

# 2022 CAPITAL INVESTMENT PROGRAMME

September 2023





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# INTRODUCTION





## Background to the 2022 Capital Investment Programme

As part of its remit to support the delivery of an integrated, accessible public transport system, the National Transport Authority (NTA) operates a Capital Investment Programme across various activities such as Heavy Rail, Bus, Light Rail, Accessibility, Park & Ride, Ticketing & Technology, and Active Travel. This includes the provision of funding to public transport bodies, local authorities, and other agencies for the implementation of various projects and programmes within the Greater Dublin Area and the Regional Cities of Cork, Limerick, Galway, Waterford and other areas of the State. The strategic planning of transport and developing the effective management of traffic and transport demand are also key functions undertaken in respect of the Capital Investment Programme. The combined Capital Investment Programme aims to improve the transport offering for those choosing alternatives to the private car as a mode of transport.

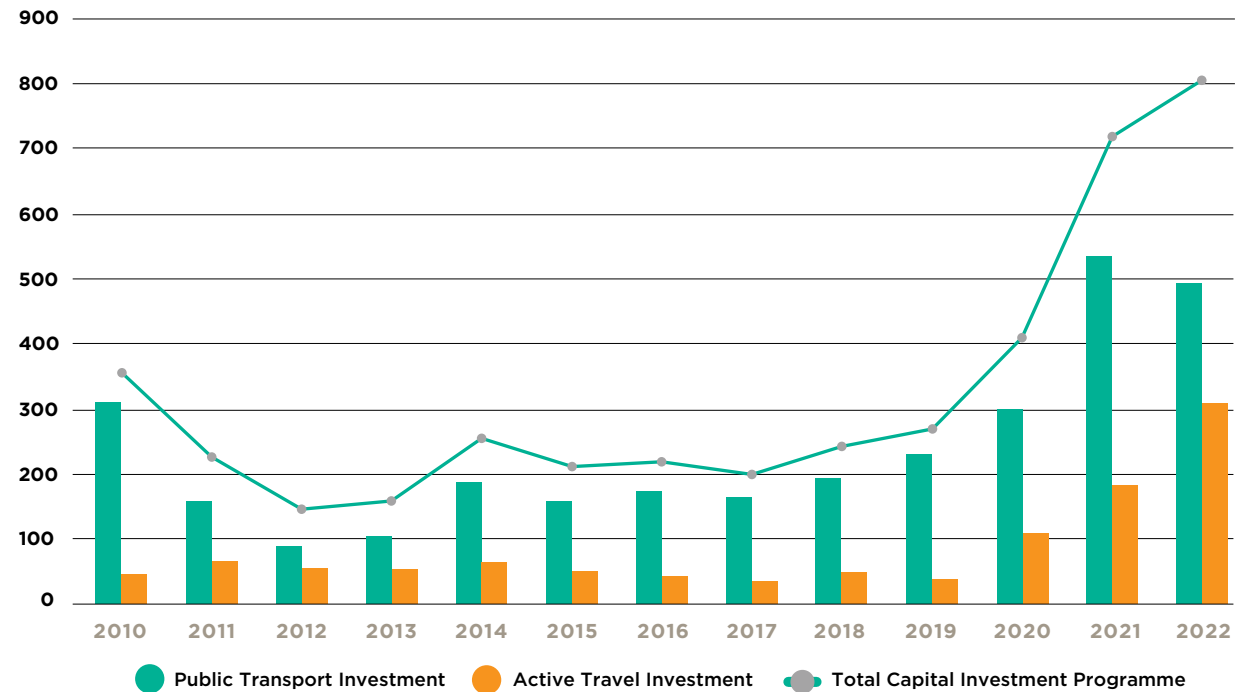


Figure 1: Capital Investment Programme Funding 2010 – 2022

### Historical Funding and Context

The early years, following the establishment of the NTA in 2009, were marked by a decline in funding for public transport investment. In the last 6 years, however, there has been a welcome return to growth in demand for public transport and a corresponding increase in Government funding for the delivery of major infrastructure projects and programmes.

In 2022, the NTA saw its funding for the Capital Investment Programme grow to €805.1 million, a 11% increase on 2021 expenditure on this programme.

## Purpose and Outline of this Report

The purpose of this report is to provide an overview of the Exchequer funding from the Department of Transport to the NTA's Capital Investment Programme in 2022, in terms of the projects and programmes which were under development in 2022, progress achieved within the year and other key details. This report combines the previous Public Transport Investment Report and Annual Bulletin for Sustainable Transport Measures and Active Travel Grants in 2021 into one consolidated report for 2022. The report is developed as follows:

- › Executive Summary which provides an overview of the key achievements, summary of projects by programme, and challenges in 2022.
- › 2022 progress update on the key components and achievements of the Active Travel Investment Programme and Public Transport Investment Programme.
- › Appendices which provides a breakdown and update of capital projects and programmes within the Public Transport Investment Programme.

## Overall Capital Investment Programme

The overall Exchequer funding for the 2022 NTA Capital Programme provided by Department of Transport (DoT) was €805.1 million which was allocated amongst the various projects/programmes in the Capital Programme. As part of its remit to support the delivery of public transport, the NTA operates a number of different capital programmes as follows:

### Section 1 - Active Travel Investment | €310.3m in 2022

The NTA operates an Active Travel Investment Programme whereby funding is provided to local authorities, public transport bodies and other agencies for the implementation of various projects and programmes centred around the provision of pedestrian and cyclist infrastructure and facilities, safety, and access to schools and public transport.

### Section 2 - Public Transport Investment | €494.9m in 2022

#### Heavy Rail Programme | €240.7m in 2022

The NTA operates a Heavy Rail Investment Programme which primarily provides funding to Iarnród Éireann (IÉ) for various rail projects. Major investments within the Heavy Rail

Programme include the DART+ Programme, National Train Control Centre, and the Cork Area Commuter Rail Programme.

#### Bus Programme | €169.5m in 2022

Major investments within the Bus Programme include the BusConnects Programme and Bus Fleet acquisitions.

#### Park and Ride | €5.7m in 2022

This programme includes the development of additional parking facilities at railway stations plus the development of new strategic park & ride sites.

#### Light Rail | €42.3m in 2022

The NTA operates a Light Rail Investment Programme which primarily provides funding to Transport Infrastructure Ireland (TII) for various Luas projects. MetroLink is a major investment scheme within the Light Rail Programme.

#### Accessibility | €11.4m in 2022

This programme provides for accessibility measures such as lifts/bridges at railway stations, grants for wheelchair accessible taxis and travel assistance programme for people needing support to use public transport.





### Transport Technology | €12.9m in 2022

Projects such as Leap card enhancements, the real time passenger information system, travel apps, vehicle location systems and others are developed through the Transport Technology programme.



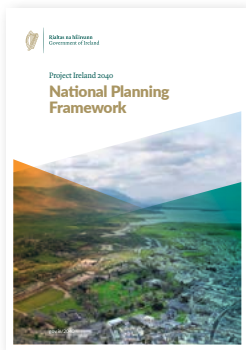
### Integration and Support Projects and Services | €12.4m in 2022

Strategic transport planning, the development of complex transport models, project appraisal and assurance functions plus various other similar projects are developed under this programme.



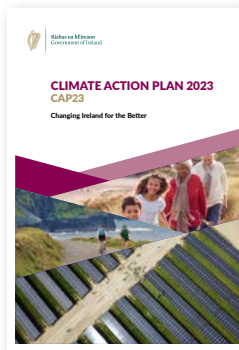
## Policy and strategic context

The following policies govern NTA priorities and funding:



### **National Planning Framework (NPF)**

Ireland's strategic planning framework that discusses strategic outcomes relevant to NTA programmes such as sustainable mobility, compact growth, enhanced regional accessibility, high-quality international connectivity, and lower carbon emissions. Part of [Project Ireland 2040](#).



### **Government's Climate Action Plan 2023 (CAP)**

Calls for decisive action to halve Ireland's carbon emissions by 2030 and provides the roadmap for reaching the ultimate target of net zero by 2050. The plan targets a 50% reduction in emissions from the transport sector by 2030.



### **National Investment Framework for Transport in Ireland (NIFTI)**

Sets out a framework for the prioritisation of future investment in the land transport network. All transport projects are required to align with the Investment Priorities, Modal Hierarchy and Intervention Hierarchy of NIFTI.



### **National Development Plan 2021-2030 (NDP)**

Provides the enabling public investment of €165 billion to implement the NPF strategy as part of [Project Ireland 2040](#).



### **Department of Transport's National Sustainable Mobility Policy (SMP)**

Sets out a strategic framework for walking, cycling and public transport to support Ireland's climate ambitions, much of which will be delivered through the various NTA programmes.



### **Our Rural Future 2021-2025**

Government's national rural development policy, setting out a blueprint for policy making and investment in rural Ireland, which includes NTA's expansion of Local Link services through [Connecting Ireland](#).



# EXECUTIVE SUMMARY



## Active Travel Investment 2022 Key Achievements



**72km** of new or upgraded cycle infrastructure



**188km** of new or improved footpaths



**€310.3m**  
invested



**241**

staff working on Active Travel across  
local authorities in 2022



**407%**  
increase in spend  
since 2019



**1082**

projects allocated funding  
in 31 local authorities



**47**  
projects over **€10m**



**20 fold  
increase**

in km delivered since 2019



# Public Transport Investment 2022 Key Achievements



**€494.9m**  
invested




## Progression of 3 Major Programmes (BusConnects, DART+ and MetroLink)

Please see spotlights on each on pages 11 - 16 for more details.




### National Train Control Centre (NTCC)

The building element of the National Train Control Centre reached substantial completion in 2022. The building makes provision for a Garda Síochána Traffic Control Centre, who moved into the NTCC in November 2022.




### 41 Intercity Railcars (ICRs)

Iarnród Éireann took delivery of 27 of the 41 ICR carriages in 2022 and testing and commissioning of the carriages commenced. The project aims to deliver additional passenger capacity on busy services.



### Red Cow Bus Interchange (RCBI) - Temporary Works

An upgraded bus interchange opened in September 2022. The RCBI temporary works comprised of alterations to the existing Luas Park & Ride car park at Red Cow to provide eight new bus bays facilitating the roll out of new BusConnects bus services.



### 114% increase in spend since 2019

# BUS CONNECTS

TRANSFORMING CITY BUS SERVICES

## BusConnects Dublin 2022 Spotlight | €83.3m in 2022

BusConnects is the NTA's programme to transform bus services across the five main cities in Ireland. The programme encompasses the revamping of all aspects of the bus system: from the ticketing technology to the road infrastructure; from the bus stops to the network of routes; and from the fare structure to the vehicle livery.

During 2022 work progressed on the BusConnects proposal in all of the Dublin, Cork, Limerick and Galway, with Waterford due to commence in 2023.

### BusConnects Dublin 2022 | €83.3m in 2022

#### Network Redesign

Phase 3, launched in May 2022, saw the introduction of the N4 and N6 north Dublin orbital routes, with Route N4 operating on a 24 hour basis connecting Blanchardstown to The Point Village via Finglas, Glasnevin, DCU and Clontarf. Phase 4 launched in October 2022, with the introduction of the G-Spine routes G1, G2 and Route 60, and with two of the routes - G1 and G2 - providing a 24 hour service.

A shortage of bus drivers impacted the delivery of other phases of the new network, with some phases having to be postponed until 2023 due to these shortages.

#### Core Bus Corridors

Following approval of the BusConnects Dublin Preliminary Business Case by Government in March 2022, six planning consent applications were submitted to An Bord Pleanála during 2022. These were:

- › Clongriffin to City Centre Core Bus Corridor Scheme;
- › Belfield/Blackrock to City Centre Core Bus Corridor Scheme;
- › Blanchardstown to City Centre Core Bus Corridor Scheme; Liffey Valley to City Centre Core Bus Corridor Scheme;
- › Liffey Valley to City Centre Core Bus Corridor Scheme;
- › Ballymun/Finglas to City Centre Core Bus Corridor Scheme; and
- › Lucan to City Centre Core Bus Corridor Scheme.

Planning consent applications for the remaining six corridors are intended to be submitted during 2023.

#### Fleet and Depots

2022 saw the placement by the NTA of its first order for battery-electric double-deck buses, with an order for 100 vehicles awarded to Bamford Bus Company Limited (trading as Wrightbus) to build and deliver these vehicles for entry into service in 2023. In tandem, an order for 34 battery-electric single-deck buses were being manufactured by Alexandra Dennis Limited for use on the new O-Route planned under the new network.

Planning consent was obtained for a new temporary bus depot in Finglas for about 180 buses, while proposals for additional permanent sites in Blanchardstown and Bray were advanced.

### Next Generation Ticketing

The updating of the ticketing system on the bus system is a key part of the overall BusConnects programme, which will enable more convenient payment options, including credit/debit cards, and faster boarding onto buses. The approval of the Government of the Preliminary Business Case for BusConnects Dublin also authorised the commencement of the tender process for this major element of the programme.

Given the complexities of the project, the contract for the supply and operation of the new system is being procured using the “competitive dialogue” process under the relevant procurement directives. That process formally commenced in August with tenders ultimately due in 2023.

### BusConnects Dublin Network Redesign

The third phase of Network Redesign, the new network of bus services, which involved the introduction of the Northern Orbitals, was launched in May 2022. The Northern Orbitals span the north side of the city from Blanchardstown/Finglas in the west to Marino/Killester in the east. The fourth phase, which involved the introduction of the G-Spine and Route 60, was launched in October, providing services from Red Cow and Liffey Valley into the city centre.

The launch of these phases has resulted in increased capacity and frequency, including increased evening and weekend services, to the communities through which they operate.

### Bus Shelters/Stops

Works were undertaken at approximately 540 stops in Dublin to support the ongoing implementation of the Dublin Network Redesign. Construction work was completed to support the introduction of the northern orbital routes, the G-Spine routes and Route 60, which totalled approximately 230 stops. In preparation for the launch of the southside orbital routes in 2023, construction work commenced at the remaining stops.

## BusConnects Cork | €1.8m in 2022

### Network Redesign

The redesign of the network of bus services is a key element of the BusConnects Cork programme. Following two rounds of public consultation, the NTA published its new design for the Cork Metropolitan Bus Network in June 2022. The new network, representing an increase of 53% in overall bus services, will involve the creation of new bus routes and improved bus frequencies to help transform the public transport network to meet anticipated growth and future demand in the region.

In addition to more evening and weekend services, it will also include two 24-hour bus routes, one running east-west (Ovens/Ballincollig to City Centre to Mahon) and one running north-south (Carrigaline to City Centre to Hollyhill).

The NTA currently anticipates that rollout of the new Cork network will commence implementation of services on phased basis over the period 2024 to 2026. A key constraint in the delivery of the new network is the need to obtain new depot space, given the enlarged network, and the timeline for depot electrification.

### Sustainable Transport Corridors

In June 2022, the NTA announced its plans to develop a number of Sustainable Transport Corridors across Cork City which will deliver enhanced provision for buses, cyclists and pedestrians. The plans set out the proposals to develop approximately 93 km of bus lane/bus priority and 112 km of cycle facilities across the city. The new corridors will benefit the city by creating a more efficient public transport network, reducing bus journey times and making the bus system more punctual and reliable in addition to creating a safer environment for cyclists and pedestrians.

This first round of non-statutory public consultation ran from June 2022 until October 2022, with various information



events, community fora, land owner meetings and residents' group meetings involved. Approximately 3,000 submissions were received during this consultation and this feedback was reviewed by the design teams to further develop the designs with a second round of public consultation planned for 2023.

## BusConnects Galway

### Network Redesign

Work commenced during 2022 on redesigning the network of bus services for Galway City as part of BusConnects Galway with a design team in place, led by Jarrett Walker & Associates who undertook both the Dublin and Cork bus network redesigns.

It is expected that a public consultation process will commence in early 2023 seeking feedback on the emerging proposals. Depending on the outcome of that consultation, it is expected that the network will be finalised later in 2023. At that stage, planning for its implementation will commence.

Currently, it is envisaged that the new bus network will be introduced into operation in 2025/2026.

### Cross City Link and Dublin Road Project

The Cross-City Link project is a high-quality bus priority corridor through Galway City Centre, connecting the west and the east of the city.

It is the foundation scheme for the delivery of the much of the overall Galway Transport Strategy.

As well as providing bus priority through the central city area, the Cross City Link will also see new traffic management arrangements in the central area, including a combination of restrictions on traffic flow on certain streets, implementation of dedicated bus priority along portions of the route, amendments to traffic circulation and significant improvements to the public realm at various locations.

A planning consent application for the development of the Cross City Link was submitted to An Bord Pleanála during September 2022.

In relation to the Dublin Road Scheme, a multi-disciplinary design team was appointed in mid-2022, allowing work to continue on completing the option selection stage of the project. Work was completed on preparing material for a further round of public consultation on the project proposals to take place in early 2023.

## BusConnects Limerick

### Network Redesign

Work commenced during 2022 on redesigning the network of bus services for Limerick City as part of BusConnects Limerick with a design team in place, led by Jarrett Walker & Associates who undertook both the Dublin

and Cork bus network redesigns. Planning of the new network was well advanced by the end of 2022, with the expectation that the new network would be published for public consultation in early 2023. Subject to the outcome of that consultation process, the new network will be finalised later in 2023. It is expected that the new bus network will be introduced into operation in 2025/2026.

## BusConnects Waterford

### Network Redesign

Initial planning and scheduling commenced for the redesign of the network of bus services for Waterford City as part of BusConnects Waterford. It is intended that the review will be undertaken during 2023.

**To learn more about BusConnects, please see:**  
<https://busconnects.ie/>





## DART+ Programme 2022 Spotlight | €106.2m in 2022



### DART+ Fleet

Following the approval of the DART+ Preliminary Business Case in December 2021, Iarnród Éireann placed an order for 91 Electric and Battery Electric train carriages. In December 2022, Government gave approval for a further order of 90 Battery Electric train carriages to supplement the existing DART Fleet order and enable operation of electric services on parts of the rail network prior to the wider electrification projects being completed.



### DART+ West

In July 2022 a significant milestone was reached with the submission of the DART+ West Railway Order application to An Bord Pleanála. The DART+ West project includes the electrification of the existing railway between Maynooth and M3 Parkway and the city centre, enhancements to the railway network in the city centre along with a new depot facility to accommodate the new DART Fleet.



### DART+ South West

Iarnród Éireann also progressed the DART+ South West project, which will electrify the exiting railway between Hazelhatch / Celbridge and the city centre via the Phoenix Park Tunnel. The updated DART+ Preliminary Business Case was submitted for approval in September 2022 and to enable submission of a Railway Order in 2023.

**To learn more about the DART+ Programme please see: <https://www.dartplus.ie/en-ie/home>**

# METROLINK

## MetroLink 2022 Spotlight | €25.5m in 2022

Two significant milestones were achieved on the MetroLink project in 2022:

- In June 2022, Government approved the MetroLink Preliminary Business Case allowing NTA to approve Transport Infrastructure Ireland to submit a Railway Order application for the project.
- The MetroLink Railway Order application was submitted in September 2022 and a period of statutory consultation continued through 2022.

Following the approval of the Preliminary Business Case, TII has continued to development the procurement strategy and is engaging with the market around the delivery of MetroLink.

**To learn more about the MetroLink, please see:**  
<https://www.metrolink.ie/#/home>





## Number of projects by programme represented by stage in their lifecycle

The NTA's Capital Investment Programme at the end of 2022 was comprised of over 1100 projects and programmes and the categorisation of these across various sub-portfolios is shown in the table below.

Overall, 53% (590) of projects/ programmes are at planning and design, 44% (488) are at construction/implementation and the remainder of 3% (30) are at close out stage.

Programme	No. of projects/ programmes sponsored	% of projects in planning / design / procurement	% of projects at construction/ implementation	% of projects at close out	2022 Spend €'m
<b>Active Travel Investment</b>	<b>873</b>	<b>55%</b>	<b>42%</b>	<b>3%</b>	<b>310.3</b>
<b>Public Transport Investment</b>	<b>235</b>	<b>47%</b>	<b>50%</b>	<b>3%</b>	<b>494.9</b>
<b>Heavy Rail</b>	71	61%	35%	4%	240.7
<b>Bus Programme</b>	80	53%	45%	3%	169.5
<b>Park and Ride</b>	7	71%	29%	0%	5.7
<b>Light Rail</b>	14	43%	57%	0%	42.3
<b>Accessibility</b>	16	13%	88%	0%	11.4
<b>Transport Technology</b>	20	50%	45%	5%	12.9
<b>Integration and Support Projects and Services</b>	27	11%	85%	4%	12.4
<b>Total</b>	<b>1108</b>	<b>53%</b>	<b>44%</b>	<b>3%</b>	<b>805.1</b>

Table 1: NTA 2022 Capital Investment Programme represented programme and stage

## Key Challenges of 2022

In 2022, notwithstanding the legacy impacts of the Covid-19 pandemic, work continued to improve and expand the provision of sustainable transport infrastructure throughout the State. In driving forward with the delivery of the NTA's extensive sustainable transport infrastructure programme, navigating unprecedented levels of investment in a dynamic, complex environment brought with it various challenges.

The array of challenges faced by those involved in the delivery of the NTA's sustainable transport infrastructure programme included, but are not limited to, the following:

- › As the magnitude of the climate crisis has come into sharper focus, so too has the level of investment for sustainable infrastructure to meet key Government climate action plan ambitions creating domestic market capacity constraints to meet the demand for the development and delivery of schemes.
- › Inflation, in particular in the construction and civil engineering markets, and material shortages, also impacted the progress and/or cost of capital projects and programmes in the year.
- › Certain global political and economic issues such as the Russia - Ukraine conflict have created a number of impacts, including exacerbated inflationary pressures, on projects and programmes' supply chain.

- › Cost inflation had emerged as a significant issue in advance of the Russia - Ukraine conflict but worsened due to this crisis.
- › Resource capacity constraints across the market also presented challenges in terms of scaling to the requisite level of activity and operational readiness to deliver the ambitious investment programme.
- › Certain projects and programmes continued to face extensive delays in obtaining planning permissions from An Bord Pleanála with significant associated cost and delivery implications.

The NTA and its partners actively mitigate against these in the short term and long term by fostering a flexible and innovative environment.

To help address these risks, in 2022 the NTA undertook a comprehensive review of inflation including the production of future inflation forecasts to aid the development of robust cost estimates. Alternative forms of contracting for certain projects and programmes were pursued by the NTA, Transport Infrastructure Ireland, and Iarnród Éireann to further enhance cost management. Significant market engagement activities were conducted by the NTA, Transport Infrastructure Ireland, and Iarnród Éireann to help address substantial domestic and international construction market capacity issues. As in other years, across the sustainable transport infrastructure portfolio, organisational and governance arrangements remained a key focus to ensure they are fit for purpose for a growing and evolving portfolio.





# SECTION 1: ACTIVE TRAVEL INVESTMENT





## Background to 2022 Active Travel Grant Programme

The NTA is the approving authority for sustainable travel projects being implemented by Local Authorities throughout the State other than certain schemes being overseen by Transport Infrastructure Ireland. Sustainable transport, and in particular active travel, is seen as a critical component of Ireland's Climate Action Plan and as a result the investment under the NTA programme in this area has increased from an average of €34 million per year between 2015 and 2019, to €310.3 million in 2022. This increase in funding is to continue into 2023 when over €290 million will be allocated for NTA funded active travel projects, with this level of funding committed until 2025. This substantial increase has required a significant increase in the capacity of local authorities, engineering consultants, contractors and the NTA to design and deliver the programme. This capacity build-up came to fruition in 2022 with the available budget being fully utilised for the delivery of sustainable transport measures throughout the country.

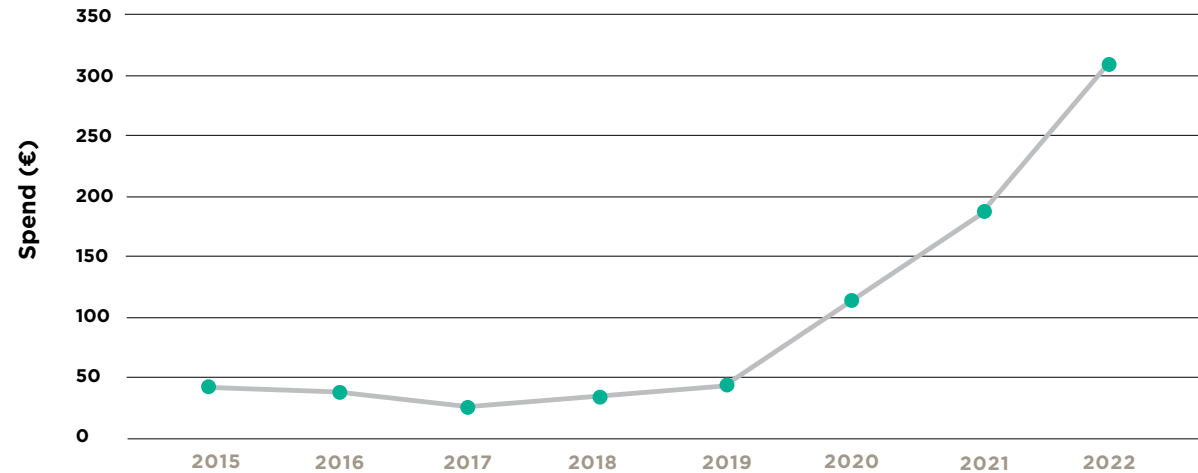


Figure 2: Active Travel Investment Spend Profile 2015 to 2022

## Grants

The NTA has managed the Sustainable Transport Measures Grants (STMG) for many years in the Greater Dublin Area and Regional Cities. 2021 saw the expansion of grants under the Active Travel Programme to Local Authorities outside of the Greater Dublin Area (GDA) and Regional Cities, which increased the number of local authorities being funded by the NTA from 12 to 31. The STMG and Active Travel grants were merged in 2022 under the Active Travel Grant Programme title.

The various grants being managed by the NTA in this area are:

### 1. Active Travel Grants Programme

The National Sustainable Mobility Policy, the Climate Action Plan, and other Government policies encourage modal shift, where possible, away from private car use and towards more sustainable transport modes such as walking or cycling. The Active Travel Grants Programme funds projects supporting strategic pedestrian and cyclist routes, access to schools, permeability links, urban greenways and various other related project types. The aim of the programme is to provide active travel infrastructure that will help 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. The 2022 funding covered approximately 1,200 Active Travel projects, which will contribute to the development of almost 1,000km of new and improved walking and cycling infrastructure across the country by 2025.

## 2. Safe Routes to School (SRTS)

In March 2021 the Safe Routes School programme was launched by the Department of Transport and the NTA. The Safe Routes to School programme aims to create safer walking and cycling routes within communities, alleviate congestion at the school gates and increase the number of students who walk, or cycle, to school by providing walking and cycling facilities. The improvements to the school commute could range from an upgraded footpath or new cycle lane to a complete reworking of a school's entrance. At the closing date for applications, over 900 Schools from every county in Ireland had requested to participate in the new programme. Following assessment 170 schools were selected for inclusion in the Round 1 programme in June 2021, with the Green Schools team of An Taisce, our delivery partner, immediately starting to liaise with the successful schools. Round 2, which included 108 schools throughout the country, were launched in December 2022.



Minister Hildegard Naughton launched new school zone at Bunscoil Rinn an Chabhlaigh in Rushbrooke Co. Cork



By the end of 2022 cycle parking has been provided to 436 schools as part of the Safe Routes to School programme, with an additional 5174 spaces for both bicycles and scooters provided in 2022 (4850 bicycles and 324 scooters). An additional 970 bicycle spaces and 360 scooter spaces was funded by the NTA as part of the Green Schools Travel Programme. The provision of this infrastructure will support students who can now cycle knowing that their bike will be safe and dry at the end of the school day.



Example of cycle parking shelter and stands provided through the SRTS programme.



Traffic Free School Street at An Mhodscoil, Limerick City



Minister Hildegard Naughton launched SRTS Round 2 at Scoil Fhursa in Salthill Galway



## 2022 Outturn

The NTA provided funding of €310.3m in 2022, comprising €136.2m across the 7 Greater Dublin Area local authorities, €117.2m to the regional cities of Cork, Limerick, Galway and Waterford, and €56.9m to the remaining 19 Local Authorities, as shown in Table 2.

Geographic Area	2022 Spend
GDA Counties	€136.2m
Regional cities	€117.2m
Rural Counties	€56.9m
<b>Total</b>	<b>€310.3m</b>

Table 2: GDA/Regional/Rural Spend in 2022

## Trend in Spending on Active Travel

The 2022 outturn represented a 70% increase in comparison with the 2021 outturn, and a 364% increase in comparison with the 2019 outturn. Figure 3 shows the increase in overall funding from 2015-2022 and the project type.

### Project Category Spending Trend Graph

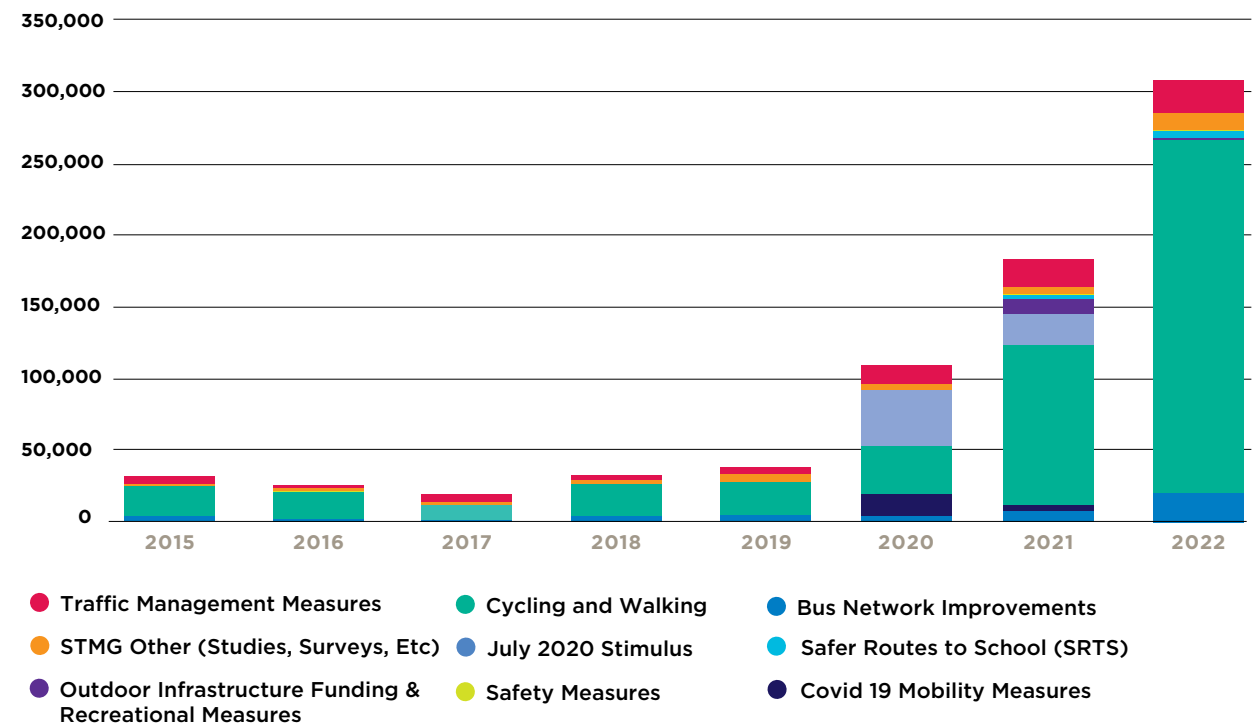


Figure 3: Active Travel Investment Spend Profile 2015 to 2022 by Category

## Breakdown by Scheme Type

Tables 3 to 5 show the breakdown of spend by category in the GDA, the Regional Cities and the Rural Counties. Note the Stimulus and Additional Outdoor Infrastructure (AOI) are contractual commitments from previous years as these funding programmes have now finished.

Total	Walking and Cycling	Stimulus	Traffic Management	AOI	Bus Network	SRTS	Safety	Other
€136,213,349	€104,742,043	€90,000	€6,865,892	€742,648	€11,795,193	€2,714,121	€577,266	€8,686,187
100%	77%	0%	5%	1%	9%	2%	0%	6%

**Table 3: GDA Financial Outturn By Scheme Type 2022**

Total	Walking and Cycling	Stimulus*	Traffic Management	AOI	Bus Network	SRTS	Safety	Other
€117,170,427	€88,502,947	-	€15,344,603	-	€10,078,955	€1,405,430	€180,711	€1,657,781
100%	76%	0%	13%	0%	9%	1%	0%	1%

**Table 4: Regional Cities Financial Outturn By Scheme Type 2022**

Total	Walking and Cycling	Stimulus	Traffic Management	AOI	Bus Network	SRTS	Safety	Other
€56,880,623	€52,834,611	-	€1,441,251	€1,372,868	-	€544,364	-	€687,530
100%	93%	0%	3%	2%	0%	1%	0%	1%

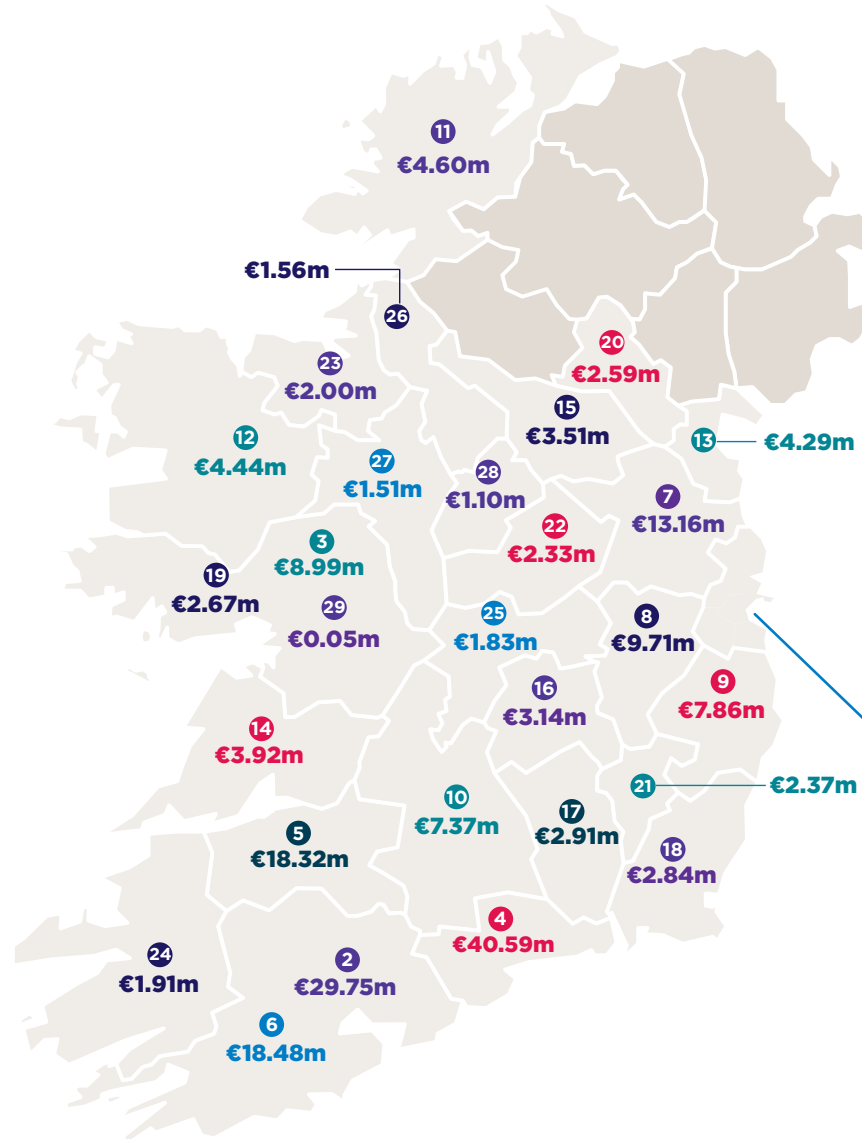
**Table 5: Rural Counties Financial Outturn By Scheme Type 2022**

# Breakdown by Institution in 2022

Total Spend: €310.3m

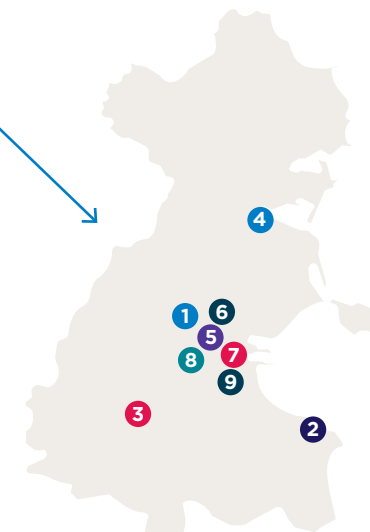
## County Map

Institution	15	Cavan		
City Councils	16	Laois		
	17	Kilkenny		
	18	Wexford		
1	Dublin	19	Galway	
2	Cork	20	Monaghan	
3	Galway	21	Carlow	
City & County Councils	22	Westmeath		
	23	Sligo		
4	Waterford	24	Kerry	
5	Limerick	25	Offaly	
County Councils	26	Leitrim		
	27	Roscommon		
	28	Longford		
6	Cork	University Hospitals	29	Galway
7	Meath			
8	Kildare	City Councils	1	Dublin
9	Wicklow		2	Cork
10	Tipperary		3	Galway
11	Donegal	City & County Councils	4	Waterford
12	Mayo		5	Limerick
13	Louth		6	Cork
14	Clare	County Councils	7	Meath
			8	Kildare
			9	Wicklow



## Dublin Map

	Institution	€m
<b>County Councils</b>		
1	Dublin City Council	€43.18
2	Dun Laoghaire Rathdown	€24.63
3	South Dublin	€15.50
4	Fingal	€13.61
<b>Other</b>		
5	National Transport Authority	€8.90
6	Iarnród Éireann	€0.31
7	Trinity College Dublin	€0.12
8	St. James Hospital	€0.12
9	University College Dublin	€0.10



## Breakdown by Scale of Project

The NTA's Project Approval Guidelines stipulate project management requirements commensurate with the scale of the overall project cost. The Project Approval Guidelines categorise projects as follows: › Band 1 Projects under €500,000 › Band 2 Projects between €500,000 and €10 million › Band 3 Projects over €10 million. A total of 873 projects were funded by the NTA across the various funding programmes, broken down by project scale as shown in Table 6. It is worth noting that some projects start off as Band 1 feasibility studies and progress into a larger band later.

	Band 1		Band 2		Band 3		
	<€500k		>€500k<€10m		>€10m		Total
	No.	%	No.	%	No.	%	
Total	366	42%	455	52%	52	6%	873

**Table 6:** Breakdown by scale of project overall programme. A further breakdown of project size per Local Authority is available in Appendix 1



## Band 3 Projects

The number of Band 3 projects >€10m has substantially increased in recent years, from 9 in 2019 and 2020 to 52 in 2022. This reflects the increased size, complexity and ambition of Active Travel projects.

Band 3 Projects i.e. Projects > €10m	
<b>Dublin City Council</b>	Royal Canal Greenway (Phase 2) - Sherriff St to Newcomen Bridge (North Strand Road)
	Royal Canal Greenway (Phase 3) - Newcomen Bridge (North Strand Road) to Phibsborough
	Royal Canal Greenway (Phase 4) - Phibsborough to Ashtown
	Liffey Cycle Route (Including Interim Measures)
	Fairview to Amiens Street Cycle Route
	Clontarf to City Centre
	Point Junction Bridge - Pedestrian and Cycle Bridge
	Blood Stoney Bridge - Pedestrian and Cycle Bridge
	Belmayne Main Street and Belmayne Avenue Bus and Cycle Scheme
	North Circular Road Cycle Scheme
	Grand Canal Greenway - Portobello to Blackhorse
	Dodder Greenway - Ringsend to SDCC boundary
	Clonskeagh to City Centre
	College Green Plaza
	Fitzwilliam St Cycle Scheme
	East Coast Trail North and South of the Liffey
Kilmainham to Thomas St permanent scheme	

<b>South Dublin County Council</b>	Grand Canal to Lucan Urban Greenway (previously Canal Loop Greenway Feasibility Scheme)
	Spawell to Perrystown Cycle Route (Wellington Lane)
	Dodder Greenway Section 4 - Springfield Ave & Lower Dodder Road
	Tallaght to Knocklyon
	Tallaght to Clondalkin Cycle Scheme
<b>Fingal County Council</b>	Donabate Estuary Walking and cycling route, Broadmeadow way
	S2S Extension Sutton to Malahide large scheme
	Royal Canal Cycle Route - entire Fingal route
	Harry Reynolds Road Cycle Track
	National Aquatic Centre (NAC) to Ongar Village
	R132 Junction Design and Implementation
<b>Dun Laoghaire Rathdown County Council</b>	Rochestown Avenue Multi-modal Transport Improvement Scheme
	DLR Connector Active Travel Scheme
	DLR Central Active Travel Scheme
	Taney Road to N11 Active Travel Scheme
<b>Cork City Council</b>	CC: McCurtain Street Public Transport Improvements
	Southern Orbital Route Selection
	Urban Regen (Beamish & Crawford)
	Northern Distributor Road Route Selection
<b>Cork County Council</b>	Little Island - Multi-modal infrastructure
	Carrigaline - Ringaskiddy

<b>Galway City Council</b>	Galway City Centre Transport Management Plan (Cross City Link)
	Dublin Road Transport Corridor
<b>Limerick City and County Council</b>	LIHAF Mungret Distributor Road - Pedestrian and Cyclist Measures (Part Funded)
<b>Waterford City and County Council</b>	Bilberry to City Centre Improvement Works
	Waterford SDZ Transportation Measures - Design and Enabling Works
	Waterford City Centre - River Suir Sustainable Transport Bridge
	Dock and Abbey Road Infrastructure Works
	Waterford to Tramore Greenway
<b>Louth County Council</b>	Drogheda: R132, Bridge of Peace to Train Station (incorporating Marsh Road)
	Dundalk: R132 inner Relief Rd
	Ard Easmuinn Rd to Train Station/Friary School & Dundalk Bus Station to Rail Station
<b>Meath County Council</b>	Navan GDA Cycle Network - Proudstown Road to Trim Road
	LDR4 Abbeylands Navan
<b>Iarnród Éireann</b>	Heuston Masterplan – Access Infrastructure Project

**Table 7:** List of Projects over >€10m



## Infrastructure delivered by Type and Region

The following tables show the type of infrastructure delivered by regional breakdown. This information is provided by Local Authorities. Note when measuring distances, where footpaths or cycle tracks or lanes were provided on both sides of a carriageway, the measurement includes both sides. However, for pedestrianised streets, greenways, traffic free links, 2 way cycle tracks, quiet ways (signed low speed low traffic roads), and traffic calming, the centreline measurement is used.

Walking Route Infrastructure	All	GDA	Regional Cities	Rural Counties
	km	km	km	km
Pedestrianised Street	0.3	0	0.1	0.2
Footpath Upgrade or Improvement	91.3	29.7	30.1	31.5
New Footpath	62.2	9	18.9	34.3
Shared Use Pedestrian Cycle Path	16.7	3.4	6.4	6.9
Urban Greenway/Traffic Free Link	17.7	10.5	4.7	2.5
<b>Totals</b>	<b>188.2</b>	<b>52.6</b>	<b>60.2</b>	<b>75.4</b>

**Table 8:** Walking Route Infrastructure km by type and region

Cycling Route Infrastructure	All	GDA	Regional Cities	Rural Counties
	km	km	km	km
Shared Pedestrian/Cycle Path	16.7	3.4	6.4	6.9
New Cycle Lane	3.6	0	1	2.6
Light Segregation Cycle Track - e.g. using intermittent bollards or planters	9.6	7.2	1.1	1.3
Segregated Cycle Track with a kerb or level difference	19	9.8	6.5	2.7
Urban Greenway/Traffic Free Link	17.7	10.5	4.7	2.5
Quietway - Signed cycle routes on low-trafficked and low speed roads	5.3	5.3	0	0
<b>Totals</b>	<b>71.9</b>	<b>36.2</b>	<b>19.7</b>	<b>16</b>

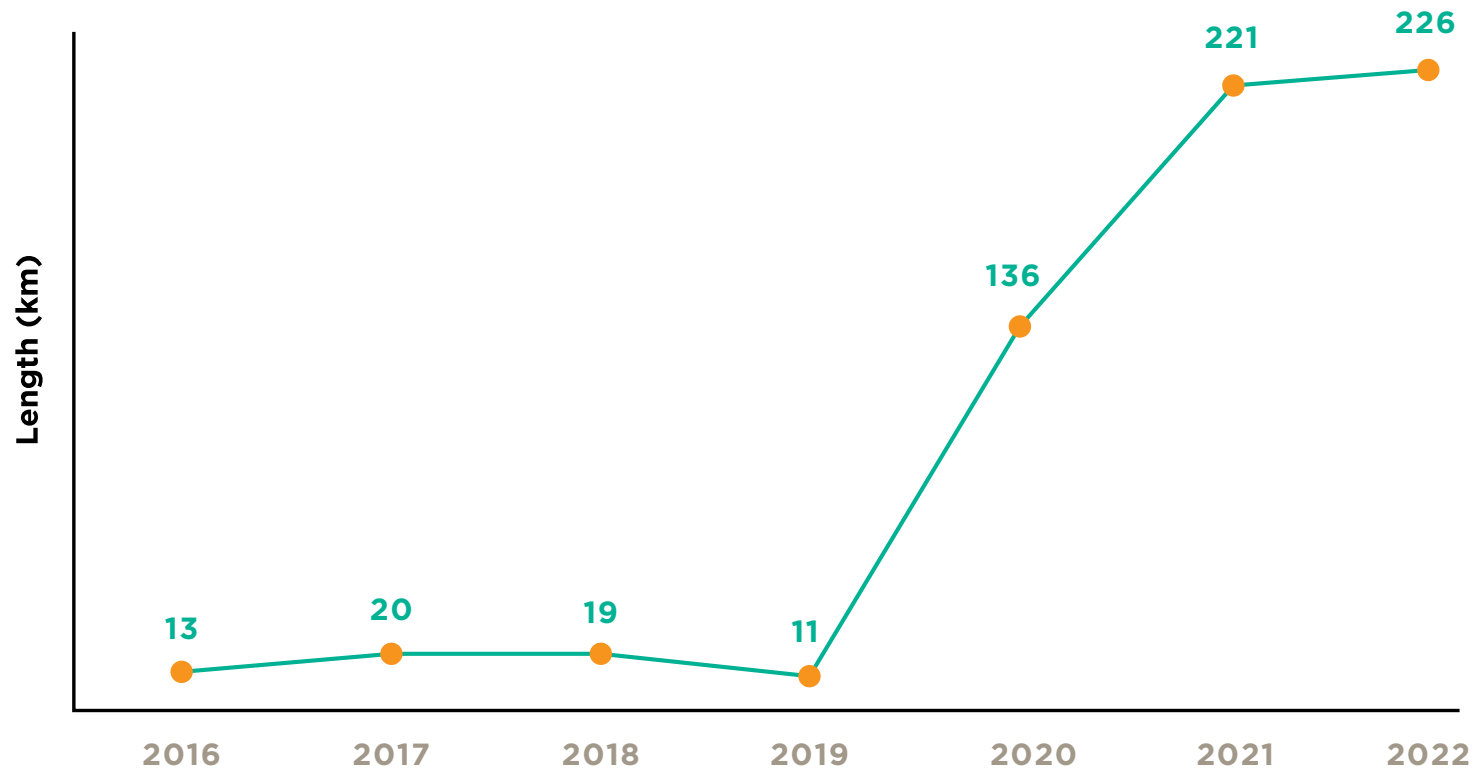
**Table 9:** Cycling Route Infrastructure km by type and region

Other Infrastructure	All	GDA	Regional Cities	Rural Counties
	no:	no:	no:	no:
New Pedestrian Bridge	1	0	0	1
New Pedestrian and Cycle Bridge	0	0	0	0
Junction upgrade	100	38	32	30
Side Road Junctions upgrade	137	67	24	46
Isolated pedestrian or zebra crossing	256	66	90	100
School Zone	23	9	9	5
Modal Filter	6	5	1	0
Cycle Parking Stands	2886	1861	480	545
Bus Stop	730	684	39	7
Island Bus Stop	11	5	6	0
	km	km	km	km
Traffic Calming km	10.8	5.7	5.1	0
Asset Renewal Cycle Lane	20.4	19.2	0.9	0.3
Asset Renewal Bus Lane	11.3	5.5	5.8	0

**Table 10:** Other Infrastructure by type and region. A further breakdown of infrastructure by type per Local Authority is available in Appendix 2

## Trends in Infrastructure Delivery

There was a large increase in the km’s of active travel infrastructure delivered between 2020 and 2022, compared with previous years. This reflects the increased investment and expanded geographical spread of the Active Travel Investment programme. The delivery of walking and cycling route km in 2022 increased almost 20-fold from 2019.



**Figure 4:** Trends in Walking and Cycling Route Infrastructure Delivery 2016-2022



## Public Bike Schemes

Transport for Ireland (TFI) Bikes has continued to operate in Cork, Galway and Limerick and in June 2022 the TFI Bikes were launched in Waterford City, with 14 Bike stations and 220 bikes located in key areas around the city, including at South East Technological University (SETU), University Hospital Waterford, Bank Lane, Kilcohan and Arundel Square. After 6 months of operation the Waterford scheme generated almost 10,000 additional trips. However, the overall bike scheme continues to experience reductions in the number of registered users and the number of trips recorded largely due to Covid-19. In particular, the restrictions on travel coupled with the transition by companies and colleges to on-line working and learning has had a direct impact on usage.

City	Total Trips in 2019	Total Trips in 2020	Total Trips in 2021	Total Trips in 2022
Cork	241,064	81,504	54,615	109,699
Galway	27,190	6,604	7,898	6,264
Limerick	22,129	10,447	4,862	9,414
Waterford	-	-	-	9,637*
<b>Total</b>	<b>290,383</b>	<b>98,555</b>	<b>67,375</b>	<b>135,014</b>

\*No. of trips after 6 months

**Table 11 - Public bike schemes (trips made)**

City	2019	2020	2021	2022
Cork	6,594	5,220	4,048	4,230
Galway	1,675	1,230	937	832
Limerick	1,824	1,344	829	843
Waterford	-	-	-	1,284*
<b>Total</b>	<b>10,093</b>	<b>7,794</b>	<b>5,814</b>	<b>7,189</b>

\*No. of subscribers after 6 months

**Table 12 - Public bike schemes (number of registered users)**

\* The number of registered users is averaged across the year

## Spotlight Active Travel Projects

The active travel programme includes over 1,000 projects in all parts of the State. The following are just a few of these projects that are being built at a rapid pace over the last few years. In addition to the 4 projects later, other completed projects can be seen on the Transport for Ireland YouTube Channel and these will be added throughout the year. The following are currently available for viewing:

1. Safer Routes to School, St Philips - Blanchardstown
2. Dodder Greenway
3. Safe Routes to School Programme - An Mhodhscoil (The Model School)
4. Blackrock South Dublin Coastal Mobility Route

### Safer Routes to School, St Philips - Blanchardstown



### Dodder Greenway



### Safe Routes to School Programme - An Mhodhscoil (The Model School)



### Blackrock South Dublin Coastal Mobility Route

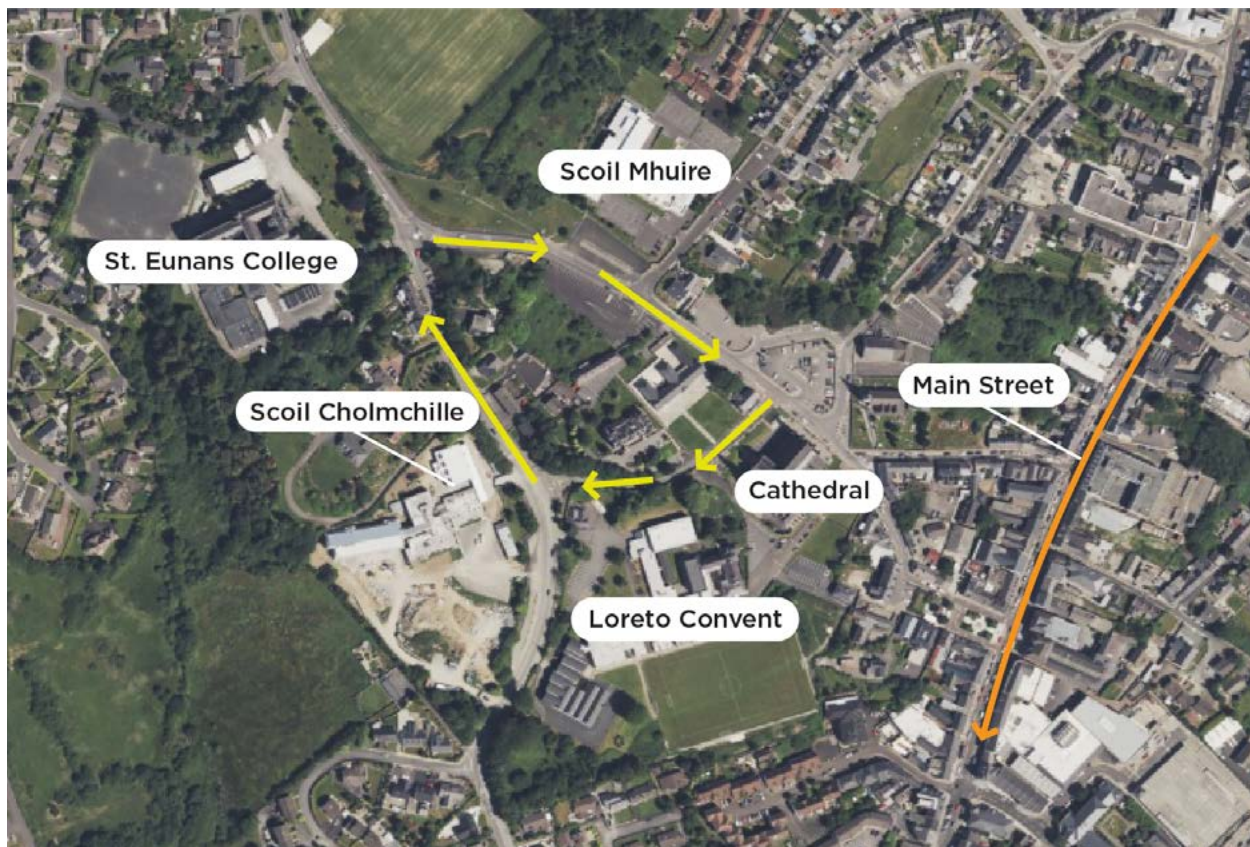


## Spotlight 1 - Letterkenny Cathedral One Way Active Travel Scheme, Donegal

Donegal County Council implemented the Letterkenny Cathedral One way Active Travel Scheme located in the Cathedral Road/Convent Road area of Letterkenny. The project involved the introduction of a one-way gyratory system around the four main schools in the town. The scheme focussed on the reallocation of road space to create an enhanced and safer environment for pupils attending the schools. The works involved the construction of new footpaths, widening of existing footpaths, provision of new crossing points and landscaped pedestrian refuge islands, and the construction of safer pick up and drop off facilities away from the front of school to encourage modal shift.

The total length of the scheme was 700m, and it was completed in December 2022 at a total cost of approximately €1.2m. A very high quality finish was achieved and it has been very well received by parents, elected members and the general public in Letterkenny.

### Letterkenny Cathedral One Way Active Travel Scheme





## Before and After Photos

### College Road



**Before**

(Source: Google Streetview)



**After**

(Source: Google Streetview)



## Before and After Photos

### Sentry Hill Road



**Before**

(Source: Google Streetview)



**After**

(Source: Google Streetview)

## Before and After Photos

### Cathedral Road



**Before**

(Source: Google Streetview)



**After**

(Source: Google Streetview)



## Spotlight 2: Salmon Weir Bridge, Galway

Galway City Council is currently constructing the new Salmon Weir Bridge, which is a new pedestrian and cycle bridge across the River Corrib, linking Gaol Road and Newtownsmith, adjacent to the existing Salmon Weir Bridge. The existing Salmon Weir Bridge is constrained in width and does not satisfactorily cater for pedestrians and cyclists on this busy link to the University of Galway and University College Hospital Galway and is expected to carry over 9,000 pedestrians/cyclists each day.

The main frame comprises a singular steel spine beam with cantilever transverse beams supporting the bridge decking. The main span bridge width varies from 4.5m at its narrowest to 8.5m at midspan. The 13.5m and 18.5m approach spans are steel beam and reinforced concrete composite construction and span the Mill Race and Waterside Canal respectively. In a significant milestone for the project, the 55m single-piece metal main frame of the new Pedestrian and Cycling Bridge was installed overnight in December 2022 and the project is due to be complete in 2023.

The NTA has cofounded this project in association with European Regional Development Fund.



Main Span being swung into place - December 2022



Salmon Weir Bridge, Galway

### Spotlight 3: Sea to Mountains

Dun Laoghaire Rathdown County Council (DLR) has created a quietway network linking schools located between Blackrock and Marley Park, known as the Sea To Mountains Route. The route makes use of existing quiet residential streets and parks, with high quality connections where it meets busy roads. On some roads modal filters were introduced to reduce the amount of traffic using the road, providing a safer and more attractive environment for walking and cycling. Along with a similar route, Mountains to Metals, this was largest consultation process ever undertaken in DLR and resulted in >6,400 submissions being made, with 62% supporting the project.

An example of the high quality connection can be seen along the Lower Kilmacud Road which has 500m of segregated cycle track on both sides of the road and one of the first Dutch style junctions in the country at its junction with Eden Park Road. This new style junction has operated well since its completion in the middle of 2022. The project included a focus on public realm as a whole (planting, additional seating, incidental play etc.) which really engaged the public and helped provide additional benefits beyond just the mobility changes.

The project also include unique directional guidance techniques such as the provision of wayfinding “dots” and “posts” along the various routes. This is essential to its success as the routes need to be easy to follow as they do not follow the main routes. The wayfinding markers are also provided with braille markers and QR codes.



Wayfinding infrastructure



Wayfinding infrastructure



Wayfinding infrastructure





Lower Kilmacud Road/ Eden Park Road



Lower Kilmacud Road





Continuous footway across a junction on Lower Kilmacud Road



# SECTION 2: PUBLIC TRANSPORT INVESTMENT



## Background to 2022 Public Transport Investment (PTI) Programme

The NTA is the approving authority and in some cases holds a dual role of sponsoring agency and approving authority for public transport investment projects and programmes within the GDA, the Regional Cities of Cork, Limerick, Galway, Waterford and other areas of the State. While the NTA has statutory responsibility for the GDA, the NTA manages projects and programmes through the rest of the State on behalf of the Department of Transport (DoT).

Investment in PTI has increased significantly from an average of €188m per year between 2015 and 2019, to €495m in 2022. This substantial increase in funding over the last 3 years reflects major strategic capital programmes entering late stages of planning and design development and progressing towards construction stage.

There was a slight decline in spending from 2021 to 2022 of €40m. This was due to certain projects and programmes not progressing as quickly as originally anticipated and suffered some delivery delays. More information on challenges in 2022 can be found on page 18.

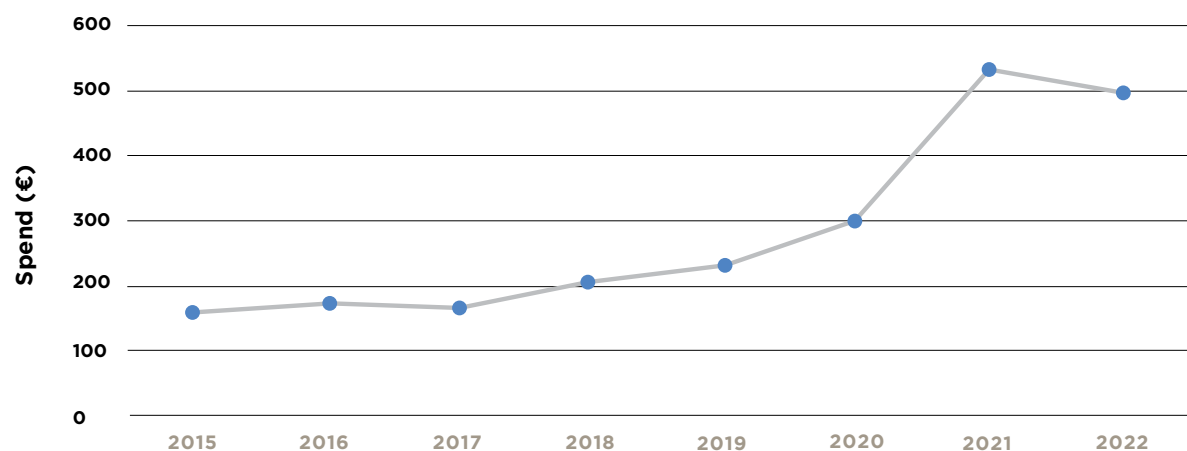


Figure 5: Public Transport Investment Spend Profile 2015 to 2022

## 2022 Outturn

The NTA provided funding of €494.9m in 2022 across 235 projects/programmes outlined in Table 13 below:

Programme	No. of Projects	Spend in 2022
Heavy Rail Programme	71	€240.7m
Bus Programme	80	€169.5m
Park and Ride	7	€5.7m
Light Rail	14	€42.3m
Accessibility	16	€11.4m
Transport Technology	19	€12.9m
Integration and Support Projects and Services	27	€12.4m

Table 13: PTI Spend in 2022 (€'m)



## Trend in Spending on Public Transport

The 2022 outturn represented a 7% reduction in comparison with the 2021 outturn, however a 65% increase in comparison with the 2020 outturn. Figure 6 shows the increase in overall funding from 2015-2022 by programme.

### Spending Trend Graph by Programme

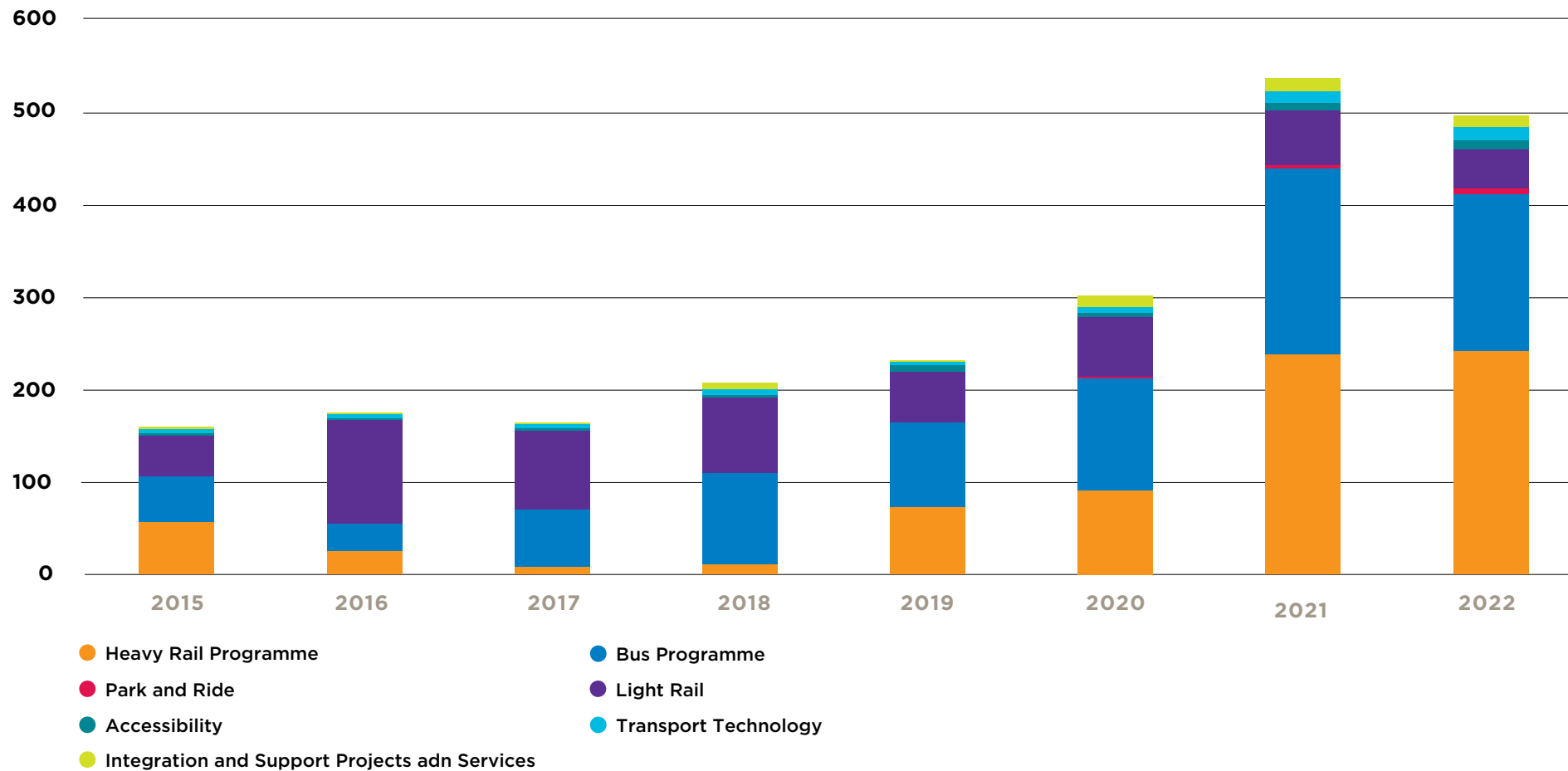


Figure 6: Public Transport Investment Spend Profile 2015 to 2022 by Programme

# Heavy Rail Programme Spotlight 1:

## Cork Area Commuter Rail (CACR) Programme | €7.6m in 2022

The Cork Area Commuter Rail (CACR) Programme involves development of, and enhancements to, the rail network over approximately 62 kilometres from Mallow through Cork to Cobh and Middleton. This will include electrification and re-signalling across the three main routes, primarily over existing alignments, which can be summarised as follows:

- › Mallow Line - approximately 30km from Kent Station to Mallow;
- › Cobh Line - approximately 20km from Kent Station to Cobh; and
- › Glounthaune to Middleton Line - approximately 10km from Cobh Junction to Middleton.

EU funding of €185.4m has been committed under the National Recovery and Resilience Plan 2021. This funding prioritises Work Package 1 - Kent Station Through Platform, Work Package 2 - Signalling and Communications Upgrade, and Work Package 3 - Glounthaune - Middleton Twin Track for immediate progress via the EU Recovery and Resilience Facility.

### PROGRESS IN 2022

The overall programme consists of 7 interrelated projects, which will be developed in phases. 2022 saw planning being granted, and a construction contract tendered, for a new 220m long platform at Kent Station which is a key enabler of the wider programme. A Railway Order Application for the double tracking of the Glounthaune to Middleton line was submitted to An Bord Pleanála following the conclusion of a non-statutory public consultation over the summer. Significant progress was also made on a major upgrade of the existing signaling and telecommunications system in operation on the Cork network with the tendering of a Design & Build Contract to allow for a higher frequency service.

**To learn more about Cork Area Commuter Rail Programme , please see: <https://www.irishrail.ie/en-ie/about-us/iarnrod-eireann-projects-and-investments/cork-area-commuter-rail>**

## Before and After Photos Glounthaune to Middleton Line



Glounthaune to Middleton Line, Middleton Northern Relied Road, Knockgriffin.





Current



Proposed

Glounthaune to Middleton Line, L3618 local road, Water-Rock





### Ceannt Concourse

## Heavy Rail Programme Spotlight 2:

### Ceannt Station Redevelopment Galway | €1.7m in 2022

Ceannt Station Upgrade Project involves the enhancement, and expansion, of the existing bus and rail facilities to meet the requirements of a modern transport gateway. The project will improve the quality of Galway's public transport service offering by providing better access to services, improving connectivity and reducing barriers to travel for all passengers.

The project includes the following key elements:

- › Roof – full replacement of existing train hall roof, including additional glazing;
- › Track and platforms – provision of three additional platforms and bay platform extension to accommodate future growth in train operations;
- › New southern façade and entrance – upgrade southern façade and form a new

main entrance at the south side of the station, with new retail units and waiting areas located close to the new entrance;

- › Northern side, internal building works – improved waiting areas for rail and bus passengers, improved station accessibility for mobility impaired customers, reconfigured booking office and staff accommodation; and
- › Conversion of part of the former Engine Shed to Bus Éireann staff accommodation.

#### PROGRESS IN 2022

The project Preliminary Business Case was approved by the NTA and the tender for the main works contract was issued to the market. Enabling works to break out the existing track slab in the station were also completed.



Ceannt South Façade

# Bus Programme Spotlight 1:

## Athlone Town Electrification - €8.5m in 2022

The project, to transition the first complete urban bus service in Ireland from diesel to zero emission battery electric power, was initiated in 2018.

A €10 million investment by the NTA, the project was the first to launch under the government's Pathfinder Programme – a package of exemplar transport projects to be delivered by state agencies and local authorities around the country within the next three years.

Over 540,000 zero emission kilometres will be operated on both routes each year, with over 10,000 passengers now using the service weekly – a 20% increase on 2019 figures.

The complete project included the construction of a new electricity substation within the Bus Éireann depot, the installation of charging infrastructure, integrated depot and charge management systems and eleven new state-of-the-art electric buses.

In preparing for the commencement of operations, Bus Éireann drivers and mechanics have undergone a comprehensive training programme on the driving, maintenance and operation of the new electric buses which will deliver emission-free public transport.

The Pathfinder Programme forms a key part of the implementation of the National Sustainable Mobility Policy, which sets out the government's plan to meet Ireland's requirement to achieve a 50% reduction in greenhouse gas emissions by 2030 in the transport sector.

### PROGRESS IN 2022

Following a comprehensive tender and design phase, construction and installation works commenced in mid-2022 and with practical completion of the charging infrastructure by ESB Smart Energy Services in December. Following a period of testing, the new service was officially launched by Minister for Transport Eamon Ryan in January 2023.

### Key Facts

- › This is the first urban public transport bus service to completely transition to full battery electric operation in Ireland.
- › The new operation will reduce CO2 emissions by 400,000kg annually and will deliver a quieter, cleaner bus service for the town and passengers.
- › The charging infrastructure also provides for future expansion of bus services in Athlone town as population growth and modal demand increases.



New Single Deck Electric Buses at Athlone Bus Depot



Charging Infrastructure and equipment at Athlone Bus Depot



## Bus Programme Spotlight 2:

### Red Cow Bus Interchange

The project to develop the Red Cow Interchange was part of the BusConnects programme to facilitate increased and efficient bus service integration and provide enhanced interchange facilities with light rail enabling better multimodal integration of the networks. The proposed permanent interchange development will include the provision of enhanced passenger waiting facilities and toilets, including a Changing Places facility, additional bicycle parking spaces and new and improved landscaping along the access road and interchange itself. This is currently at the Planning stage.

In order to facilitate the launch of the high frequency G-Spine in October 2022 and make provision for adequate interchange facilities to enable the permanent interchange to be built, during 2022 a temporary interchange was constructed.

The temporary interchange comprised alterations to the existing Luas Park & Ride car park to provide new bus bays with associated alterations to the carriageway, pedestrian routes, line marking, signage, public lighting, drainage, and CCTV.



Red Cow bus Interchange

### PROGRESS IN 2022

Construction of the temporary interchange commenced in March 2022 and was completed and open for use in September 2022.

### Key facts

- › 8 bus bays
- › Served by 373 services daily
- › 4 new shelters with seating
- › Temporary welfare facilities for bus drivers



# Bus Programme Spotlight 3:

## Bus Roadside Facilities (Bus Shelters & Stops) | €5.9m in 2022

### Bus Shelters

During 2022, the NTA installed 127 new standard bus shelters nationwide. In addition, the NTA undertook a programme to deliver solar power lighting solutions at bus shelters where courtesy lights were not available due to power supply issues. By the end of 2022 approximately 425 out of identified 896 shelter locations had solar panels fitted to illuminate the courtesy lights.

In addition NTA commenced a seating retrofit project, aimed at providing seating at suitable bus shelters with adequate space. Over 200 locations were identified as suitable for retrofit of seating and the installation of seating commenced in November 2022 and will continue in 2023.



Bus Shelter at Blackthorn Drive

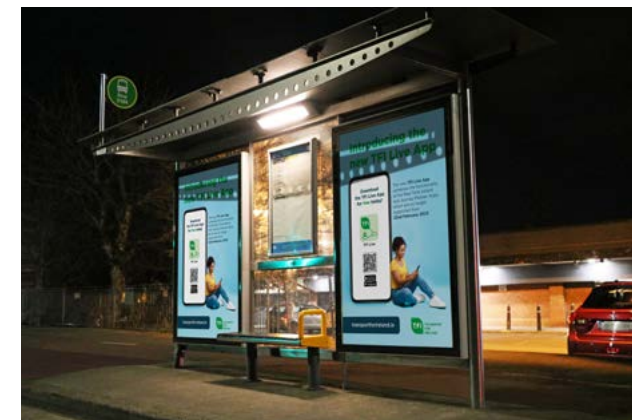
### Bus Stops

The Bus Roadside Facilities (Stops) Programme aims to provide clear, consistent, and accessible information for all customers at bus stops under the TFI brand.

In 2022, in addition to the 540 new bus poles installed as part of BusConnects Dublin, NTA supported the roll out of new pole infrastructure in various counties across Ireland, providing poles infrastructure to Dublin Bus, Bus Éireann and local authorities to upgrade additional stops nationwide.



Bus Shelter at Old Dublin Road



Bus Shelter at Thomas Hynes Road, Galway

## Park and Ride | €5.7m in 2022

### Park and Ride Development Office

The Park and Ride Development Office (PRDO) was established in February 2020. The function of the PRDO is to enable the delivery of key Park & Ride facilities across all regions providing full time specialist resources on these projects.

The plans to expand the Park and Ride network are set out in the various metropolitan area transport strategies which have been prepared by NTA with input on Park and Ride from the PRDO. Three strategies have been published, namely the Transport Strategy for the Greater Dublin Area 2022-2042, the Limerick Shannon Metropolitan Area Transport Strategy and the Waterford Metropolitan Area Transport Strategy. The PRDO is also building on the work done in Galway Transport Strategy and Cork Metropolitan Area Transport Strategy.

Following on from the work completed in the transport strategies, in 2022 the PRDO progressed several strategic sites through an options selection process and continued the preparation of planning documentation including Environmental Impact Assessment Reports, discussion with landowners on agreements, development of options for bus services and site design.



N51 - Park and Ride

### Irish Rail Car Park Programme

The IÉ Car Park Programme consists of the upgrading and expansion of park and ride provision at various Irish Rail Stations throughout the country. The strategy is being rolled out with an initial group of 12 priority stations: Portlaoise, Millstreet, Ballybrophy, Bray, Portmarnock, Leixlip Louisa Bridge, Kildare, Edgeworthstown, Farranfore, Carlow, Athy and Charleville.

2022 progress included: the completion of construction of a new 90 space car park at Ballybrophy; grant of planning permission for car park upgrade, public realm improvements and additional 14 spaces at Portlaoise; section 5 declaration of exemption for upgrade and additional 27 spaces at Edgeworthstown; and the remaining stations progressed through various stages of preliminary design and planning.



## Clontarf Road

Due to BusConnects, there will be an increase in bus and passenger movements Clontarf Road station and a project was developed and delivered under the P&R programme. The upgrade included reconfiguration of the existing station carpark to accommodate additional bus bays. The project included improved footpaths, cycle parking, improved road surface, additional security measures and lighting. The project was constructed and substantially completed in 2022.

## Local Park and Ride

The Park and Ride programme included the delivery of local park and ride sites. The 181 space N51 Park & Ride facility in Navan includes a new offline bus bay along the westbound lane of the N51 capable of accommodating up to 4 large coaches, incorporating two new bus shelters, a new bus stand area and cycle parking. Construction commenced and was 80% complete by December 2022.

The Tara Na Ri Park and Ride Facility in County Meath is a new local Park and Ride facility to the south of Navan and near J7 on the M3. The scheme provides for 50 car parking spaces and serves existing bus stops on the R147. Bus Éireann 109, 109A and NX stop at this location. The construction of the project commenced in 2022.



Park & Ride - Ballybrophy



## Light Rail Spotlight:

### Luas Lifecycle Asset Renewals (LCAR) | €11.3m in 2022

The LCAR Programme is a series of projects that invest in the renewal of existing Luas assets to ensure a high quality, resilient and reliable Luas service. The current Luas light rail system is in operation since 2004 and the LCAR programme has been developed to renew assets that are outside of the current operation and maintenance contract. The aim of the programme is to protect the value of past investments, and to ensure that Luas' infrastructure continues to operate effectively, reliably and safely.

#### PROGRESS IN 2022

The LCAR Programme for 2022 mainly consisted of continuing contact wire replacement works, track renewals and overhauls of rolling stock. The LCAR Programme for 2022 also comprised of a number of other projects, such as upgrades of the wheel lathes in both Sandyford and Red cow depots as well as server replacements and passenger lift refurbishments.

#### Key facts:

- › Programme is running over 6 years 2021-2026
- › Overall value of >54 Million
- › Renewals cover all aspects of the light rail system including rolling stock, track, power and control systems as well as station and bridge infrastructure



Passenger Lift Upgrade - Charlemont



Overhead line replacements - Stillorgan

## Accessibility Retrofit Programme

The Accessibility Programme primarily focuses on the retro-fitting of accessibility measures at bus & rail facilities.

### Railway Station Accessibility | €7.5m in 2022

In February 2014, a feasibility report was completed by IÉ assessing the accessibility improvements required across the 54 stations. The objective of the IÉ Station Accessibility Programme is to improve access into the stations and provide lifts to enable access to the platforms across the 54 stations.

#### PROGRESS IN 2022

Wheelchair accessible lifts and bridges were completed at Gormanston, Co. Meath and Dalkey, Co. Dublin in 2022 are expected to be opened to the public in early 2023. Construction commenced on wheelchair accessible lifts and a bridge at Little Island station in Co. Cork.

The wider upgrade of accessibility in Rail Stations is being progressed to the Technical Specifications for Interoperability for Persons with Reduced Mobility (PRM-TSI). Ennis station, Co. Clare was identified as the first station for implementation for this upgrade to compliment the new wheelchair lifts and bridge opened in 2021.



Gormanstown Lifts and Bridge



The upgrade of two platforms to the updated accessibility standard was completed in 2022. Iarnród Éireann is preparing a business case to bring all stations in its current programme up to current accessibility standards.

## Bus Éireann Accessibility | €0.7m in 2022

This is Bus Éireann's Nationwide Bus Station Accessibility Programme. Site inspections were carried out in 2018 of 17 locations across the country. Outline proposals were prepared for each location. The objective is to provide wheelchair accessibility at all locations. Accessible car spaces are also to be provided at each location where possible. The wider upgrade of works, required to bring Bus Stations to the required standard under Technical Guidance Document (TGD) - Part M Accessibility, continued in 2022. Wheelchair accessible bus bays were also constructed in Ballina Bus Station and Bus Éireann commenced the upgrade of the next group of wheelchair accessible bus bays in late 2022.

## Local Authority Accessibility | €0.6m in 2022

This programme of works involves the construction of wheelchair accessible bus stops in locations served by high floor coaches, initially focusing on towns with a population over 5,000.



**Dalkey lifts and bridges**

During 2022, construction was completed on 21 wheelchair accessible bus stops including locations at Bantry, Buttevant, Castlebar, Fermoy, Kells, Mitchelstown, Navan and Nenagh. NTA also engaged consultants to undertake audits of towns over 1,000 population for wheelchair lift accessible stops which will inform the programme in 2023.



**Platform enhancement works in Ennis**



## Transport Technology Projects | €12.9m in 2022

The NTA undertakes a vast array of transport technology projects and programmes in light of the increasing emphasis on the role that technology has to play in the delivery of public transport infrastructure and services. These projects and programmes include, but are not limited to: 1. Real Time Passenger Information (RTPI) and National Journey Planner (NJP) 2. Transport For Ireland (TFI) Go Mobile Ticketing 3. Integrated Ticketing (TFI Leap Card) 4. Automatic Vehicle Location (AVL)

### 1. REAL TIME PASSENGER INFORMATION (RTPI) AND NATIONAL JOURNEY PLANNER (NJP)

The provision of up-to-date travel information encompasses the supply of real-time information to the public, as well as the provision and maintenance of a national journey planner system and associated applications. RTPI is a system which facilitates the provision of dynamic public transport information to customers through applications, websites and on-street displays.

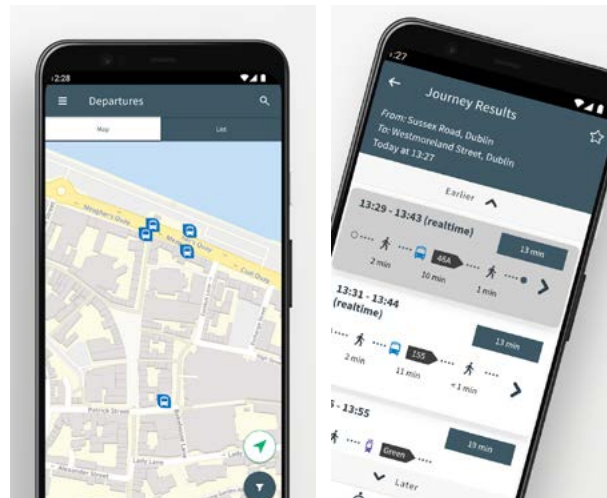


Displays

### PROGRESS IN 2022

The Authority commenced a procurement competition in 2022 to source a supply of additional on-street display signs, to include additional options such as battery powered displays and displays that can be incorporated into bus stops and will support the Authority's ongoing BusConnects programme and nationwide construction of new bus stops.

In addition, the Authority continued to work to introduce a new suite of applications to include a new National Journey Planner and new timetable production software. This new solution, TFI Live, was intended to be launched in 2022 but will now launch in Q1 2023.



TFI Live App

This will include the provision of new data feeds (GTFS v2) that is shared with third party channels such as Google Maps, HERE Maps, Apple Maps and the open data community via Data.Gov.ie, Ireland's open data portal.

### 2. TRANSPORT FOR IRELAND (TFI) GO MOBILE TICKETING

TFI Go Mobile Ticketing is a project to introduce a mobile phone application that will sell and hold tickets for Public Service Obligation (PSO) services nationwide. Further investments were made in the app in 2022 to include additional functionality.



### PROGRESS IN 2022

Usage of NTA's mobile ticketing app, TFI Go, expanded significantly in 2022. By the end of 2022 the app had been

expanded to sell tickets for 31 bus operators both publicly and privately owned, notably including all Bus Éireann PSO services, Go Ahead Ireland Dublin Commuter services, and all TFI Local Link Regular Rural Services nationwide. This expansion was primarily driven by the use of TFI Go to facilitate the involvement of private bus operators into the Young Adult fares discount scheme that involves compensation being paid to participating

private bus companies for all ticket sales that take place in the TFI Go app, but also reflected some natural growth as customer awareness of the app has grown. On the back of this growth, usage of the app hit a new high in November, with 40,000 tickets sold during the month, the highest figure to date. Usage is anticipated to continue to grow into 2023 as additional features and operators are added.



### 3. INTEGRATED TICKETING (TFI LEAP CARD)

Integrated Ticketing, better known as TFI Leap Card, is the overall Leap Card system to which the NTA makes enhancements on an ongoing basis. Amongst the Leap systems is the TFI Leap Top-Up App, which is a free application for nearfield communication (NFC) enabled Android phones. It allows customers to instantly top-up a TFI Leap Card, check balance information, monitor daily and weekly cap values, and collect tickets.

#### PROGRESS IN 2022

##### Leap Top-Up Apps

During 2022 the Leap Top-up applications for Android and iOS were enhanced and continued to grow in popularity and overall accounted for 58% of all top-ups made during the year, totalling in excess of €125 million and reflecting the increased adoption of mobile commerce.



**TFI Leap Top Up App**

##### TFI Leap Card Rollout on TFI Local Link Regular Rural Services

During 2022 the Authority collaborated with the 15 regional offices that deliver the TFI Local Link services to rollout Leap Card and Free Travel compatible ticketing equipment to all regular rural services. By the end of 2022 over 100 services across all areas around the country had been enabled and the remainder will be completed in Q1 2023. The overall objective was to provide the Local Link scheduled services with ticketing equipment that is enabled for Leap and Free Travel pass acceptance, so that

- (a) Leap can now be accepted as a means of payment;
- (b) Free Travel pass usage can be electronically recorded;
- (c) consolidated central revenue reporting can be provided via the consolidated cloud hosted back office; and
- (d) further expansion of services is enabled using the same equipment type, thus providing a consistent ticketing service on all services

This rollout will be continued as the Connecting Ireland programme adds additional services.



Metrics

### TFI Leap Card Operations Contract Transition

The contract to support the operations of the Leap Card scheme is due to transition to a new supplier in 2023. In 2022 the transition process was commenced, with a focus on ensuring uninterrupted services to customers as the new supplier takes over day-to-day responsibility. This includes a change of supplier of retail Leap Card sales and reload services which is being taken on by An Post and Postpoint.

### 4. AUTOMATIC VEHICLE LOCATION (AVL)

AVL is required for service control of buses, communications with drivers, tracking of route performance, generation of real time passenger information for on-street displays and mobile apps and is at the core of the contract management function of the NTA in tracking kilometres operated and punctuality by operator by route.

In 2021, the NTA commenced a public procurement competition to appoint a single supplier of a modern system to replace the variety of systems currently in place with a single integrated arrangement. This procurement process was further advanced during 2022 with the intention of receiving final tenders in mid-2023 and appointing a contractor shortly thereafter to design and install the new system.



## Integration and Support Projects and Services | €12.4m in 2022

The NTA undertakes a vast array of activities in support of its significant portfolio of capital projects and programmes. These services and projects include, but are not limited to:

1. Transport Modelling
2. Governance and Assurance
3. Consolidated Contact Centre
4. Strategy Development

### **TRANSPORT MODELLING**

To support transport investment and informed decision making by providing the best possible representation of travel demand and patterns throughout Ireland. In 2022, extensive modelling was undertaken to support projects and initiatives including the Metrolink, BusConnects, Climate Action Plan, Regional Cities Cost of Congestion, Greater Dublin Area Transport Strategy, Limerick Shannon Metropolitan Area Transport Strategy, Cork Metropolitan Area Transport Strategy, Waterford Metropolitan Area Transport Strategy, Cork Area Commuter Rail Programme, Cork Light Rail Transit Scheme, DART+ Programme (various projects), Galway Cross City Link and Luas Finglas. In addition, the NTA Regional Models were used to support the EPA and relevant local authorities in meeting their EU obligations for noise and air quality mapping.



### **GOVERNANCE AND ASSURANCE**

In addition to robust internal processes and structures, the governance of the NTA's Capital Programme is also supported by extensive external oversight including by the Department of Transport, Major Projects Governance Oversight Group and Major Projects Advisory Group. Additionally, external reviews are also leveraged to provide independent scrutiny and assurance over the programme. To build upon an existing robust system of internal control, in 2022, significant work was undertaken to further enhance various facets of governance and assurance. Examples include further work to progress the governance arrangements for major programmes, systems development to support effective financial management of the NTA's portfolio, various project and programme assurance reviews, and independent external expert reviews of key deliverables for various major projects and programmes.



### **CONSOLIDATED CONTACT CENTRE**

As part of its customer contact strategy, the NTA plans to implement a Consolidated Contact Centre under the TFI brand. The Consolidated Contact Centre will be the primary customer service contact point for services provided by the transport operators, as well as for certain ticketing service providers and ticketing offerings controlled by the NTA. During 2022, the procurement process was further advanced with an invitation to submit final tenders issued to the participating vendors prior to year-end.



### **STRATEGY DEVELOPMENT**

The NTA has responsibility for the development and delivery of strategic transport plans to contribute to economic, social and cultural progress by providing for the efficient, effective and sustainable movement of people and goods. Within the GDA, the NTA has a statutory role in relation to planning under the Planning and Development Act 2000 (as amended), to ensure that new Local Area Plans and County Development Plans are in line with the overall NTA Transport Strategy.

The NTA also has a statutory planning role, nationally, in relation to the development of Regional Spatial and Economic Strategies, which must demonstrate consistency with the policies of the NTA in relation to the effective integration of transport and land use planning. In 2022, significant progress was made on the development of transport strategies nationally including the publication of transport strategies for the Greater Dublin Area, Limerick/Shannon metropolitan area and Waterford metropolitan area. Supporting these metropolitan strategies, transport plans for other towns are being developed by local authorities across Ireland, with funding and support being provided by the NTA.



### Greater Dublin Area

The draft Greater Dublin Area Transport Strategy 2022-2042 was submitted to the Minister for Transport in May 2022, providing for the development of BusConnects, DART+, MetroLink, various other rail projects plus the Cycle Network Plan, in addition to a range of

other transport initiatives. It is anticipated that the strategy will be approved in 2023.

### Cork Metropolitan Area

As part of the implementation of the Cork Metropolitan Area Transport Strategy (CMATS), further progress was made on a number of projects during 2022. These included the Cork BusConnects Infrastructure and Network Redesign projects, Cork Light Rail, Cork Commuter Rail Programme and various projects funded under the Active Travel Programme. The NTA also continued its engagement with the Cork Area Strategic Plan (CASP) Group.



### Limerick Metropolitan Area

A Revised Draft Limerick Shannon Metropolitan Area Transport Strategy (LSMATS) was published for a second round of public consultation in April 2022. 89 submissions were received and the LSMATS was finalised and published in December.

### Galway Metropolitan Area

The Authority continued to work with Galway City Council on the implementation of the objectives set out in the Galway Transport Strategy (GTS). Following a decision to review the GTS, tenders were issued for the preparation of a Galway Metropolitan Area Transport Strategy (GMATS) in 2022, with work to commence during 2023 and a Draft GMATS scheduled for publication in Q4 2023.

### Waterford Metropolitan Area

All major stages of the Waterford Metropolitan Area Transport Strategy (WMATS) were effectively completed during 2022, namely the publication of the Draft WMATS; public consultation; revisions; and the publication of the final report. 70 submissions were received during the public consultation and a number of changes were made prior to the finalisation of the Transport Strategy.

### Other Areas

The NTA worked with numerous local authorities around the country on the preparation of Local Transport Plans (LTP), with funding provided for LTPs across 20 different locations. These are being undertaken based on the Area Based Transport Assessment (ABTA) methodology developed by the NTA and TII.

# APPENDICES





## Section 1 Appendices - Active Travel Investment

### Appendix 1: Breakdown by Scale of Project

	Band 1		Band 2		Band 3		
	<€500k		>€500k<€10m		>€10m		Total
	No:	%	No:	%	No:	%	
Dublin City Council	8	13%	38	60%	17	27%	63
South Dublin County Council	4	19%	12	57%	5	24%	21
Dun Laoghaire Rathdown County Council	7	15%	35	76%	4	9%	46
Fingal County Council	2	8%	17	68%	6	24%	25
Wicklow County Council	22	48%	24	52%	0	0%	46
Kildare County Council	4	14%	25	86%	0	0%	29
Meath County Council	8	24%	23	70%	2	6%	33
Cork City Council	10	15%	51	78%	4	6%	65
Cork County Council	2	7%	26	87%	2	7%	30
Limerick City and County Council	9	20%	35	78%	1	2%	45
Waterford City and County Council	8	36%	9	41%	5	23%	22
Galway City Council	2	8%	21	84%	2	8%	25
Galway County Council	6	23%	20	77%	0	0%	26
Carlow County Council	18	75%	6	25%	0	0%	24
Cavan County Council	27	93%	2	7%	0	0%	29

	Band 1		Band 2		Band 3		
	<€500k		>€500k<€10m		>€10m		Total
	No:	%	No:	%	No:	%	
Clare County Council	19	73%	7	27%	0	0%	26
Donegal County Council	22	79%	6	21%	0	0%	28
Kerry County Council	5	38%	8	62%	0	0%	13
Kilkenny County Council	15	56%	12	44%	0	0%	27
Laois County Council	10	77%	3	23%	0	0%	13
Leitrim County Council	14	100%	0	0%	0	0%	14
Longford County Council	15	94%	1	6%	0	0%	16
Louth County Council	5	29%	9	53%	3	18%	17
Mayo County Council	30	83%	6	17%	0	0%	36
Monaghan County Council	16	64%	9	36%	0	0%	25
Offaly County Council	8	53%	7	47%	0	0%	15
Roscommon County Council	17	100%	0	0%	0	0%	17
Sligo County Council	8	47%	9	53%	0	0%	17
Tipperary County Council	21	57%	16	43%	0	0%	37
Westmeath County Council	6	75%	2	25%	0	0%	8
Wexford County Council	12	60%	8	40%	0	0%	20
Galway University Hospitals	1	100%	0	0%	0	0%	1

	Band 1		Band 2		Band 3		Total
	<€500k		>€500k<€10m		>€10m		
	No:	%	No:	%	No:	%	
Iarnród Éireann	0	0%	0	0%	1	100%	1
National Transport Authority	0	0%	8	100%	0	0%	8
St James Hospital	1	100%	0	0%	0	0%	1
Trinity College Dublin	1	100%	0	0%	0	0%	1
University College Dublin	3	100%	0	0%	0	0%	3
<b>Grand Total</b>	<b>366</b>	<b>42%</b>	<b>455</b>	<b>52%</b>	<b>52</b>	<b>6%</b>	<b>873</b>

Table 14: Project Size per Local Authority



## Appendix 2: Infrastructure delivered by Local Authority

The following tables show the type of infrastructure delivered by each Local Authority.

	Shared Use Ped Cycle Path (km)	Urban Greenway / Traffic Free Link (km)	Segregated Cycle Track (km)	Quietway - Signed cycle routes on low-trafficked and low speed roads	New Cycle Lane (km)	Pedestrianised Street/New Footpath/ Footpath Upgrade or Improvement (km)	Bus Lane (km)	Traffic Calming (km)
Dublin City Council	0.0	0.0	7.1	0.0	0.0	18.5	0.3	0.0
South Dublin County Council	1.9	2.4	1.9	0.0	0.0	3.6	0.0	1.4
Dun Laoghaire Rathdown County Council	0.0	7.0	5.6	5.3	0.0	4.0	0.0	2.2
Fingal County Council	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Wicklow County Council	0.1	0.0	0.0	0.0	0.0	5.3	0.0	0.0
Kildare County Council	1.3	0	2.1	0	0	4.8	0	2.1
Meath County Council	0.1	0	0.4	0	0	2.2	0	0
Cork City Council	0.8	4.7	0.1	0	0	3.5	0	0
Limerick City and County Council	1.3	0	5.0	0	0.3	26.1	0	0
Waterford City and County Council	3.8	0	1.0	0	0.7	2.7	0	4.4
Galway City Council	0	0	0	0	0	1.4	0	0
Cork County Council	0.6	0	1.5	0	0	15.4	0.5	0.7
Carlow County Council	0.6	0	0.8	0	0.1	1.9	0	0
Cavan County Council	0	0.1	0	0	0	2.0	0	0
Clare County Council	1.5	0	0	0	0	9.0	0	0

	Shared Use Ped Cycle Path (km)	Urban Greenway / Traffic Free Link (km)	Segregated Cycle Track (km)	Quietway - Signed cycle routes on low-trafficked and low speed roads	New Cycle Lane (km)	Pedestrianised Street/New Footpath/Footpath Upgrade or Improvement (km)	Bus Lane (km)	Traffic Calming (km)
Donegal County Council	0.3	0	0	0	0	8.3	0	0
Galway County Council	0	0	0	0	0.1	6.9	0	0
Kerry County Council	0	0	0	0	0	0	0	0
Kilkenny County Council	0.2	0	0.2	0	0.3	1.8	0	0
Laois County Council	0	0.4	0	0	0	2.7	0	0
Leitrim County Council	0	0	0	0	0	3.5	0	0
Louth County Council	0	0	0.7	0	0	0.8	0	0
Longford County Council	0.6	0.1	0.3	0	0	0.4	0	0
Mayo County Council	1.3	0	0.3	0	1.6	5.4	0	0
Monaghan County Council	0	0	0	0	0	0.6	0	0
Offaly County Council	0.3	0	0.5	0	0.6	0.3	0	0
Roscommon County Council	0	0	1.0	0	0	3.5	0	0
Sligo County Council	0	0	0	0	0	1.9	0	0
Tipperary County Council	2.2	0	0	0	0	13.4	0	0
Westmeath County Council	0	1.4	0	0	0	0.1	0	0
Wexford County Council	0	0	0.2	0	0	3.6	0	0

Table 15: Route infrastructure delivered by Local Authority

	Bus Stop (no.)	Junction Treated (no.)	Cycle Parking (no. of racks)	Pedestrian Crossing (no.)	Bridge (no.)	Cycle Lane Resurface (km)	Bus Lane Resurface (km)	School Zone(no.)	Modal Filter(no.)
Dublin City Council	656	23	330	4	0	2	6	3	0
South Dublin County Council	8	27	18	3	0	0	0	2	0
Dun Laoghaire Rathdown County Council	12	27	350	11	0	2	0	1	5
Fingal County Council	0	1	1089	6	0	16	0	1	0
Wicklow County Council	2	3	20	9	0	0	0	0	0
Kildare County Council	2	19	30	29	0	0	0	2	0
Meath County Council	9	5	24	4	0	0	0	0	0
Cork City Council	14	16	188	12	0	0	6	1	0
Limerick City and County Council	5	2	199	14	0	0	0	0	0
Waterford City and County Council	8	31	0	18	0	1	0	8	0
Galway City Council	0	0	35	2	0	0	0	0	1
Cork County Council	18	7	58	44	0	0	0	0	0
Carlow County Council	0	4	18	0	0	0	0	0	0
Cavan County Council	0	6	0	6	0	0	0	0	0
Clare County Council	0	8	0	13	0	0	0	1	0
Donegal County Council	6	16	200	19	0	0	0	0	0
Galway County Council	0	0	0	16	0	0	0	0	0



	Bus Stop (no.)	Junction Treated (no.)	Cycle Parking (no. of racks)	Pedestrian Crossing (no.)	Bridge (no.)	Cycle Lane Resurface (km)	Bus Lane Resurface (km)	School Zone(no.)	Modal Filter(no.)
Kerry County Council	0	0	18	0	0	0	0	0	0
Kilkenny County Council	0	2	68	3	0	0	0	1	0
Laois County Council	0	7	0	1	0	0	0	0	0
Leitrim County Council	0	2	0	3	0	0	0	0	0
Louth County Council	0	0	0	0	0	0	0	0	0
Longford County Council	0	2	0	1	0	0	0	0	0
Mayo County Council	0	7	10	6	1	0	0	0	0
Monaghan County Council	0	0	0	1	0	0	0	0	0
Offaly County Council	0	2	0	0	0	0	0	0	0
Roscommon County Council	0	9	0	1	0	0	0	1	0
Sligo County Council	0	4	0	0	0	0	0	0	0
Tipperary County Council	0	0	10	29	0	0	0	1	0
Westmeath County Council	0	2	220	0	0	0	0	0	0
Wexford County Council	1	5	1	1	0	0	0	1	0


**Table 16:** Other Infrastructure by Local Authority

## Section 2 Appendices - Public Transport Investment



### Heavy Rail Safety & Development

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Dart+ Programme</b>	<p>The DART+ Programme is a transformative programme of projects which aims to modernise and improve existing rail services in the Greater Dublin Area (GDA). It will provide a sustainable, reliable and more frequent rail service improving capacity on the rail corridors serving Dublin.</p> <p>As part of the electrification of the commuter rail network serving Dublin, a single fleet manufacturer has been appointed for the provision of both fully electric multiple unit (EMU) and battery electric multiple unit (BEMU) rail fleet for the expanded DART network. Two orders have been placed under this framework contract for the delivery of a total of 185 carriages, with work on those orders now well advanced in the design phase. IÉ also progressed with Public Consultations and continued with the planning and design of all elements of the DART+ Programme. A Railway Order for the DART+ West project serving Maynooth was submitted to An Bord Pleanála on 29th July 2022.</p>	<p><b>Phase 3</b> - Preliminary design</p> <p><b>Phase 6</b> - Construction and Implementation (DART+ Fleet)"</p>	€106.2m
<b>41 Intercity Railcars (ICR's) Purchase</b>	<p>The objective of the project is to provide additional capacity on existing rail services on various rail lines. It includes the purchase of additional carriages to expand the existing peak period commuter rail service.</p> <p>IÉ completed the construction of the new vehicles and delivery of same commenced within 2022.</p>	<b>Phase 6</b> - Construction and Implementation	€42.0m
<b>National Train Control Centre</b>	<p>The aim of the new National Train Control Centre (NTCC) is to provide a modern, safe, efficient train control system that can effectively meet the current network needs and the significant growth in services which are planned over the next two decades; and facility for other co-located control centres, specifically An Garda Síochána Traffic Control Centre and a Regional Traffic Control Centre.</p> <p>IÉ completed the construction of the NTCC Building and progressed with the final design for the traffic management system (TMS).</p>	<b>Phase 6</b> - Construction and Implementation	€23.4m

 <b>Heavy Rail Safety &amp; Development</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Train Protection System – Drogheda to Greystones</b>	<p>The overall objective of the Train Protection System (TPS) project - Phase 1 is to deploy an European Train Control System (ETCS) Level 1 TPS on the Drogheda to Greystones (including the Howth branch) coastal route to support the commissioning of new trains as part of the new DART fleet project. This will involve the design, installation, testing and commissioning of TPS equipment on this coastal route which will be used by the new rolling stock that will be delivered as part of the new DART Fleet project. These areas are referred to as the Drogheda to Greystones Railway, or D2G Project. The project will conclude upon the submission of the Approval to Place In Service (APIS) 5 Application ‘Interim Operation’ to the Commission for Rail Regulation (CRR).</p> <p>IE progressed with the trackside installation works for work packages: DG1 - Howth Branch, DG2 - Malahide to East Wall Junction, DG4 - Malahide to Drogheda, and DG5 - Sandymount to Greystones. IE issued tenders for trackside installation works for DG6 - North Ireland Border to Drogheda. Onboard Works progressing with Detail Design.</p>	<b>Phase 6</b> - Construction & Implementation	€15.3m
<b>Cork Area Commuter Rail</b>	<p>The Cork Area Commuter Rail (CACR) Programme involves the development of, and enhancements to the rail network over approximately 62 kilometres from Mallow through Cork to Cobh and Middleton. This will include electrification and re-signalling across the three main routes along with the provision of through running services at Cork Kent Station.</p> <p>IE issued the tenders for the construction of a new Kent Station Through Platform and for design and installation of the signalling works. A Railway Order Application was also lodged for the double tracking of the Glounthaune to Middleton.</p>	<b>Phase 1</b> - Scope and purpose  Phase 3, 4 and 5 for work packages 1, 2 and 3	€7.6m




**Heavy Rail Safety & Development**


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Colbert Station - Transport Interchange Limerick</b>	<p>The Colbert Station Interchange is no longer fit for purpose to meet its current demand, with many operational and customer experience challenges facing the existing station interchange. These include limited operational capacity and resilience, poor operational efficiency, and poor customer facilities such as toilets, disabled access, and surveillance.</p> <p>A Final Business Case was prepared and approved in compliance with the Public Spending Code. IÉ issued construction tenders and evaluated bidder's returns. The construction contract was awarded and the construction works commenced during 2022.</p>	<b>Phase 6</b> - Construction and Implementation	€7.3m
<b>Railway Station Renewals</b>	<p>The Railway Station Renewals project addresses the historic underfunding of Buildings &amp; Facilities assets throughout the railway network, contributing to degraded station asset conditions.</p> <p>The repair and painting programme for 73 operational stations was completed in 2022, including full station painting at 28 stations and phased painting at larger stations Heuston &amp; Connolly.</p> <p>In 2022, the Railway Station Renewals programme also expanded to cover 123 stations' selected building/structure elements to be painted, repaired, or renewed. The project will deliver a sustainable graffiti reduction program by providing Station Murals at selected known hot spot reoccurring Graffiti locations. This work commenced in 2022 and works are to be progressed in 2023.</p>	<p><b>Phase 6</b> - Construction &amp; Implementation 2022 works)</p> <p><b>Phase 5</b> - Detailed Design &amp; Procurement (works to be completed in 2023)"</p>	€7.2m
<b>Woodbrook DART Station</b>	<p>The project consists of the construction of a new passenger train station in the Woodbrook-Shanganagh area of Dublin, which will cater for DART services.</p> <p>IÉ produced a preliminary business case for the project and continued the production of the stations detailed design. Enabling works to the site also commenced in 2022.</p>	<b>Phase 5</b> - Detailed Design & Procurement	€4.1m

 <b>Heavy Rail Safety &amp; Development</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Lifts &amp; Escalator Renewal Works</b>	<p>The investment in lift and escalator renewal works is part of the IÉ “Big Lift” project. It comprises the upgrade or replacement of lifts, escalators and systems to improve reliability and performance of existing facilities for persons with reduced mobility.</p> <p>IÉ completed the upgrade and renewal of 10 lifts, 2 escalators and 10 lift control systems in 2022.</p>	<b>Phase 6</b> - Construction and Implementation	€3.6m
<b>Rail Infrastructure coastal works at Rosslare, Bray head and Killiney</b>	<p>The rail infrastructure coastal works at Rosslare Wexford, Bray Head Wicklow and Killiney Dublin involve the continuation of interim coastal repair works south of Rosslare Strand, Bray Head and Killiney and adjacent to the railway.</p> <p>In 2022, IÉ progressed with necessary emergency works in Rosslare.</p>	<b>Phase 6</b> - Construction and Implementation	€1.9m
<b>Ceannt Station Redevelopment Galway</b>	<p>This project involves the construction of the station roof; southern façade and entrance; building works; tracks and platforms at Ceannt Station, Galway.</p> <p>During 2022, the preliminary business case for the project was approved and tenders were sought for the main construction contract. Enabling works for the project also commenced on-site in 2022.</p>	<b>Phase 5</b> - Detailed Design and Procurement	€1.7m
<b>Railway Station signage and wayfinding programme</b>	<p>The signage and wayfinding programme will replace non-compliant, inadequate, and deteriorated station signage, enabling passengers to more easily identify and navigate the stations.</p> <p>38 Dart &amp; Maynooth line stations were resigned by IÉ in 2022. IÉ also commenced preliminary design of new station signage on the Mainline, Cork, Kerry and Northern District Railway lines in accordance with Irish Rails Wayfinding Guidelines and Specification.</p>	<b>Phase 6</b> - Construction & Implementation (2022 Works)  <b>Phase 3</b> - Preliminary Design (new stations)	€1.7m


**Heavy Rail Safety & Development**


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Heuston Station toilets redevelopment</b>	<p>This project consists of modernising and increasing the number of Heuston Station's current passenger toilets, providing an accessible changing room and a designated accessible toilet off the station concourse level.</p> <p>The new toilets were operational in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€1.6m
<b>Passenger Information Display Screens for Heuston, Connolly and Cork-Kent Stations</b>	<p>The proposed works are part of Iarnród Éireann's (IÉ) Customer Information System (CIS) Strategy. The strategy includes a ten-year programme of investment in technology infrastructure and services to enhance customer experience when using public transport. The objectives of this project are to design, install and commission upgraded passenger information display screens (PIDS) in three key locations on the IÉ network, namely Heuston, Connolly and Kent Stations. The new PIDS will replace the existing main 'Solaris' information boards at all three stations.</p> <p>IÉ progressed with the Passenger Information Display Screens installation works for Heuston, Connolly and Cork-Kent. Works were complete during 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€1.6m
<b>Passenger Information System (PIS) Upgrade for DART EMU Class 8500/8510/8520</b>	<p>The DART fleet currently consists of 144 Electrical Motive Units (EMU) carriages. A total of 68 carriages (47% of the fleet) are fitted with obsolete and inoperative Passenger Information Systems (PIS). These are the 8500, 8510 and 8520 EMU classes of carriages which were procured by IÉ from 2000-2004.</p> <p>IÉ progressed with the installations of the PIS upgrades to the 68 carriages, with near completion of the 8510 series in 2022.</p>	<p><b>Combined phases:</b> Phase 4 - Analyse &amp; Design and</p> <p><b>Phase 5</b> - Build &amp; Test."</p>	€1.3m
<b>East Coastal Railway Infrastructure Protection Projects</b>	<p>The East Coastal Infrastructure Protection Programme (CIPP) involves the identification and implementation of infrastructural protection strategies for Irish Rail Infrastructure on the East Coast of Ireland. The primary area of concern extends from Dublin to Rosslare. This route consists of 168km of railway of which, 77km are adjacent to the coastline</p> <p>In 2022, IÉ appointed a Multi-Disciplinary Design Team to undertake the option selection study, the design and the economic and financial analysis of the works.</p>	<b>Phase 2</b> - Concept Development & Option Selection	€1.3m



 <b>Heavy Rail Safety &amp; Development</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Station heating renewals programme</b>	<p>This project involves the replacement and upgrade of life expired heating systems providing welfare services to booking offices, public waiting rooms and public toilets.</p> <p>601 panels heaters were replaced in 2022 and new hot water heating systems were installed at 8 stations on the network.</p>	<b>Phase 6</b> - Construction & Implementation	€1.2m
<b>Upgrade of Fire &amp; Voice Alarm Systems</b>	<p>This project involved the installation of a new Public Address Voice Alarm (PAVA) evacuation system at Connolly Station to serve the public areas of the building. It also involved the upgrade and replacement of the Voice Alarm (VA) using existing speakers and cabling at Pearse station.</p> <p>IÉ designed and delivered these works in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€1.0m
<b>External Vinyl Covering of 29000 Class DMU Fleet</b>	<p>This project involves the use of a vinyl wrap film system to cover the external bodywork with the new colour scheme livery on the 29000-class diesel multiple units. The vinyl wrap is a combination of adhesive film and anti-graffiti overlamine and would be a direct alternative to the current method of spray painting, as the proposed system will have greater durability to external elements including corrosion, impacts and vandalism.</p> <p>IÉ completed the installation works during 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.9m
<b>LED Lighting Programme</b>	<p>The LED Lighting Programme involves the renewal of LED lighting in all areas that provide step-free access in train stations across the IÉ network. This will see the renewal of existing luminaires located on lift shaft entrances, over track bridges and stairs.</p> <p>Renewal works were undertaken at 8 stations in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.8m


**Heavy Rail Safety & Development**


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Mark IV Rolling Stock - CCTV Upgrade</b>	<p>The objective is to supply a quality replacement CCTV system including cameras, recorders and associated equipment in compliance with all relevant standards for use on and with IÉ passenger rolling stock, and for the system to interface correctly with the MKIV fleet.</p> <p>In 2022, IÉ completed Train set 1 which is in operation. Train set 2 commenced its installation of CCTV, expected to be completed early 2023.</p>	<p><b>Combined phases:</b> Phase 4 - Analyse &amp; Design and</p> <p><b>Phase 5</b> - Build &amp; Test.</p>	€0.7m
<b>Railway Station Roof Renewals</b>	<p>This project consists of executing repairs and renewals at six station roofing locations.</p> <p>Sligo Station trusses and the dismantling of the Victorian cast iron structure at the Howth Platform Heritage canopy were completed by IÉ in 2022.</p>	<b>Phase 4 -</b> Statutory Processes	€0.7m
<b>Boring Machine replacement</b>	<p>The objective of the project is the supply and installation of a new wheel boring machine in the Wheel Shop at Inchicore. The Wheel Shop overhauls and produces all the wheelsets and final drives for all the IÉ fleets. This is the only facility in the country set up and capable of doing this work. The current boring machine has been operational for over 20 years. In recent years the machine has had some major breakdowns that caused production of wheels to cease. The new boring machine will be of modern design. It will improve process efficiency and reliability, by eliminating the need for many of the manual measurements that the operator has to complete. It will remove the current single point failure in the wheel boring process.</p> <p>IÉ completed the installation works during 2022.</p>	<b>Phase 6 -</b> Construction & Implementation	€0.7m

 <b>Heavy Rail Safety &amp; Development</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Limerick Rail Upgrade Programme</b>	<p>The programme comprises of a number of projects including double tracking of the line between Limerick Junction and Colbert stations, a new railway station at Moyross and work on the Foynes line.</p> <p>During 2022 work progressed on each of these schemes – optioneering and preliminary design work is ongoing on the double-tracking project and the Moyross Station scheme, with the Department of Transport providing funding directly to IÉ in respect of the Foynes freight line.</p>	<b>Phase 2</b> - Concept Development & Option Selection	€0.6m
<b>Railway Stations surfacing renewals</b>	<p>The Railway Station surfacing renewals programme will address concourse, platform, car park and approach road surfaces degraded asset conditions at 12 station locations.</p> <p>8 locations were completed by IÉ in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.6m
<b>Crane upgrade</b>	<p>The objective of the project is the supply and installation of three new cranes within the Bogie Shop at Inchicore. The Bogie Shop at Inchicore overhauls and produces bogies for all the Irishrail passenger fleets. The current cranes in the Bogie Shop have been in service since 1935. The motors on these cranes are in poor condition and are life expired. Given the age of the existing cranes, the motors and other parts are no longer available to purchase. The proposed new cranes are required to replace life expired assets, improve workshop safety, and facilitate increased production rates of 300+ Bogies.</p> <p>IÉ completed the installation works during 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.6m




**Heavy Rail Safety & Development**


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>2003 Security - End of Life</b>	<p>The objective of the Hardware and Software Asset End-of-Life (“EOL”) Refresh Project is to perform a refresh of EOL infrastructure to ensure that all system components, especially those that are running critical services, are brought up-to-date with sufficient level of support from the vendor.</p> <p>IÉ successfully replaced and/or upgraded End-of-Life ICT products in 2022 such as 899 workstation replacements and 364 workstation upgrades; 35 server replacements; network switch configurations; and the renewal of associated software and licences.</p>	<p><b>Combined phases:</b>  <b>Phase 5</b>            - Build &amp; Test;</p> <p><b>Phase 6</b>            - Deploy /Rollout and</p> <p><b>Phase 7</b>            - Handover BAU</p>	€0.5m
<b>Lift Passenger Call Programme</b>	<p>This project is for the continued roll out of lift passenger call and CCTV systems across the IÉ network in order to address anti-social behaviour events.</p> <p>These systems were installed at 13 locations in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.5m
<b>Auto door renewals programme</b>	<p>The overall objective of this project is the renewal of automatic door systems at various locations across the IÉ network in order to improve the overall safety and passenger experience of the stations.</p> <p>Renewal works were completed at 53 doors in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.4m
<b>Oranmore Station Enhancements</b>	<p>This project is to deliver a passing loop and second platform at Oranmore Station along with associated infrastructure.</p> <p>Site surveys were completed and a multi-disciplinary design team was appointed to progress the design of the project in 2022.</p>	<b>Phase 2</b> - Concept Development & Option Selection	€0.3m

 <b>Heavy Rail Safety &amp; Development</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Railway station renewal and upgrade program</b>	<p>The station renewal and upgrade programme includes painting works and station passenger furniture upgrade. The station painting programme initiated in 2020 includes up to 22 operational station locations with deteriorated painting elements and associated minor repairs/part renewal.</p> <p>Outstanding seat delivery and installation commenced in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.3m
<b>Real Time Passenger Information (RTPI)</b>	<p>This is a foundational project for improving the provision of real time service information for rail services. Using more modern on-board equipment and the latest data management tools, the project will include the delivery of occupancy information and real time train location information, improved arrival time calculations and a vastly more reliable IT infrastructure.</p> <p>During 2022, procurement commenced for a GPS location solution for deployment on the ICR fleet (22000's). Options analysis was undertaken in relation to occupancy detection systems.</p>	<b>Phase 2</b> - Concept Development & Option Selection	€0.2m
<b>Multimodal Interchange</b>	<p>With the focus of encouraging further modal shift to public transport, recognising the evolving way in which the public is accessing and interchanging between transport modes at stations, this project will undertake a study to develop a design standard for developing stations for multimodal interchange and a strategy for its application across the Iarnród Éireann network of stations. "Mobility hubs" create space designed specifically to house public and shared mobility modes (the primary modes are listed below), improving interchange between all modes involved while enhancing the public realm for local residents and businesses as well as transport users.</p>	<b>Phase 1</b> - Scope and Purpose	€0.2m


**Heavy Rail Safety & Development**


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Kishoge Station Opening</b>	<p>The scope of this project is to cost effectively open Kishoge station to passenger service utilising the existing station building &amp; platforms based on the current track and platform configuration and operational needs.</p> <p>In 2022 IÉ completed surveys and the detailed design of works required to bring the station into service. The main works contract was tendered in December.</p>	<b>Phase 5</b> - Detailed Design and Procurement	€0.2m
<b>Railway Station furniture and bike parking</b>	<p>The Station Furniture and Bicycle Facilities Programme covers the provision of target quantities for each category of station furniture for all stations.</p> <p>A contract was awarded in December 2022 for 10 Passenger Platform Shelters.</p>	<b>Phase 5</b> - Detailed Design & Procurement	€0.2m
<b>DART Platform Accessibility</b>	<p>This project aims to prevent the increase of, or reduce, ramp usage on the DART network (existing and proposed). The project will initially define ‘the problem’ in line with the RM (Persons with Reduced Mobility) TSI (Technical Specification for Interoperability) and then subsequently define the project objectives via consultation with key stakeholders, including the NTA. This will be presented as a Strategy. The scope, cost and programme will be presented in the Implementation Plan, after the Feasibility Study has been completed to advise accordingly.</p>	<b>Phase 1</b> - Scope and Purpose	€0.0m
<b>Other Technology Projects</b>	<p>Other technology projects were progressed in 2022 including Cyber Security Enhancements, Ticket Transaction Data, Ticket Vending Machines (TVMs) replacements, Revenue Equipment Upgrade, Revenue Protection Unit - Back Office, IÉ Website Development and others.</p>	N/A	€1.3m



 <b>Heavy Rail Safety &amp; Development</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Other Heavy Rail Projects</b>	<p>Other projects had small payments in 2022 to close out the accounts which have now been completed such as Railway Station at Pelletstown, Ad Blue Infrastructure, Limerick Fuel Slab, Galway – Capacity Study, City Centre Re-signalling, Pearse station roof renewal and others.</p> <p>Other new projects have also commenced in 2022 and are at early stages of planning and design such as DART Operational Capacity Enhancement Project, Clongriffin Railway Station vandalism retrofit, Station Customer Service Systems Enabling Works, Railway station passenger waiting room and toilet upgrades, Customer Communication Centre and Connolly Depot Refurbishment.</p>	N/A	€1.0m
<b>NTA Heavy Rail Support Costs</b>	<p>This is internal NTA support spend on the Heavy Rail investment programme including for the undertaking of independent reviews of the Public Spending Code deliverables and Feasibility Studies.</p>	N/A	€0.1m
			€240.6m

## Bus Programme


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>BusConnects Dublin</b>	<p>BusConnects Dublin is a major investment programme to overhaul the current bus system in Dublin through a programme of integrated actions to deliver a more efficient, reliable and better bus system for more people.</p> <p>Some of the key elements progressed during 2022 included:</p> <ul style="list-style-type: none"> <li>• Preliminary Business Case approved by Government;</li> <li>• Six planning consent applications were submitted to An Bord Pleanála;</li> <li>• Two phases of the new bus network were implemented – northern orbitals and Spine G;</li> <li>• 23 double deck hybrid urban buses entered into service with Dublin Bus;</li> <li>• Order for 100 double-deck electric buses placed and in manufacture with 34 single deck electric buses also on order;</li> <li>• Works undertaken at approximately 540 stops to transition to new style of bus stop; and</li> <li>• Tender process commenced for Next Generation Ticketing system.</li> </ul>	<p><b>Phase 4</b> - Statutory Processes</p> <p><b>Phase 5</b> - Detailed Design and Procurement</p> <p><b>Phase 6</b> - Construction &amp; Implementation</p>	€83.3m
<b>Red Cow Bus Interchange</b>	<p>The Red Cow Bus Interchange Programme consists of the redevelopment of the current bus interchange facilities at Red Cow Luas Park &amp; Ride car park, which will improve accessibility, capacity and the levels of service on the overall public transport system as part of BusConnects Dublin Programme.</p> <p>During 2022 a temporary interchange was built to facilitate the launch of the high frequency G-Spine on October 2022, while design and planning of the permanent facility was being progressed.</p>	<b>Phase 4</b> - Statutory Process	€2.3m

 <b>Bus Programme</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>BusConnects Cork</b>	<p>BusConnects Cork is a programme to fundamentally transform Cork's bus system, so that bus commuting will become a viable and attractive choice for employees, students, shoppers and visitors.</p> <p>During 2022, the new bus service network was finalised and published. Proposals for twelve Sustainable Transport Corridors were published for public consultation between June and October. Design development work continued taking account of the feedback received during the consultation process.</p>	<p><b>Phase 2</b> - Concept Development &amp; Option Selection (Sustainable Transport Corridors)</p> <p><b>Phase 6</b> - Construction and Implementation (Bus Network)</p>	€1.8m
<b>BusConnects Galway</b>	<p>The BusConnects Galway Dublin Road Transport Corridor aims to deliver a high degree of bus priority and an improved walking and cycling environment along the route.</p> <p>A multi-disciplinary design team was appointed to the Dublin Road Scheme in mid-2022, allowing work to continue on completing the option selection stage of the project. Work was completed on preparing material for a further round of public consultation in early 2023.</p>	<b>Phase 2</b> - Concept Development & Option Selection	€0.1m
<b>Bus Fleet Programme</b>	<p>The main areas for fleet acquisition include the new buses to renew and expand the fleet operating within the Dublin Metropolitan Area (BusConnects Dublin Fleet), within the Regional Cities (BusConnects Urban Non-DMA Fleet), other town services (Non-City Urban Buses Fleet) and regional and commuter services that use coach-type fleet (Non-Urban Fleet). The fleet acquisition for the Dublin Metropolitan Area (DMA) is reported as part of the BusConnects Dublin Programme.</p> <p>In 2022, 1 double deck hybrid urban bus was supplied to Bus Éireann (BÉ) for BusConnects Urban Non-DMA Fleet; 11 single deck long length electric buses were supplied to BÉ for Non-City Urban Buses Fleet; 5 single deck regional commuter vehicles and 10 double deck regional commuter vehicles destined for BÉ as Non-Urban Fleet; and 6 single deck regional commuter vehicles and 20 double deck regional commuter vehicles destined for East Coast Commuter as Non-Urban Fleet.</p>	<b>Phase 6</b> - Construction & Implementation	€33.5m



 **Bus Programme**

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Bus Roadside Facilities (Bus Shelters &amp; Bus Stops)</b>	<p>Bus Roadside facilities includes the maintenance and repair of existing bus shelters and the provision of new bus shelters on bus routes throughout the State and the provision of improved customer information at bus stops.</p> <p>During 2022, the NTA installed 127 standard bus shelters nationwide. Also, during 2022, the NTA commenced a body of work to install and enhance illumination at bus shelters to achieve a consistent and satisfactory lighting level in all bus shelters. The aim is to achieve as close as possible to 100% illumination across the entire NTA stock of shelters. By the end of 2022 approximately 425 out of identified 896 shelter locations had solar panels fitted to illuminate the courtesy lights.</p>	<b>Phase 6</b> - Construction & Implementation	€5.9m
<b>Dublin Bus Fleet Refurbishment</b>	<p>In order to ensure the continued operation of older buses within the bus fleet it is necessary to undertake refurbishment of various components of the bus fleet.</p> <p>During 2022, refurbishment of 78 buses first registered in 2015 was completed and repainting in the new livery was undertaken in line with the 4 year repainting programme for buses.</p>	<b>Phase 6</b> - Construction & Implementation	€3.5m
<b>Depots</b>	<p>In order to support the transition to a zero-emission fleet, progress continues to be made with regards to the electrification of the existing Dublin Bus Depots. For example, at the Summerhill and Phibsboro depot enabling construction works commenced and a procurement process for the purchase and installation of electric vehicle charging infrastructure for these depots concluded. It is anticipated that charging infrastructure will be available for use by Dublin Bus at these depots during 2023. Planning and design work for the electrification of other Dublin Bus depots also continued in 2022.</p>	<p><b>Phase 5</b> - Detailed Design &amp; Procurement and</p> <p><b>Phase 6</b> - Construction &amp; Implementation</p>	€3.1m

 <b>Bus Programme</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Athlone Town Service Electrification Project</b>	<p>The Athlone's town bus service will be Ireland's first all-electric bus service. Significant progress was made by Bus Éireann with regards to the Athlone Town Service Electrification project during 2022. Of particular note was progress in relation to the reconfiguration of Bus Éireann's Athlone depot, the installation of chargers and an electricity substation to supply power to the new fleet and a comprehensive driver and mechanic training programme.</p> <p>Substantial completion of the charging infrastructure required to support the operation of electric buses was achieved at BÉ's Athlone Depot during 2022. The new electric buses will enter service in early 2023 to complete the conversion of Athlone's A1 &amp; A2 routes into Ireland's first zero-emission town bus services.</p>	<b>Phase 6</b> - Construction & Implementation	€1.7m
<b>Bus Éireann (BÉ) (Infrastructure and Technology)</b>	<p>The NTA provide a capital grant allocation to BÉ on an annual basis for a number of infrastructure and technology projects/programmes.</p> <p>In 2022, €2.6m was grant funded to BÉ to support a number of projects, programmes and initiatives including, but not limited to, the Business Transformation Team, Garage Management, Network Performance Decisioning System, New Fleet Technology CCTV On-Bus Project, and others.</p>	Multiple	€2.6m
<b>Dublin Bus (DB) (Infrastructure and Technology)</b>	<p>The NTA provide a capital grant allocation to DB on an annual basis for a number of infrastructure and technology projects/programmes.</p> <p>In 2022, €1.3m was grant funded to DB to support a number of projects, programmes and initiatives including, but not limited to, SG Rear Engine Doors Safety Upgrade, Programme Management Office, Depot Access Point and Switch Upgrade Project, Night Service Bay Modifications and Adblue Pumpset Upgrades, Service Support Vehicle Charging Points, and others."</p>	<b>Phase 6</b> - Construction & Implementation	€1.4m

## Bus Programme


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Connecting Ireland</b>	<p>The Connecting Ireland Rural Mobility Plan is a major national public transport initiative developed by the NTA, with the aim of increasing connectivity, particularly for people living outside our major cities and towns.</p> <p>In 2022, thirty-eight new and enhanced bus services were introduced via the Connecting Ireland Plan. Over 110,000 weekly vehicle kilometres were added to the public transport network via 13 brand new services, 16 frequency enhancements and 9 route extensions which included frequency enhancements. Over 50 settlements have as a result been newly connected to the public transport network.</p>	<b>Phase 6</b> - Construction & Implementation	€1.2m
<b>Hydrogen Buses</b>	<p>Three hydrogen-powered double deck buses owned by the NTA have been engaged in a technology pilot with Bus Éireann since mid-2021. The first phase of this pilot came to an end at the end of 2022 and a report examining the performance of the buses is being prepared. That report will help to inform the scope of the next phase of the technology pilot.</p>	<b>Phase 6</b> - Construction & Implementation	€0.3m
<b>Other technology projects</b>	<p>NTA provided capital funding to other technology bus projects in 2022 such as funding to Dublin City Council for the development and deployment of IT systems and hardware to reduce bus delays through traffic signals using Automatic Vehicle Location (AVL) Technology."</p>	N/A	€0.4m
			<b>€141.2m</b>



 <b>Park &amp; Ride</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>N51 Park and Ride, Navan</b>	<p>The proposed N51 Park &amp; Ride facility includes a new offline bus bay along the westbound lane of the N51 capable of accommodating up to 4 large coaches, incorporating two new bus shelters, a new bus stand area and cycle parking. This new Park and Ride car parking area will be capable of accommodating a total of 181 car parking spaces, including 6 mobility impaired parking spaces and 18 e-car charging spaces. The works also include associated accommodation and fencing works, public lighting, a CCTV system, landscaping works, surface water drainage works and ancillary works.</p> <p>Construction commenced and was 80% complete by December 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€1.7m
<b>NTA Park and Ride Development Office</b>	<p>The NTA Park and Ride Development Office (PRDO) provides design services to assist in the delivery of park and ride projects, predominately in the Greater Dublin Area but also across the State. The plans to expand the Park and Ride network are set out in the various metropolitan area transport strategies which have been prepared by NTA with input on Park and Ride from the PRDO. Three strategies have been published, namely the Transport Strategy for the Greater Dublin Area 2022-2042, the Limerick Shannon Metropolitan Area Transport Strategy and the Waterford Metropolitan Area Transport Strategy. The PRDO is also building on the work done in Galway Transport Strategy and Cork Metropolitan Area Transport Strategy.</p> <p>Following on from the work completed in the transport strategies, in 2022 the PRDO identified several strategic sites through an options selection process and continued the preparation of planning documentation including Environmental Impact Assessment Reports, discussion with landowners on agreements, development of options for bus services and site design.</p>	<b>Phase 3</b> - Preliminary design	€1.2m

## Park & Ride


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Clontarf Road Station Carpark Upgrade</b>	<p>Due to BusConnects, there will be an increase in bus and passenger movements at the station and these upgrade works will facilitate this. The upgrade includes reconfiguration of the existing station carpark to accommodate additional bus bays and reinstatement of existing road pavement (due to current state/design and proposed future bus movements) in both the main carpark and the link road leading onto Alfie Byrne Road. The scope also includes facilities and upgrades appropriate with an interchange of this nature and bus frequencies such as bike parking, additional security measures and lighting.</p> <p>The project was constructed and substantially completed in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€1.2m
<b>IÉ Car Park Programme</b>	<p>The IÉ Car Park Programme consists of the upgrading and improving park and ride at Irish Rail Stations throughout the country. The strategy is being rolled out with an initial group of 12 priority stations as identified in the IÉ National Car Park Strategy Report; Portlaoise, Millstreet, Ballybrophy, Bray, Portmarnock, Leixlip Louisa Bridge, Kildare, Edgeworthstown, Farranfore, Carlow, Athy and Charleville.</p> <p>2022 progress included: the completion of construction of a new 90 space car park at Ballybrophy; grant of planning permission for car park upgrade, public realm improvements and additional 14 spaces at Portlaoise; section 5 declaration of exemption for upgrade and additional 27 spaces at Edgeworthstown; and the remaining stations progressed through various stages of preliminary design and planning.</p>	Multiple	€0.9m
<b>Tara Na Ri Park and Ride Facility</b>	<p>The Tara Na Ri Park and Ride Facility is a new local Park and Ride facility to the south of Navan and near J7 on the M3. The scheme provides for 50 car parking spaces and serves existing bus stops on the R147. Bus Éireann 109, 109A and NX stop at this location.</p> <p>The construction of the project commenced in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€0.6m
			<b>€5.7m</b>

 <b>Light Rail</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>MetroLink</b>	<p>MetroLink is the development of a high-capacity, high-frequency, automated rail line running from Swords to Charlemont, linking Dublin Airport, Irish Rail, DART, Dublin Bus and Luas services, creating fully integrated public transport in the Greater Dublin Area.</p> <p>During 2022, the Preliminary Business Case for MetroLink was approved by Government in July and the Railway Order application was submitted to An Bord Pleanala in September.</p>	<b>Phase 4</b> - Statutory Process	€25.5m
<b>Luas Lifecycle Asset Renewals Programme</b>	<p>The Luas Life Cycle Asset Renewal (LCAR) Programme is a series of projects to upgrade Luas assets and infrastructure to maintain the current demand on the service.</p> <p>In 2022 renewal of overhead conductor system as well as track rail sections continued with the length targets for these projects met for the year. In addition the 1.2Mkm overhauls of the 401 fleet on the red line continued with the renewal of 4 Light Rail Vehicles which gave a good indication of the renewal requirements for each vehicle going forward. Survey work was also undertaken to ensure the programme maintains momentum into 2023.</p>	<b>Phase 6</b> - Construction and Implementation	€11.0m
<b>Luas Finglas</b>	<p>Luas Finglas is the extension of the Luas Green Line from Broombridge to Charlestown via Finglas. It will add four new stops to the line and create a key public transport connection between the communities of Charlestown, Finglas Village, Finglas west, St Helena's and Tolka Valley and the city centre.</p> <p>A non-statutory public consultation on the Preferred Route concluded in 2022 and work progressed on the projects preliminary business case and design.</p>	<b>Phase 3</b> - Preliminary design	€2.8m

 Light Rail

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Public Transport Luas Upgrades</b>	<p>The Public Transport Luas Upgrades (PTLU) Programme is a programme of works which go beyond general operation and maintenance which is undertaken by the Operator (currently Transdev) on Luas Light Rail systems. The scope of the programme includes projects which are not covered by the Operator contract and focus on upgrading and carrying out minor works on Luas assets to ensure the standard of Luas operations is maintained.</p> <p>In 2022 repointing works were completed on existing stone retaining walls on the Luas Green Line. Sealant filler works were undertaken and Strail mats were replaced at various track crossing points. Settlement repairs were also conducted at Sandyford Park and Ride.</p>	<b>Phase 6</b> - Construction and Implementation	€1.2m
<b>Luas Cork</b>	<p>Luas Cork, previously known as the Cork Light Rail Transit (LRT), was identified in the Cork Metropolitan Area Transport Strategy as a key east west corridor as part of the integrated transport network.</p> <p>During 2022, TII continued work on option identification and assessment, with the intention of publishing the Emerging Preferred Route for public consultation during 2023. The Strategic Assessment Report was also progressed for resubmission to DoT.</p>	<b>Phase 2</b> Concept Development and Option Selection	€1.0m
<b>Green Line Capacity Enhancements</b>	<p>The Green Line Capacity Enhancement (GLCE) project aims to cater for future demand along the Luas Green Line corridor ensuring optimal use of existing infrastructure in advance of other major public transport investments. The GLCE project includes a number of key elements to increase capacity of the Green Line including the extension of 26 existing Citadis 402 trams, manufacturing 8 new Citadis 502 trams and extending the Sandyford depot.</p> <p>All 26 tram extensions and 8 new trams were fully delivered and operational by Q2 2021. In 2022, retention payments were made and preparation commenced on final close out reports.</p>	<b>Phase 6</b> - Construction and Implementation	€0.5m



 <b>Light Rail</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>LUAS Cross City</b>	<p>The Luas Cross City project consisted of a 5.6km extension of the Luas light rail system including 13 additional stations, a new depot and the purchase of 10 additional trams. The project allows the connection between the two existing LUAS red and green lines in the inner city centre. The Luas Cross City has been operational since December 2017.</p> <p>In 2022, close out payments made for arborist contract, final accounts and charges for services contracts and outstanding property claims.</p>	<b>Phase 6</b> - Construction and Implementation	€0.1m
<b>Luas Lucan</b>	<p>Luas Lucan is a west-east mass transit running from Lucan (Adamstown) to Dublin City Luas network providing a high capacity service from this area to Dublin City Centre, sufficient to cater for the high transport demand along this corridor.</p> <p>In 2022, TII commenced preparation of tender documents to engage design consultants to develop alignment options.</p>	<b>Phase 1</b> - Scope and Purpose	€0.0m
<b>NTA Light Rail Support Costs</b>	<p>In 2022 engagement of technical advisors, such as Chandler KBS to assist in review of cost estimates, was undertaken.</p>	N/A	€0.1m
			€42.3m

## Accessibility


Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>IÉ Station Accessibility Programme</b>	<p>The objective of the Accessibility Programme is to improve the accessibility across the 54 stations identified as requiring upgrade on the Irish Rail network.</p> <p>Wheelchair accessible lifts and bridges were completed at Gormanston, Co. Meath and Dalkey, Co. Dublin in 2022. Construction commenced on a wheelchair accessible lifts and bridge at Little Island station in Co. Cork. The wider upgrade of accessibility in Rail Stations is being progressed to the Technical Specifications for Interoperability for Persons with Reduced Mobility (PRM-TSI). Ennis station, Co. Clare was identified as the first station for implementation for this upgrade to compliment the new wheelchair lifts and bridge opened in 2021. The upgrade of two platforms to the updated accessibility standard were completed in 2022.</p>	Multiple	€7.5m
<b>Wheelchair Accessible Vehicles</b>	<p>The Wheelchair Accessible Vehicles (WAV) Grant is to assist with the purchase of wheelchair accessible Taxi and Hackney vehicles. The grant will be available for applications for a new licence and to assist current licence holders who wish to upgrade their current wheelchair accessible vehicle or swap their standard taxi with a wheelchair accessible one.</p> <p>The WAV Grant Scheme 2022 introduced 312 grant aided vehicles to the fleet. At end of 2022, there are a total of 3,347 wheelchair accessible vehicles within the SPSV fleet accounting for 17.4% of the fleet total.</p>	N/A	€1.2m
<b>The Wayfinding Centre</b>	<p>The National Council for the Blind Ireland are developing a transport training centre on Botanic Road in Dublin. The Wayfinding Centre will provide a safe and controlled indoor environment which replicates the real-world experience of using public transport including lighting, acoustics, hazards and the built environment that surrounds public transport.</p> <p>NTA are part-funding this project which commenced construction in 2022.</p>	<b>Phase 6</b> - Construction & Implementation	€1.0m

 <b>Accessibility</b>			
<b>Project/Programme</b>	<b>Description and 2022 Progress</b>	<b>Project Phase at Dec 2022</b>	<b>2022 Spend €m</b>
<b>Bus Éireann Accessibility Project</b>	<p>This is Bus Éireann’s Nationwide Bus Station Accessibility Programme. Site inspections were carried out in 2018 of 17 locations across the country. Outline proposals were prepared for each location. The objective is to provide wheelchair accessibility at all locations. Accessible car spaces are also to be provided at each location where possible.</p> <p>Wheelchair accessible bus bays (Cork, Ennis, Mullingar &amp; Kilkenny) were constructed in addition to the completion of bus bay works in Ballina Bus Station. BÉ also commenced the upgrade of the next group wheelchair accessible bus bays in late 2022.</p>	Multiple	€0.7m
<b>Local Authority Accessibility</b>	<p>This programme of works involves the construction of wheelchair accessible bus stops in locations served by high floor coaches, initially focusing on towns with a population over 5,000.</p> <p>During 2022, construction was completed on 21 wheelchair accessible bus stops including locations at Bantry, Buttevant, Castlebar, Fermoy, Kells, Mitchelstown, Navan and Nenagh. NTA also engaged consultants to undertake audits of towns over 1,000 population for wheelchair lift accessible stops which will inform the programme in 2023.</p>	Multiple	€0.6m
<b>Travel Assistance Scheme Dublin</b>	<p>The Travel Assistance Scheme, which is managed by Dublin Bus, helps people with disabilities to use public transport on their own.</p> <p>In 2022, the Travel Assistance Scheme carried out 1,782 assists to people who need to gain confidence travelling on public transport. They also gave 58 presentations on safe travel to disability organisation and older persons groups and brought a bus out to disability units and schools to allow their clients to learn how to use the bus and feel comfortable doing so in familiar surroundings.</p>	N/A	€0.2m

## Accessibility

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Bus Shelter Seating Retrofit Programme</b>	<p>There are a number of existing shelters where no seating has been provided. The purpose of this programme is to audit the locations and identify locations where suitable seating can be installed.</p> <p>In 2022 a review of shelter locations with no seats were identified, a total of 311 locations were identified with simple retrofit installations possible at 210 locations. The installation of seating commenced in November 2022 and will continue into 2023.</p>	<b>Phase 6</b> - Construction & Implementation	€0.1m
			€11.4m



 <b>Transport Technology</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Leap OpCon Transition</b>	<p>In compliance with procurement regulations, the NTA re-tendered a combined Leap operate and maintain contract. The Leap OpCon Transition project is required to transition the operation of the Leap scheme to new contracts prior to the expiry of the current contracts.</p> <p>During 2022, the procurement process was completed and the contract was signed with the successful consortium. Once appointed, work immediately commenced on mobilisation and planning for the transition from the old supplier to the new supplier. Considerable work was done with the new supplier during the year on a number of workstreams (finance, ICT, operations and service delivery, contact centre and retail point-of-sale network enablement) in preparation for the final handover to take place in 2023.</p>	<b>Phase 3</b> - Procurement	€2.5m
<b>Finance System Project</b>	<p>The Finance system project was initiated in 2020 to replace the existing finance systems in a phased manner with a single integrated finance solution which will support growth, and enable process improvement resulting in greater effectiveness and efficiencies for NTA.</p> <p>In 2022, the project completed the Planning and Procure 3a Project Approval Guideline gateways and the Public Spending Code Gate 2.</p>	<b>Phase 3</b> - Procurement	€1.6m
<b>Technology Services Group</b>	<p>Technology Services Group include various small projects including enhancements to the current National Journey Planner system and to the systems that produce the data required to support the journey planner and various other systems.</p> <p>During 2022, a number of enhancements to the existing National Journey Planner system and to the systems that produce the data required to support the journey planner were completed. In addition a number of enhancements were made to the ICT systems that support the delivery of Bus Market Opening (BMO) services as well as preparatory works to support the go live of the Eastern Coastal Commuter Corridor (ECCC) services. Finally there was a retendering of the contract to support the public transport infrastructure management system (PTIMS) which was awarded in Q4 2022.</p>	Multiple	€1.7m


**Transport Technology**

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Leap Operational Investments</b>	<p>Leap Operational Investments is a series of smaller scale enhancements and additions to the Leap Card scheme. These include additional features in the Leap Top-Up applications, implementation of new application process for students and investigations into the feasibility of a virtual Leap Card.</p> <p>In 2022, enhanced versions of the Leap Top-up apps were launched for both iOS and Android. In addition, a technical investigation was commenced on a proof-of-concept implementation of a virtual Leap Card inside a mobile phone wallet.</p>	Multiple	€1.5m
<b>NextGeneration Automotive Vehicle Location</b>	<p>Automotive Vehicle Location (AVL) is required for service control of buses, communications with drivers, tracking of route performance, generation of real time passenger information for on-street displays and mobile apps and is at the core of the contract management function of the NTA in tracking kilometres operated and punctuality by operator by route.</p> <p>During 2022, a procurement process was commenced with the publication of the formal competition notice and the shortlisting of 5 candidates that will be invited to tender in 2023. The final contract award is planned for late 2023.</p>	<b>Phase 3</b> - Procurement	€0.9m
<b>Public Transport Operator Investments</b>	<p>Public Transport Operator (PTO) investments is a series of smaller scale projects to enable efficient delivery of public transport. These projects include supply of ticketing equipment for privately owned bus operators who join the Leap scheme, the supply of portable inspection devices and components required to read Leap Cards.</p> <p>During 2022 a number of additional private bus operators joined the Leap Card scheme and additional ticketing equipment was purchased to support the expansion of services by private bus operators. In addition work was done on the development of a cloud based back-end for inspection devices to enable the devices to receive updates and upload anonymised statistics.</p>	Multiple	€0.9m


## Transport Technology

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Travel Information Systems and Services (TISS) Applications</b>	<p>TISS Applications is a project to implement a new generation national journey planning and real-time passenger information system.</p> <p>During 2022 considerable work was done with the supplier on the development, implementation and testing of the components of the new solution, which includes new mobile apps, new website modules for journey planning and new central systems which will replace the existing services due to the expiry of that contract. The new solution will go live in 2023.</p>	<b>Phase 6</b> - Deploy/ Rollout	€0.7m
<b>Young Adult Card Implementation</b>	<p>In early 2022 NTA coordinated the implementation of a Government initiative to apply 50% fare reductions for young people on all fares and tickets for public transport journeys on Dublin Bus, Iarnród Éireann, Bus Éireann, Luas, Go-Ahead Ireland and TFI Local Link. This reduction was supported for holders of Student Leap Cards, for whom no action was required. They simply pay for their journey by Leap, and the reduced fare is deducted from their card in the normal way. For non-student young adults, NTA worked with a key Irish supplier to provide a facility to apply for a “Young Adult” Leap Card, which is entirely done online. The cards are all produced in Ireland, and fulfilment is completed promptly, with cards being delivered by post to the customers once the uploaded documents have been digitally verified. Once the customer has received the Young Adult Card, they can use it on all relevant public transport services. This was launched on 9th May 2022. Subsequently, NTA worked to extend the Young Adult Card and Student Leap Card fare initiative to the commercial bus sector. This led to over 31 commercial bus operators being on-boarded into the TFI Go mobile ticketing app, and a further number joined the Leap Card scheme and were provided with Leap compatible ticketing equipment. This went live on 5th September 2022. Further expansion is anticipated in 2023.</p>	<b>Phase 6</b> - Deploy/ Rollout	€0.7m
<b>Leap Infrastructure Investments</b>	<p>Leap Infrastructure Investments is a series of smaller scale projects to keep the Leap IT hardware and software systems operational and working on up-to-date versions. This requires regular refreshes and replacements to ensure Leap is operating on supported software versions.</p> <p>During 2022 a number of IT servers and software applications were replaced and/or patched and upgraded in order to keep them on supported versions and to reduce potential risks. In addition a project to migrate some services (referred to as “ITSAPS”) to the Cloud was completed and went live, enabling the decommissioning of older out-of-support hardware.</p>	Multiple	€0.7m

## Transport Technology

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Mobile Ticketing</b>	<p>Mobile Ticketing is a mobile phone application that sells tickets for Public Service Offering (PSO) bus services nationwide, known as "TFI Go".</p> <p>Usage of NTA's mobile ticketing app, TFI Go, expanded significantly in 2022 and a number of enhancements were made to the app during the year. By the end of 2022 the application was selling tickets for 31 bus operators both publicly and privately owned, notably including all Bus Éireann PSO services, Go Ahead Ireland Dublin Commuter services, and all TFI Local Link Regular Rural Services nationwide. This expansion was primarily driven by the use of TFI Go to facilitate the involvement of private bus operators into the Young Adult fares discount scheme that involves compensation being paid to participating private bus companies for all ticket sales that take place in the TFI Go app, but also reflected some natural growth as customer awareness of the app has grown. Usage is anticipated to continue to grow into 2023 as additional features and operators are added.</p>	<b>Phase 6</b> - Deploy/ Rollout	€0.6m
<b>ServiceNow (SNOW) ITIL Management System</b>	Following a public procurement competition, a project was conducted during 2022 to implement a new software application (Service Now) to support the Transport Technology Operations and Service Delivery teams by automating certain process workflows.	<b>Phase 6</b> - Deploy/ Rollout	€0.5m
<b>Travel Information System (TIS) - System &amp; Display</b>	<p>The Travel Information System (TIS) is a project to refresh, enhance and update the real time passenger information (RTPI) on street displays.</p> <p>During 2022 the transition of the on-street RTPI signs to connect to a new cloud based back-end was completed. In addition, all SIM cards used to transmit and receive data, were replaced in all the signs.</p>	N/A	€0.4m
			€12.7m




 <b>Integration &amp; Support Projects and Services</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Transport Technical Support</b>	<p>The NTA engages services to support internal teams and enable progress across capital projects such as data analytics, technical advisory, finance advisory and other areas.</p> <p>In 2022, the Business Intelligence Analytics Platform was enhanced to ingest, process and analyse external data from both Irish Rail and the Metric Local Link system in an anonymised format. Several dashboards were developed including the Trip Scheduling Tool. The Boarding and Alighting tool (BAT) was further enhanced to meet the needs of the BusConnects project. In addition, comparative analysis was delivered for pre-post Covid-19 passenger trends. Analysis was also delivered for the redesign of regional cities Bus Éireann network. Application Programming Interface (API) were developed for bus operators to allow them to access the NTA data warehouse. Finally, an Independent Review of the NTA Analytics Platform was completed and the most salient recommendations (on the architecture side) were partially implemented.</p>	N/A	€3.8m
<b>Transport Modelling</b>	<p>The NTA undertakes transport modelling to support transport investment by enabling planners to make informed and data driven decisions. The NTA undertakes strategic modelling to analyse planned transport investments and make informed decision for Ireland's future.</p> <p>In 2022, extensive modelling was undertaken to support projects and programmes such as Metrolink, BusConnects, Cork Area Commuter Rail Programme, DART+ Programme (various projects), Galway Cross City Link, Luas Cork and Luas Finglas. Modelling was undertaken to support initiatives including the Climate Action Plan and Regional Cities Cost of Congestion. In addition, the NTA Regional Models were used to support the Environmental Protection Agency (EPA) and relevant local authorities in meeting their EU obligations for noise and air quality mapping.</p>	N/A	€2.9m



## Integration & Support Projects and Services

Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Strategy Development</b>	<p>The NTA has responsibility for the development and delivery of strategic transport plans.</p> <p>In 2022, the NTA finalised the Transport Strategy for the Greater Dublin Area, published the revised draft Limerick - Shannon Metropolitan Area Transport Strategy and Waterford Metropolitan Area Transport Strategy, and engaged with numerous local authorities around the country, providing input through written submissions on the preparation of development plans.</p>	N/A	€2.2m
<b>Capital Programme Office</b>	<p>The Capital Programme Office (CPO) is responsible for the oversight, management and administration of the NTA's Capital Grants Management Process and the dissemination of Capital Grant funding to grantees, the central review of key Public Spending Code (PSC) deliverables and assisting in ensuring compliance to the PSC, and acts as a central hub of reporting for the Capital Programme.</p> <p>In 2022, the CPO commenced a further upgrade of NTA's Capital Grants Management System to enable online grant form submissions and online approvals to better manage and monitor capital funded projects. The CPO team also completed a number of governance reviews across major projects in line with its requirements under the PSC.</p>	N/A	€2.1m
<b>Consolidated Contact Centre</b>	<p>As part of its customer contact strategy, the NTA plans to implement a Consolidated Contact Centre (CCC) under the TFI brand. The CCC will be the primary customer service contact point for services provided by the transport operators, some ticketing service providers and some ticketing offerings controlled by the NTA. The CCC will form an integral and important part of Ireland's public transport network.</p> <p>In 2022, an interim tender process was completed and a subsequent invitation to submit final tenders was issued to the participating vendors.</p>	N/A	€0.7m

 <b>Integration &amp; Support Projects and Services</b>			
Project/Programme	Description and 2022 Progress	Project Phase at Dec 2022	2022 Spend €m
<b>Transport Regulation</b>	During 2022, IT development work was undertaken on the CABS system that supports the NTA's licensing function for small public service vehicles.	N/A	€0.6m
			€12.3m

## Phases of an NTA Project Life Cycle - Capital Investment





## Phases of an NTA Project Life Cycle - ICT







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