km journeys instead of driving can save 200kg of CO<sub>2</sub> each year

Bikes will be one of the most important ways to help cities reach net zero emissions



Source: Walking and Cycling Index 2023 & Rothar.ie





# The annual cost of running a car in Ireland in 2024 is €10,691

Every year, people choosing active travel add €3 billion to the economy

#### **Your Finances**

Biking to work can save you a lot of money to spend elsewhere



Source: AA Ireland & Walking and Cycling Index 2023





#### **Your Health**

Active travel prevents a total of 5,844 serious long-term health conditions in Irish people every year

Engage in low impact exercise, improve your cardiovascular fitness





### Wellbeing

Incorporate exercise into your commute

**Contribute less to traffic congestion** 

















Help











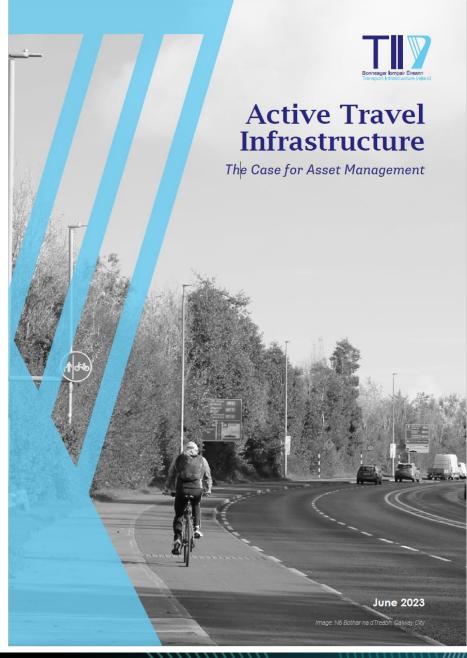


Workflows









"...committed to increasing levels of active travel as a key part of its decarbonisation plans."

..."Regardless of how well new ATI is built, unless such assets are looked after to maintain the quality of service over their whole life, they will inevitably be underutilized."

The current approach to the asset management of footways and cycleways is primarily reactive

"..."Well-maintained pavements" was the number one factor that would encourage users to walk more and that "Well maintained road surfaces for cycling" was the third highest factor that would encourage more cycling after "off road and segregated cycle paths" and "safer roads".

"...need to devote resources and effort to their ongoing maintenance and renewal."

### Where to Start



- Base network definition
- Gather Inventory information
  - Including ancillary inventory.
  - Which ATI is adjacent to the highway network.
- Segmentation of Base elements into analysis segments.
  - Analysis segmentation can be based on inventory data.
- TII to establish maintenance standards and expected levels of service.

### **CONDITION ASSESSMENT**



- Various condition assessment services are available.
- Condition data needs to be referenced to Base network definition
- Collection frequency needs to be established
- Immediate needs can be actioned and tracked as Work Orders in dTIMS OM.
- Condition indices can be derived from distress identification.
- Lifecycle modeling, Deterministic or Probabilistic can be derived from local expertise.
- Models refined as data is collected.

### **IN SUMMARY**

