GALWAY TO ATHLONE CASTLE NATIONAL CYCLEWAY SCHEME

Project Appraisal Report

Greenway

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CASTLE NATIONAL
CYCLEWAY SCHEME
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Galway to Athlone CYCLEWAY

PROJECT APPRAISAL REPORT

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Contents

Appendices

Tables

Figures

1 INTRODUCTION & CONTEXT

This document is the Project Appraisal Report (PAR) for the Galway to Athlone Castle Cycleway Project. The project is being developed in accordance with TII Project Appraisal Guidelines (PAG).

The project is a major scheme, which is currently at Phase 2 – Option Selection.

PAG Unit 13.0 Active Modes sets out the appraisal requirements for investments in walking and cycling. For active mode schemes with an estimated cost of less than €100 million, the main deliverable required is a Project Appraisal Report (PAR).

PAG Unit 13.0 recommends that the PAR should be initially developed during Phase 2 of the TII project lifecycle and should be continuously updated with new information as the project progresses through the project lifecycle up to Phase 5.

A Strategic Assessment Report for the scheme was prepared in 2021 and issued to DTTAS.

This PAR follows the layout recommended in PAG 13.0, section 1.4.

This PAR should be read in conjunction with other scheme documents, including the Project Brief, Strategic Assessment Report, and the Options Selections Report.

2 RATIONALE FOR INTERVENTION

2.1 Project Vision

The vision for the project is to develop a world-class cycling and walking trail, that is safe and accessible for all users, from Galway to Athlone, completing the Galway to Dublin route. It will be of a scale and with a unique character that will allow Ireland to tap into the growing international tourism market for cycling. It will be scenic, sustainable, be a strategic link, with lots to see and do, be substantially segregated from motor traffic, and welcome a wide variety of users. It will be developed in co-operation with local communities and offer real benefits to them. The 5S's are shown in **Figure 2.1** below.

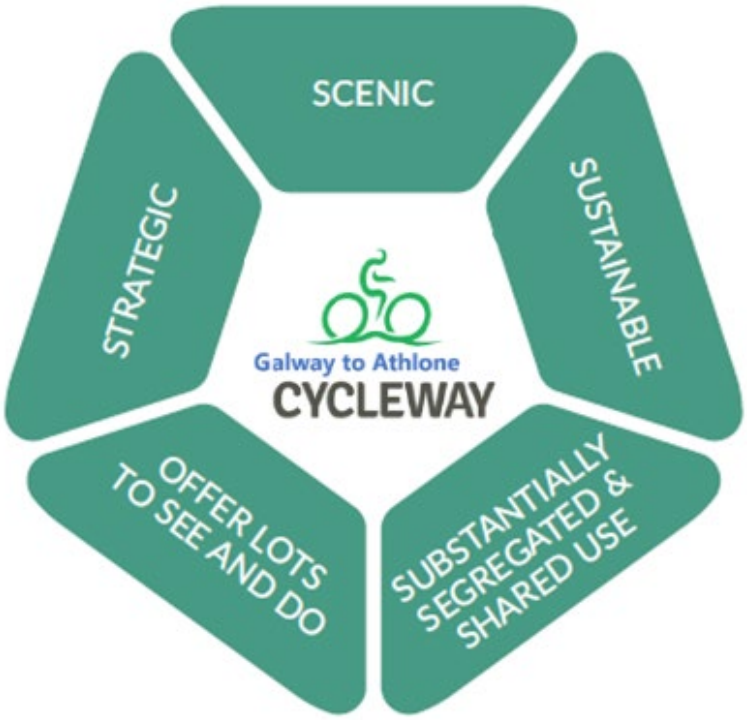


Figure 2.1: Project Vision

In addition to potentially attracting new, overseas visitors to the country, the scheme will bring significant benefits to local communities and users along the route. In addition to overseas visitors, the scheme will attract significant leisure visitors from across Ireland,

The scheme will provide a high-quality cycle/pedestrian route into both Galway and Athlone, improving access to local workplaces, schools and services. This will provide a safe, viable and attractive alternative to car travel that will contribute towards meeting local and national objectives to reduce car travel which in turn will result in reduced congestion, better air quality, reduced noise, reduced greenhouse emissions and a more pleasant environment.

The increase in cycling and walking trips as a result of the scheme will result in a range of benefits including:

- **Health:** increased exercise will result in a reduction in fatalities and absenteeism from work

- **Safety:** risks to existing cyclists and pedestrians will be reduced as the scheme will be predominantly off road
- **Economy:** the local economy will benefit from the increased spending from both local and overseas visitors. Overseas visitors will benefit the national economy as these trips would not otherwise be made.

2.2 Context: Galway to Dublin Cycleway

The National Galway to Dublin Cycleway project commenced in 2013. Westmeath County Council is the lead authority working in partnership with Galway City, Galway, Roscommon, Meath, and Kildare local authorities.

The project is being taken forward in several sections. The development of the cycleway between Galway City centre and Ballyloughane is being undertaken by the NTA and Galway City Council as a separate project. The development of the Maynooth to Dublin city centre section is being undertaken by the NTA and Dublin local authorities.

This Project Appraisal Report addresses the Galway to Athlone Castle section of the cycleway. Project planning for this section was commenced in 2013 but was subsequently paused following the selection of an emerging preferred route in October 2015, due to local landowner opposition. The main reasons cited by landowners for opposition to the project was the lack of public consultation and the proposed use of a CPO to acquire the lands.

The section between Whitegates Athlone to Maynooth, which runs along an old railway line and beside the royal canal, is now open to the public. The section from Athlone Castle to Whitegates which includes a new cycleway bridge across the River Shannon, is expected to be complete in 2022.

The cycleway will also deliver some active travel benefits, particularly on the outskirts of Galway City, where it will provide a high-quality cycleway between Galway City and Oranmore, a large satellite town, with heavy transport demand between the two.

The Galway to Athlone Cycleway will form part of EuroVelo 2 Capitals Route and link to EuroVelo 1 Coastal Route as shown in **Figure 2.2**.

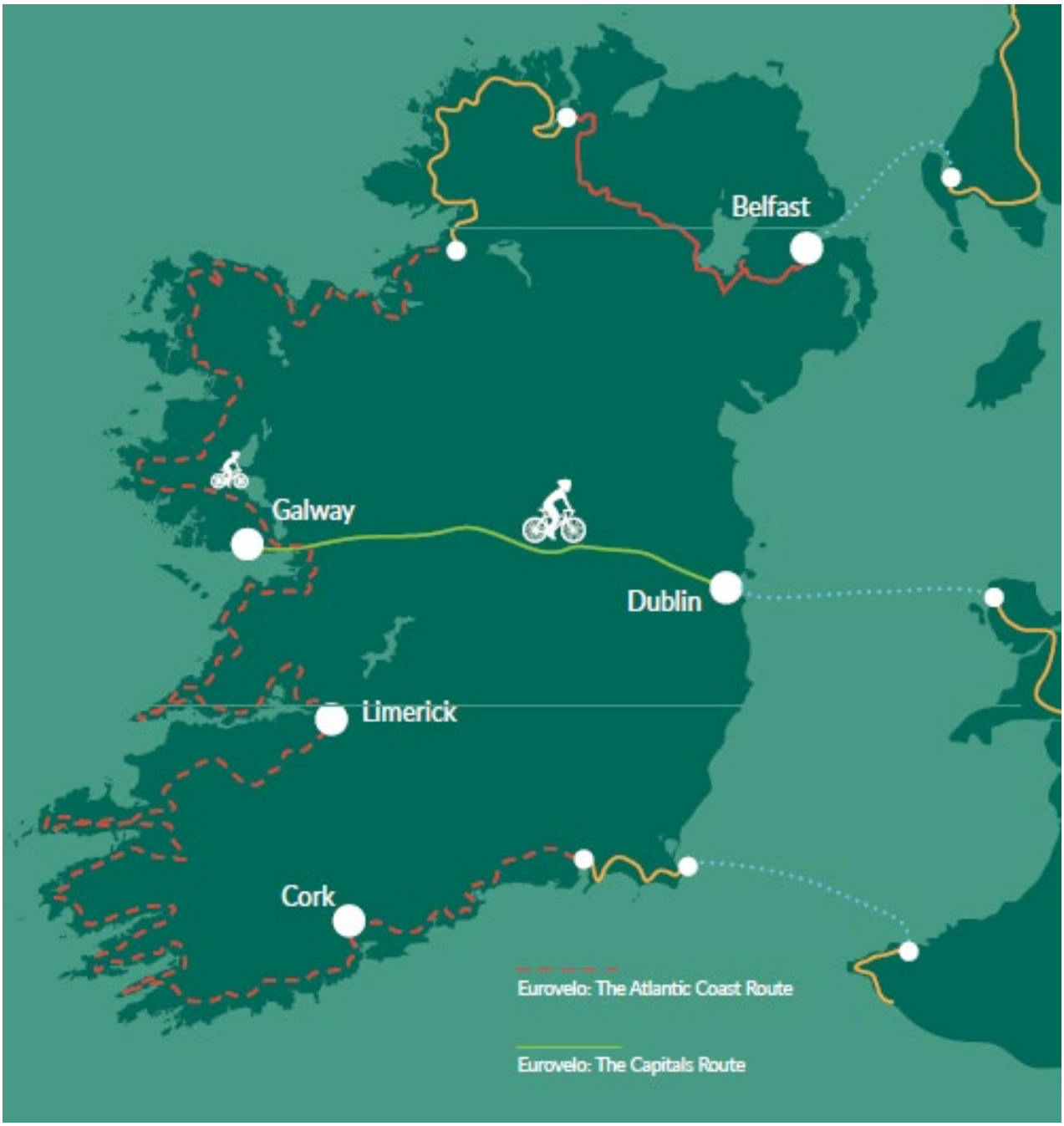


Figure 2.2: Eurovelo Cycle Route Network

2.3 Market Research

In 2013, market research consultants were commissioned by Fáilte Ireland to undertake a Target Cycling Market Survey in Germany, Britain, Netherlands, and France. The objectives were to:

- Understand the scale of potential for cycling holidays in Ireland by overseas visitors,
- Investigate the key requirements of the target market for cycling holidays, and
- Understand the characteristics of the target cycling market.

The research identified a core potential market of 19.5 million people with the largest segment from Germany. The key requirements of the target market both internationally and domestically were that the cycleway would run through **scenic landscapes, offer traffic-free cycling, and offer a high standard of safety.**

More than 15,000 online surveys were taken with a representative sample of respondents from the targeted markets. These provide valuable information to support the need for the scheme. Results from the Fáilte Ireland market survey indicate that there is a market for a Galway to Dublin Cycleway, and that a demand has been established.

2.4 Strategy for the Future Development of National and Regional Greenways

The Strategy for the Future Development of National and Regional Greenways issued in July 2018 was prepared by the Department of Transport, Tourism, and Sport (DTTaS) on behalf of the Government of Ireland. The purpose of this strategy is to assist in the strategic development of national and regional greenways in appropriate locations, constructed to an appropriate standard, in order to deliver a quality experience for all greenway users. Over the next 10 years, the strategy aims to increase the number and geographical spread of greenways around the country, to be utilised as a visitor experience and recreational amenity.

A main focus of the strategy is on the potential of greenways and cycle tourism to act as economic drivers in local areas by capitalising on the great tourism potential, that was identified by the market research carried out by Fáilte Ireland. To achieve these objectives, DTTaS are to ensure that project promoters will work with Local Communities, Local Landowners, Local Authorities and other relevant State Bodies and organisations to deliver:

1. A Strategic Greenway network of national and regional routes, with several high-capacity flagship routes that can be extended and/or link with local greenways and other cycling and walking infrastructure.
2. 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
5. Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.

The Galway to Dublin Cycleway is a high-capacity flagship route with the potential to appeal to overseas and domestic visitors as well as locals. The area between Galway and Athlone offers attractive scenery and plenty to see and do. There also appears to be plenty of scope for the development of local tourism-based industry in the area.

2.5 Value of Cycle Tourism routes

The Galway to Athlone Cycleway will complete the Galway to Dublin route. This will bring a very new feature to the cycle tourism landscape in Ireland, namely a fully coherent long distance safe and segregated cycleway, ideally suited for a weeklong cycle holiday. Greenways in Ireland are currently typically 40-50km in length, and do not facilitate more than a 1–2-day itinerary. While these are attractive to tourists as a part of an overall active holiday, they are less likely to entice cycle tourists to visit Ireland for that specific purpose. A long-distance route, such as Galway to Dublin presents great opportunities for marketing Ireland as location for safe family holiday cycling, where the cycling aspect is central to the holiday, and a specific reason to visit Ireland. However, even when cycling is central to the decision to holiday in Ireland, it can also be expected that such holiday makers would, over the course of a 5-day trip, partake in other activities. Those on a longer cycling trip could also be expected to make more use of package trips, including bike rental, luggage forwarding, guide services and the like.

The Galway to Dublin Cycleway will form part of EuroVelo Capitals Route and will benefit from the brand recognition and marketing of the overall Eurovelo network. It presents a huge opportunity to attract both overseas and domestic visitors into Ireland, and specifically into the midlands of Ireland, which is not the strongest tourism destination in Ireland currently.

The value of long-distance cycle tourism routes is well established and reported upon. Some examples of recently developed routes and the value of cycle tourism in general are described below.

2.5.1 Economic impact and potential for the development of bicycle use in France in 2020

Commissioned by prominent French public bodies, the study ‘Impact économique et potentiel de développement des usages du vélo en France en 2020’ (Economic impact and potential for the development of bicycle use in France in 2020) looks at the current economic impact of cycling, including cycling tourism, over the past decade along with its development potential and future trajectory.

During the last decade, the cycling landscape in France has shifted drastically as calls for a greener society have resulted in increased investments as well as innovations such as e-bikes. Initiatives such as EuroVelo have also responded to these needs by creating high-quality cross-border cycling products. As Europe prepares for post COVID-19 life, this study provides good insights into why cycling should play a part in the recovery.

According to the study, between 2010 and 2018, direct economic benefits linked to cycling were estimated to be around 8.2 billion euros annually with 80,000 jobs linked to the cycling industry. Taking into account indirect and other benefits lifts this figure up to 29.5 billion euros per year, which is staggering for only a 3% modal share!

France is the second most popular cycling tourism destination (behind Germany) in the world. There is also considerable potential for cycling tourism to grow in France. The environmental and health benefits of cycling are well known. However, cycling tourism also contributes both to the local French economy by creating

demand and jobs as well as by promoting transborder tourism. The EuroVelo network being the biggest example of its success, where France remains the most popular country according to recent EuroVelo Awards.

The study supports this by reporting 5.1 billion euros of economic benefits linked to cycling tourism per year in France. This figure represents a 46% increase between 2010 and 2018. The study predicts the economic impact to be even higher in cities as the tourism sector slowly recovers from the pandemic.

2.5.2 Case Study – Loire a Velo

La Loire à Vélo is a unique, 800km cycle route along the Loire Valley in France. It forms the western section of the EuroVelo 6 route (linking Black Sea to Atlantic). A large stretch of the Loire is a UNESCO World Heritage Site; in parts it's also known as France's Valley of the Kings and as The Garden of France. All along La Loire à Vélo, you stick closely to France's last great wild river, with its sandy banks and islands, its vine-covered slopes, its typical towns and villages, its fine food and its unique atmosphere. The route ends at the Loire's Atlantic estuary.

The economic impact of the route has been studied over the last 10 years.

Between 2010 and 2015, tourist use rose from 11.0 to 17.9 M km travelled by tourists. The annual economic impact of the route also doubled, rising from €13.8M to €27.8 M in this period. 77% of this economic activity consisted of accommodation, food and activities. 31% of tourists using the route were from outside France.

The Galway to Athlone Cycleway will be approximately 205 km in length. Should it achieve the same usage and economic benefit rate as the Loire a Velo on a per km basis, this would lead to 4.5 million km of tourist travel per year, and a yearly economic benefit of €6.7M.

While the routes may not be directly comparable, this does show that there are significant economic benefits associated with tourism on cycle tourism routes, as well as the active travel benefits and the benefits associated with leisure use of these route by Irish people.

3 STRATEGIC AND POLICY ALIGNMENT

3.1 Overview

This section outlines policies relevant to the development of the Galway to Athlone Cycleway. A summary is given below of the relevance of International, European, National, and Local policies to this scheme, along with potential implications for the project.

3.2 International Policy

3.2.1 2030 Agenda for Sustainable Development

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States including Ireland in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

The 2030 Agenda for Sustainable Development is framed around the 17 Sustainable Development Goals (SDGs) which are an urgent call for action by all countries. The Government of Ireland has aligned key national policy with the SDGs, including the National Planning Framework and the National Development Plan.

The development of the Galway to Athlone Cycleway would contribute towards efforts to achieve the following SDGs:

- **SDG 3 -** Good Health and Well-Being: Ensure healthy lives and promote well- being for all at all ages,
- **SDG 8 -** Decent Work and Economic Growth: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all,
- **SDG 9 -** Industry, Innovation, and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation,
- **SDG 11 -** Sustainable Cities and Communities: Make cities and human settlements inclusive, safe, resilient, and sustainable, and
- **SDG 13 -** Climate Action: Take urgent action to combat climate change and its impacts European Policy Context.

3.3 The European Cycle Route Network Eurovelo

Eurovelo is a European Network of long-distance Cycling Routes that promotes a sustainable form of cycle tourism in Europe. It is planned that the Galway to Athlone Castle Cycleway will facilitate the Eurovelo

Capitals Route. The Eurovelo study issued in 2012, by the European Parliament's Committee on Transport and Tourism, incorporated existing and planned cycle routes into a single European network, as shown in **Figure 3.1**, below.

This study highlights the key reasons for cycling to be for health, leisure, and educational reasons. It determined that the key characteristics of a long-distance cycle route are safety, ease of use, route variety and the availability of accommodation / catering facilities. This aligns with the market research conducted by Fáilte Ireland (**Section 2.3**) and similarly the National Cycle Manual, in relation to the key principles of cycle corridor development. The study also highlights that the most important aspects of cycling infrastructure was segregation from traffic, clear signage, and sightseeing information.

Figure 3.1: Eurovelo Network

3.3.1 European Union Green Deal (European Commission, 2020)

The EU aims to be climate neutral in 2050. The European Green Deal (2020) provides an action plan to achieve this by boosting the efficient use of resources by moving to a clean, circular economy, restoring biodiversity, and cutting pollution. The plan outlines investments needed and financing tools available and explains how to ensure a just and inclusive transition.

For the transport sector, the EU Green Deal targets the roll out of "cleaner, cheaper and healthier forms of private and public transport". Fostering alternative tourism is also part of the EU's commitment to creating a sustainable economy through the European Green Deal. The Galway to Athlone Cycleway scheme is aligned with these commitments and targets under the Green Deal.

3.4 National Policy Context

3.4.1 Project Ireland 2040: National Planning Framework 2040 (Government of Ireland, 2018)

The National Planning Framework 2040 (NPF) is the Government's high-level strategic framework that sets out the long-term plan for shaping the future growth and development of Ireland up to 2040. It is a framework to guide public and private investment, to create and promote opportunities, and to protect and enhance the environment.

The NPF is underpinned by ten National Strategic Outcomes as illustrated in **Figure 3.2**. The Galway to Athlone Cycleway will contribute to a number of these outcomes including:

- Enhanced Regional Accessibility,
- Sustainable Mobility,
- A Strong Economy supported by Enterprise, Innovation and Skills,
- Transition to a Low Carbon and Climate Resilient Society, and
- Enhanced Amenity and Heritage.

Figure 3.2: National Strategy Outcomes

The NPF outlines the Government's plan to cater for the extra one million people that will be living in Ireland, the additional two thirds of a million people working in Ireland and the half a million extra homes needed in Ireland by 2040.

The Framework focuses on:

- Growing our regions, their cities, towns, and villages and rural fabric,
- Using state lands for certain strategic purposes, and
- Better outcomes for communities and the environment, through more effective and coordinated planning, investment, and delivery.

As a strategic development framework, Ireland 2040 - Our Plan sets the long-term context for our country's physical development and associated progress in economic, social, and environmental terms and in an island, European, and global context.

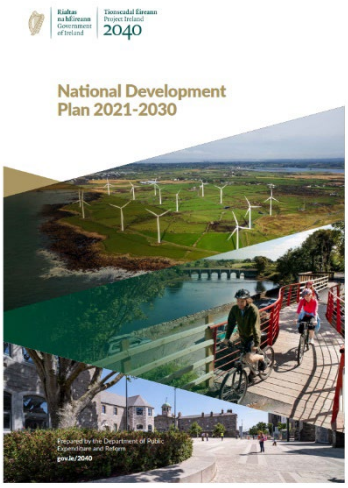
The vision for Ireland in 2040 is:

- For the highest possible quality of life for people and communities, underpinned by high quality, well managed built and natural environments, and
- Sustainable self-reliance based on a strong circular economy and significant progress towards a low carbon, climate-resilient society while remaining an open, competitive, and trading economy.

Some relevant National Policy Objectives which the proposed cycleway supports include:

- **National Policy Objective 16 -** Target the reversal of rural decline in the core of small towns and villages through sustainable targeted measures that address vacancy and deliver sustainable reuse and regeneration outcomes,
- **National Policy Objective 21 -** Enhance the competitiveness of rural areas by supporting innovation in rural economic development and enterprise through the sustainable diversification of the rural economy into new sectors and in particular those with a low or zero carbon output,
- **National Policy Objective 22 -** Facilitate the development of a National Greenways, Blueways and Peatways Strategy which prioritises projects on the basis of achieving maximum impact and connectivity at national and regional level, and
- **National Policy Objective 27 -** Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages.

3.4.2 Project Ireland 2040: National Development Plan 2021-2030 (Government of Ireland, 2018)



The National Development Plan 2021-2030 (NDP) is a companion document to the NPF and is set to d rive Ireland's long term economic, environmental, and social progress. The NDP is fully integrated with the approach to Ireland's spatial planning in the NPF and sets out a framework for public capital investment to ensure a coherent and unified plan for the country.

The Galway to Dublin Cycleway, of which the Galway to Athlone Cycleway is a component, is a strategic investment priority in the NDP.

3.4.3 National Investment Framework for Transport in Ireland (DoT, 2021)

The National Investment Framework for Transport in Ireland (NIFTI) was published by the Department of Transport in December 2021.

The purpose of the NIFTI is to support the delivery of the National Planning Framework 2040 (NPF) and National Development Plan 2018-2027 (NDP) by providing a strategic framework for future transport investment that is aligned with their spatial objectives and National Strategic Outcomes (NSOs). The NIFTI has been developed to ensure decision making in land transport investment enables the NPF, supports the Climate Action Plan, and promotes positive social, environmental, and economic outcomes throughout Ireland.

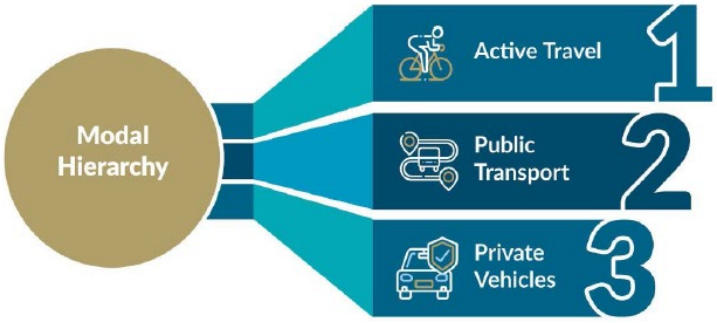
NIFTI Investment Priorities

NIFTI establishes four investment priorities andobjectives, of which new projects must align with at least one:

- Decarbonisation,
- Protection and Renewal,
- Mobility of People and Goods in Urban Areas, and
- Enhanced Regional and Rural Connectivity.

The NIFTI notes that decarbonisation will include extending the reach of sustainable mobility in rural areas through investment in greenways. The Galway to Athlone Cycleway is therefore considered to be strongly aligned with the NIFTI priorities and objectives. It is also considered that the Galway to Athlone Cycleway will contribute to enhanced regional and rural connectivity and that the sections of the greenway in urban areas, particularly between Oranmore and Galway city and at Athlone, will contribute to mobility of people in urban areas.

NIFTI Modal Hierarchy

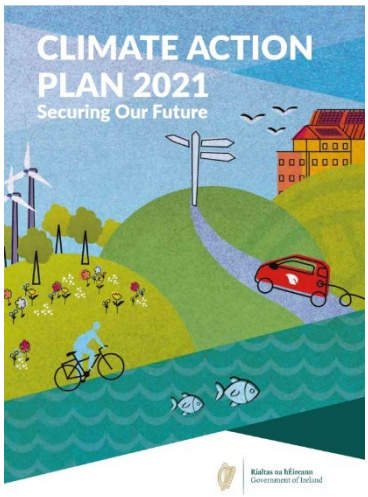


Under the NIFTI Modal Hierarchy, sustainable modes, starting with active travel (walking, wheeling and cycling) and then public transport, and finally less sustainable modes such as the private car. The proposed scheme provides exclusively for cyclists and pedestrians and is therefore strongly aligned with the NIFTI Modal Hierarchy.

NIFTI Intervention Hierarchy

The NIFTI Intervention Hierarchy recommends that maintenance of existing facilities should be considered first followed by optimising, then improving and lastly provision of new facilities. In this case, the provision of a greenway, and in particular Ireland's first 'national' or long-distance greenway; offering the potential for multi-day holiday experiences, requires provision of a primarily off-road facility designed to a very high standard. This means that there is no alternative to the provision of a facility that is predominantly new. Whilst the scheme is not aligned with the Intervention Hierarchy, the provision of a new facility is fully justified and in line with national guidance on the development of greenways.

3.4.4 Climate Action Plan 2021 (Government of Ireland, 2021)



The Climate Action Plan (CAP) 2021 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.

The plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, including in 2022, to ensure alignment with our legally binding economy-wide carbon budgets and sectoral ceilings.

The CAP identifies the Galway to Dublin Cycleway, of which the Galway to Athlone Cycleway is a component, as an example of tourism and recreational offerings that can form part of a just transition implementation plan for the midlands region.

The CAP is accompanied by an annex of actions. The scheme supports a number of these actions, including:

- **Action 97:** Invest in developing our outdoor tourism offering, including outdoor activities, that enhances Ireland's international reputation of being a green, clean, and sustainable destination,
- **Action 98:** Increase nature connectedness and promote pro-environmental behaviours by developing outdoor recreation,
- **Action 231:** Develop and implement cycle network plans for all major cities,
- **Action 232:** Develop a coherent and connected National Cycle Network Strategy,
- **Action 233:** Construct an additional 1,000km of cycling and walking infrastructure,

- **Action 234:** Encourage an increased level of modal shift towards Active Travel (walking and cycling) and away from private car use, and
- **Action 235:** Accelerate sustainable mobility plans for schools.

3.4.5 Strategy for the Future Development of National and Regional Greenways

The Strategy for the Future Development of National and Regional Greenways issued in July 2018 was prepared by DTTAS on behalf of the Government of Ireland. The objective of this Strategy is to assist in the strategic development of national and regional greenways in appropriate locations, constructed to an appropriate standard, in order to deliver a quality experience for all greenway users. Over the next 10 years, the strategy aims to increase the number and geographical spread of greenways around the country, to be utilised as a visitor experience and recreational amenity.

The focus of the strategy is on the potential of greenways and cycle tourism to act as economic drivers in local areas by capitalising on the great tourism potential, that was identified by the market research carried out by Fáilte Ireland. To achieve these objectives, the DDTAS are to ensure that project promoters will work with Local Communities, Local Landowners, Local Authorities and other relevant State Bodies and organisations to deliver:

- A strategic greenway network of national and regional routes, with several 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,
- 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,
- 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.

The Galway to Athlone Cycleway is a high-capacity flagship route with the potential to appeal to overseas and domestic visitors as well as locals. The area between Galway and Athlone offers attractive scenery and plenty to see and do. There also appears to be plenty of scope for the development of local tourism-based industry in the area.

The strategy recommends that the preferred model is for future greenways to use lands already available in the undisputed ownership or control of the State, either through Government Agencies, Government Departments or Local Authorities.

As there are limited opportunities to use land in state ownership within the Galway to Athlone area for greenways, the route will be required to traverse land that is in private ownership. The strategy outlines that

where greenways are planned in areas of private land, they should be designed to traverse field boundaries and hedge lines, to avoid severance where possible. It is essential that proposals and routes are developed in a consultative and proactive manner with the affected landowners, that is sensitive to their needs, that maximises their support for, and goodwill towards, the proposed greenway.

3.4.6 National Sustainable Mobility Policy

The National Sustainable Mobility Policy sets out a strategic framework to 2030 for active travel (walking and cycling) and public transport journeys to help Ireland meet its climate obligations. It is accompanied by an action plan to 2025 which contains actions to improve and expand sustainable mobility options across the country by providing safe, green, accessible and efficient alternatives to car journeys. It also includes demand management and behavioural change measures to manage daily travel demand more efficiently and to reduce the journeys taken by private car.

The policy includes for an expansion of walking and cycling options across the country, including greenways. The proposed scheme is therefore fully aligned with the National Sustainable Mobility Policy and will contribute to meeting the targets to deliver at least 500,000 additional daily active travel and public transport journeys and a 10% reduction in kilometres driven by fossil fuelled cars by 2030 in line with metrics for transport set out in the Climate Action Plan 2021.

3.4.7 National Physical Activity Plan

The National Physical Activity Plan, introduced in January 2016, aims to increase physical activity levels across the whole population. It aims to create a society which facilitates people whether at home at work or at play to lead an active way of life. The Plan is about:

- Creating increased opportunities for people to be more active in ways which fit in to everyday lives and which suits individual needs, circumstances and interests,
- Removing the barriers which people face to being active and encouraging people to recognise how to overcome those barriers,
- Enhancing cross-sectoral cooperation at national, local and community level to encourage physical activity at every level,
- Encouraging a supportive environment where physical activity becomes normal, and
- Promoting good practice and finding new models of participation which get more people active.

The overarching target of the plan is to increase the proportion of the population across each life stage undertaking regular physical activity by 1% per annum across the lifetime of Healthy Ireland. There are also targets set for children, adults and older people.

The proposed scheme aims to increase cycling and walking across all age groups and abilities and will be marketed across Ireland. It therefore fully aligns with the objectives of the National Physical Activity Plan and will make a significant contribution to meeting its targets.

3.4.8 National Cycle Policy Framework (2009-2020)

The National Cycle Policy Framework was prepared by Smarter Travel and commissioned in 2009 by the Minister for Transport. The vision of this framework is to “create a strong cycling culture in Ireland”. It sets out objectives and actions aimed to ensure the development of a cycling culture where 10% of all journeys in Ireland will be by bike. A specific objective of this framework is for the provision of designated rural cycle facilities, especially for tourist and recreational cycling.

The framework identifies the need for inter urban cycling routes in the form of a National Cycling Network that delivers high quality routes to encourage cycling for transport, leisure, and recreational purposes. This policy recommends that cycle friendly planning principles are to be incorporated into all national, regional, and local plans.

3.4.9 National Cycle Network Scoping Study

This scoping study was prepared by Smarter Travel and commissioned in 2010 by the Minister for Transport, following the specific objectives outlined in the National Cycle Policy Framework. An advisory group was set up for this study with members from local authorities, Fáilte Ireland, NTA, OPW and Coillte, in order to agree a vision for the National Cycle Network. The vision identified by this advisory group was to:

“Develop a National Cycle Network that will allow users to cycle between the main urban areas throughout the country. The network will be built to best practice standard, follow routes that maximise the number of potential users and its attractiveness to users, facilitate access for all, and ensure that short and long trips can be engaged in. The routes will, where possible, avail of existing routes and state-owned lands, share use with walking and form the basis for linkages to more comprehensive rural and urban local networks”.

The study identified an overall framework for the delivery of some 2,000km of high-quality cycle corridors, divided into 13 potential route corridors between urban areas with a population of over 10,000. Key urban areas for inclusion on the proposed cycle route between Galway and Dublin include Athlone, Ballinasloe and Oranmore. These routes are intended to provide a skeleton for National Cycleways to be developed along with potential links between these corridors, particularly where existing infrastructure allows cost effective delivery.

The study was superseded in 2018 with the publication of the Greenway Strategy.

3.4.10 Fáilte Ireland Strategy for the development of Irish Cycle Tourism

Fáilte Ireland’s Strategy for the Development of Irish Cycle Tourism was produced in 2007 and observed that cycle tourism had been in decline since 2000 in Ireland. Research conducted as part of this strategy found that cycling on Irish roads is not perceived to be safe, particularly where cyclists face dangerous bends, fast cars, intimidating HGVs, high traffic volumes and high speeds.

The strategy identified the following needs for cycle tourists:

- Safe places to cycle and consideration from other road users

- Attractive routes with good scenery
- Well-connected and signposted routes and destinations avoiding long detours
- Opportunities to visit local attractions and specific places of interest
- Food, accommodation, and refreshments available at intervals, which reflect comfortable distances for stopping off / overnight stops
- Accessible maintenance and repair facilities
- Routes to be promoted on maps and websites including route planner facility and
- Easy access to alternative cycle-friendly modes of transport

As part of the strategy, it is stated that "of particular significance is the need to address the imbalance in the development of the visitor economy and the associated need to engage in long-term planning for the development of rural areas". This highlights that the development of cycle tourism presents an opportunity to bring the economic benefits of tourism to rural areas of Ireland.

The area between Galway and Athlone is generally rural, and currently does not receive large numbers of visitors. It would seem well matched with the general principle of balancing the visitor economy and promoting the development of rural areas and business opportunities for people in these areas.

3.5 Regional Policy Context

3.5.1 Northern and Western Regional Assembly Regional Spatial and Economic Strategy (2020)

The Northern and Western Regional Assembly made the first Regional Spatial and Economic Strategy (RSES) for the Northern and Western Region in January 2020. The Northern and Western Region includes all of counties Galway and Roscommon.

The RSES supports the provision of the Dublin to Galway Cycleway, and also an Oranmore-Galway-Bearna Coastal Greenway, through its specific objectives, as follows:

- **RPO 3.6.13** The Assembly supports the delivery of a strategic Greenway Network for the GTS to include National Dublin to Galway Cycleway, Oranmore to Bearna Coastal Greenway and the Galway to Clifden Greenway (S/M), and
- **RPO 3.7.4** Support the development of a cross-sectoral approach to promote Athlone as a key tourism destination in the Midlands, building on Fáilte Ireland's Hidden Heartlands brand and the forthcoming Shannon Tourism Masterplan to develop the recreation and amenity potential of waterways including the River Shannon and Lough Ree and the development of a greenway network including the Galway to Dublin Cycleway.

The RSES addresses tourism in detail and provides a Tourism Strategy. Key elements are listed as:

- A tiered hierarchy of Tourism provisions in both rural and urban areas, to support the sustainable development of 'Destination Towns', following Fáilte Ireland's Development Guidelines for Destination Towns,
- Additional tourist supporting leisure and amenity infrastructure in the areas of recreation, entertainment, culture, catering, accommodation, transport, and water services,
- Explore shared provision of access, parking, public transport to designated key rural sites for target activities (e.g., walking, cycling, water sports and golf),
- Make the best use of locally distinctive cultural attributes, bringing a unique visitor experience (language, music, crafts, arts, food),
- New proposals for activity tourism, particularly in rural areas, National Park's, uplands, coasts, and rivers, and
- Proposals for county-based monitoring and management structures. This will allow for the identification of threats/effects on popular sites, and mitigation where necessary.

Specific tourism objectives are set out in The RSES for the 'Hidden Heartlands' as follows:

- **RPO 4.12** Develop the water-based leisure sector in the region in a sustainable manner making the best use of existing and planned infrastructure and resources, in a manner that is sensitive to the natural and cultural heritage resources,
- **RPO 4.13** - The Assembly supports the implementation of the Shannon Tourism Masterplan and the securing of adequate resources and investment to achieve this,
- **RPO 4.14** - Promote the development of integrated walking, cycling and bridle routes throughout the Region as an activity for both international visitors and local tourists in a manner that is compatible with nature conservation and other environmental policies,
- **RPO 4.10** - To ensure Orientation and Information Points targeted at 'Slow Tourism' market is provided at key Towns, such as Carrick on Shannon, Athlone, and Ballinasloe as an enabler for increasing bed-nights, and visitor numbers, and
- **RPO 4.11** - To upgrade Public Transport infrastructural facilities in Destination Towns, including the provision of Transport Hubs/Links, and additional accommodation.

The Galway to Athlone Cycleway is a good strategic fit to these objectives and strategy.

3.6 Local Policy Context

3.6.1 Galway County Development Plan

The Galway County Development Plan (2015-2021) outlines policies to develop its recreation and amenity base to increase tourism potential. Economic Tourism and Development Objective 14 aims to support the provision of tourism infrastructure through the support of Greenway amenities.

The Plan also highlights its support to develop “the National Cycle Route between Dublin, Ballinasloe, Galway City and Clifden along a mostly offline route”.

3.6.2 Roscommon County Development Plan

The Roscommon County Development Plan (2014-2020) highlights policies and objectives that encourage local investment in safe cycleways, secure parking for bicycles and rented bicycles in the vicinity of existing developments.

Policy 4.10 and Objective 4.21 of the plan specifically outlines the support and provision of a cycleway through south Roscommon as part of the Galway to Dublin Cycleway Scheme. The plan also promotes via the developmental management process that proposed public offices and commercial developments provide bicycle parking along with showering facilities for cyclists (Objective 4.15).

It is noted that the plans emphasis on the modal shift required to alternative means of travel such as public transport, cycling and walking, presents significant challenges at local levels in rural counties such as Roscommon.

3.6.3 Westmeath County Development Plan

The Westmeath County Development Plan (2014-2020) highlights policies and objectives that promote walking and cycling routes as sustainable modes of transport (Objective P-TR2 & P-WC1).

The plan supports the provision of a cycleway between Mullingar and Athlone, as part of the National Cycleway Network (Objective P-WC2 & P-WC6) and wishes to further the development of an integrated cycle network in Athlone (O-WC1 & O-WC4).

It is noted that the new draft Westmeath County Development Plan (2021-2027) also supports the development of the Galway to Dublin Cycleway through Athlone (CPO 5.14) as a key tourist destination in the midlands.

3.6.4 Offaly County Development Plan

The Offaly Development Plan (2014-2020) was reviewed due to the potential corridor connection to Shannonbridge located within the area for the scheme. This plan includes policies to provide cycleways and walkways as part of new developments.

It also further investigates the potential development of trails within County Offaly to include a mixture of walking and cycling, along with the provision of adequate services along these trails.

3.6.5 Galway City Development Plan

The Galway City Development Plan (2017–2023) highlights that there is “now a demand for coastal and recreation facilities on the east side of the city”. The plan aims to “ensure the reservation of a substantial bank of land for recreational purposes” and for potential future “coastal walks to Oranmore”.

There are a number of specific objectives contained within the Plan in relation to an improved cycle network and developing a strategic coastal greenway from east to west linking the riverside walkways (Policy 3.6 & 4.5.1).

The plan also includes reference to the Oranmore to City Centre Greenway connecting with the Galway to Dublin Cycleway, as shown in **Figure 3.3** below.

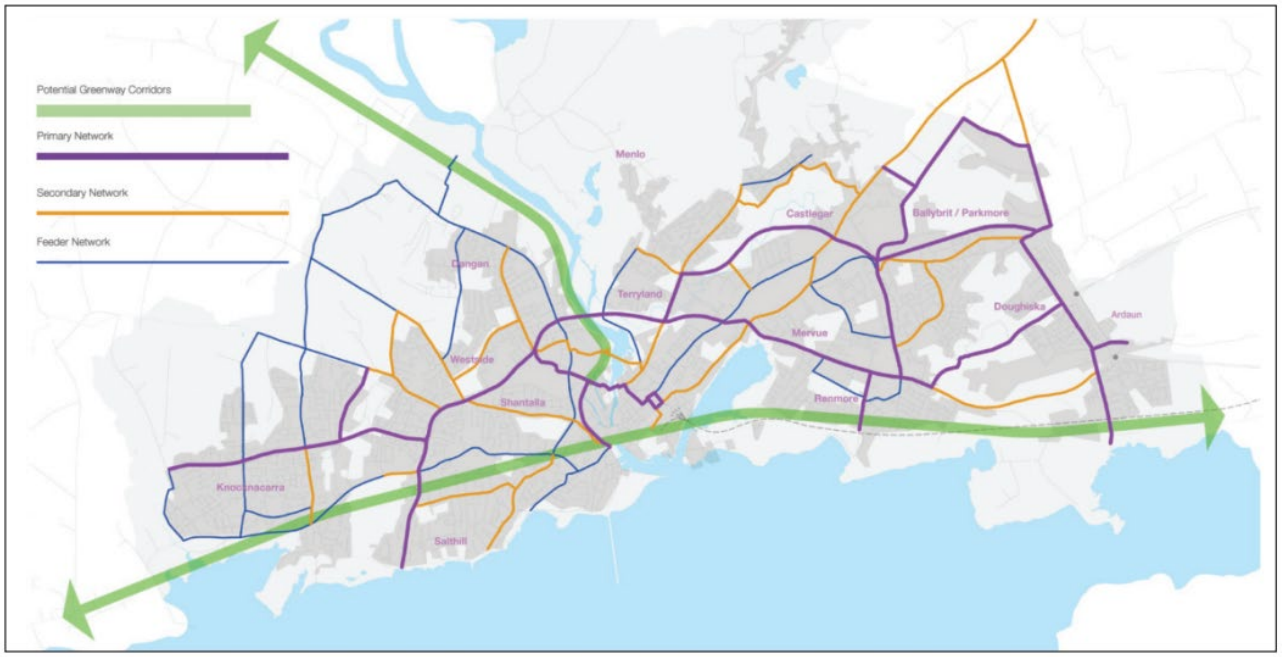


Figure 3.3: Galway City Proposed Cycle Network

3.7 Specific Tourism Initiatives

Fáilte Ireland have developed a number of regional tourism brands, as shown in **Figure 3.4**, presenting four distinct tourist offerings: Dublin; Ireland's Ancient East; Ireland's Hidden Heartland; and the Wild Atlantic Way.

These brands are used to promote and market tourism in the regions both nationally and internationally. The brands capitalise on the particular strengths and attractions of the regions.

Figure 3.4: Fáilte Ireland Regional Brands

3.7.1 Wild Atlantic Way Region

The Wild Atlantic Way is one of Fáilte Ireland's signature projects to rejuvenate Irish tourism. The brand encompasses the entire west coast of Ireland. The brandings goals are to:

- Assist in increasing visitor numbers, dwell time, spend and satisfaction along all parts of the route,
- Re-package the Atlantic seaboard as a destination to overseas and domestic visitors,
- Improve linkages between, and add value to, a range of attractions and activities,
- Improve on-road and on-trail interpretation, infrastructure, and signage along and around the route to direct visitors to less-visited areas,
- Assist businesses, agencies, local groups, and other stakeholders along the area to work together, and
- Reinforce the particular strengths and characteristics of all of the areas located along the west coast, while offering the visitor one compelling reason to visit.

The western section of the Galway to Athlone route will be within the Wild Atlantic Way region. It will help in achieving these goals, in particular by providing an attractive tourism product in the Galway area, linking well with the other cycling destinations, and directing visitors away from the more heavily visited areas directly on the coast.

3.7.2 Irelands Hidden Heartlands

Fáilte Ireland's brand destination 'Ireland Hidden Heartlands' presents significant opportunities for counties Roscommon, Leitrim, west Cavan and east Galway rebranding the midlands as 'Ireland's Hidden Heartlands' as a way to boost tourism in the area. The area extends beyond the northern and western region into County Longford and parts of counties Westmeath, North Tipperary, and Offaly.

The River Shannon will be a central focus of the brand, and a 'Shannon Masterplan' is proposed to focus tourism concentration on and around the river and in surrounding towns. It will focus on the River Shannon, the development of new food networks and trails and the creation of new walking hubs are part of the campaign to attract a larger number of visitors. The plan is to entice visitors with the area's walkways and lakes, and the campaign will promote activities like walking, cycling, fishing, and boating.

It is expected that the Galway to Athlone Cycleway will be able to help achieve these objectives and integrate well into the overall tourism plan for the region.

3.7.3 Shannon Masterplan

The draft Shannon Masterplan (2020), led by Waterways Ireland, sets out an integrated framework for sustainable tourism development along the Shannon to promote it as a compelling tourism destination within Ireland's Hidden Heartlands. This plan considers strategic connectivity with the Galway to Dublin National Cycleway as an exceptional opportunity for visitors to be active in nature.

Indicative trails highlighted for development by this masterplan include a cycle route from Athlone to Shannonbridge which may also form part of the Galway to Dublin National Cycleway. A goal of the masterplan is to improve North South connectivity along the Shannon.

3.8 Conclusion

This scheme is well supported by policies at all levels. Tourism is strongly emphasised as a source for economic development in the region. Internationally there is now an ever growing need to support more sustainable forms of transport and tourism, that contribute to the reduction of emissions and combat climate change.

Policy makers in Ireland and Europe are providing strong support towards cycle tourism. The policies and plans outlined above aim to:

- Increase popularity of cycling in Ireland,
- Contribute to a healthier society through increased physical activity,
- Provide substantially segregated off road cycling experiences linking places of interest,
- Improve infrastructure for recreational cycling through greater capital funding into the tourism sector,
- Use existing or disused suitable infrastructure and public lands where possible in the development of greenways,
- Consult in a proactive manner with landowners to maximise their support for, and goodwill towards, the proposed greenway,
- Provide opportunities for the development of local businesses and economies through an increase in active tourism, particularly in rural Ireland, and
- Establish Ireland as a premier destination for recreational tourism globally, while contributing towards the Eurovelo network of long-distance transnational cycling routes.

4 PROJECT OBJECTIVES

This section sets out the objectives for the cycleway. Based on the aspirations of International, European, National and Local Policy, a set of defined objectives have been developed. These are presented in **Table 4.1** below. These 19 objectives have been prepared using the framework of the Greenway Strategy, and the Common Appraisal Framework. Some objectives are in fact criteria or indicators of what it is felt is needed to deliver the overall objectives, critically Objective EC1. These are shown in *italics* in the **Table 4.1** below.

Table 4.1: Project Objectives

Reference	Objective
Economy	
EC1	*To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area, by delivering a cycleway that is attractive by international standards.*
EC2	To create local employment opportunities and wealth through new and expanded enterprises.
EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.
EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.
Safety	
S1	*To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).*
S2	To provide a sense of security for Cycleway users, e.g., through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.
S3	To provide a high level of operational safety on the cycleway through high quality design, construction, and maintenance.
Physical Activity	
PA1	To increase the number of commuters within the study area who use the greenway to walk or cycle to work or education.
PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.
Environment	
EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.
EN2	To minimise impact to cultural heritage sites.
EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.
EN4	To minimise land holding severance and utilise public land.
EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.
EN6	To ensure that planning, construction, and operation of the Cycleway is carried out in a sustainable manner.
Accessibility & Social Inclusion	
ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances
ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres
Integration	
I1	*To link to other existing and proposed Cycleways within the area*
I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services
I3	*To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.*

4.1 Common Appraisal Framework Criteria

The framing of scheme objectives has been undertaken in accordance with the guidance provided in the TII Project Appraisal Guidelines (PAG Unit 3.0: Project Brief). This recommends that scheme objectives are established which fall under the criteria included in the Common Appraisal Framework, which are:

- Economy,
- Safety,
- Physical Activity,
- Environment,
- Accessibility & Social Inclusion, and
- Integration.

The following paragraphs set out what the cycleway aims to achieve in each of these areas and summarises this in terms of measurable objectives. The benefits may not be fully realised until 5 years after the cycleway has been open; it is normal for visitor numbers to increase as awareness spreads through the target market. This therefore forms an indicative timescale over which the achievement of objectives might be measured.

4.1.1 Economy

The cycleway is intended to form part of the Eurovelo Network of long-distance cycling routes and the National Cycle Network in Ireland. These networks aim to promote cycle tourism and act as economic drivers in local areas, by capitalising on the great tourism potential that these cycling networks can offer.

The value of cycle tourism in Europe is approximately €54 bn per year, with longer-distance cycle tourists generally spending on average €353 each per trip and day trip cyclists spending €16 per day (Lumsdon et al., 2009). In Ireland, research on the Great Western Greenway in Mayo found that non-domestic tourists cycling the greenway spend on average €50.71/day and domestic tourists cycling the greenway spend on average €49.85/day (Deenihan et al 2013). The research estimated that domestic and non-domestic tourists created a profit for the local area of approximately €1,065,000 per year while visiting. Based on these figures, the research estimated a payback period of 6 years for the Great Western Greenway and concluded that “investing in cycling facilities in areas that cater not just for local usage, but also for tourists can be very worthwhile to the local economy”.

According to Fáilte Ireland figures from 2018, 450,000 visitors cycled while on holiday in Ireland, making it the second largest tourist activity after walking. It is projected that these figures will grow by 4% per annum to 2028.

The cycleway will have beneficial impacts as it will attract people to the area. This will have a ripple effect for tourism businesses including hotels, restaurants, shops, cafés, etc.

The Economy objectives of the project are:

EC1 - To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area, by delivering a cycleway that is attractive by international standards.

International visitors increase spending in the Irish economy and therefore give an economic benefit, whereas spending by domestic visitors may be largely transferred from elsewhere in the economy. Failte Ireland regularly survey visitors from abroad. It is proposed to measure the numbers attracted by "piggybacking" on their existing survey programme.

The remaining objectives are about how this can be done in ways which contribute to the CAF criteria.

EC2 - To create local employment opportunities and wealth through new and expanded enterprises.

This includes opportunities for Agri-Tourism within the area as a way of generating additional income within farming/rural communities.

Experience from the Waterford Greenway has shown that the presence of significant numbers of domestic and international visitors in an area can encourage the expansion of existing catering and other tourism-related businesses, and the start-up of new businesses at key nodes of the network. Similar monitoring of numbers of businesses along the route corridor is proposed for this project.

Up to a point these new enterprises increase the quality of the tourist experience, leading to a "virtuous circle" of more visitors and more facilities.

EC3 - To deliver the cycleway in a cost-effective manner and deliver real value for money.

All users of the cycleway will only do so if they gain value from the experience. Whilst it may be difficult to measure that value in any absolute sense, it is considered important to have a value-for-money objective in order to guide the option selection process by consideration of the relative attractiveness and relative cost of different options.

EC4 - To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.

Congestion is a problem at the two ends of the scheme, in the urban areas of Athlone and Galway. Walking and cycling infrastructure can make a significant contribution to relieving congestion by attracting shorter journeys to more sustainable modes.

4.1.2 Safety

The 'Safety' objectives of the scheme are:

S1 – To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).

Segregation provides both improved safety and user experience, especially in the context of leisure cycling, by being separated from motorised traffic. Segregation also protects greenway users from collisions with motor vehicles.

A fully segregated cycling and walking route is the ideal, and a route that falls a long way short of this ideal is unlikely to be attractive. However, it is recognised that 100% segregation is likely to be impractical. The degree of segregation achieved will be documented in terms of route length.

S2 – To provide a sense of security for cycleway users, e.g., through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.

Secure bike parking facilities and public lighting will be incorporated into the design across all routes. A sense of security can also be reduced by the isolation of the route, which may make users feel vulnerable, and also limits the opportunity for quick help in emergencies.

S3 – To provide a high level of operational safety on the cycleway through high quality design, construction, and maintenance.

The third safety objective looks at safety from other forms of mishap, including:

- Minimising risk of collisions between cyclists and pedestrians, by good design ensuring clear visibility, and
- Minimising risk of other accidents (falls down steep embankments, encounters with livestock etc) by good-quality fencing of the route where required.

4.1.3 Physical Activity

This project will encourage activities such as walking and cycling, which will improve the physical health and wellbeing of greenway users. Increasing the levels of walking and cycling are widely regarded as beneficial because of the improvements in public health, as a result of the increased levels of physical activity.

The health of our population is a major focus for the Government. For example, the National Physical Activity Plan for Ireland – Get Ireland Active, states “physical inactivity is a demonstrated clear risk to health and wellbeing in Ireland.

The physical activity objectives are:

PA1 - To increase the number of commuters within the study area who walk or cycle to work or education.

Measurement of this effect will be through the Census question on usual mode of travel to work or education.

PA2 - To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.

Measurement of this effect will be through existing Bord Failte surveys.

4.1.4 Environment

This project is to be designed to take into account the sensitivities of the natural, agricultural, and human environment. It is to be planned and constructed in compliance with the requirements of Irish and European

law including, but not limited to, EU Directive 2014/52/EU. Walking and cycling generally have low levels of impact on the environment.

What the project aims to achieve under this heading is:

EN1 – To minimise impact to the natural environment, especially habitats in ecologically sensitive areas.

Measurement will focus on expert judgment of impacts on designated sites in proximity to the route.

This objective shifts the focus from the use made of the cycleway to the carbon emitted and other environmental impacts of its construction and maintenance, and how the project can be planned so as to minimise these impacts. Various methods of sustainability assessment for civil engineering projects are being developed, one of these will be used to assess the project at later stage in the scheme development.

EN2 – To minimise impact to cultural heritage sites.

Measurement will focus on expert judgment of impacts on designated sites in proximity to the route.

EN3 – To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.

This objective recognises the value of the cycleway not just as a way to get from Athlone to Galway, but also as a way to experience the natural environment and cultural heritage in the area. The cycleway will link natural and cultural amenities along the route, as well as creating linkages between these amenities and towns and villages along the route.

EN4 – To minimise land holding severance and utilise public land.

The scheme will aim to achieve this by favouring routes that use publicly owned land, and by designing the route to follow landowner boundaries where possible, including mitigation measures where appropriate. The issue of severance of private land has been flagged as a particular issue on which the project planning will focus.

EN5 – To reduce air and noise pollution by getting people to cycle or walk rather than drive.

This objective again refers to use of the cycleway by people living and working in the area as well as tourists. Both markets will be considered in the appraisal process. The cycleway will connect sites of interest for tourists and will offer the option to walk or cycle to and between these amenities rather than driving. Links to public transport at multiple locations along the cycleway may further increase opportunity for tourists to avoid trips by car. People living and working in the area may use the cycleway to access natural and cultural amenities and/or for travel to and from work and education.

EN6 – To ensure that planning, construction, and operation of the cycleway is carried out in a sustainable manner.

It is an objective to route the cycleway on public lands, utilising existing roads/pathways/tracks, where possible. This will reduce the need for extensive construction works, minimising impact to the environment, reducing materials required and reducing carbon emissions.

It is an objective in the planning of the Galway to Athlone Cycleway to ensure that construction and operation of the cycleway is consistent with the sustainability brand.

4.1.5 Accessibility & Social Inclusion

The scheme has potential to create positive benefits for accessibility and social inclusion within the area. The Galway to Athlone Cycleway will provide key linkage to various communities, giving access for vulnerable road users and locals alike.

The development of open spaces within the area will offer a sense of place and encourage inclusiveness by reducing vehicular dominance, which can disrupt communities along busy routes. Facilitating local amenities such as coffee shops, pubs, restaurants, and bike rental shops will promote community inclusion.

Barriers to accessibility and inclusivity, such as kissing gates and bollards with narrow spacing, will be avoided at design stage to ensure that cycleway users who use non-standard bikes (e.g., hand cycles, tricycles, cargo bikes) or who use mobility aids do not face access issues at any point along the route.

Accessibility can also be considered in the context of its usability to all users, for example remote terrain and steep climbs would be less attractive to less able or less experienced cyclists.

The Accessibility and Social Inclusion objectives are:

ASI1 - To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.

The success of the cycleway in achieving this objective will be measured by visitor surveys which will document the age range of users and the different lengths of cycleway that they use during their visit.

ASI2 - To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.

Similarly, surveys can identify facilities that didn't exist prior to the cycleway and use of the facility by local people to access local centres.

4.1.6 Integration

Four types of integration are appraised to ensure that investment across the transportation portfolio is integrated towards achieving a common goal. These are:

- Transport Integration - the promotion of the integration of transport infrastructure and services by focusing on gaps in the existing network and improving opportunities for interchange between modes.
- Land Use Integration - the compatibility between adopted land use objectives and the proposed scheme
- Geographical Integration - Improving connectivity within Ireland and to other parts of the world
- Other Government Policy Integration - Regional Balance

The proposed scheme aims to contribute to Regional Balance by encouraging international tourists to the West and Midlands of Ireland.

It aims to contribute transport integration and integration between transport and land use, as outlined in the following integration objectives:

I1 - To link to other existing and proposed cycleways within the area.

The number of other cycleways which the Athlone to Galway Cycleway connects to will be documented.

I2 - To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.

This will be assessed by recording existing public transport facilities near to the route corridor options.

I3 - To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.

The numbers of other facilities which the cycleway connects will be documented.

5 DEMAND

5.1 Introduction

The potential demand for the Galway to Athlone Cycleway is considered to fall into 3 broad categories as follows:

- **Active Travel**, comprising people using the cycleway to travel to and from the workplace, school, or for other purposeful journeys,
- **Domestic Leisure**, comprising Irish residents using the cycleway for leisure journeys, and
- **International Leisure**, comprising tourists using the cycleway for leisure purposes, as part of a holiday in Ireland.

This is presented in **Figure 5.1** below.

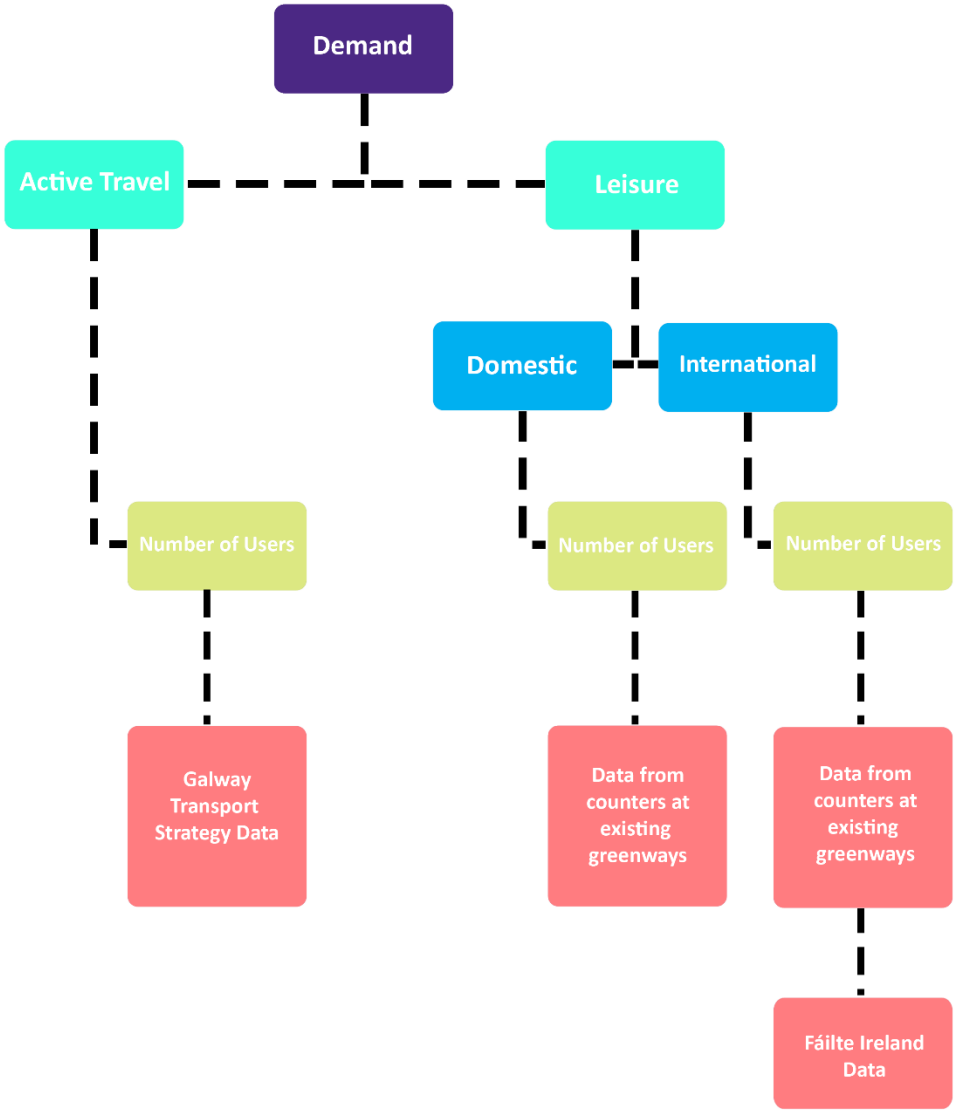


Figure 5.1: Demand Analysis Flow Chart

5.2 Existing Demand Data

5.2.1 Fáilte Ireland

Fáilte Ireland data shows that cycling tourism has been steadily growing in Ireland, and the economic benefits have been growing accordingly.

In 2009, 114,000 overseas visitors engaged in cycling while in Ireland spending approximately €97 million.

In 2011, 173,000 overseas visitors engaged in cycling while in Ireland spending approximately €200 million.

In 2013, 241,000 overseas visitors engaged in cycling while in Ireland.

More details are provided in **Figure 5.2** below.

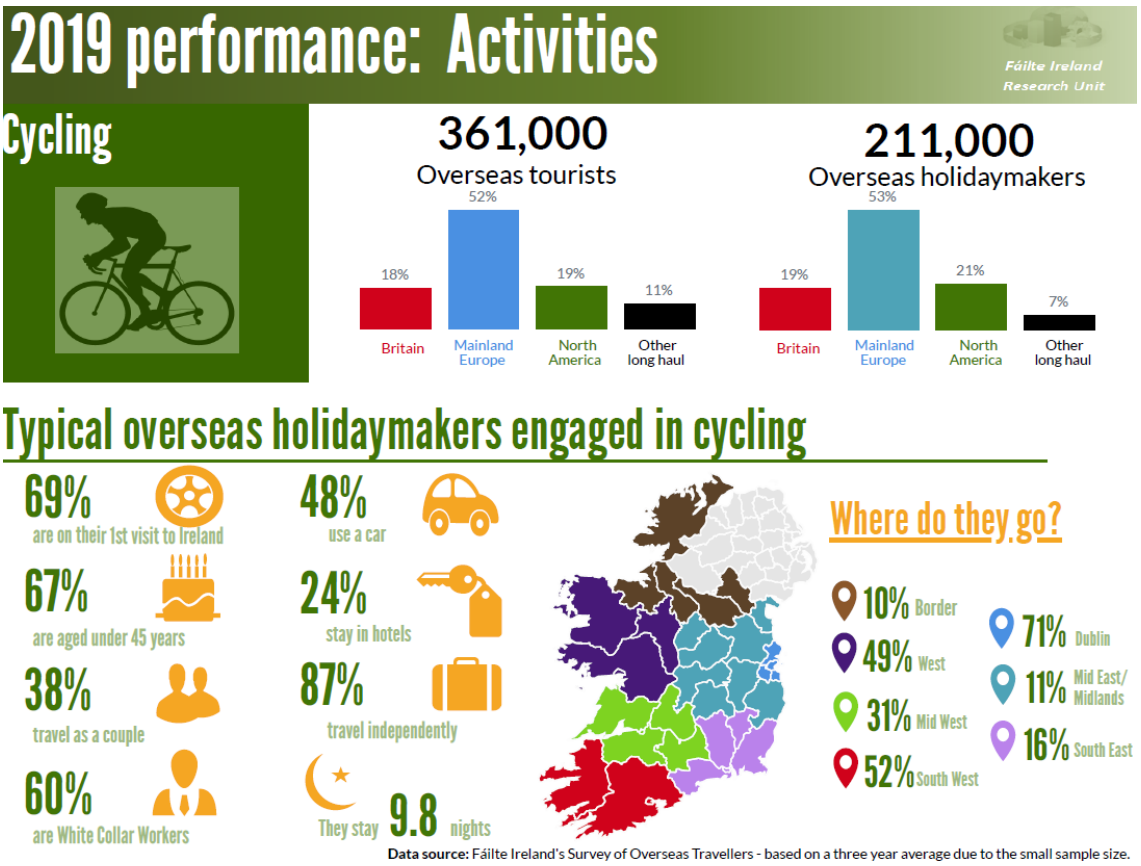


Figure 5.2: 2019 Cycling Tourism Performance (Failte Ireland, 2019)

Figures beyond 2019 have not been considered as the Covid-19 pandemic has impacted tourism significantly.

In 2013 market research consultants were commissioned by Fáilte Ireland to undertake a Target Cycling Market Survey in Germany, Britain, Netherlands, France, and Ireland. The objectives were to:

- Understand the scale of potential for cycling holidays in Ireland by overseas visitors,
- Investigate the key requirements of the target market for cycling holidays, and
- Understand the characteristics of the target cycling market.

More than 15,000 online surveys were taken with representative samples from each country, identifying a maximum core potential of 19.5M foreign visitors over three years. In addition, a domestic market of 721,000 over three years was identified.

Overall, Failte Ireland has reported a threefold increase in cycle tourism from 2009 to 2018 and projected an annual growth rate of 4% to 2028. Based on the 2019 figure of 361,000, this annual growth of 4% would see more than 455,000 overseas tourists engaged in cycling in Ireland by the scheme opening year of 2026 and more than 510,000 overseas tourists engaged in cycling in Ireland by 2028.

5.2.2 Data from Other Greenways

There has been a surge in the development of greenways in Ireland in recent years. These existing greenways provide data that can inform demand analysis for the Galway to Athlone Cycleway.

5.2.2.1 Great Western Greenway, Mayo

The Great Western Greenway (GWG) in County Mayo and shown in **Figure 5.3**, connecting Westport and Achill Sound, is a 42km, off-road route which officially opened in July 2011. An economic impact assessment in 2016 indicated that the Great Western had 484,000 trips (265,000 users, 139,000 visitors) in year seven 2016. In 2016 the greenway was worth €38.9m to the local economy each year and supported 200 direct jobs, (710 indirect).

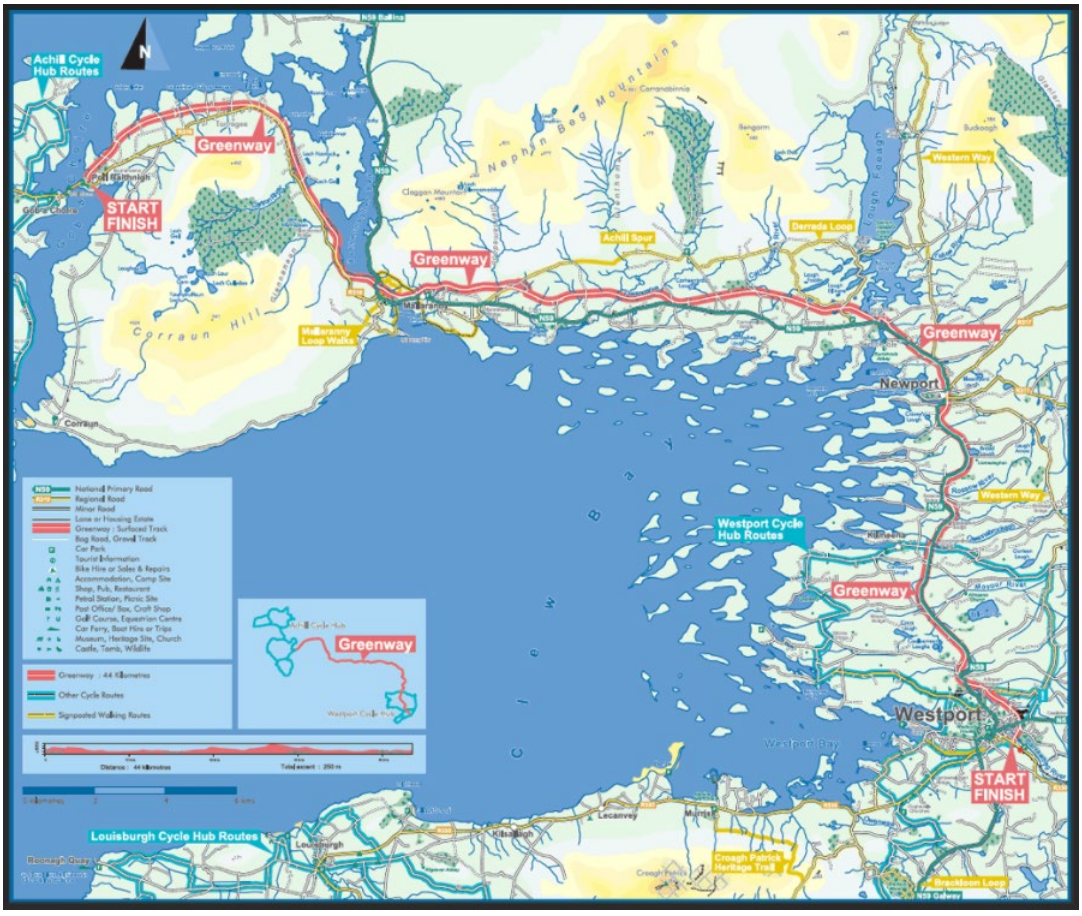


Figure 5.3: Great Western Greenway Route Map

5.2.2.2 Waterford Greenway

The Waterford Greenway is a 46km largely off-road greenway connecting Waterford City and Dungarvan that opened in March 2017. The Waterford Greenway is also part of the EuroVélo 1 route. Surveys on the Waterford Greenway in 2017, showed that over 250,000 trips were made on the greenway in the period March to December, immediately after its opening. These overall user figures were sustained throughout 2018 and 2019, though there is no breakdown of domestic versus overseas users for these years. However, only 2% of users came from outside the Republic of Ireland. 68% of people from outside Waterford said that the greenway was the sole reason for their trip to Waterford. It is noted that these figures are from the initial years of opening when there had not been significant promotion of the Waterford Greenway, particularly with international tourists. A route map of the Waterford Greenway is shown in **Figure 5.4**.

Figure 5.4: Waterford Greenway Route Map

5.2.2.3 Old Rail Trail Greenway

The Old Rail Trail Greenway at the Whitegates counter in Athlone recorded a daily flow of over 900 users (cyclists and walkers) in 2019 with an annual usage of over 330,000 greenway users. This includes both leisure and commuter walkers/cyclists. The Old Rail Trail Greenway recorded approximately 80,000 greenway users annually outside of Mullingar. It's likely that a significantly higher number use the facility in the immediate environs of Mullingar. A route map of the Old Rail Trail is shown in **Figure 5.5**.

Figure 5.5: Old Rail Trail Route Map

5.2.2.4 Royal Canal Greenway

The Royal Canal Greenway is a 130km greenway, shown in **Figure 5.6** connecting Maynooth to Longford which opened in March 2021.

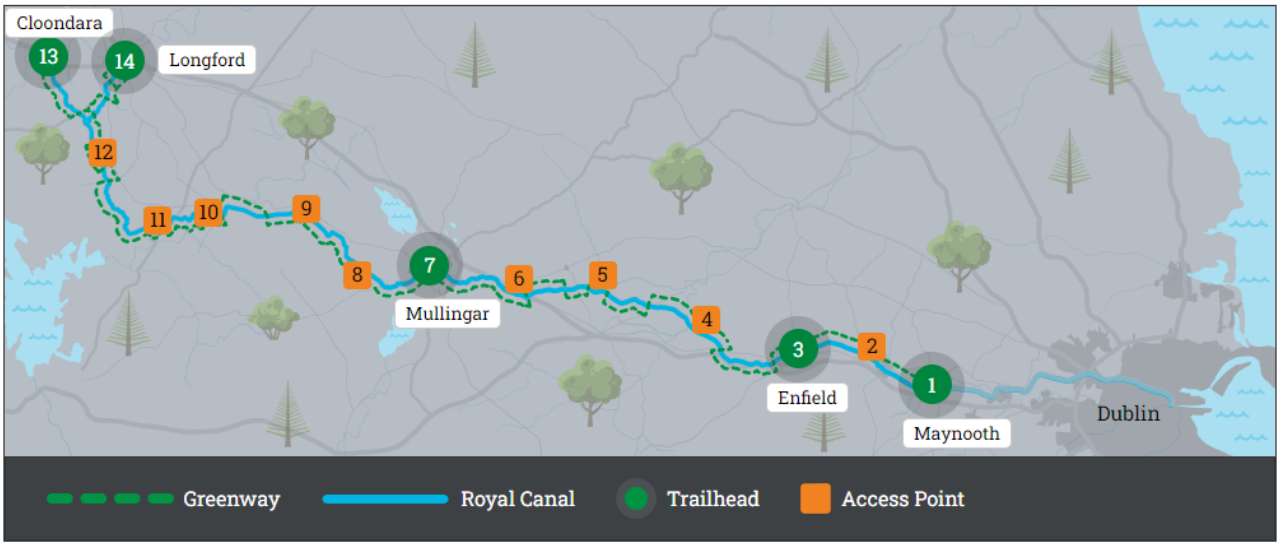


Figure 5.6: Royal Canal Greenway route map

Research from Waterways Ireland found that up to the end of December 2021 more than 640,000 trips had been made on the Royal Canal Greenway since it opened, 9 months previously. The research was carried out by Tracsis and included a validation exercise on the data from physical counters in place along the greenway as well as additional user and business surveys. The research found that almost 60% of visitors were from the local area and 6% of users had come from outside the Republic of Ireland. The majority of trips (87.4%) were return trips. More than a quarter of trips (26%) were 5km-10km long (**Figure 5.7**).

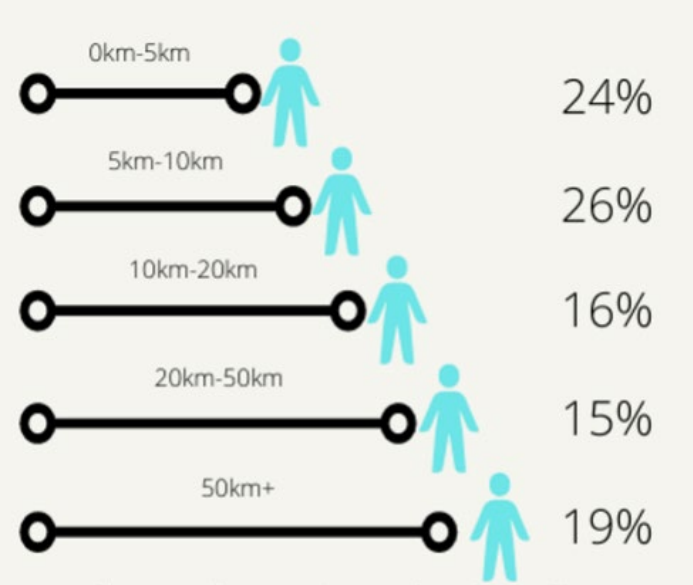


Figure 5.7: Greenway visitors trip lengths, Royal Canal Greenway research.

A spend analysis was conducted as part of the research and this found that domestic tourists spent €43.11 per visit and international tourists spent €105.10 per visit. The spend analysis results are presented in **Figure 5.8** below.

Place of Residence	Daily Spend Per Person Per Visit Autumn 2021
Local - Within 10km	€10.43
Domestic - Elsewhere in the Republic of Ireland	€43.11
Northern Ireland	€91.67
Great Britain*	€39.67
International*	€105.10
Weighted Spend per Person Per Visit	***€26.86***

Autumn 2021 Weighted Spend per Person Per Visit to the Royal Canal Greenway	€26.86
Annual Number of Visits to the Royal Canal Greenway during 12 months to December 2021	640,000
Annual Spend during 12 months to December 2021	***€17.2m***

Figure 5.8: Spend analysis results for the Royal Canal Greenway from March to December 2021

5.2.3 Demand Data from Europe

A 2012 study carried out by the European Parliament developed a demand model based on available cycling tourism data. The demand model estimated 20 million cycle holiday trips annually, with 24% of these estimated to be international trips.

In general, cycle tourism in Europe is showing an upward trend since 2013, as reported by Allgemeiner Deutsche Fahrrad Club (ADFC Bicycle Travel Analysis 2020) displayed in **Figure 5.9**, and reported by the European Cycling Federation, and in similar surveys from France and Hungary.

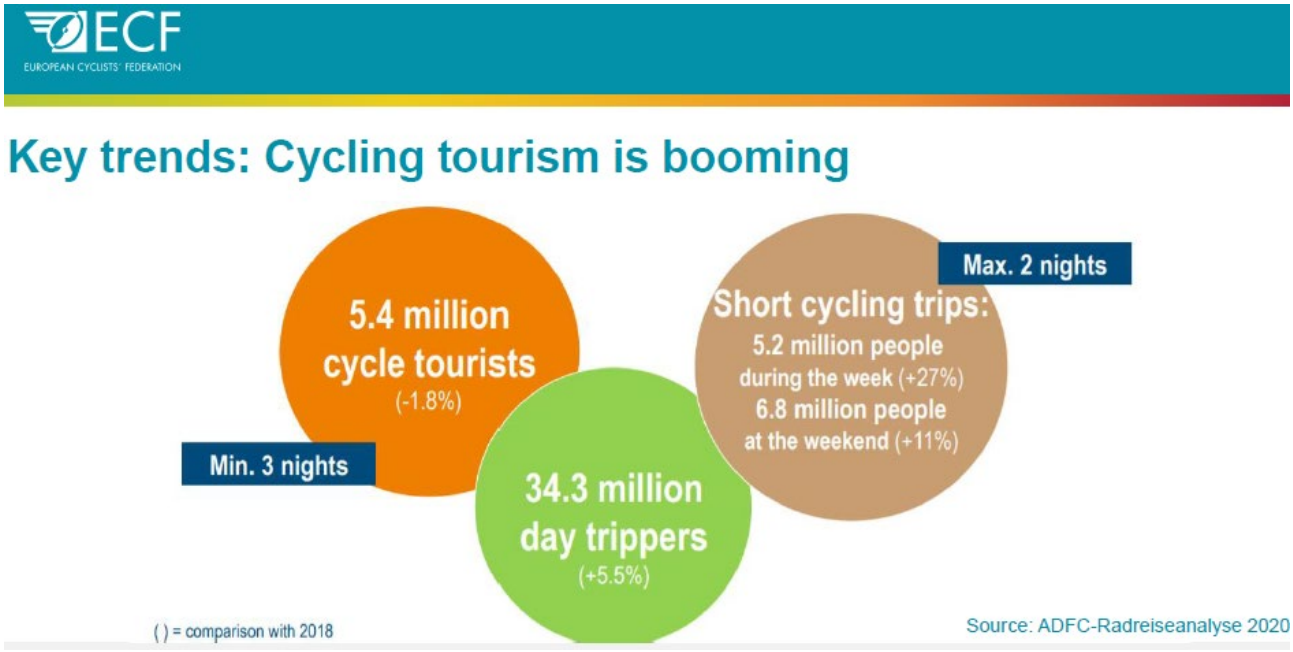


Figure 5.9: Trends in Cycle Tourism Germany 2018-2019 (ADFC Radreiseanalyse 2020)

A 2020 report from Hungary, published by the Centre for Development of Active and Ecotourism (AÖFK) and the Hungarian road maintenance public company (Magyar Közút) found that the number of cycle tourists in 2020 shattered all previous records. The counts included manual counts and the use of automatic counters and were carried out around Lakes Tisza, Neusiedl, Velence and Balaton which are on EuroVélo routes 11, 13, and 14 respectively (Velence and Balaton are on EuroVélo 14). Each of the Lakes saw a large increase in the number of cycle tourists compared to 2019. The findings from the counts are presented in **Figure 5.10**.

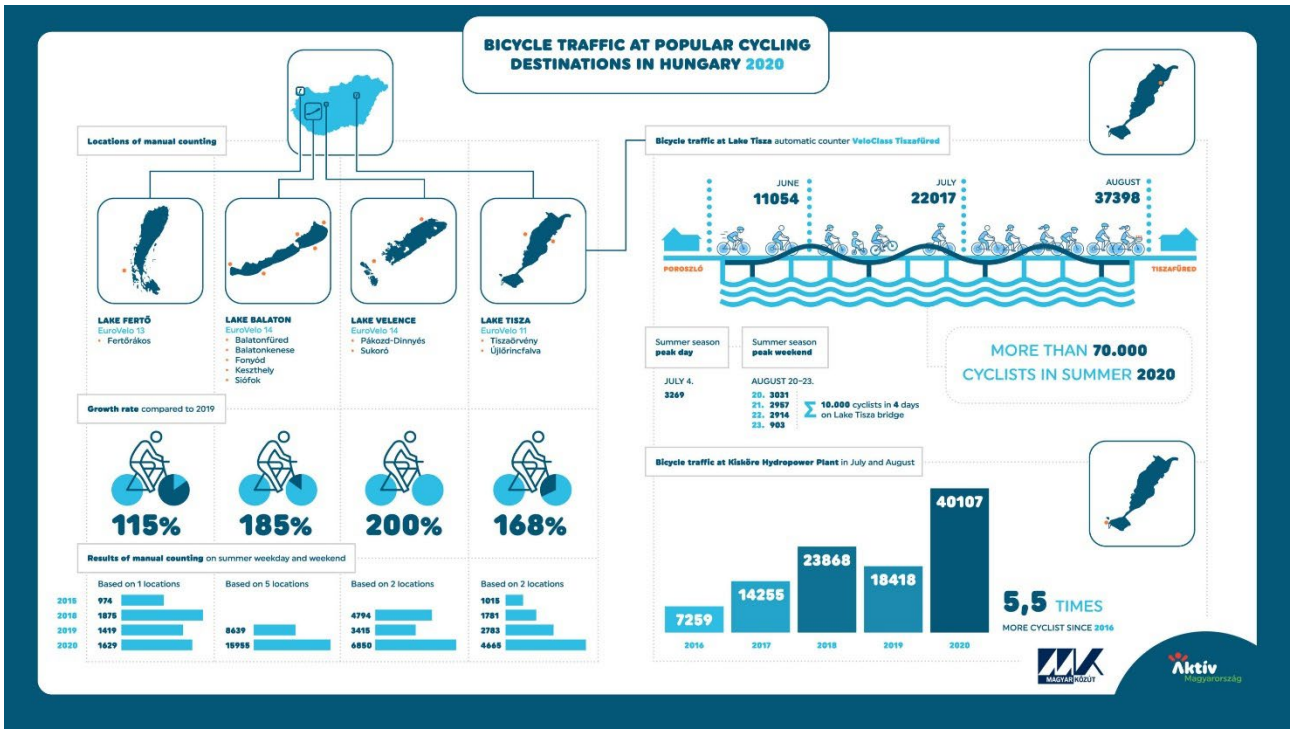


Figure 5.10: Cycling Tourism Data from Hungary for 2020

A report published in April 2020 by the French Government on the 'Economic impact and potential for the development of bicycle use in France in 2020' found that more than 20% of cycle tourists came from abroad and identified €5.1 billion of economic benefits linked to cycling tourism per year in France. This figure represents a 46% increase between 2010 and 2018. The infographic below presents some of the key cycling tourism data from the report:

- More than 20% of cycle tourists came from abroad,
- The economic impact of the La Loire a Vélo route in Brittany doubled in 5 years,
- Cycle tourists spend an average of €68 per day compared to €55 per day for other tourists,
- 21 million French people cycle during their holidays, and
- Cycle tourists contribute 90 million overnight stays per year.

The data presented above and in **Figure 5.11** indicates that there are at least 5 million people in Europe who are going to plan a cycling holiday annually.

Figure 5.11: Cycling Tourism Data from France

5.3 Active Travel Demand

The population within 5km of the cycleway is approximately 140,000. Most of this population is in the urban areas of Galway, Athlone, and Ballinasloe. There are several smaller towns in the region, as shown in **Figure 5.12.** There are also some sparsely populated areas.

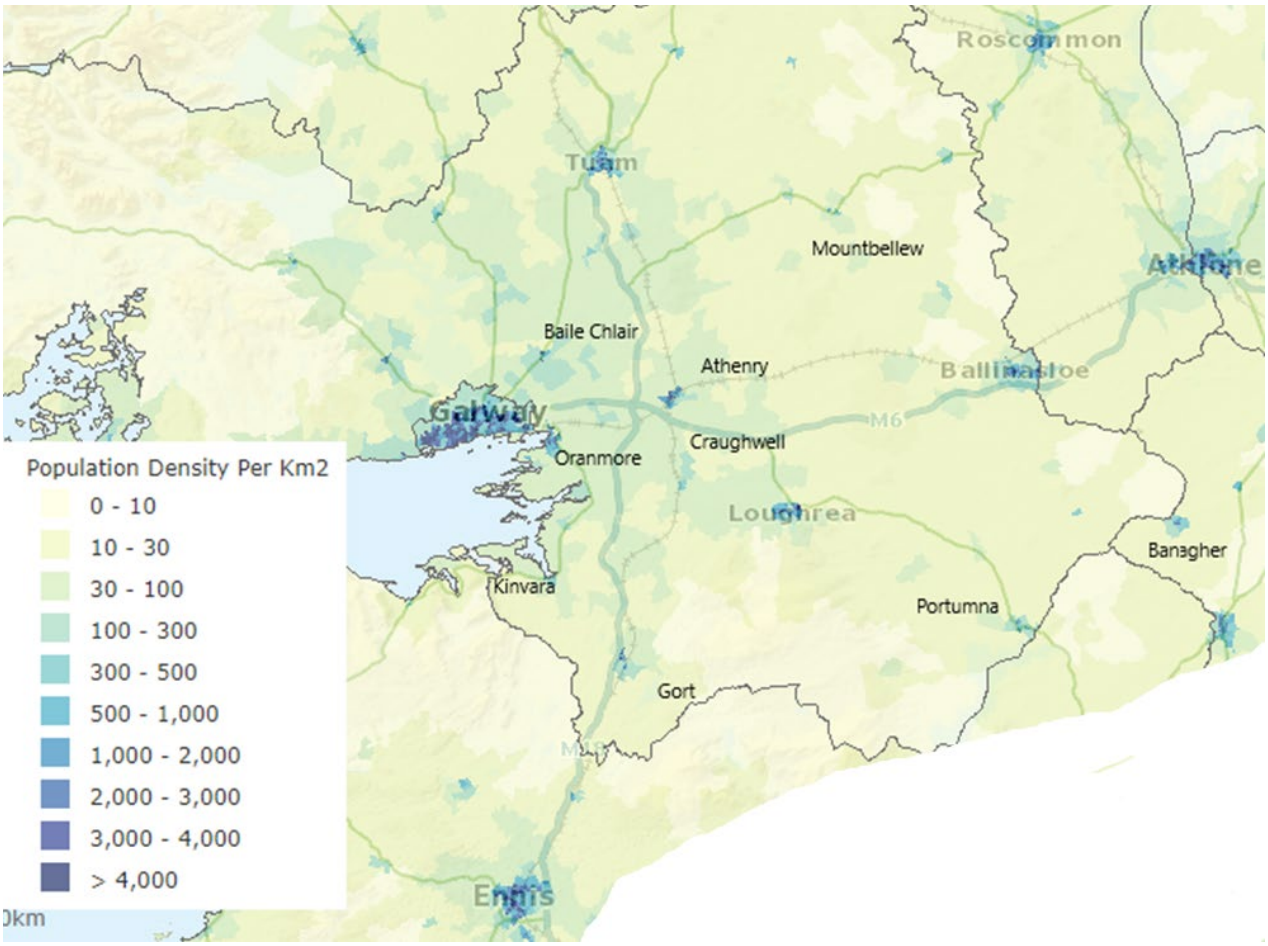


Figure 5.12: Population Density in Scheme Area

Whilst the scheme objectives are focused primarily on delivering a greenway route that meets the 5S's (Scenic, Sustainable, Substantially Segregated and Shared Use, Offer Lots to See and Do, & Strategic) as set out in the Government's Greenway Strategy, the scheme does include objectives around increasing the mode share for active travel.

The analysis of active travel demand has been focused on the Galway to Oranmore section of the greenway and the sections around other towns. These are the areas with highest population density and greatest potential to connect commuters to their places of work and education.

5.3.1 Galway to Oranmore

The Galway Transport Strategy (GTS) details five specific actions to increase mode share for cycling and walking:

- Develop an integrated network of walking and cycling routes,
- Increase priority for pedestrians and cyclists in the city and town centres of Bearna, Oranmore, and Baile Chláir,
- Improve permeability of residential areas for pedestrians and cyclists,

- Increase the availability of bike parking, and
- Introduce cycle training facilities in the city and in Oranmore.

The GTS also includes proposals for 30kph zones as part of the plan to increase mode share for cycling and walking.

The Galway to Oranmore section of the Galway to Athlone Cycleway would support many of the objectives above and the GTS includes this section as a part of the proposed infrastructure to form a comprehensive cycling network in Galway. The GTS states that the greenway is intended to form the primary cycling route from the city centre to Renmore and beyond towards Oranmore. The GTS also includes proposed infrastructure to facilitate a connection between the Galway to Dublin Cycleway and the Conamara Greenway in the city centre.

The Galway to Oranmore section of the greenway is expected to facilitate commuters using active travel to get to work and places of education, providing an important connection between Oranmore and the city centre as well as linking to other parts of the proposed cycling network, e.g., the BusConnects corridors along the Dublin Road and through the city centre.

The Galway Transport Strategy was consulted on the numbers of people currently cycling to and from work / education in the corridor between Galway and Oranmore.

The GTS numbers were based on the Place of Work, School or College Census of Anonymised Records (POWSCAR) data from the 2011 Census. These numbers were used to develop an estimate of the expected demand for active travel between Galway to Oranmore. The GTS shows that there were 4,431 trips daily along this corridor in 2011. The GTS notes that the mode share for cycling at this time was 2.5% and based on this we have calculated that 333 trips were cycled daily along this corridor. The corridor was considered as per **Table 5.1** (showing total trips).

Table 5.1: All Trips Galway to Oranmore Corridor (Galway Transport Strategy)

	13 - Claddagh	14 - Henry St	15 - NUIG	16 - City Centre	17 - Mellows Park	18 - City Hall	19 - Galway Shopping Centre	21 - Mervue Industrial Estate	22 - GMIT	23 - Renmore	24 – Merlin Park Hospital	26 - Doughiska	28 - Oranmore	29 - Ardaun
13 - Claddagh				178	3				30	20	7	8	19	0
14 - Henry St					2				19	8	7	10	8	0
15 - NUIG										1	1	1	0	0
16 - City Centre	35				4				53	6	3	8	17	0
17 - Mellows Park	1	5		22						14	1	4	3	0
18 - City Hall										24	5	7	8	0
19 - Galway Shopping Centre										5	4	4	8	0
21 - Mervue Industrial Estate										37			24	0
22 - GMIT	16	27		125								14	20	0
23 - Renmore	31	34	170	244	25	18	47	234					79	0
24 - Merlin Park Hospital	28	69	141	274	17	15	38					57	106	0
26 - Doughiska	30	90	139	352	22	29	61				48		204	0
28 - Oranmore	12	30	143	170	24	24	37	163	106	84	56	60		0
29 - Ardaun	0	5	9	8	1	2	3	8	5	8	4	4	37	

Currently there is no dedicated cycle infrastructure in the corridor between Galway and Oranmore. It is reasonable to expect that if a dedicated and segregated cycleway is provided, the number of people cycling will increase.

An annual growth rate of 2% has been assumed between 2016 and 2022 and it has been assumed that the number of trips will grow by 100% due to the provision of the cycleway. Based on this, it is estimated that there will be between 500 and 833 trips per day, over an average distance of 4.5km.

5.3.2 Other towns

5.3.2.1 Athlone

The 2016 census data indicates a 2.9% mode share for cycling in Athlone. As the route connects into Athlone on the outskirts of the town it does not connect residential areas and places of work / education. It is expected that the greenway will contribute to connectivity in general and be part of the active travel network in the town.

The Place of Work, School or College Census of Anonymised Records (POWSCAR) data from the 2016 Census indicates 239 people were cycling to work or education. It has been assumed that 10% of these cyclists, or 24 cyclists, may be able to utilise the greenway. It is expected that the greenway will double the number of cycle trips in the area so it is estimated that there will be 48 active travel cycle trips daily.

5.3.2.2 Ballinasloe

The Galway to Athlone Cycleway does not go through Ballinasloe, instead a link will be provided connecting the town to the greenway. The route does not connect residential areas and places of work / education. However, similar to Athlone, we expect that the greenway will contribute to connectivity in general and be part of the active travel network in the town. It is estimated that there will be between 20 and 25 active travel cycle trips daily in and around Ballinasloe.

5.3.2.3 Portumna

As the greenway follows a scenic route it does not provide connections between residential areas and places of work / education. It is estimated that there will be between 8 and 10 active travel cycle trips daily as the route should provide some opportunity for connectivity and provide links within the wider active travel network.

5.3.2.4 Gort

The 2016 census data indicates a mode share of 1% for cycling in Gort. This is a relatively low mode share, and the route does not connect residential areas and places of work / education, but it is estimated that there will be between 20 and 28 cycle trips daily as the route will provide some options as part of a wider active travel network in the town.

5.3.3 Non-Work/Education Trips

The Powscar/Census data used above provide an estimate of the likely increases in cycle use for travel to work and education. In addition, the scheme is likely to be attractive to people travelling over short distances for a range of purposes. the National Travel Census collect data on journey purpose for a range of distances. The percentage of people travelling under 2km, split by journey purpose is summarised below:

- Work 14.2%,
- Education 2.4%,
- Shopping 26.5%,
- Eat or drink 4.5%,
- Visit family/friends 7.9%,
- Entertainment/leisure/sports 6.9%,
- Personal business 3.6%,
- Companion/escort journey 29.5%, and
- Other 4.4%.

Whilst the scheme is likely to attract new cyclists this will be less likely for some journey purposes – e.g., companion escort. As a conservative estimate it has been assumed that a proportion of visit family/friends and leisure trips will potentially switch to cycling. The proportion of these trips combined is 14.8% - 89% of the proportion of work and education trips. The number of new cycling trips has therefore been assumed to be 89% of those forecast for work and education.

5.3.4 Pedestrians

Data from the Royal Canal Greenway, published in March 2022, found that 44% of trips on the greenway were by pedestrians and 52% were by cyclists (the remaining 4% used ‘other’ transport means). For the Galway to Athlone Cycleway active travel demand for pedestrians has been estimated to be 50% of the demand for cyclists as the distance between Oranmore and Galway is approximately 12km which is considered to be more suitable for cyclists. However, there are some residential areas along the greenway route which are closer to Galway city and may be a source for pedestrian active travel trips.

5.3.5 Summary of Active Travel Trips

The number of existing cycle and walk trips that are likely to transfer to the greenway, together with the estimated number of new cycle and walk trips is summarised in **Table 5.2**.

Table 5.2: Walk/Cycle Likely to Transfer to Greenway

	Existing	Low Scenario	Central Scenario	High Scenario
Average daily cycling trips (both directions)				
Galway	333	500	666	833
Athlone	24	36	48	60
Ballinsaloe	0	20	23	25
Portumna	0	8	9	10
Gort	0	20	24	28
Total	357	584	770	956
Average daily pedestrian trips (both directions)	179	292	385	478

5.4 Domestic Leisure Demand

Domestic leisure travel demand has been estimated based on data available from counters on existing greenway schemes such as the Great Western Greenway in Mayo, the Waterford Greenway, and completed sections of the Galway to Dublin Cycleway. Section 5.2.2 above provides more details on the data available from existing greenways. The number of trips annually varies from 250,000 (122,500 pedestrians and 127,500 cyclists) to more than 600,000 (266,400 pedestrians, 312,000 cyclists, and 21,600 'other'), and the length of the greenways varies from 46km (Waterford Greenway) to 130km (Royal Canal Greenway).

Galway is an extremely popular destination with domestic tourists generally. Fáilte Ireland data from 2017 shows that Galway was the second most popular destination with domestic tourists, with 1,113,000 (or 12% of the total) visiting. Given Galway's popularity as a tourist destination, it can reasonably be assumed that the Galway to Athlone Cycleway will be a draw for domestic tourists for holidays.

Based on the analysis of the data from existing greenways and the level of domestic tourism to Galway annually, it is estimated that demand for domestic cycle tourism could be between a range as follows:

- **Low Scenario:** 100,000 cycle trips annually, approximately 274 cycle trips daily,
- **Medium Scenario:** 250,000 cycle trips annually, approximately 685 cycle trips daily, and
- **High Scenario:** 500,000 cycle trips annually, approximately 1365 cycle trips daily.

The trip duration for domestic tourism is assumed to be an average of 60 mins as per the default assumptions provided in Transport Infrastructure Ireland's (TII's) Excel-based tool for undertaking a CBA of active modes schemes, the 'Tool for Economic appraisal of Active Modes' (TEAM). This default assumption is based on the CSO Quarterly National Household Survey 'Special Module on Sport' 2013. Data from the Royal Canal Greenway published in March 2022 found that 66% of trips were 0-20km, or approximately 60 mins of cycling.

The demand for pedestrians has been estimated to be 50% of the demand for domestic cycle tourism. Data from the Royal Canal Greenway, published in March 2022, found that 44% of all trips on the greenway were by pedestrians and 52% were by cyclists (the remaining 4% used 'other' transport means). Surveys on the Waterford Greenway found 49% of trips were by pedestrians and 51% of trips were by cyclists. As the Galway to Athlone Cycleway will provide more domestic tourism options, including connections to places of

interest such as Coole Park, over longer distances from Galway city it has been assumed that a greater proportion of domestic tourists will cycle.

The Waterford Greenway surveys collected data on the percentage of domestic visitors who stayed in overnight accommodation, split according to whether they live in or outside of Waterford.

- 34.7% of domestic visitors live outside Waterford; 40% of whom stayed overnight, and
- 65.3% of domestic visitors live in Waterford; 2% of whom stayed overnight.

Based on these figures it is estimated that approximately 15% of domestic users will have an overnight stay.

The breakdown of domestic leisure users by mode, and length of stay (Leisure trips do not stay overnight and Tourism trips stay an average of 3 nights) is presented in **Table 5.3**.

Table 5.3: Forecast Daily Domestic Leisure Demand

	Cyclists		Pedestrians	
	Leisure Trips	Tourism Trips	Leisure Trips	Tourism Trips
Low	233	41	116	21
Central	582	103	292	51
High	1160	205	581	102

5.5 International Leisure Demand

Three components have been assessed in order to determine international leisure demand:

- The number of international visitors who will use the greenway annually,
- The average length of stay for international visitors using the greenway, and
- The percentage of international visitors using the greenway who visited Ireland because of the greenway.

At present there is little information on the number of overseas visitors that are using existing greenways. Surveys of the Waterford Greenway indicated that approximately 5,000 overseas visitors used the greenway in its first full year of operation. It would be expected that the number of overseas visitors would increase significantly as the site becomes better known and ongoing marketing has a greater impact. The Galway to Athlone Cycleway will be Ireland's first 'national' or long-distance greenway, offering the potential for multi-day holiday experiences, rather than just a one-day experience typical of existing greenways. It will be marketed to overseas visitors and would be expected to attract a significantly greater number than the Waterford Greenway. As a conservative estimate it would be expected that overseas visitors would be five times greater than those surveyed for the first year of the Waterford Greenway. An optimistic estimate would be a figure twenty times that surveyed for the first year of the Waterford Greenway.

Based on the Waterford Greenway data, and data available from Fáilte Ireland, as presented in **Section 5.2.1**, the figures below are considered a reasonable range for the number of international visitors annually:

- **Low:** 25,000 visitors annually, approximately 69 visitors daily,

- **Medium:** 50,000 visitors annually, approximately 137 visitors daily, and
- **High:** 100,000 visitors annually, approximately 274 visitors daily.

The average length of stay is estimated at 3 days as it is expected that visitors will complete the full route from Galway to Athlone, with the option to then continue on to Dublin. We estimate that 50% of visitors will make their trip specifically because of the greenway, i.e., they would not have planned their holiday in Ireland if it wasn't an option to use the greenway. This means that the range of visitors considered is:

- **Low:** 12,500 visitors annually, approximately 34 visitors daily,
- **Medium:** 25,000 visitors annually, approximately 69 visitors daily, and
- **High:** 50,000 visitors annually, approximately 137 visitors daily.

5.6 Summary of Demand Figures to be Used in Economic Appraisal

Based on the demand analysis described above the figures to be used in the economic appraisal are shown in **Table 5.4** to **Table 5.7** below.

Active Travel

Table 5.4: Active Travel

	Existing	Low Scenario	Central Scenario	High Scenario
Average daily pedestrian trips (both directions)	179	292	385	478
Average daily cycling trips (both directions)	357	584	770	956

Domestic Leisure (no overnight stay)

Table 5.5: Domestic Leisure Trips

	Low Scenario	Central Scenario	High Scenario
Average daily pedestrian trips (both directions)	116	292	581
Average daily cycling trips (both directions)	233	582	1160

Domestic Tourism (with overnight stay)

Table 5.6: Domestic Tourism Trips

	Low Scenario	Central Scenario	High Scenario
Average daily pedestrian trips (both directions)	21	51	102
Average daily cycling trips (both directions)	41	103	205

International Leisure

Table 5.7: International Leisure Trips

	Low Scenario	Central Scenario	High Scenario
International visitors	34	69	137

6 CONSIDERATION OF ALTERNATIVES & OPTIONS

6.1 Do Nothing Option

The do-nothing option comprises of no further development of a cycle route between Galway and Athlone. In this situation, it would be expected that there would be very limited growth on the cycle tourism market in East Galway and South Roscommon. Any natural increase in demand for leisure cycling would be constrained and restricted to usage of current roads. It would not be possible to develop the Galway to Dublin corridor as a leisure cycling product. This option is not examined any further in this report as it fails completely to meet the project objectives.

6.2 Do Minimum Option

This option would consist of the selection of a route along existing roads, with route signposting and upgrades to the roads where necessary. These upgrades could include widening or addition of designated cycle lanes.

There are a large number of particular options that would be available, given the large road network between Athlone and Galway.

This option was designated the management option in the Stage 1 assessment. It did not progress due to the lesser user experience of cycling immediately next to a road, compared with other alternatives. To achieve full segregation, which is a key project objective, it would likely be necessary to perform significant widening of the roads.

Use of existing roads, and widening where desirable, forms parts of the Route Corridor Options to greater or lesser extents. However, it is not considered as a desirable solution over the entire project length.

6.3 Do Something Option – Feasible Route Corridor Options

Route Corridor Options, comprising corridors where a substantially segregated, and primarily new build cycleway could be delivered, were developed and assessed under Stage 1 as follows:

- **Candidate Cycleway Option 1 – Northern Route Corridor:** The Northern Route Corridor travels in the direction of the River Shannon, along the disused railway in adjacent Bord Na Móna bogs before crossing the River Suck and using the Old Canal to Ballinasloe. The route continues to Mountbellew through Ahascragh or along the River Suck by using existing bog roads and disused rail lines in the ownership of Bord Na Móna. The route then continues to Tuam or Abbeyknockmoy before using a portion of the Western Rail Corridor to reach Athenry and continue to Galway.
- **Candidate Cycleway Option 2 – BAMM (Ballinasloe, Athenry, Monivea, Mountbellew) Route Corridor:** The BAMM Route Corridor travels in the direction of the River Shannon, along the disused railway in adjacent Bord Na Móna bogs before crossing the River Suck and using the Old Canal to Ballinasloe. The route then continues to Mountbellew through Ahascragh or along the River Suck by using existing bog roads and disused rail lines in the ownership of Bord Na Móna. The route then

continues through Monivea before using a portion of the Western Rail Corridor to reach Athenry and continue to Galway.

- **Candidate Cycleway Option 3 – Central 2 Route Corridor:** The Central 2 Route Corridor travels in the direction of the River Shannon, mainly by using the disused railway in adjacent Bord Na Móna bogs before crossing the River Suck and using the Old Canal to Ballinasloe. The route then continues to Aughrim, Woodlawn and Monivea, before using a portion of the Western Rail Corridor to reach Athenry and continue to Galway.
- **Candidate Cycleway Option 4 – Rail Route Corridor:** The Rail Route Corridor travels parallel to the outside of the active Galway to Athlone rail line boundary through Ballinasloe and Athenry, with potential spurs at Aughrim, Kilconnell and Woodlawn along the route.
- **Candidate Cycleway Option 5 – Central Route Corridor:** The Central Route Corridor travels in the direction of the River Shannon, mainly by using the disused railway in adjacent Bord Na Móna bogs before crossing the River Suck and using the Old Canal to Ballinasloe. The route then continues to the area around Aughrim, Kilconnell, New Inn and Athenry before reaching Galway City. This route also has the option to parallel the existing rail line for sections, similar to the Rail Route Corridor Option.
- **Candidate Cycleway Option 6 – M6 Route Corridor:** The M6 Route proposes to parallel the existing M6 Motorway from Athlone to Galway by using existing access roads where possible and space available within the Motorway boundary.
- **Candidate Cycleway Option 7 – ALP (Athenry-Loughrea-Portumna) Route Corridor:** The ALP Route Corridor travels in the direction of the River Shannon, mainly by using the disused railways in adjacent Bord Na Móna bogs and flood embankments in the ownership of ESB, to Portumna. The route then crosses the Slieve Aughty's to Loughrea before reaching Athenry and continuing to Galway City.
- **Candidate Cycleway Option 8 – Preferred Route Corridor (2014):** The Previous Preferred Route Corridor developed in 2015 travels in the direction of the River Shannon, adjacent to Bord Na Móna bogs before crossing the River Suck and using the Old Canal to Ballinasloe. The route then continues through Aughrim, Kilreekill, Loughrea, Craughwell, Clarinbridge and Oranmore before reaching Galway City.
- **Candidate Cycleway Option 9 – R446 Route Corridor:** This Route Corridor travels parallel to the R446 (Old N6) from Galway to Athlone through Ballinasloe, Aughrim, Kilreekill, Loughrea, Craughwell, and Oranmore using the existing hard shoulder or space available adjacent to the regional road.
- **Candidate Cycleway Option 10 – Southern Route Corridor:** The Southern Route Corridor travels in the direction of the River Shannon, mainly by using the disused railway in adjacent Bord Na Móna bogs and the flood embankments in the ownership of ESB, to Portumna. The route then crosses the

Slieve Aughty's to Gort before reaching Kinvara and continuing up along Galway Bay to reach the city.

- **Candidate Cycleway Option 11 – Management Option:** This option would consist of the selection of a route along existing roads, with route signposting and upgrades to the roads where necessary. These upgrades could include widening or addition of designated cycle lanes.

6.4 Stage 1 Assessment

Each section of the eleven options presented above was assessed to give a "Good", "Moderate" or "Weak" grade against the project objectives. An assessment matrix was prepared to compare the grades for each option. The grading system in the matrix was colour coded Green, Orange, and Red respectively for the "Good", "Moderate" or "Weak" grades respectively. Based on the results of the assessment the Route Corridor Options recommended to progress onto Stage 2 assessment were as follows:

- Candidate Option No. 2 – BAMM Route Corridor (designated Route Corridor 1 at Stage 2),
- Candidate Option No. 4 – Rail Route Corridor (designated Route Corridor 2 at Stage 2),
- Candidate Option No. 5 – Central Route Corridor (designated Route Corridor 3 at Stage 2),
- Candidate Option No. 7 – ALP Route Corridor (designated Route Corridor 4 at Stage 2), and
- Candidate Option No. 10 – Southern Route Corridor (designated Route Corridor 5 at Stage 2).

6.5 Stage 2 Assessment

For the Stage 2 Assessment, each of the five route corridor options were assessed against the project objectives and the 5Ss (Scenic, Sustainable, Substantially Segregated and Shared Use, Offer Lots to See and Do, & Strategic) as set out in the Government's Greenway Strategy. Based on the results of the stage 2 assessment, the preferred route corridor option was identified.

6.6 Preferred Route Corridor Option

Route Corridor Option 5 (Southern Route Corridor) has been selected as the Emerging Preferred Route Corridor. The Stage 2 Assessment shows that Route Corridor Option 5 is the option considered to best deliver the scheme objectives.

The reasons for this can be summarised as follows:

- Route Corridor 5 offers outstanding scenery and variety, all along its length. It offers a series of distinct settings, ranging from the coast of Galway Bay with views of the Burren from Oranmore to Kinvara, the Burren lowlands around Gort, the forested hills in the Slieve Aughties, the River Shannon Callows, Lough Derg, and the peatland landscapes of the Bord na Mona bogs. It transverses areas of high landscape quality, and the topography allows for regular high-quality views.

- It offers most to see and do, with many highly rated attractions along the length of the route, including parks and nature reserves and offers a strong cultural heritage experience.
- It utilises a lot of state-owned land, principally owned by Coillte, Bord na Mona, and ESB.
- It provides a convenient 3 day cycling itinerary between Galway and Athlone, compared to some other options that offer only a 2-day itinerary.
- Route Corridor 5 includes a 55km length from Shannonbridge to Portumna that also contributes to enhancing North-South connectivity along the Shannon, a key strategic initiative of the Shannon Tourism Masterplan. It also potentially forms part of a future Shannon greenway from Limerick to Lanesborough.
- Route Corridor 5 would enhance EuroVélo Route 1 (The Atlantic Coast Route) in Ireland, by bringing the section from Kinvara to Galway, currently sign posted on-road, onto a segregated cycleway.
- Route Corridor 5 would upgrade the Beara Breifne way, a 'transformational signature product of scale' in Ireland's Hidden Heartlands, as identified in the Shannon Tourism Masterplan.
- Route Corridor 5 presents attractive shorter trips from Galway City, with potential destinations for a day or weekend trip including Rinville Park, Clarinbridge, Kinvara, and Coole Park.
- Route Corridor 5 in general has strong local support, though there are a number of locations where this is not the case.

A link to Ballinasloe has also been included in the emerging preferred route corridor. This link will connect Ballinasloe to the route at Shannonbridge, primarily using the tow paths of the Grand Canal and Bord na Mona infrastructure. This link will greatly enhance the strengths of the emerging preferred route corridor.

The layout of the Emerging Preferred Route Corridor is shown in **Figure 6.1**.

Figure 6.1: Emerging Preferred Route Corridor Option Layout

7 FINANCIAL APPRAISAL

Not used at this stage

8 ECONOMIC APPRAISAL

8.1 General

The Options Appraisal process compared the relative merits of each of the 5 Route Corridor Options assessed at Stage 2, using a Multi-Criteria Assessment (MCA). The MCA is provided in **Appendix A**.

The construction costs of each were estimated, as far as was possible considering that a corridor rather than a particular route was being assessed.

The economic benefits of each Option were not separately measured, as it was felt that would not be realistic to try to assign different numbers of overseas tourists that might chose to visit each Option.

Instead, the assessment focussed on how well each Option would achieve the scheme objectives, in a qualitative manner. It was considered that choosing a route that best delivered the 5S's (as set out in the Greenway Strategy) would be most attractive to leisure users, both domestic and international., and would consequently deliver most economic benefits arising from leisure use. Section 6.6 above describes the attributes that led to the selection of Route Corridor Option 5.

A Project Appraisal Balance Sheet has been completed for the Emerging Preferred Option and is included in **Appendix B** to this report.

8.2 TEAM Tool Calculation

Transport Infrastructure Ireland (TII) have developed an Excel-based tool for undertaking a CBA of active modes schemes, the 'Tool for Economic appraisal of Active Modes' (TEAM). The TEAM tool version 0.1, as supplied by TII in February 2022 has been used to calculate benefits for active travel and domestic leisure travel. Separate TEAM tool calculations have been prepared for active travel and domestic leisure travel. The TEAM tool calculates the present value of mode shift, health, journey time, journey quality, and recreation, as per the TII Project Appraisal Guidelines Unit 13.0.

The TEAM tool does not evaluate the economic benefits of tourism, so these elements have been calculated separately. These calculations are presented in **Sections 8.4** and **8.5**. For international tourists, the only benefits considered are the calculated direct spend. It is considered that health and recreation benefits cannot be attributed to international visitors who will spend a limited period of time in the country.

The benefits in the Cost Benefit Analysis that have been derived for each user type are summarised below:

- **Active Travel** – Benefits calculated using TEAM for active travel (referred to as 'utility' in TEAM) users,
- **Recreation (local/daytrip**) – Benefits calculated using TEAM for 'recreational' users. 'Visitor spending' benefits (i.e., spending in shops, restaurants etc.) are not included for local or day-trip recreational users, as these are likely to be displaced from elsewhere in Ireland,
- **Domestic Tourism** – Visitor spending benefits have been added for domestic overnight tourists, as these tourists may have otherwise gone abroad to access this type of facility, and

- **International Tourism** – Visitor spending benefits have been added for international overnight tourists, as these tourists may have otherwise not come to Ireland.

8.3 Scheme Inputs

We have used the following inputs for the scheme and infrastructure details:

- Scheme length = 205km.
- Breakdown by types of infrastructure:
    - Proposed infrastructure = 205km of off-road segregated cycle trails.
    - Existing infrastructure = 205 km of no dedicated facilities.

Additional inputs specific to active travel, domestic leisure and domestic tourism are presented in **Table 8.1** to **Table 8.3** below. Two separate TEAM tool calculations have been prepared for these groups.

Active Travel

Table 8.1: Active Travel Future Daily Trips

	Existing	Low Scenario	Central Scenario	High Scenario
Average daily pedestrian trips (both directions)	179	292	385	478
Average daily cycling trips (both directions)	357	584	770	956

- Proportion of daily trips likely to be for recreation / exercise rather than for utility purposes = 0%

Domestic Leisure (no overnight stay)

Table 8.2: Domestic Tourism Future Daily Trips

	Low Scenario	Central Scenario	High Scenario
Average daily pedestrian trips (both directions)	116	292	581
Average daily cycling trips (both directions)	233	582	1160

- Proportion of daily trips likely to be for recreation / exercise rather than for utility purposes = 100%

Domestic Tourism (with overnight stay)

Table 8.3: Domestic Tourism Future Daily Trips

	Low Scenario	Central Scenario	High Scenario
Average daily pedestrian trips (both directions)	21	51	102
Average daily cycling trips (both directions)	41	103	205

- Proportion of daily trips likely to be for recreation / exercise rather than for utility purposes = 100%
- Average stay of 3 nights assumed – based on Failte Ireland data

The analysis has also used the parameters outlined in **Table 8.4**.

Table 8.4: Other Parameters

Parameter	Value	Source
A. Journey Length and Duration		
Average non-recreational walking journey length (km)	1.4	TEAMS Tool, based on analysis of the NTA 'National Household Travel Survey 2017'
Average non-recreational cycling journey length (km)	5.0	TEAMS Tool, based on analysis of the NTA 'National Household Travel Survey 2017'
Average walking speed (km/h)	5.0	TEAMS Tool, based on NTA 'RM Spec4 Active Modes Model Specification Report'
Average cycling speed (km/h)	16.0	TEAMS Tool, based on research carried out on users of urban greenways in Dublin (O'Driscoll, 2019)
Average recreational walking trip length (mins)	45	TEAMS Tool, based on CSO Quarterly National Household Survey 'Special Module on Sport' 2013
Average recreational cycling trip length (mins)	60	TEAMS Tool, based on CSO Quarterly National Household Survey 'Special Module on Sport' 2013
Proportion of people making return journeys (%)	90	TEAMS Tool, based on data from the NTA 'National Household Travel Survey 2017'
B. Diversion Rates		
Walking diversion rates from (Rural):		
Did not previously travel / new trip	20%	TEAMS Tool, based on the typical mode share according to the NTA 'National Household Travel Survey 2017'
Private Car	74%	
Walking	0%	
Cycling	1%	
Bus	4%	
Rail/Luas	1%	
Cycling diversion rates from (Rural):		
Did not previously travel / new trip	20%	TEAMS Tool, based on the typical mode share according to the NTA 'National Household Travel Survey 2017'
Private Car	67%	
Walking	9%	
Cycling	0%	
Bus	3%	
Rail/Luas	1%	
C. Other Travel Assumptions		
Annual background journey growth rate (%)	1.0%	TEAMS Tool, based on general population growth
Average Occupancy Rate (passengers per vehicle) – Private Car	1.5	TEAMS Tool, based on factors contained in PAG Unit 6.11
Average Occupancy Rate (passengers per vehicle) – Bus	12.2	TEAMS Tool, based on factors contained in the Health Economic Assessment Tool
% of trips made by adults	75%	TEAMS Tool, based on NTA 'National Household Travel Survey 2017'
% of adult population in labour force	70%	TEAMS Tool, based on analysis of Labour Force Survey data from 2019
D. Appraisal Assumptions		
Discount Rate	4.00%	TEAMS Tool, based on Public Spending Code guidance
Discount Costs and Benefits to year	2011	TEAMS Tool, based on Common Appraisal Framework guidance

Parameter	Value	Source
Appraisal Period (years)	30	TEAMS Tool, based on PSC and CAF guidance
Real GNP per capita annual growth rate (2021-2025)	2.2%	TEAMS Tool, default annual real GNP growth factors of 2.2% for the 2021-2025 period, and 2.3% thereafter; based on CAF guidance
Real GNP per capita annual growth rate (2025+)	2.3%	

The project costs as inputted in the TEAM tool are shown in **Table 8.5** below. These project costs include the Ballinasloe link, which is part of the Emerging Preferred Route Corridor, and are exclusive of VAT.

Table 8.5: Project Costs

	Costs
Main Construction Contract	€91,900,000
Main Contract Supervision	€4,600,000
Archaeology	€3,700,000
Advance Works & Other Contracts	€2,700,000
Land & Property	€16,200,000
Planning & Design	€5,500,000
Total	€124,600,000

The TEAM tool also allows for capital costs to be apportioned annually. This was inputted as shown in **Table 8.6** below.

Table 8.6: How capital costs are apportioned annually (%)

	2022	2023	2024	2025
Main Construction Contract				100%
Main Contract Supervision				100%
Archaeology			100%	
Advance Works & Other Contracts			100%	
Land & Property			100%	
Planning & Design	33%	33%	34%	

8.4 TEAM Tool Results

The TEAM tool results, calculated separately for active travel and domestic leisure use, and for low, central, and high scenarios for both are summarised in **Table 8.7** below.

Table 8.7: TEAM Tool Results – Central Scenario

User Group	PVB* Mode Shift (million)	PVB Health (million)	PVB Journey Time (million)	PVB Journey Quality (million)	PVB Recreation (million)	PVB Total (million)
Active Travel	€2.13	€5.26	€0	€8.72	€0	€16.12
Domestic Leisure Use	€0	€13.13	€0	€0	€7.52	€20.65
Domestic Tourism Use	€0	€6.95	€0	€0	€3.99	€10.94

* PVB = Present Value of Benefits

8.5 Visitor Spend Benefits

8.5.1 Domestic Tourism

Fáilte Ireland data from 2019 provides figures for tourist spends per day in that year. For domestic overnight trips this was €74. Recent data from the Royal Canal Greenway included a spend analysis which found that domestic tourists spent €43.11 on average per visit. For the purposes of the direct spend calculation, a figure of €58.50 has been assumed as the daily spend. The domestic tourism direct spend has been calculated based on a low scenario of 100,000 cycle trips annually, a central scenario of 250,000 cycle trips annually, and a high scenario of 500,000 cycle trips annually. Assuming that 15% of these users will have an overnight stay (average of 3 nights) gives the following estimates of spend in **Table 8.8**.

Table 8.8: Domestic Tourism Direct Spend Estimates

	Low Scenario	Central Scenario	High Scenario
No. of domestic tourists visiting annually	100,000	250,000	500,000
No. of domestic tourists staying overnight	15,000	37,500	75,000
Average Daily Spend	€58.50	€58.50	€58.50
Average Trip Length (days)	3	3	3
% of visitors who considered the greenway an important factor for visiting	70%	70%	70%
Total Direct Spend	€1,842,750	€4,606,875	€9,213,750

8.5.2 International Tourism

Fáilte Ireland data from 2019 provides figures for tourist spends per day in that year. For international tourists this was €96. Data from the Royal Canal Greenway found that international tourists spent €105.10 per visit (where visits were typically one day or less). On the Royal Canal Greenway, visitors from Great Britain spent significantly less than international tourists at €39.67 per visit. Market research conducted by Fáilte Ireland in 2013 found that just 18% of cycling tourists in Ireland in 2011 had come from Great Britain and notes that the largest potential market for cycling in Ireland is Germany. For the purposes of the direct spend calculation, a figure of €100 has been assumed as the daily spend.

Fáilte Ireland data from 2019 states that the average trip length for international tourists is 6.2 days. It is expected that it will take 3 days to cycle the Galway to Athlone Cycleway. For the purposes of the direct spend calculation, the average trip length is assumed to be 3 days as it is not expected that additional days spent in Ireland could be attributed as a benefit to the Galway to Athlone Cycleway.

The Transport Infrastructure Ireland (TII) Project Appraisal Guidelines Unit 13.0 requires that “only spending associated with overseas visitors whose primary reason is to visit the greenway” is included in economic appraisal. This is because the “net benefit of a greenway depends on its ability to attract visitors who would otherwise not have visited Ireland”. For the purposes of the direct spend calculation, it is estimated that 50%

of international tourists using the greenway planned their visit because of the greenway and would not have visited Ireland if the greenway was not present.

The total benefits brought by overseas visitors is therefore determined by the number of visitors. For the purposes of this appraisal a range of figures have been used – 25,000 (low), 50,000 (central), and 75,000 (high).

In order to determine the Present value of Benefits over the thirty-year appraisal period, a discount rate of 4% per annum has been applied to discount the above benefits to 2011 values for each year. No growth in the volume of visitors over the appraisal period has been assumed. A steady build up in the volume of visitors from none on the first scheme year to 100% in the sixth scheme year has been assumed.

The calculation of annual spend for each of the estimated number of overseas visitors is presented in **Table 8.9** below.

Table 8.9: International Tourism Annual Spend and Present Value of Benefits

	Low Scenario	Central Scenario	High Scenario
No. of international tourists visiting annually	25,000	50,000	75,000
Average Daily Spend	€100	€100	€100
Average Length of stay (days)	3	3	3
% of visitors attracted by the greenway	50%	50%	50%
Annual Increase in Spend	€3,750,000	€7,500,000	€11,250,000

8.5.3 Total Visitor Spend Benefits

The visitor spend benefits from domestic and overseas visitors that can be considered to be a result of the scheme (i.e., not displaced from alternative locations in Ireland) has been converted to a Present Value figure over the thirty-year appraisal period. a discount rate of 4% per annum has been applied to discount the above benefits to 2011 values for each year. No growth in the volume of visitors over the appraisal period has been assumed. A steady build up in the volume of visitors from none on the first scheme year to 100% in the sixth scheme year has been assumed for overseas visitors. For domestic tourists the full spend has been assumed from the scheme opening year.

The Present Value Benefits of the total visitor spend are summarised in **Table 8.10** below.

Table 8.10: Total Additional Visitor Spend and Present Value of Benefits

	Low Scenario	Central Scenario	High Scenario
Annual Increase in Spend - international	€3,750,000	€7,500,000	€11,250,000
Annual Increase in Spend – domestic	€1,842,750	€4,606,875	€9,213,750
Present Value of Benefits (PVB) - domestic	€19.14m	€47.84m	€95.69m
Present Value of Benefits (PVB) - international	€32.77m	€65.54m	€98.31m

8.6 Economic Appraisal Conclusion

The Galway to Athlone Cycleway has been assessed using the TEAM tool and tourism benefits from international visitors have been calculated as presented in Section 8.5 above. Active Travel and Domestic Tourism generate Present Value Benefits related to mode shift (for active travel), health, journey quality, and recreation. A large portion of the economic benefits is generated through spending by overseas leisure users that visit Ireland specifically to use the greenway, as detailed in Section 8.5 above. To summarise:

- The TEAM tool has calculated that the scheme will generate between €11.3m and €20.9m of active travel benefits, mostly on the Galway to Oranmore section of the route,
- The TEAM tool has calculated that the scheme will generate between €12.6m and €62.9m of domestic leisure/tourism travel benefits, and
- It has been calculated that international and domestic tourism will generate between €51.9m and €194.0m of benefits.

The total PVB, Present Value of Costs (PVC), Net Present Value (in €m), and the Benefit-to-Cost Ratio (BCR) for the scheme for the low, central, and high scenarios are presented in **Table 8.11** below.

Table 8.11: Economic Appraisal Output

	Low Scenario (million)	Central Scenario (million)	High Scenario (million)
PVB			
Active Travel	€11.35	€16.12	€20.89
Domestic Leisure	€8.26	€20.65	€41.15
Domestic Tourism	€4.38	€10.94	€21.79
Increased International Spend	€32.77	€65.54	€98.31
Increased Domestic Spend	€19.14	€47.84	€95.69
Total PVB	**€75.90**	**€161.09**	**€277.83**
PVC	**€91.55**	**€91.55**	**€91.55**
Net Present Value	**-€15.65**	**€69.54**	**€186.28**
BCR	**0.83**	**1.76**	**3.03**

The analysis carried out demonstrates that the scheme will be successful from an economic perspective (i.e., a BCR>1) for both the central and high usage forecasts even with no international visitors. For the low usage forecast, a total of 39,000 international visitors annually would be required to achieve a BCR>1.

This is considered reasonable because:

- Fáilte Ireland research on cycling tourism found that 361,000 overseas tourists engaged in cycling in Ireland in 2019 and projected an annual growth rate of 4% to 2028. At this growth rate of 4%, based on the 2019 data, by the scheme opening year of 2025 there will be more than 455,000 international tourists taking part in cycling in Ireland. The international visitors required would be approximately 11% of the overall number of international cycle tourists expected by Fáilte Ireland annually.
- Fáilte Ireland data on the number of international cycle tourists visiting Ireland shows a steady increase over recent years and it is noted that figures from 2014, 2015, etc. are from periods when

there was limited cycling infrastructure in place. It can be expected that the number of visitors will grow significantly with investment in high quality infrastructure.

- Other greenways in Ireland are seeing significant numbers of users, including overseas visitors. However, these are typically shorter and do not offer tourists a multi-day cycling holiday experience. It is therefore reasonable to expect that the Galway to Athlone Cycleway, which will complete the Galway to Dublin Cycleway, will be a large draw for cycling tourism.
- Cycling tourism in Europe has been consistently increasing over the last decade. Recent data from Hungary and France indicates significant increases in the number of cycle tourists and their associated economic impact.
- It is government policy to increase cycling tourism and promote Ireland as a cycle tourism destination.
- It is government policy to increase the numbers of people using active travel for trips to work and education.

The requirements for the scheme to be successful, as detailed above, are considered sufficiently likely for the Project to progress through preliminary design and detailed appraisal at the conclusion of preliminary design (stage 3 and 4).

A more detailed appraisal will be carried out at the end of stage 3, when:

- More accurate construction costs will be available
- The Failte Ireland research project ‘Valuing our Greenways’ will be further developed and hopefully be able to give more specific data on the tourism benefits of greenways.

9 RISK ASSESSMENT

9.1 Risk Identification and Management

The identification and management of risk is a key element in the successful delivery of this project. A Value Risk Management process has been adopted that adds value, reduces risk exposure, identifies opportunities, and increases the confidence of all stakeholders. Key features of this approach to risk management include:

- A SWOT-based risk analysis and extensive scheme review conducted at commencement, with a structured approach to identifying and managing risk.
- A risk register, with regular reviews and updates.
- Bi-weekly risk management meetings throughout each phase of the project.
- An iterative and developing qualitative and quantitative risk analysis with risk categorisation and management strategies, such as,
    - Avoidance/prevention: e.g., designing ‘out’ risk, such as avoiding contaminated lands and ‘in’ opportunity such as routing to ‘capture’ heritage sites,
    - Mitigation/reduction: e.g., providing construction stage constraints on impacts on local traffic,
    - Transfer/share: assign the risk to the party best able to deal with the risk, for example the scheme will not guarantee a tourism ‘boom’, but stakeholders can be facilitated to achieve this, and
    - Acceptance: understanding the potential for risks like policy or legal changes and valuing these.
- An approach that seeks to convert risk into opportunity, for example encouraging landowners to take alternative business opportunities such as cycle hire, tea rooms and accommodation provision,
- Through Reference Class Forecasting, use the experience of other similar projects to predict risk outcomes, and provide more accurate risk assessments and greater cost certainty, avoiding the natural tendency to overestimate benefits and underestimate impacts. This will lead to greater programme and cost certainty and realistic budget establishment.
- A collaborative effort leading to improved stakeholder relationships and enhanced client reputation, creating a sense of project ownership.

9.2 Project Risks

The following **Table 9.1** presents the main risks to the project that have been identified.

Table 9.1: High Level Project Risks

Identified Risk	Internal or External Risk	Likelihood of Occurring	Potential Impact	Mitigation Measures
Marginal Business Case for the project	Internal	2	If project does not demonstrate value for money, it will not proceed	Defensible forecasting of user demands. Forecasting is inherently imprecise, so correct quantification and communication of risk associated with it needed.
Rejection by ABP/other of the need for a fully segregated cycleway and favouring on road cycling.	Internal	1	If on road cycling were favoured the scheme would not meet the 5Ss and would not be expected to be a sufficient draw for tourists.	Clearly explain the reasons for choosing off road cycleway, with strong evidence. Fáilte Ireland to be part of this.
Uncertain future tourism market generally	External	3	Expected project benefits are not realised as facility is under-used.	Available data has been analysed and the cycle tourism market is considered to be strong and growing.
Stakeholder buy-in is not achieved	External	3	High level failure of project	A project steering group has met regularly to bring together key stakeholders. Consultation events have provided further opportunity for input.
Resistance to routes on private land	External	3	Failure of project	Regular consultation with landowners and a proactive approach to dealing with concerns and agreeing compromises.
Route is not attractive to the target user groups (tourists, local communities, etc)	External	1	Expected project benefits are not realised as facility is under-used.	The route has gone through two stages of route assessment and is the best possible route in terms of the 5Ss and the project objectives.
Project is implemented with unresolved large-scale local stakeholder resistance	External	1	Completed project may not be attractive to users and have a negative public perception	Regular consultation with local stakeholders and a proactive approach to dealing with concerns and agreeing compromises.
Unacceptable impacts on protected sites	External	1	Rejection of preferred route by ABP	Environmental surveys and studies have been and will be carried out. Where possible protected mitigation measures will be developed to protect sites that cannot be avoided.
Designation of new protected sites/amendments to existing designations	External	1	Project delays and cost overruns	Regular consultation with the relevant stakeholders.

Identified Risk	Internal or External Risk	Likelihood of Occurring	Potential Impact	Mitigation Measures
Competition between towns and villages for access to route	External	3	Project delays and political difficulties	Public consultation events have been conducted at various stages throughout the process and there have been campaigns from towns and villages for their area to be included in the preferred route. Where this has not happened there is potential for these areas to be included in later schemes, but this is beyond the scope of this project.

9.3 Lessons Learned from Previous Projects

Several greenways have been developed and planned in Ireland in the last decade. These projects have generally been successful. However, a number of key lessons have been learned from these projects, and these will be considered in the development of the Galway Athlone Cycleway.
The principal ones, in relation to preliminary design and route selection are:

Stakeholder Consultation

The Galway Athlone Cycleway project was stalled in 2015 due to significant stakeholder concerns, principally the landowners through which the then proposed route would travel.

This route corridor was selected without adequate public consultation, and the preferred route corridor was perceived by the public as being imposed without consultation. The preferred route corridor was perceived as being a specific route, and many landowners were concerned that this route would sever farms and endanger the viability of farm enterprises.

Since the project was relaunched in 2020, there have been 3 rounds of public consultation, in advance of the selection of a route corridor. A project office has been established in Ballinasloe, with a team of Project Liaison Officers available to respond to queries on the project. The project team has fielded close to 15,000 submissions and queries on the project, and the PLOs have been active in meeting landowners on the potential route options since May 2021.

Infrastructure versus experience

It has been felt on the Old Rail Trail, part of the Galway Dublin Cycleway, that the route was somewhat lacking in facilities, such as trail heads, car parks, information board and toilets. These have been progressively added since the route opened, but it is felt that it would be better to provide these and similar amenities during the route construction.

These facilities will be included in the development of the Galway to Athlone Cycleway during its construction.

Segregation

It has been found that route is that are fully segregated from traffic and not adjacent to busy roads are most popular. On the Great Western Greenway in Co Mayo, the route comprises roughly 50% of the route being fully segregated and quite distant from any road, between Newport and Achill. The other 50%, while being segregated from traffic, is very close to the N59, a busy National Secondary route. It has been observed that most recreational users overwhelmingly choose the more isolated section. Many cycling tour operators choose to bus users through the N59 section, from Westport to Newport, and only cycle the isolated section from Newport to Achill.

It is a strong goal of the Galway to Athlone Cycleway to achieve clear segregation from traffic, both physical and visual, to ensure that the user experience is one of cycling through the countryside, rather than beside a busy road to the largest extent possible.

10 IMPLEMENTATION AND PROCUREMENT

A Project Execution Plan (PEP) has been prepared for the Galway to Athlone Cycleway and this outlines the management of the project and states the policies and procedures for project delivery. It also provides a framework for those directly engaged during the design, procurement, implementation, and completion of the Project.

Key groups within the Project Management process are highlighted in **Figure 10.1**.

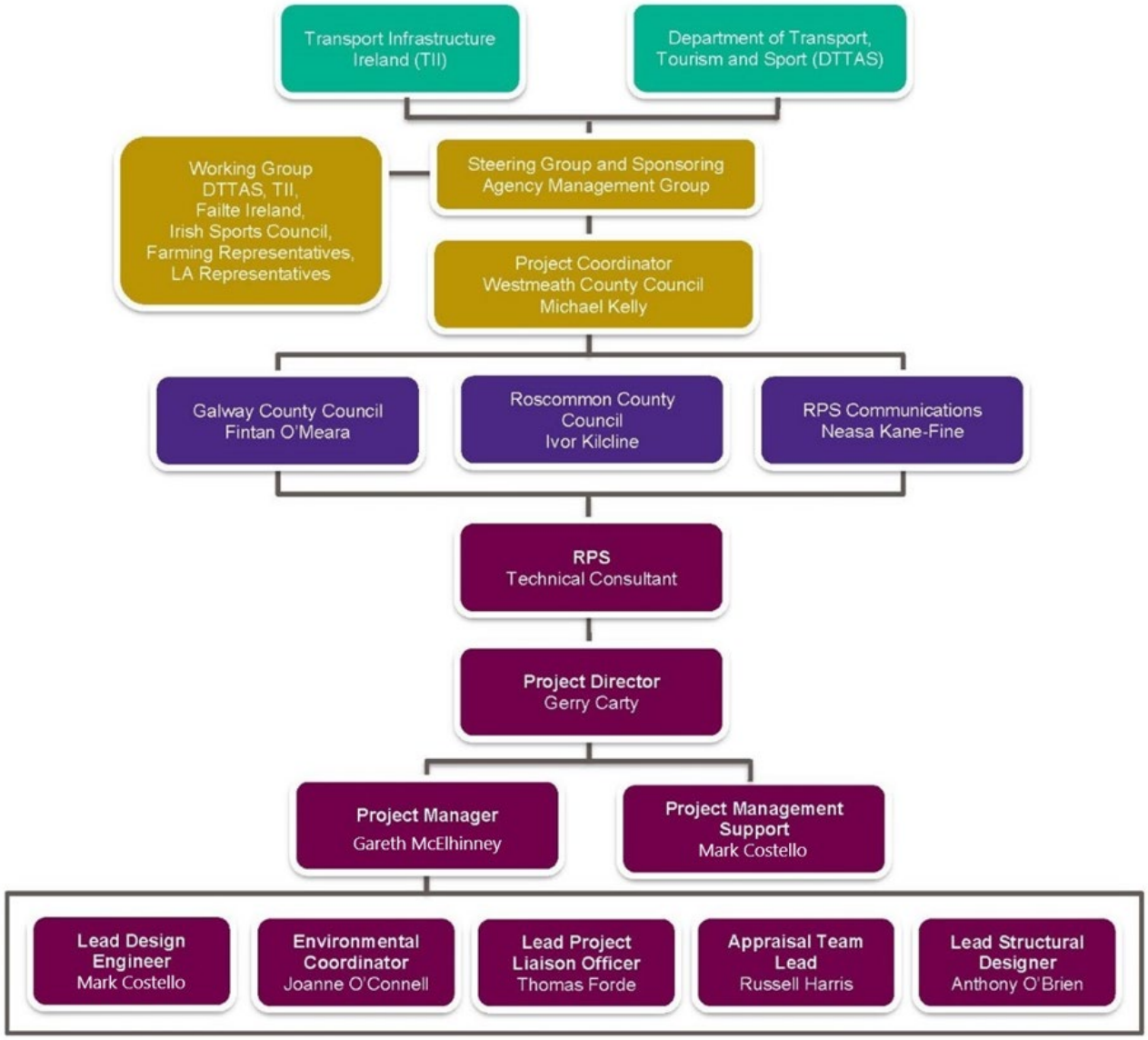


Figure 10.1: Project Management Structure

The project will be subject to the processes set out in the TII Project Management Guidelines, the TII Cost Management Manual and the Project Appraisal Guidelines.

This PAR has been developed during Phase 2 of the TII project lifecycle and will be continuously updated with new information as the project progresses through the project lifecycle up to Phase 5.

A Gate Review Statement is to be prepared on conclusion of Phase 3 (Preliminary Design and environmental Impact Assessment) in order to gain approval to proceed to Stage 4 (Statutory Processes). The update of the PAR is a key component of this Gate Review Statement.

The Project is of over €100M in value, and will be assessed by TII Major Projects Board, prior to its submission to An Bord Pleanála.

11 MONITORING AND EVALUATION PLAN

The ÉVA-VÉLO method for assessing the impact of cycle routes will be adopted to monitor the success of the scheme. The ÉVA-VÉLO method supersedes the EuroVélo 6 method which was developed in 2006 but the purpose remains the same: a shared evaluation method at European Level. The ÉVA-VÉLO method guidelines set out the various steps to be implemented in the field and the mathematical models to be applied in order to arrive at the most accurate and comparable estimates of cyclist numbers and economic impact. The monitoring for the scheme will adopt the following four complementary analysis tools:

1. **Automatic counting:** The typical spacing between two counting points on a route is in the order of 10 to 50 km, depending on population and accommodation density. For the Galway to Athlone Cycleway, it is proposed to have counters every 10km in the areas around Galway City and Athlone and other towns along the route. Along the more rural parts of the greenway, counters will be placed roughly every 30-35km.
2. **Manual counts:** manual counts will be undertaken twice a year for the first three years after opening in order to verify automatic counter data and to determine if any changes are needed to the location and spacing of the automatic counters to improve data collection.
3. **Short interviews:** short interviews / surveys with users will be conducted twice a year for the first three years after opening. These surveys will be used to understand the distances users are travelling, to analyse spend, and to understand what is working well or where there may be room for improvement.
4. **In-depth surveys:** The ÉVA-VÉLO method suggests that these surveys are carried out at points that are representative of the cycle network that is to be observed and that on average, 2 to 6 survey days are expected per point. For the Galway to Athlone Cycleway these in-depth surveys will be carried out at the Galway and Athlone ends of the route as well as at the towns along the route. These in-depth surveys will be used to gather more detailed information on user experience, the experience of local businesses along the route, and the experience of tourism providers (e.g., cycle tour companies).

Counts will also be conducted by accommodation providers to verify changes in cycling tourism seasonality, and the relative composition of the clientele (holiday cyclists, cycle tourers).

The scope of the analysis will extend to all cyclists using the route for whatever purpose. The same method will also be applied to other users, particularly pedestrians.

The combination of the automatic counting, manual counts, short interviews, and in-depth surveys will provide an analysis of user profiles and behaviour and will measure the following indicators:

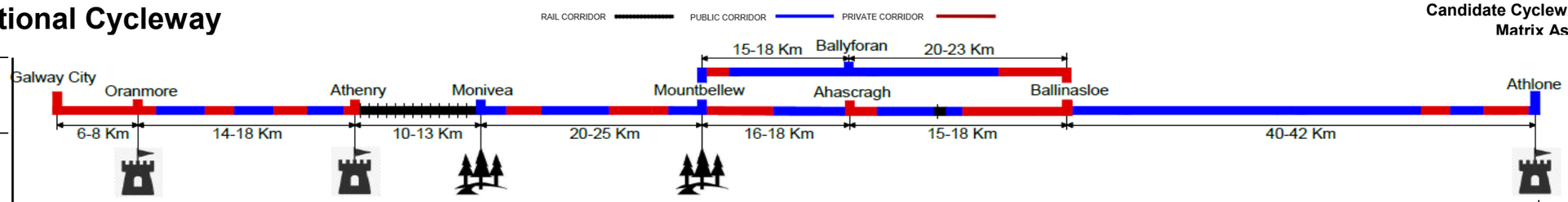
- Average kilometres cycled per trip,
- Average expenditure per trip,
- Kilometres cycled per section,
- Number of cycling trips per section (number of cyclist equivalents),

- Economic impacts, and
- Externalities:
    - Health impact (savings on health spending generated by cycling),
    - Economic impact for the cycling industry (generated by sales of bicycles and cycling accessories), and
    - Environmental impact (savings generated by a modal shift from cars to bicycles, and in terms of congestion, pollution, etc.).

Appendix A

Multi-Criteria Analysis

Galway to Athlone Castle National Cycleway



Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 1 BAMM Route Assessment

Ref		Galway to Athlone Castle National Cycleway Project Objectives							
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	5	5	5	5 5	5 5	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	5	5	5	5 5	5 5	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	6	6	6	6 6	6 6	6
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	5	5	5 5	5 5	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7 7	7 7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	6	7	7	6 6	6 6	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	6 6	6 6	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	5	5	6 6	6 6	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	6	5	5	6 6	6 6	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	7	7	6	3 6	6 6	3
	EN2	To minimise impact to cultural heritage sites.	6	7	3	3	5 6	5 6	3
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	6	6	6	6 6	6 6	7
	EN4	To minimise land holding severance and utilise public land.	5	7	7	6	6 6	6 6	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	5	5	6 6	6 6	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	6	6	6	6 6	6 6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	7	6 6	6 6	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	6	6	6	6 6	6 6	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	6	6	5	5 5	5 5	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	5	6 6	6 6	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	6	6	5	5 5	5 5	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

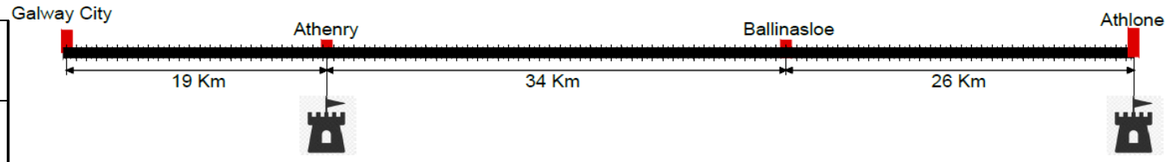
Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 2 Railway Route Assessment



Ref		Galway to Athlone Castle National Cycleway Project Objectives			
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	5	5	5
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	5	5	5
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	6	5	6
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	6	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	7	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	6	6	6
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	7	7	7
	EN2	To minimise impact to cultural heritage sites.	7	7	5
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	5	5	5
	EN4	To minimise land holding severance and utilise public land.	6	6	6
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	6	6	6
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	6	5	6
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	6	5	6
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	5	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

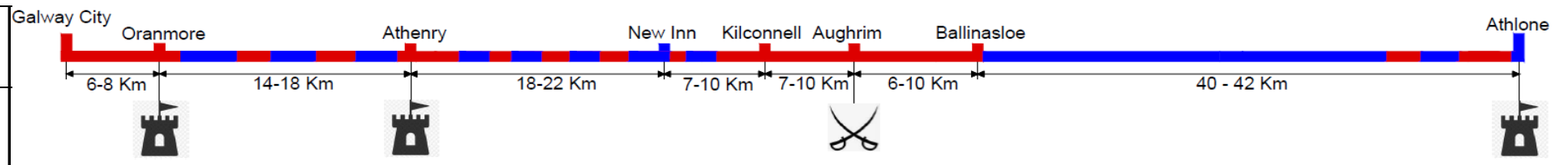
Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 3 Central Route Assessment



Ref		Galway to Athlone Castle National Cycleway Project Objectives							
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	5	5	5	5	5	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	5	5	5	5	5	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	6	5	5	5	5	6
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	6	6	6	6	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	6	6	6	6	6	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	5	5	5	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	6	6	6	6	6	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	7	7	7	7	7	3
	EN2	To minimise impact to cultural heritage sites.	6	7	6	3	6	3	3
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	6	5	5	5	5	7
	EN4	To minimise land holding severance and utilise public land.	5	7	6	6	6	6	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	5	5	5	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	6	6	6	6	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	7	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	6	5	5	5	5	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	6	5	5	5	5	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	5	5	7	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	6	5	5	6	5	6

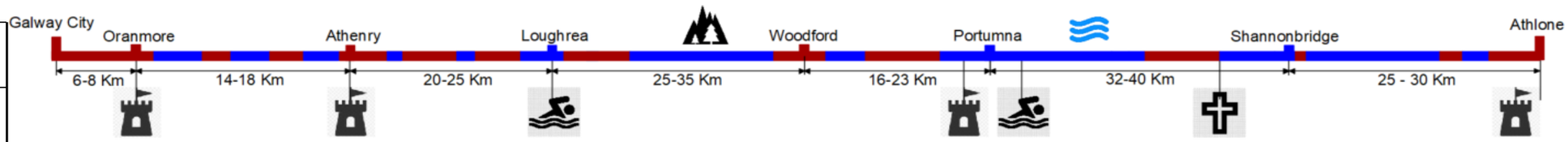
Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment



Candidate Cycleway Option No. 4 ALP Route Assessment

	Ref	Galway to Athlone Castle National Cycleway Project Objectives	Galway City	Oranmore	Athenry	Loughrea	Woodford	Portumna	Shannonbridge	Athlone
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	5	6	7	7	7	7	
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	5	6	7	7	7	7	
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	6	6	7	7	7	7	
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	6	5	5	5	6	
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7	7	7	
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	5	5	5	5	5	7	
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	7	7	7	
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	5	5	5	5	6	
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	6	6	7	7	7	7	
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	7	7	3	3	2	3	
	EN2	To minimise impact to cultural heritage sites.	6	7	7	3	3	7	6	
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	6	6	7	7	7	7	
	EN4	To minimise land holding severance and utilise public land.	4	7	6	7	7	7	7	
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	5	5	5	5	6	
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	6	6	7	7	6	7	
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	3	7	7	7	
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	6	6	7	7	7	7	
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	6	4	4	7	7	7	
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	7	3	5	7	
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	6	5	6	6	7	6	

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Greenway

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 5 Southern Route Assessment

	Ref	Galway to Athlone Castle National Cycleway Project Objectives								
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	7	7	7	7	7	7	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	7	7	7	7	7	7	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	7	7	7	7	7	7	7
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	7	6	5	5	5	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	5	5	5	5	5	5	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	7	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	7	6	5	5	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	7	7	7	7	7	7	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	3	3	3	3	3	2	3
	EN2	To minimise impact to cultural heritage sites.	6	7	3	7	5	3	7	6
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	7	7	7	7	7	7	7
	EN4	To minimise land holding severance and utilise public land.	5	5	5	5	7	7	7	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	7	6	5	5	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	5	5	5	7	7	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	7	3	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	7	7	7	7	7	7	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	7	7	7	4	7	7	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	7	7	3	5	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	7	7	7	6	6	7	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

Candidate Cycleway Option - Ballinasloe to Athlone				
Ref		**Galway to Athlone Castle National Cycleway Project Objectives**	**Railway Route**	**Bord na Mona Route Corridor**
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	5	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	5	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.		
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	6	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	6	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	7	6
	EN2	To minimise impact to cultural heritage sites.	6	7
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	5	7
	EN4	To minimise land holding severance and utilise public land.	6	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	6	6
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	6	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	6	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	5	7

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	-3
Moderately Negative	-2
Major or Highly Negative	-1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

Candidate Cycleway Option - Athlone Routes				
Ref		Galway to Athlone Castle National Cycleway Project Objectives	Flood Defence Route	Batteries Route
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	6	2
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	6	2
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	5	4
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	4	4
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	6
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	5
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	7	7
	EN2	To minimise impact to cultural heritage sites.	7	6
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	4
	EN4	To minimise land holding severance and utilise public land.	7	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	5
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	4	4
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	4	4
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	4	4

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

Galway to Athlone CYCLEWAY

Candidate Cycleway Option Matrix Assessment

Ref		Galway to Athlone Castle National Cycleway Project Objectives	Strong	Moderate	Weak
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	Very attractive and scenic areas with lots to see and do.	Attractive areas with some things to see and do.	Less attractive areas with very little to see and do.
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	Large influx of tourists to the area expected.	Some influx of tourists to the area expected.	Little influx of tourists to the area expected.
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	Good value for money based on the length of the route and benefits to be gained.	Some value for money based on the length of the route and benefits to be gained.	Little to no value for money based on the length of the route and benefits to be gained.
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	Areas substantially away from the existing transport network.	Areas adjacent to existing railways and quiet local roads.	Areas adjacent to busy transport routes.
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	Areas with low risk of anti-social behaviour.	Areas with some risk of anti-social behaviour.	Areas with a high risk of anti-social behaviour.
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	Areas substantially away from the existing transport network.	Areas adjacent to existing quiet, urban or low speed transport routes.	Areas adjacent to busy high-speed transport routes.
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	Areas that do not contain any European or other Designated sites.	Areas with European or other Designated sites where some minor disturbance may potentially occur.	Areas with European or other Designated sites where disturbance will occur.
	EN2	To minimise impact to cultural heritage sites.	Areas with cultural hertiage sites where minor disturbance is not likely to occur.	Areas with cultural hertiage sites where some minor disturbance may potentially occur.	Areas with cultural hertiage sites where disturbance will occur.
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	Very attractive and scenic areas with lots to see and do.	Attractive areas with some things to see and do.	Less attractive areas with very little to see and do.
	EN4	To minimise land holding severance and utilise public land.	Areas with a significant amount of public land or parallel to existing transport routes.	Urban centres or areas with a mixture of public and private land.	Rural areas with little to no public land.
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	Areas with existing tracks and trails available to the cycleway.	Populated areas with some or no existing tracks and trails available to the cycleway.	Remote rural areas with no existing tracks and trails available to the cycleway.
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	Accessible areas with relatively flat gradients and suitable lengths between destinations.	Partially accessible areas with challenging gradients and lengths between destinations.	Remote areas with difficult gradients and lengths between destinations.
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	Areas close to large towns and villages with good facilities.	Areas close to small towns and villages with some facilities.	Very remote rural areas with little to no facilities.
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	Areas with lots of existing or future cycleways planned.	Areas with some existing or future cycleways planned.	Areas with no existing or future planned cycleways.
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	Areas with good connections to public transport.	Areas with some connections to public transport.	Areas with little to no connections to public transport
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	Areas with good tourist activities and attractions.	Areas with some tourist activities and attractions.	Areas with little or no tourist activities and attractions.

Strong | Moderate | Weak

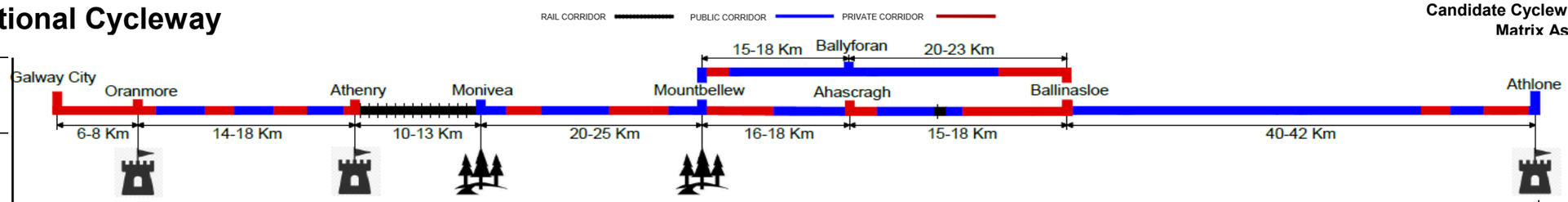
Greenway

Multi-Criteria Analysis Scale	
Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4
Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Appendix B

Project Appraisal Balance Sheet

Galway to Athlone Castle National Cycleway



Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 1 BAMM Route Assessment

Ref		Galway to Athlone Castle National Cycleway Project Objectives							
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	5	5	5	5 5	5 5	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	5	5	5	5 5	5 5	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	6	6	6	6 6	6 6	6
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	5	5	5 5	5 5	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7 7	7 7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	6	7	7	6 6	6 6	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	6 6	6 6	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	5	5	6 6	6 6	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	6	5	5	6 6	6 6	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	7	7	6	3 6	6 6	3
	EN2	To minimise impact to cultural heritage sites.	6	7	3	3	5 6	5 6	3
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	6	6	6	6 6	6 6	7
	EN4	To minimise land holding severance and utilise public land.	5	7	7	6	6 6	6 6	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	5	5	6 6	6 6	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	6	6	6	6 6	6 6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	7	6 6	6 6	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	6	6	6	6 6	6 6	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	6	6	5	5 5	5 5	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	5	6 6	6 6	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	6	6	5	5 5	5 5	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

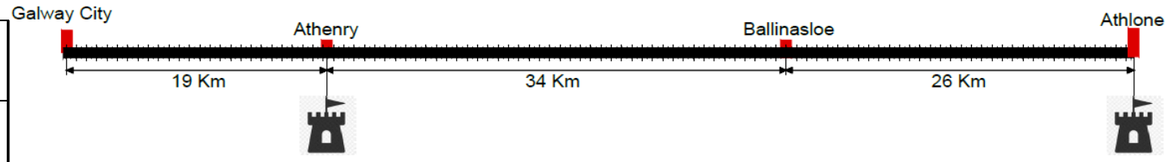
Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 2 Railway Route Assessment



Ref		Galway to Athlone Castle National Cycleway Project Objectives			
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	5	5	5
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	5	5	5
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	6	5	6
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	6	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	7	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	6	6	6
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	7	7	7
	EN2	To minimise impact to cultural heritage sites.	7	7	5
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	5	5	5
	EN4	To minimise land holding severance and utilise public land.	6	6	6
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	6	6	6
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	6	5	6
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	6	5	6
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	5	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

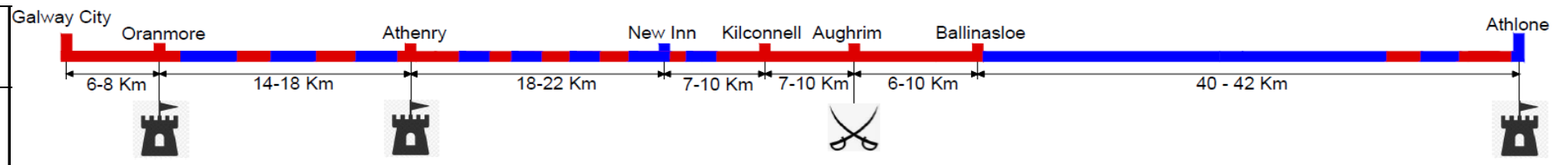
Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 3 Central Route Assessment



Ref		Galway to Athlone Castle National Cycleway Project Objectives							
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	5	5	5	5	5	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	5	5	5	5	5	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	6	5	5	5	5	6
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	6	6	6	6	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	6	6	6	6	6	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	5	5	5	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	6	6	6	6	6	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	7	7	7	7	7	3
	EN2	To minimise impact to cultural heritage sites.	6	7	6	3	6	3	3
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	6	5	5	5	5	7
	EN4	To minimise land holding severance and utilise public land.	5	7	6	6	6	6	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	5	5	5	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	6	6	6	6	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	7	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	6	5	5	5	5	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	6	5	5	5	5	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	5	5	7	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	6	5	5	6	5	6

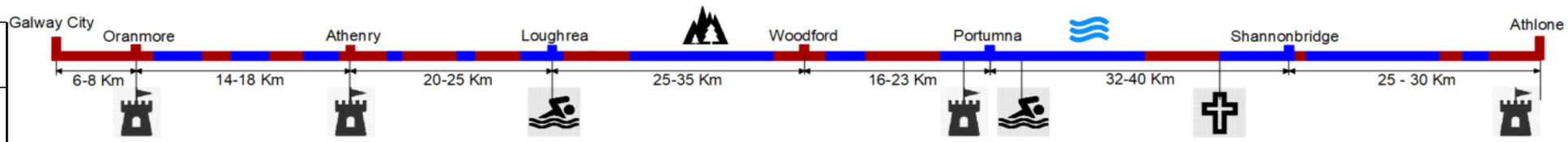
Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment



Candidate Cycleway Option No. 4 ALP Route Assessment									
Ref		**Galway to Athlone Castle National Cycleway Project Objectives**							
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	5	6	7	7	7	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	5	6	7	7	7	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	6	6	7	7	7	7
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	6	5	5	5	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	5	5	5	5	5	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	5	5	5	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	6	6	7	7	7	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	7	7	3	3	2	3
	EN2	To minimise impact to cultural heritage sites.	6	7	7	3	3	7	6
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	6	6	7	7	7	7
	EN4	To minimise land holding severance and utilise public land.	4	7	6	7	7	7	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	5	5	5	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	6	6	7	7	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	3	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	6	6	7	7	7	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	6	4	4	7	7	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	7	3	5	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	6	5	6	6	7	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

RAIL CORRIDOR — PUBLIC CORRIDOR — PRIVATE CORRIDOR

Candidate Cycleway Option Matrix Assessment

Candidate Cycleway Option No. 5 Southern Route Assessment

	Ref	Galway to Athlone Castle National Cycleway Project Objectives								
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	7	7	7	7	7	7	7	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	7	7	7	7	7	7	7	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	7	7	7	7	7	7	7	7
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	7	7	6	5	5	5	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	7	7	7	7	7	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	5	5	5	5	5	5	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7	7	7	7	7	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	7	7	7	6	5	5	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	7	7	7	7	7	7	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	3	3	3	3	3	3	2	3
	EN2	To minimise impact to cultural heritage sites.	6	7	3	7	5	3	7	6
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	7	7	7	7	7	7	7
	EN4	To minimise land holding severance and utilise public land.	5	5	5	5	7	7	7	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7	7	6	5	5	5	6
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	5	5	5	7	7	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7	7	7	3	7	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	7	7	7	7	7	7	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	7	7	7	7	4	7	7	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7	7	7	7	3	5	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	7	7	7	7	6	6	7	6

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

Candidate Cycleway Option - Ballinasloe to Athlone				
Ref		**Galway to Athlone Castle National Cycleway Project Objectives**	**Railway Route**	**Bord na Mona Route Corridor**
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	5	7
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	5	7
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.		
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	7	6
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	7	7
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	6	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	6	7
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	7	6
	EN2	To minimise impact to cultural heritage sites.	6	7
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	5	7
	EN4	To minimise land holding severance and utilise public land.	6	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	7
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	6	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	6	6
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	6	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	6	7
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	7	7
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	5	7

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	-3
Moderately Negative	-2
Major or Highly Negative	-1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

Candidate Cycleway Option - Athlone Routes				
Ref		Galway to Athlone Castle National Cycleway Project Objectives	Flood Defence Route	Batteries Route
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	6	2
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	6	2
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	5	4
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	4	4
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	6	6
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	7	7
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	7	7
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	5	6
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	7	5
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	7	7
	EN2	To minimise impact to cultural heritage sites.	7	6
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	7	4
	EN4	To minimise land holding severance and utilise public land.	7	7
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	7	5
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	7	7
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	7	7
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	7	7
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	4	4
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	4	4
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	4	4

Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4

Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Galway to Athlone Castle National Cycleway

Galway to Athlone CYCLEWAY

Candidate Cycleway Option Matrix Assessment

Ref		Galway to Athlone Castle National Cycleway Project Objectives	Strong	Moderate	Weak
ECONOMY	EC1	To increase the economic contribution of tourism to the Irish economy, by increasing the numbers of international visitors to the area and delivering a cycleway that is attractive by international standards.	Very attractive and scenic areas with lots to see and do.	Attractive areas with some things to see and do.	Less attractive areas with very little to see and do.
	EC2	To create local employment opportunities and wealth through new and expanded enterprises.	Large influx of tourists to the area expected.	Some influx of tourists to the area expected.	Little influx of tourists to the area expected.
	EC3	To deliver the Cycleway in a cost-effective manner and deliver real value for money.	Good value for money based on the length of the route and benefits to be gained.	Some value for money based on the length of the route and benefits to be gained.	Little to no value for money based on the length of the route and benefits to be gained.
	EC4	To encourage modal change to non-motorised travel modes, thereby reducing congestion and delivering travel time savings.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
SAFETY	S1	To provide a walking and cycling route that is segregated from motorised traffic (recognising that it may be impractical to achieve full segregation over the entire route length, especially in more urban areas).	Areas substantially away from the existing transport network.	Areas adjacent to existing railways and quiet local roads.	Areas adjacent to busy transport routes.
	S2	To provide a sense of security for Cycleway users, e.g. through provision of secure bike parking facilities and public lighting (where needed) or reducing isolation along the route.	Areas with low risk of anti-social behaviour.	Areas with some risk of anti-social behaviour.	Areas with a high risk of anti-social behaviour.
	S3	To provide a high level of operational safety on the cycleway through high quality design, construction and maintenance.	Areas substantially away from the existing transport network.	Areas adjacent to existing quiet, urban or low speed transport routes.	Areas adjacent to busy high-speed transport routes.
PHYSICAL ACTIVITY	PA1	To increase the number of commuters within the study area who walk or cycle to work or education.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
	PA2	To increase the number of people in Ireland who choose to take part in physically active outdoor recreation and leisure activities.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
ENVIRONMENT	EN1	To minimise impact to the natural environment, especially habitat in ecologically sensitive areas.	Areas that do not contain any European or other Designated sites.	Areas with European or other Designated sites where some minor disturbance may potentially occur.	Areas with European or other Designated sites where disturbance will occur.
	EN2	To minimise impact to cultural heritage sites.	Areas with cultural hertiage sites where minor disturbance is not likely to occur.	Areas with cultural hertiage sites where some minor disturbance may potentially occur.	Areas with cultural hertiage sites where disturbance will occur.
	EN3	To increase public appreciation of the natural environment and cultural heritage, by encouraging people to experience the countryside.	Very attractive and scenic areas with lots to see and do.	Attractive areas with some things to see and do.	Less attractive areas with very little to see and do.
	EN4	To minimise land holding severance and utilise public land.	Areas with a significant amount of public land or parallel to existing transport routes.	Urban centres or areas with a mixture of public and private land.	Rural areas with little to no public land.
	EN5	To reduce air and noise pollution by getting people to cycle or walk rather than drive.	Areas close to large urban centres.	Rural areas with some towns and villages.	Very remote rural areas with low population densities.
	EN6	To ensure that planning, construction and operation of the Cycleway is carried out in a sustainable manner.	Areas with existing tracks and trails available to the cycleway.	Populated areas with some or no existing tracks and trails available to the cycleway.	Remote rural areas with no existing tracks and trails available to the cycleway.
ACCESSIBILITY & SOCIAL INCLUSION	ASI1	To be attractive to people of all age groups and abilities, with multiple accesses to the route allowing use for long or short distances.	Accessible areas with relatively flat gradients and suitable lengths between destinations.	Partially accessible areas with challenging gradients and lengths between destinations.	Remote areas with difficult gradients and lengths between destinations.
	ASI2	To benefit local communities through enhancing existing amenities and providing new linkages to adjacent town and village centres.	Areas close to large towns and villages with good facilities.	Areas close to small towns and villages with some facilities.	Very remote rural areas with little to no facilities.
INTEGRATION	I1	To link to other existing and proposed Cycleways within the area.	Areas with lots of existing or future cycleways planned.	Areas with some existing or future cycleways planned.	Areas with no existing or future planned cycleways.
	I2	To be accessible to users arriving by public transport, including bus, rail, and existing or proposed passenger boat services.	Areas with good connections to public transport.	Areas with some connections to public transport.	Areas with little to no connections to public transport
	I3	To connect to other tourist activities or attractions within the area, such as historic and cultural heritage sites, waterway activities and the Wild Atlantic Way.	Areas with good tourist activities and attractions.	Areas with some tourist activities and attractions.	Areas with little or no tourist activities and attractions.

Strong | Moderate | Weak

Greenway

Multi-Criteria Analysis Scale	
Major or Highly Positive	7
Moderately Positive	6
Minor or Slightly Positive	5
Not Significant or Neutral	4
Minor or Slightly Negative	3
Moderately Negative	2
Major or Highly Negative	1
Unviable in this context	0

Project Appraisal Balance Sheet

Part A: Project Context

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Date	**25/07/2022**
Version No.	

Project Title	**Galway to Athlone Cycleway**
PRS Reference Number	
Project Phase	**Phase 2: Option Selection**
National Roads Office	**Westmeath**
TII Project Manager	**Kieran Kelly**
Project Description	**New build Cycleway from Athlone to Ballyloughane, on edge of Galway City**
Scheme Cost €m (TSB)	**€124.60**
What Are The Likely Sources of Non-Exchequer Funding	
TII Growth Scenario	
Appraisal Team Author	**Andy Green**
Design Team Reviewer	**Cian McGuinness**
TII Engineering Inspector	
External Auditor	
Modelling Base Year	**2022**
Scheme Opening Year	**2026**
Reference Number of Nearest TII Traffic Monitoring Unit(s)	**n/a**

Note - This PABS should be completed with reference to the latest version of TII PAG Unit 7.1. Users should always check that the correct version is followed prior to undertaking the PABS.

Project Appraisal Balance Sheet

Part B: Environment

Air Quality & Climate

Climate - Carbon Dioxide (CO_2)	Quantitative Statement Parameter
Tonnes of CO_2 produced in the Do Minimum Scenario?	0
Tonnes of CO_2 produced in the Do Something Scenario?	22,000
Ratio of CO_2 produced in Do Something Scenario to Do Minimum Scenario	0.00

Greenhouse Gasses	Monetised Benefits (€m)
Value of change in emissions	€ 4.0

Significance Criteria	Substantial Beneficial	Moderate Beneficial	Slight Beneficial	Negligible	Slight Adverse	Moderate Adverse	Substantial Adverse
Number of Sensitive Locations Experiencing Impacts That Are:	0	0	0	0	0	0	0

Index of Overall Change in Exposure	Large Negative Index	Medium Negative Index	Small Negative Index	Small Positive Index	Medium Positive Index	Large Positive Index
Nitrogen Dioxide (NO_2)	○	○	○	◉	○	○
Particulate Matter (PM_{10})	○	○	○	◉	○	○

Quantitative Statement	Qualitative Statement
Neutral	Improvement in Air quality likely in areas near Galway City, where Cycleway may be used for commuting and displace cars for some trips

Noise & Vibration

Sensitive Receptors	Quantitative Statement Parameter
Number of Sensitive Receptors Requiring Mitigation (i.e. the three conditions have been satisfied) Per Kilometre	0
Number of Sensitive Receptors Requiring Mitigation (i.e. the three conditions have been satisfied), But It Is Not Feasible To Mitigate Noise To The Required Level Per Kilometre	0

Quantitative Statement	Qualitative Statement
Neutral	Significant Impacts to Noise and Vibration as a result of the project are unlikley, as it will not be used by heavy vehicles, or require significant very heavy construction

Waste

Unacceptable Material	Quantitative Statement Parameter No. (m^3)
Quantity Of Unacceptable Material Class U1 To Be Disposed Of Off Site?	
Quantity Of Unacceptable Material Class U2 To Be Disposed Of Off Site?	
Quantity Of Unacceptable Material and Contaminated Land/Hazardous Waste To Be Left In Situ?	

Quantitative Statement	Qualitative Statement
Neutral	Significant earthworks are unlikely to be needed for the scheme. Where scheme transverses peat, floating roads will be employed. Any spoil likely to be able to be incorporated into landscaping.

Project Appraisal Balance Sheet

Part B: Environment

Landscape & Visual Amenity (incl. Light)

Landscape & Visual Amenity (incl. Light)	Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
Number of Impacts That Are:	0	0	0	0	0	0	0	0	0

	National Landscape Designation / Listing	County Landscape Designation / Listing	Other Areas of Significant Landscape Value/Amenity
Number of Profound / Significant Impacts On Sites Of:	0	0	0

Quantitative Statement	Qualitative Statement
Moderately Positive	Cycleway itself is unlikely to produce negative landscape impacts, but will significantly increase public acccess to scenic areas

Biodiversity - Flora & Fauna

Impact on Ecological Receptors	International Importance	National Importance	County Importance	Local Importance (Higher value)	Local Importance (Lower value)
Number of Significant Positive Impacts On Ecological Receptors Of:					
Number of Significant Negative Impacts On Ecological Receptors Of:	24	17			

Quantitative Statement	Qualitative Statement
Moderately Negative	Cycleway may impact on ecological receptors, especially birds. Impacts on Middle Shannon Callows SPA may not be mitigatable and could prevent the project from receiving planning permission.

Agriculture

Impact on Agriculture Holdings	Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact
Impacts On An Agricultural Holdings That Are:				150	150			

Quantitative Statement	Qualitative Statement
Neutral	Some farmland will be lost to the cycleway. There is potential for severance of farms, but it is likely that this will be avoided in the vast majority of cases. The cycleway will have a positive effect on rural tourism in the area, and thi sis expected t obring benefits to farming communities.

Non-Agricultural Properties

Impact on Non-Agriculture Properties	Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact
Number of Impacts That Are:								

Quantitative Statement	Qualitative Statement
Neutral	

Architectural Heritage

Impact on Architectural Heritage	Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact
Number of Impacts That Are:					1			
Number of Impacts On Sites Of National Importance That Are:					1			

Quantitative Statement	Qualitative Statement
Neutral	Impacts on architectural heritage sites are not expected. Improved access for the public to arctitectural heritage sites can have a positive impact. It will be necessary to make new openings in some demense walls. The cycleway will pass close to a number of protected structures, but with sensitive design, significant negative impacts are very unlikely.

Project Appraisal Balance Sheet

Part B: Environment

Project Appraisal Balance Sheet

Part B: Environment

Archaeological & Cultural Heritage	Impact on Archaeological & Cultural Heritage	Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact
	Number of Impacts That Are:					2			
	Number Of Impacts On Sites Of National Importance That Are:					2			

Quantitative Statement	Qualitative Statement
Neutral	Impacts on cultural heritage sites are not expected. Improved access for the public to cultural heritage sites can have a positive impact

Soils & Geology	Soils & Geology	Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:									

Quantitative Statement	Qualitative Statement
Neutral	Significant earthworks and unlikely, so likley impacts are exepected to arise from extraction of stone for pavements only.

Hydrology	Hydrology	Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:									

Quantitative Statement	Qualitative Statement
Neutral	The scheme tranverses some flood prone areas, but is not expected to worsen any flooding issues. Drainage will be over - the -edge, and significant changesto an areas hydrology are unlikely.

Hydrogeology	Hydrogeology	Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:									

Quantitative Statement	Qualitative Statement
Neutral	The scheme will not require significant cuttings, and significant impacts to hydrogeology are unlikely.

Overall Scale of Impact	Amended Scale of Impact
Neutral	

Project Appraisal Balance Sheet

Part C: Safety, Physical Activity, Economy, Accessibility and Social Inclusion and Integration Input Sheet

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Transport Infrastructure Ireland

Safety

Collision Reduction

	Total Collision Reduction	Casualty Reduction			Value Of Accident Reduction (€m)
		Fatal	Serious	Minor	
What is the Collision/Casualty Reduction Over 30 Years?					

Quantitative Statement	Qualitative Statement
Neutral	A segregated cycleway will improve cyclist safety significantly. It will also lead to an increase in cycling along the scheme

Security

	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
What is the Expected Impact Of The Project On The Security Of Road Users?	○	○	○	○	○	◉	○	○

Quantitative Statement	Qualitative Statement
Slightly Positive	

Safety - Overall Scale of Impact	Safety - Amended Scale of Impact
Slightly Positive	

Physical Activity

Ambience

	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
What is the expected impact of the project upon journey ambience?	○	○	○	○	○	○	○	◉

Quantitative Statement	Value of Benefit (€m)	Qualitatve Statement
Highly Positive	€ 20.2	The ambience of cycle journeys will be hugely improved with a scenic and safe cycleway, compared to the absense of facilities currently.

Absenteeism

	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
What is the impact of the project on absenteeism?	○	○	○	○	○	◉	○	○

Quantitative Statement	Value of Benefit (€m)	Qualitative Statement
Slightly Positive	€ 0.6	Increased cycling activity can be expected to reduce absenteeism.

Reduced Health Risk

	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
What is the impact of the project on the reduction in relative risk for cyclists and walkers?	○	○	○	○	○	○	○	◉

Quantitative Statement	Value of Benefit (€m)	Qualitatve Statement
Highly Positive	€ 24.8	The risk associated with cycle journeys will be hugely improved with a scenic and safe cycleway, compared to the absense of facilities currently.

Physical Activity - Overall Scale of Impact	Physical Activity - Amended Scale of Impact
Highly Positive	

Project Appraisal Balance Sheet

Part C: Safety, Physical Activity, Economy, Accessibility and Social Inclusion and Integration Input Sheet

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Economy

Efficiency and Effectiveness

	Commuting (€m)	Business (€m)	Other (€m)	Indirect Tax (€m)	Residual Value (€m)	Total Benefits (€m)
What Are The Benefits Of The Scheme?			€ 115.5			€ 115.5

Quantitative Statement

Benefits are chiefly from the direct spend of additional overseas tourists attarcted to Ireland. There are also signficant benefits due to increased spend from domestic users who will stay overnight.

Wider Economic Impacts

What Impact Will The Project Have On….	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
Increase Competition In Markets?	○	○	○	○	◉	○	○	○
Lead To Efficiencies In Clustering Of Economic Activity? (Agglomeration Benefits)	○	○	○	○	◉	○	○	○
Attract Inward Investment?	○	○	○	○	◉	○	○	○
Expand Local Labour Supply?	○	○	○	○	◉	○	○	○
Contribute To Urban Regeneration	○	○	○	○	○	◉	○	○

Quantitative Statement	Qualitative Statement
Slightly Positive	Increase in tourism and leisure spending in scheme area.

Funding Impacts

What Impact Will The Project Have On….	Don't Know / NA	None	< 10%	10%-30%	> 30%
What Percentage Of Non-Exchequer Funding Is The Project Expected To Receive?	○	◉	○	○	○

Quantitative Statement	Qualitative Statement
Neutral	

Economy - Overall Scale of Impact	Economy - Amended Scale of Impact
Neutral	

Project Appraisal Balance Sheet

Part C: Safety, Physical Activity, Economy, Accessibility and Social Inclusion and Integration Input Sheet

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Accessibility and Social Inclusion	Deprived Areas	What Impact Will The Project Have On…..	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
		Area Based Childhood Programme?	○	○	○	○	◉	○	○	○
		Rural Social Scheme?	○	○	○	○	○	○	○	◉
		Quantitative Statement	Qualitative Statement							
		Slightly Positive	Potential for employement in maintaining and operating the cycleway as well as spin off businesses.							
	Vulnerable Groups	What Impact Will The Project Have On…..	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
		Access To Employment or Vital Infrastructure?	○	○	○	○	○	◉	○	○
		Quantitative Statement	Qualitative Statement							
		Slightly Positive	Project may improve access to employment in some areas							
	Accessibility & Social Inclusion - Overall Scale of Impact		**Accessibility & Social Inclusion - Amended Scale of Impact**							
	Moderately Positive									

Project Appraisal Balance Sheet

Part C: Safety, Physical Activity, Economy, Accessibility and Social Inclusion and Integration Input Sheet

Integration

Transport Integration

What Impact Will The Project Have On…..	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
Connectivity of the Strategic Road Network?	○	○	○	○	◉	○	○	○
Connectivity Between Transport Modes?	○	○	○	○	○	◉	○	○
Sustainable Transport Networks?	○	○	○	○	○	○	○	◉
Access to Other Transport Infrastructure Such As Ports and Airports?	○	○	○	○	◉	○	○	○

Quantitative Statement	Qualitative Statement
Slightly Positive	The cycleway will contribute significantly to sustainable travel, especially in Galway City, Oranmore, Gort, Portmana and Athlone

Land Use Integration

What Impact Will The Project Have On…..	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
Objectives of Local and County Development Plans?	○	○	○	○	○	○	○	◉
Strategic Connectivity for High Value Trips?	○	○	○	○	◉	○	○	○
Urban Sprawl?	○	○	○	○	◉	○	○	○

Quantitative Statement	Qualitative Statement
Slightly Positive	The scheme is well supported in the County Development Plans, and a specifc objective in Co. Galway.

Geographic Integration

What Impact Will The Project Have On…..	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
Cross Border Connectivity?	○	○	○	○	◉	○	○	○
The Trans European Transport network?	○	○	○	○	◉	○	○	○

Quantitative Statement	Qualitative Statement
Neutral	There are proposals to integrate the Eure Velo network into the TenT programme, but these are not certain to be implemented.

Other Government Policy Integration

How Will This Project Impact On The Wider Objectives of….	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
National Spatial Strategy/National Planning Framework	○	○	○	○	○	○	○	◉

Quantitative Statement	Qualitative Statement
Highly Positive	

Integration - Overall Scale of Impact	Integration - Amended Scale of Impact
Slightly Positive	

Project Appraisal Balance Sheet

Part D: PABS Summary Table

Project Title	PRS Reference Number		Project Description	Scheme Cost (€m)	Date
Galway to Athlone Cycleway	Modelling Base Year	2022	New build Cycleway from Athlone to Ballyloughane, on edge of Galway City	€ 124.60	25/07/2022
	Scheme Opening Year	2026			

	Criteria	Quantitative Statement	Summary of Keys Impacts (Qualitative Assessment)	Quantitative Assessment	Monetised (€m over 30 yrs)
Environment	Air Quality and Climate	Neutral	Improvement in Air quality likely in areas near Galway City, where Cycleway may be used for commuting and displace cars for some trips	Additional CO_2 (Tonnes): 0 Ratio of CO_2 Do-Min/Do-Some: 0.00 Index of Overall Change in Exposure NO_2: Small Postive Index Index of Overall Change in Exposure PM_{10}: Small Postive Index Sub Ben. | Mod Ben | Sli Ben. | Negligible | Sli Adv. | Mod Adv. | Sub Adv. *No. of Sensitive Locations Experiencing Impacts That Are:*: 0 | 0 | 0 | 0 | 0 | 0 | 0	Value of Change in Emissions (€m) €4.000
	Noise and vibration	Neutral	Significant Impacts to Noise and Vibration as a result of the project are unlikley, as it will not be used by heavy vehicles, or require significant very heavy construction	No. of Sensitive Receptors Requiring Mitigation: 0 No. of Sensitive Receptors Requiring Mitigation (Not Feasible): 0	
	Waste	Neutral	Significant earthworks are unlikely to be needed for the scheme. Where scheme transverses peat, floating roads will be employed. Any spoil likely to be able to be incorporated into landscaping.	Unacceptable Material/Contaminated Land/Hazardous Waste to be ... Disposed of Off Site | U1 [m^3] | U2 [m^3] | Left in Situ [m^3 land waste] | 0 0 | 0 | 0	
	Landscape & Visual Amenity (incl. Light)	Moderately Positive	Cycleway itself is unlikely to produce negative landscape impacts, but will significantly increase publi	PP | Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN *No. Of Impacts That Are:*: 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 *No. of Profound/Significant Impacts on Sites Of:* National 0 | County 0 | Other 0	
	Biodiversity, Flora & Fauna	Moderately Negative	Cycleway may impact on ecological receptors, especially birds. Impacts on Middle Shannon Callows SPA may not be mitigatable and could prevent the project from receiving planning permission.	II | NI | CI | LI(H) | LI(L) Number of Positive Impacts: 0 | 0 | 0 | 0 | 0 Number of Negative Impacts: 24 | 17 | 0 | 0 | 0	
	Agriculture	Neutral	Some farmland will be lost to the cycleway. There is potential for severance of farms, but it is likely that this will be avoided in the vast majority of cases. The cycleway will have a positive effect on rural tourism in the area, and thi sis expected t obring benefits to farming communities.	Impact on Agricultural Holdings that are: Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN 0 | 0 | 0 | 150 | 150 | 0 | 0 | 0	
	Non-Agricultural Properties	Neutral	0	Impact on Non-Agricultural Properties Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0	
	Architectural Heritage	Neutral	Impacts on architectural heritage sites are not expected. Improved access for the public to arctitectural heritage sites can have a positive impact. It will be necessary to make new openings in some demense walls. The cycleway will pass close to a number of protected structures, but with sensitive design, significant negative impacts are very unlikely.	Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN *No. of Impacts That Are:*: 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 *No. of Impacts on Sites of National Importance That Are:*: 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0	
	Archaeological and Cultural Heritage	Neutral	Impacts on cultural heritage sites are not expected. Improved access for the public to cultural heritage sites can have a positive impact	Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN *No. of Impacts That Are:*: 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 *No. of Impacts on Sites of National Importance That Are:*: 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0	
	Soils & Geology	Neutral	Significant earthworks and unlikely, so likley impacts are exepected to arise from extraction of stone for pavements only.	Number Of Impacts That Are: PP | Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0	
	Hydrology	Neutral	The scheme tranverses some flood prone areas, but is not expected to worsen any flooding issues. Drainage will be over - the -edge, and significant changesto an areas hydrology are unlikely.	Number Of Impacts That Are: PP | Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0	
	Hydrogeology	Neutral	The scheme will not require significant cuttings, and significant impacts to hydrogeology are unlikely.	Number Of Impacts That Are: PP | Sig P | Mod P | Sli P | I | Sli N | Mod N | Sig N | PN 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0	
Safety	Collision Reduction	Neutral	A segregated cycleway will improve cyclist safety significantly. It will also lead to an increase in cycling along the scheme	Collision Reduction Over 30 Years Collisions | Casualties | Fatal | Serious | Minor 0 | 0 | 0 | 0 | 0	Value of Change (€m) €0.0
	Security	Slightly Positive	0		
Physical Activity	Ambience	Highly Positive	The ambience of cycle journeys will be hugely improved with a scenic and safe cycleway, compared to the absense of facilities currently.		€20.2
	Absenteeism	Slightly Positive	Increased cycling activity can be expected to reduce absenteeism.		€0.6
	Reduced Health Risk	Highly Positive	The risk associated with cycle journeys will be hugely improved with a scenic and safe cycleway, compared to the absense of facilities currently.		€24.8
Economy	Transport Efficiency and Effectiveness		Benefits are chiefly from the direct spend of additional overseas tourists attarcted to Ireland. There are also signficant benefits due to increased spend from domestic users who will stay overnight.		Commute | Business | Other | Value of Change €0.0 | €0.0 | €115.5 | €115.5 Indirect Tax | Res. Value €0.0 | €0.0
	Wider Economic Impact	Slightly Positive	Increase in tourism and leisure spending in scheme area.	Slightly Positive	
	Funding	Neutral	0	Expected Percentage of Non-Exchequer Funding Neutral	
Accessibility and Social Inclusion	Deprived Geographic Areas	Slightly Positive	Potential for employement in maintaining and operating the cycleway as well as spin off businesses.	Impact on Deprived Areas Slightly Positive	
	Vulnerable Groups	Slightly Positive	Project may improve access to employment in some areas	Impact on Access to Employment or Vital Infrastructure Slightly Positive	
Integration	Transport Integration	Slightly Positive	The cycleway will contribute significantly to sustainable travel, especially in Galway City, Oranmore, Gort, Portmana and Athlone	Slightly Positive	
	Land-Use Integration	Slightly Positive	The scheme is well supported in the County Development Plans, and a specifc objective in Co. Galway.	Slightly Positive	
	Geographical Integration	Neutral	There are proposals to integrate the Eure Velo network into the TenT programme, but these are not certain to be implemented.	Neutral	
	Integration with Other Government Policies	Highly Positive	0	Highly Positive	

Overall Scale of Impact				
Environmental	Neutral	Economy	Neutral	
Safety	Slightly Positive	Accessibility & Social	Moderately Positive	
Physical Activity	Highly Positive	Integration	Slightly Positive	

Summary of Benefits			
Present Value of Benefits (PVB)	€165	Net Present Value (NPV)	€74
Present Value of Costs (PVC)	€92	Benefit to Cost Ratio (BCR)	1.80