

2021 PUBLIC TRANSPORT INVESTMENT REPORT

August 2022





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INTRODUCTION



Background to the 2021 Public Transport Investment Programme

Since 2010, as part of its remit to support the delivery of an integrated, accessible public transport system, the National Transport Authority (NTA) has operated a Public Transport Investment Programme across various activities, Heavy Rail, Bus, Light Rail, Accessibility, Park & Ride, and Ticketing & Technology. 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 Public Transport Investment Programme.

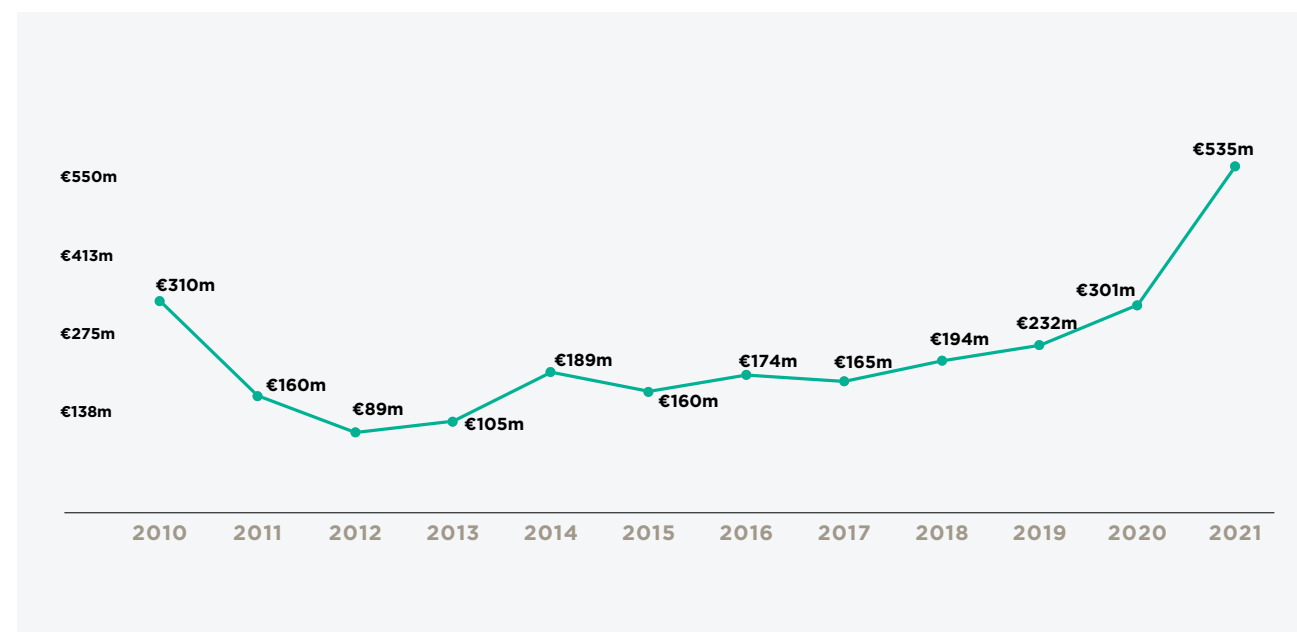
The combined Public Transport Investment Programme aims to improve the transport offering for those choosing alternatives to the private car as a mode of transport.

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 5 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 2021, the NTA saw its funding for the Public Transport Investment Programme grow to €535.2million, a 78% increase on 2020 expenditure on this programme and a 6-fold increase since 2012. This growth in funding reflects major strategic capital projects and programmes entering late stages of planning and design development and progressing towards construction.

Public Transport Investment Programme Funding 2010 - 2021



Future Funding Trajectory and National Development Plan



Funding for the NTA's Public Transport Investment Programme is set to grow further in the coming years with funding commitment to key capital public transport projects and programmes (subject to design, development and delivery in line with the requirements of

the Public Spending Code) outlined in the new National Development Plan (NDP) 2021 – 2030, published in October 2021.

The new NDP 2021 – 2030 sets out a 10-year capital ceiling to 2030 of €165 billion which will support economic, social, environmental, and cultural development across all parts of the country under Project Ireland 2040.

The NDP sets out ambitious plans to enhance public transport, active travel options and the connectivity of communities setting out €35 billion investment in transport over the next decade, the largest investment in transport in the history of the state.

The NTA's capital programme features heavily in the revised NDP across several National Strategic Objectives (NSO):



NSO2: ENHANCED REGIONAL ACCESSIBILITY

- › Active travel programmes



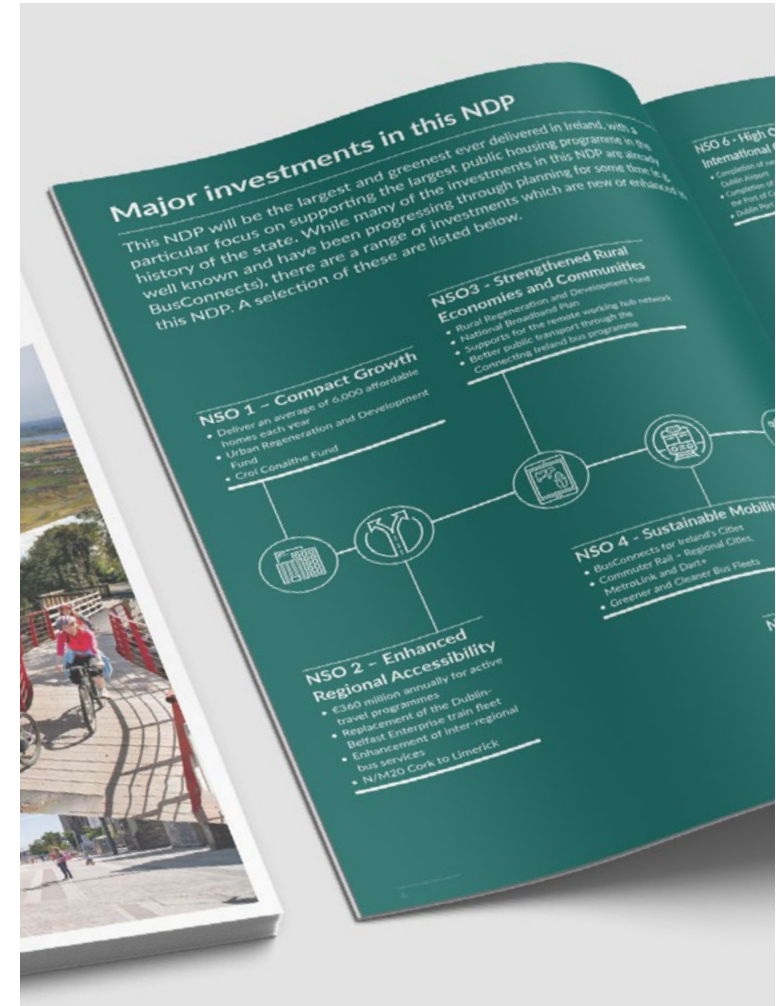
NSO3: STRENGTHENED RURAL ECONOMIES AND COMMUNITIES

- › Connecting Ireland bus programme



NSO4: SUSTAINABLE MOBILITY

- › BusConnects for Ireland's Cities
- › Commuter Rail - Regional Cities
- › MetroLink
- › DART+
- › Greener and Cleaner Bus Fleets



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 Public Transport Investment Programme in 2021, in terms of the projects and programmes which were under development in 2021, progress achieved within the year and other key details. It is developed across 4 main sections as follows:

- › Overall Public Transport Investment Programme introduction which outlines the key components of the programme.
- › Executive Summary which provides an overview of the key achievements, summary of projects by programme, key challenges, and audits and governance reviews in 2021.
- › 2021 progress updates of the key components of the Public Transport Investment Programme.
- › Appendices which provide a full breakdown and update of capital projects and programmes within the Public Transport Investment Programme.

› Overall Public Transport Investment Programme

The overall Exchequer funding for the 2021 NTA Capital Programme provided by Department of Transport (DoT) for Public Transport Investment was €535.2 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:



Heavy Rail Safety and Development | €238.8m in 2021

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 | €199.6m in 2021

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



Park and Ride | €1.9m in 2021



Light Rail | €60.5m in 2021

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 | €7.6m in 2021



Transport Technology | €13.2m in 2021



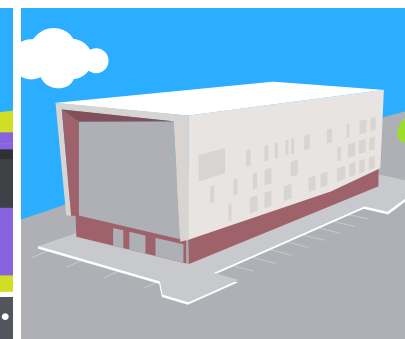
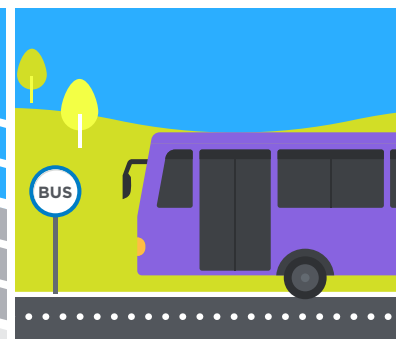
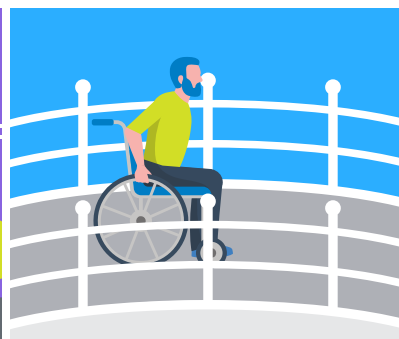
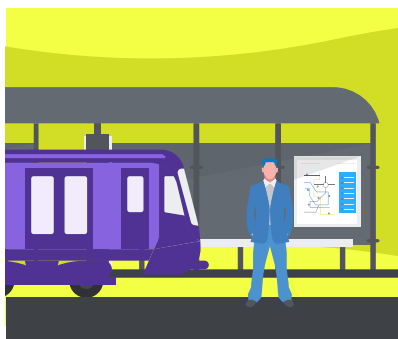
Integration and Support Projects and Services | €13.4m in 2021

The NTA also operate an Active Travel 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. A separate report is produced in respect of the annual Active Travel Programme and as such, this element of the NTA's overall Capital Programme is excluded from this report.



EXECUTIVE SUMMARY

KEY 2021 ACHIEVEMENTS



PELLETSTOWN STATION

A new station at Pelletstown was officially opened in September 2021, situated between Ashtown and Broombridge Stations on the Dublin Maynooth/ M3 Parkway line, serving Ashington and Royal Canal Park.



TRAM EXTENSIONS

All 26 tram extensions and 8 new trams were fully delivered and operational by Q2 2021 for the Luas Green Line Capacity Enhancement project.



IMPROVED ACCESSIBILITY

Edgeworthstown rail station lift and footbridge completed and opened to the public in December 2021 and Carlow Station footbridge, canopy & lifts constructed. Wheelchair accessible bus bays completed in Wexford, Tramore & Athlone Bus Stations. An additional 7 accessible stops constructed in towns nationwide with 16 others under construction.



INCREASED VEHICLE FLEET

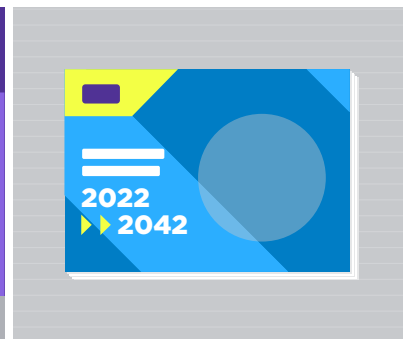
The NTA purchased 256 double deck hybrid urban buses, 61 low floor single deck regional commuter vehicles and 53 double deck commuter vehicles totalling 370 vehicles in 2021.



NATIONAL TRAIN CONTROL CENTRE

Construction of the National Train Control Centre building, which will also house traffic control centres for the Dublin Region and An Garda Síochána, reached a stage of approximately 85% completion including associated back up support systems in 2021.

KEY 2021 ACHIEVEMENTS



DART+ PROGRAMME

In December 2021 Government confirmed the approval in principle of the DART+ Programme Preliminary Business Case, approval to progress DART+ West to Railway Order & approval to award the DART+ fleet framework for up to 750 new rail carriages over 10 years. The contract for the purchase of DART+ fleet was awarded to Alstom in December 2021.



THE CORK AREA COMMUTER RAIL PROGRAMME

The Cork Area Commuter Rail Programme (involving the significant development and enhancement to the rail network from Mallow through Cork to Cobh and Middleton) was initiated in June 2021. The first 3 elements of this programme will receive funding through the EU National Recovery and Resilience Plan.



PRELIMINARY BUSINESS CASES

The Preliminary Business Cases (PBC) for the DART+ and MetroLink programmes were submitted to the Department of Transport for consideration in early 2021.



BUSCONNECTS DUBLIN DEVELOPMENT

In 2021, the PBC for the BusConnects Dublin Programme was submitted to the Department of Transport, 196 double deck hybrid urban buses were delivered and brought into operation by Dublin Bus, the 'H' Spine and 'C' Spine launched, over 700 Transport For Ireland (TFI) poles were launched, and 36 hardstanding installations were installed to facilitate the launch of the new services.



GREATER DUBLIN AREA TRANSPORT STRATEGY

The Draft Greater Dublin Area Transport Strategy 2022 – 2042 was published for public consultation in November 2021.

Number of projects by programme represented by stage in their lifecycle

The below table shows the number of projects per programme and the proportion of projects at different stages in their lifecycle. In 2021, the majority of projects are currently in their construction and implementation phase which is consistent with the growth in funding for public transport infrastructure projects. The NTA are also experiencing significant growth in projects in the early stages such as planning, design and procurement.

Programme	No. of projects/ programmes sponsored	% of projects in planning / design / procurement	% of projects at construction/ implementation	% of projects at close out	2021 Spend
Heavy Rail	51	41%	49%	10%	€238.8m
Bus Programme	64	38%	45%	17%	€199.6m
Park and Ride	6	50%	50%	-	€1.9m
Light Rail	25	28%	68%	4%	€60.5m
Accessibility	12	17%	58%	25%	€7.6m
Transport Technology	20	-	35%	65%	€13.2m
Integration and Support Projects and Services	27	4%	96%	-	€13.4m
Total	205	28%	56%	16%	€535.2m

Key Challenges – Covid-19 and Associated Impacts

As with 2020, 2021 brought significant challenges as the Covid-19 pandemic continued to disrupt various elements of the NTA's portfolio of capital projects and programmes. Projects and programmes at construction stage were particularly affected due to domestic construction stoppages as well as international restrictions which resulted in manufacturing stoppages and/ or reduced capacity, supply chain delays and travel restrictions. Associated impacts such as significant cost inflation across certain construction materials, labour shortages and increasing labour costs produced further challenges relating to the projected costs of various projects and programmes. Yet these challenges fostered considerable creativity, innovation, and enhanced communication which better positioned teams to navigate the complex challenges in a dynamic and uncertain environment. A demonstration of this is effective remote working which enabled significant progress on various capital projects and programmes to proceed in line with expectations.



Internal Audits & Governance Reviews Completed in 2021

External audit arrangements are complemented by a comprehensive annual internal audit programme to test the robustness of the control frameworks in place both internally within the NTA and across agencies in receipt of NTA capital grant funding.

Audits completed in 2021 included:

- 1. Transport Operator Reviews of 2020 Capital Payments: Iarnród Éireann and Transport Infrastructure Ireland** – Reviews of the adequacy and effectiveness of controls over capital grants payments made by the NTA to IÉ and TII in 2020.
- 2. Review of NTA Capital Programme - Project and Programme Oversight** – A review of the processes and procedures relating to NTA's oversight of capital investment projects and programmes.
- 3. Review of NTA Internal Capital Expenditure and Approval of Capital Grants 2020** – A review of the processes and procedures relating to NTA internal capital expenditure incurred by the NTA during 2020.
- 4. Review of Approvals Systems and Processes for External Capital Grant Allocation and Authorisation** – A review to ensure that a robust system is in place for the approval and processing of external capital grant allocations and payment authorisations both in the NTA and in grantee entities.
- 5. Taxi Wheelchair Accessible Vehicles (WAVs)** – A review of grant funding for WAVs to assess whether they are processed on an equitable basis, in accordance with both a robust procedure and predetermined allocation criteria based on the age of the vehicle, in compliance with best practice as contained in Department of Transport guidance.
- 6. Review of the Comptroller and Auditor General (C&AG) Financial Management Maturity Model** – a review of the maturity of financial management in the NTA, aided by the use of the C&AG Financial Management Maturity Model. The model is built around financial governance and leadership, financial planning, financial information for decision making, financial monitoring and forecasting, and financial and performance reporting.
- 7. Other Income Review** – A review of income (other than grant income) within the NTA including, but not limited to, bus shelter advertising, coach park income, and regional bike scheme income.
- 8. Bus Asset Management** – A review of bus asset management within the NTA covering the procurement of buses, bus management, contract management, and the assets / technology on-board the fleet.

HEAVY RAIL SAFETY & DEVELOPMENT

“The 2021 Capital expenditure on 53 Heavy Rail projects/programmes was **€239.9m.**”





DART+ Programme (Including Fleet) | €160.5m in 2021

ABOUT DART+

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.

The DART+ Programme will increase the length of the DART network to 150km through the upgrade of existing lines. The DART+ Programme will provide electrified services to Drogheda on the Northern Line, Hazelhatch & Celbridge on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/Sligo Line, while improving DART services on the South East Line as far south as Greystones Co Wicklow. As well as upgrades to the railway infrastructure, DART+ includes the purchase of new electric and battery electric train fleet, along with provision of new depot and stabling facilities.

PROGRESS IN 2021

The planning and design of all elements of the DART+ Programme progressed in 2021. Public Consultations were held on DART+ West (Maynooth Line) and DART+ SouthWest (Kildare Line) and preparations for consultation on the DART+ Coastal North and South are on-going. In addition, IÉ completed a tender process for the procurement of new DART+ Electric and Battery Electric Trains.

In December 2021 Government confirmed:

- › The approval in principle of the DART+ Programme Preliminary Business Case;
- › The approval to progress DART+ West to Railway Order; and
- › The approval to award the DART+ Fleet framework and place an initial order for electric and battery electric trains to operate between on the line between Drogheda and Greystones.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2016	Phase 3 Preliminary Design (Dart+ SouthWest, Dart+ Coastal, Dart+ West) Phase 6 Construction and Implementation (Dart+ Fleet)	€160.5m

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



What are the benefits of DART+?



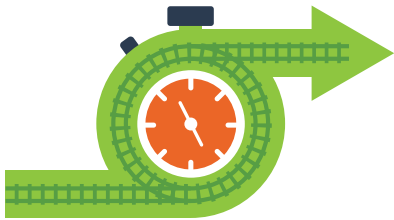
Economic Development

DART+ Programme will allow people to travel by DART to more jobs, schools, colleges and services. It also provides an opportunity for new areas to develop along public transport corridors that can support growth into the future.



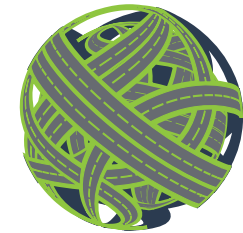
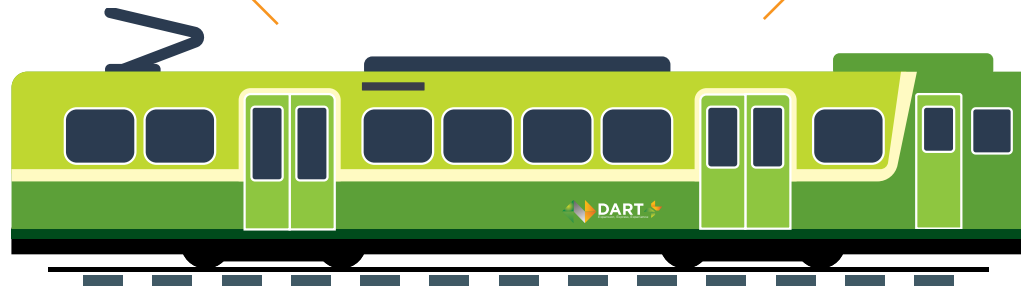
Building a Sustainable City

DART+ Programme, powered by electrical traction, will positively assist in the de-carbonisation of transport sector and enable a transition away from the use of fossil fuels.



Journey Time Reliability

The project will provide improved journey time reliability and reduced waiting times especially during peak hours.



Tackling Road Congestion

Improved DART services will play a part in alleviating road congestions in the GDA.



Future-proofing our Public Transport Network

DART can act as the core spine of an integrated and sustainable public transport network, providing long term infrastructure to future generations.



Increasing Capacity

DART+ Programme will increase city-centre-bound capacity from 26,000 customers per hour per direction to 52,000 passengers per hour per direction during peak hours.

National Train Control Centre | €42.5m in 2021

The aim of the new National Train Control Centre (NTCC) is to provide:

1. 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.
2. Facility for other co-located control centres, specifically An Garda Síochána Traffic Control Centre and a Regional Traffic Control Centre.

PROGRESS IN 2021

Construction of the NTCC Building is approximately 85% complete including associated back up support systems.

Preliminary design for the Traffic Management System was completed in June 2021 with Detailed Design continuing into 2022.

IÉ continues to deliver a range of enabling works contracts required to support the implementation of the Traffic Management System.

KEY FACTS

- › The facility will be designed to “Near Zero Energy Building” standards.
- › The scheme seeks to provide a safe, efficient and consistent railway for all customers and a consistent integrated approach to managing railway traffic.
- › The control of the entire network from a single location will lead to improvements in the management of service disruptions, reducing the impact to passengers.
- › The new Traffic Management System will provide tools to facilitate conflict free train service delivery, recovery and incident management which will deliver travel time savings and punctuality improvements to IÉ customers.
- › It will accommodate capacity growth on the existing and future network, including the DART+ programme.
- › The new Traffic Management System will deliver a common source of real time data feed to all stakeholders for Customer Information Systems.



Project Initiation	Project Completion	Project Budget	Project Phase (as at end 2021)	2021 Expenditure
2015	2025	€147.9m (includes €12.6m for non-train control centres)	Phase 6 Construction and Implementation	€42.5m

Cork Area Commuter Rail (CACR) Programme | €0.9m in 2021

The Cork Area Commuter Rail (CACR) Programme involves development 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.

The overall programme consists of 7 interrelated projects, which will be developed in phases.

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.

Work Package 1 has an anticipated completion date before 2025 while work packages 2 and 3 have anticipated completion dates before 2027.

PROGRESS IN 2021

Tenders for the relevant design services were recently issued for each of the projects and the award of the 3 contracts is expected in 2022. All 3 projects are on target to achieve the next EU Recovery and Resilience Facility funding milestone, which is the award of construction contracts by the end of 2022.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2020	Phase 1 Scope and purpose	€0.9m

KEY FACTS

- › Support of compact residential and commercial growth along the existing rail corridors in the Cork Region.
- › Reduction in carbon emissions as a result of modal shift and lower emission rail fleet.
- › Increased rail catchment and capacity, leading to increased patronage and modal shift.
- › Improved integration with other sustainable modes to cater for current and future demand.
- › Reduced transport emissions through modal shift and a positive contribution to decarbonisation of the railway.
- › Economic growth resulting from the supporting of compact developments and the efficient movement of people within the catchment of the Cork rail network.
- › Provision of a viable alternative to the private car.
- › Protection and support for future intercity and inter-regional services as well as the reintroduction of freight services.

Cork Area | Proposed Suburban Rail





Pelletstown Station | €3.2m in 2021

The project to develop and construct a new train station at Pelletstown, Dublin, on the existing Sligo/Maynooth railway line was initiated in 2016. The new Pelletstown station is situated between Ashtown and Broombridge stations and serves the existing community of Ashington as well as the new community at Royal Canal Park, with a journey time of just minutes to the city centre.

The construction of the new Pelletstown station comprises of two platforms, a footbridge and accessible ramp access between platforms and to the railway, as well as a second footbridge and accessible ramp over the canal. It promotes greater public transport options for residents in the area, reducing reliance on the private car and giving a more sustainable commuting option for the community.

PROGRESS IN 2021

Construction commenced in February 2020 and the completion of construction was delivered in 2021 which was on time and within project budget.

The station was open for use on the 26th September 2021.

KEY FACTS

- › This is the first new train station to open on the IE network since Oranmore, Galway in 2013
- › 145th Station on the network
- › Journey time of 12 mins to the city centre
- › Served by 94 trains daily on weekdays

Project Initiation	Project Completion	Project Budget	Project Phase (as at end 2021)	2021 Expenditure
2016	2022	€10.5m	Phase 6 Construction and Implementation	€3.2m

Colbert Station - Transport Interchange Limerick

| €0.6m in 2021

Following on from the development of the Colbert Station Plaza in 2016, this project seeks to develop an improved transport interchange at Colbert Railway Station. Colbert Station Interchange is a key transport node in the Mid-West Region of Ireland. It provides connectivity for residents and businesses within Limerick in tandem with interregional connectivity and serves as a gateway for tourists visiting attractions such as the Wild Atlantic Way.

The interchange project has six main elements as follows:

- › A new bus interchange that will be a fully covered interchange providing a more pleasant waiting experience and increasing the number of bus bays from the current 12 to 20.
- › A new access road that will link the interchange to the Roxboro depot allowing more efficient access for buses.
- › A new concourse linking bus to rail providing a wider and more suitable entrance to the station, better signage, improved toilets (including a full Changing Place disabled toilet) and new retail units and improved facilities for Bus Éireann staff.
- › A new taxi rank which is closer to the station with improved links to the new plaza at the front of the station.
- › 10 new mobility impaired parking bays.
- › A new car park providing 300 parking spaces and additional charging bays for EVs.

PROGRESS IN 2021

The detailed design and procurement of the Colbert Station Transport Interchange continued throughout 2021. A tender process was undertaken and tenders were returned in September 2021, with tender award expected in 2022. A Final Business Case was prepared for approval.



41 Intercity Railcars (ICRs) | €2.3m in 2021

The aim is to provide additional capacity on existing rail services on the Dublin Commuter lines. It includes the purchase of additional carriages to expand the existing peak period commuter rail service.

PROGRESS IN 2021

IE awarded a contract for the supply of the Intercity Rail Cars (ICRs) in December 2019. The design phase of the project has been completed and construction of the new vehicles commenced within 2021. The first vehicle, the “head of series”, is entering the final stage of construction and fit out. The remainder of the fleet is at various stages in the construction and fit out cycle.

PROJECT BENEFITS

These railcars will benefit:

- Northern Commuter services (Drogheda/ Dundalk to Dublin)
- Western Commuter services (Maynooth/ M3 Parkway to Dublin)
- South-Western Commuter services (Heuston Commuter and Intercity services, and Newbridge/Hazelhatch to Grand Canal Dock)
- Increased capacity capabilities by 34 per cent at peak travel times

Project Initiation	Project Completion	Project Budget	Project Phase (as at end 2021)	2021 Expenditure
2019	2022	€147m	Phase 6 Construction and Implementation	€2.3m



Ad Blue Fuelling Installations |
€1.6m in 2021

The Ad Blue Fuelling infrastructure is required to support the introduction to service of the 41 InterCity Railcars project to comply with the Emissions Regulations (2016/1628/EU).

The project consists of the design, supply, installation, commissioning and calibration of AdBlue dispensing systems along existing refueling facilities at multiple Chief Mechanical Engineer (CME) locations around the IE Network.

PROGRESS IN 2021

A tender process was completed, and a contract was awarded to the successful vendor. Installation work commenced in 2021 and is well advanced at all locations and with completion expected in 2022.

Woodbrook Station

| €0.9m in 2021

The project consists of the construction of a new passenger train station in the Woodbrook-Shanganagh area of Dublin. It is envisaged that this station will cater for DART services.

PROGRESS IN 2021

Planning permission for the new DART station at Woodbrook was granted by Dún Laoghaire-Rathdown County Council Dublin in August 2021. The design team on the project are now developing the more detailed design required for construction purposes, and it is expected that the project will be tendered for construction towards the end of 2022.

As of end 2021, IÉ are progressing with the enabling works packages and are closely reviewing access arrangements. Subject to a successful resolution of these items, construction will commence in 2023 and take between 18 and 24 months.

Railway Station Signage and Wayfinding Programme

| €1.7m in 2021

The signage and wayfinding programme will replace non-compliant, inadequate, and deteriorated station signage, enabling any railway customer to identify and navigate the stations.

Station information including timetable/opening hours/route maps will be included at strategic locations along with directional wayfinding to bus, Luas, taxi and cycle facilities.

Programme of work includes 38 stations in total comprising of 27 DART stations and 11 stations on the Maynooth Line.

PROGRESS IN 2021

Signage and wayfinding at the 27 DART stations is 90% complete. Tender for signage manufacture on the Maynooth Line stations is progressing and 90% of the signage has been manufactured. Remaining sign manufacture and installation is due for 2022.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2020	Phase 6 Construction and Implementation	€1.7m



The East Coastal Railway Infrastructure Protection Projects (ECRIPP) | €0.3m in 2021

The East Coastal Railway Infrastructure Protection Projects (ECRIPP) involve the identification and implementation of infrastructural protection strategies for IÉ Infrastructure on the East Coast of Ireland. The primary area of concern extends from Dublin to Rosslare. This route consists of 168 kilometres of railway of which 77 kilometres are adjacent to the coastline.

Coastal Erosion Assessments were undertaken in Dublin, Wicklow and Wexford, and vulnerable locations have been identified. These studies have also identified suitable options for each area consisting of onshore and offshore interventions to provide resilience to essential rail infrastructure to mitigate the effects of climate change.

PROGRESS IN 2021

One contract has been awarded to date under the main works, for the development of the Business Case. Procurement for a multi-disciplinary consultant for the design and preparation of tender documentation for the construction phase has commenced and the award of the contract is expected in 2022.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2021	Phase 1 Scope & purpose	€0.3m



Rail Infrastructure coastal works at Rosslare, Bray Head and Rosslare | €3.5m in 2021

The rail infrastructure coastal works involve the continuation of interim coastal repair works south of Rosslare Strand, Bray Head and Killiney and adjacent to the railway. These locations have been identified as requiring short term intervention to protect the operation of the railway.

PROGRESS IN 2021

Despite the impact of COVID, works commenced in the Rosslare area following the award of various supply and works contract. The works will be completed in 2022. Design of works at Killiney and Bray Head also progressed in 2021.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2021	Phase 6 Construction and Implementation	€3.5m

Lifts & Escalator Renewal Works | €5.2m in 2021

The investment in lift and escalator renewal works is part of the IE “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.

PROGRESS IN 2021

As part of the investment in 2021 IE successfully completed the upgrade and renewal of 17 lifts, 2 escalators and 32 unsupported lift control systems. This included upgrades at 12 DART stations, 6 locations on Commuter lines along with Ballinasloe, Ballybrophy, Gort, Templemore and Thurles.



NTA Studies

NAVAN RAIL LINE STUDY

In 2021 NTA undertook a study into the feasibility of extending the existing railway line from where it currently terminates at M3 Parkway to Navan Co Meath. The study considers the need for the project, its alignment with national, regional and local policy, establishing its benefits and undertaking economic and financial assessment of the project. The completed Navan Railway Line assessment study has been made available to the public as a supporting document to the Transport Strategy for the Greater Dublin Area (GDA).

DART+ TUNNEL STUDY

In line with the Project Ireland 2040, NTA undertook a study to establish a route for the tunnel elements of the DART network expansion and allow for protection of a corridor for delivery of the scheme in the future. The study assessed a number of alternative alignments and has concluded that a corridor similar to the previous DART Underground is the appropriate corridor for protection. The DART+ Tunnel Study has been published in full as part of the Draft Transport Strategy for the GDA.

BUS PROGRAMME

“The 2021 Capital expenditure on 64 Bus projects/ programmes was **€199.6m**”



BUS CONNECTS

TRANSFORMING CITY BUS SERVICES

Bus Connects Dublin | €104.6m in 2021

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. It 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.

BusConnects Dublin is a programme of 9 elements

BUS → **230km** of bus priority making journeys faster and more reliable

CYCLE → **200km** of cycle routes



Transitioning to a new
low emissions bus fleet



State of the art
ticketing system



Cashless payment system



Simpler fare structure



New Park & Ride
sites in key locations



New bus livery
providing a common style across all operators



New bus stops and shelters
with better signage and information



Dublin area bus network redesign
creating a more efficient network with high frequency spines, new orbital routes and increased bus services



1. BusConnects Dublin Fleet

As part of the transition to lower emission bus fleet and the expansion of bus fleet to accommodate new routes and enhanced frequency as part of the BusConnects Dublin Network Redesign, NTA placed orders for 219 hybrid double deck urban buses. At the end of 2021, 196 had been supplied to Dublin Bus for operation, with the remaining 23 buses expected for delivery in 2022.

In addition, a milestone order for 34 battery-electric single deck buses for the urban bus fleet was placed on 19th July 2021 to support the rollout of a new orbital route in Dublin. Production of these buses commenced in 2021 and all buses are programmed for delivery in 2022.

2. Core Bus Corridors Infrastructure Works

Core Bus Corridors (CBC) Infrastructure Works involves the development of continuous bus priority infrastructure and improved pedestrian and cycling facilities on sixteen radial core corridors in the Greater Dublin Area, across the local authority jurisdictions of Dublin City Council, South Dublin County Council, Dún Laoghaire-Rathdown County Council, Fingal County Council, and Wicklow County Council. Overall the CBC Infrastructure Works encompasses the delivery of approximately 230 kilometres of dedicated bus lanes and 200 kilometres of cycle tracks along 16 of the busiest corridors in Dublin to make bus journeys faster, predictable and reliable.

PROGRESS IN 2021

Planning and design work by the NTA continued throughout 2021 including the preparation of the Environmental Impact Assessment Report, Natura Impact Assessment, and the Compulsory Purchase Order documentation for each of the 12 Proposed Core Bus Corridor Schemes, for formal submission of the statutory planning applications to An Bord Pleanála.

Pending approval by Government of the BusConnects Dublin Preliminary Business Case the formal submission of the statutory planning applications to An Bord Pleanála will be progressed on a phased basis from early-2022.

3. BusConnects Network Redesign and Implementation

The BusConnects Network Redesign involves a complete redesign of the bus routes for the Greater Dublin Area. Starting with a blank canvas of the city streets, a network of routes comprising spines (i.e. cross city radial routes), orbitals and local feeder services was developed to better serve the demand for bus travel. Extensive public consultations took place from 2018 to 2020. The implementation of the new network commenced in 2021 and will continue on a phased basis over the next number of years.

PROGRESS IN 2021

The first phase which involved the introduction of the H spine in the North-East of Dublin was launched in late June. The H spine branches deliver fast and frequent services to the city centre for passengers in these areas. The second phase which involved the introduction of the C spine in the West Dublin and East Kildare regions was introduced in late November. The introduction of these services has resulted in increased capacity and frequency, increased evening and weekend services and improved ticketing to allow for free interchange between services.

The NTA and the bus operators are aware that this is a substantial change to the network and continue to monitor all aspects of the new operations.

4. Next Generation Ticketing

Next Generation Ticketing is a project to upgrade the ticketing equipment used on buses and to introduce new payment methods including contactless bank cards. These updates are required in order for BusConnects to achieve improved bus journey times and reliability.

PROGRESS IN 2021

A short list of candidates for the delivery of the NGT system were identified and detailed tender documents were developed in 2021.

5. Bus Shelters/Stops

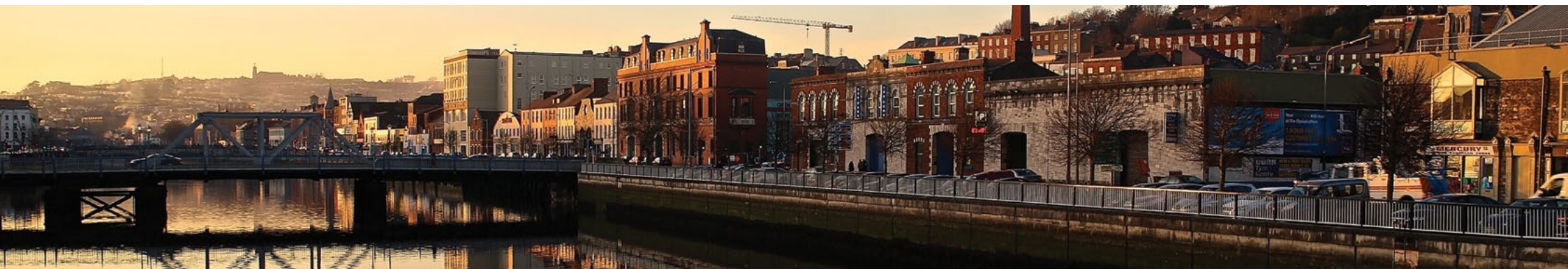
In 2021 over 700 TFI poles were installed in Dublin, of which the majority were installed at stops served by Phase 1 and 2 of the Dublin Network Redesign. In addition, 36 hardstanding installations to facilitate the launch of the new services were also delivered.

Work on the installation of new infrastructure to support the launch of Phase 3 of the Dublin Network Redesign also commenced on the ground in 2021.

2021 Expenditure	
Bus Fleet	€69.2m
Core Bus Corridors	€28.1m
Network Redesign	€3.9m
Next Generation Ticketing	€1.9m
Bus Shelters/Stops	€0.9m
Programme Management	€0.6m
Total	€104.6m

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

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2018	Phase 3 Preliminary Design	€104.6m



BusConnects Cork | €1.6m in 2021

BusConnects Cork is a programme of nine measures to fundamentally transform Cork's bus system, so that bus commuting will become a viable and attractive choice for employees, students, shoppers and visitors.

THE OBJECTIVES

- › To enhance the capacity and potential of the public transport system;
- › To support the delivery of an efficient, low carbon and climate resilient public transport service;
- › To improve accessibility to jobs, education and other social and economic opportunities;
- › To enhance the potential for cycling by providing safe infrastructure for cycling;

- › To enable compact growth, regeneration opportunities and more effective use of land in Cork for present and future generations; and
- › To ensure that the public realm is carefully considered in the design and development of the transport infrastructure

PROGRESS IN 2021

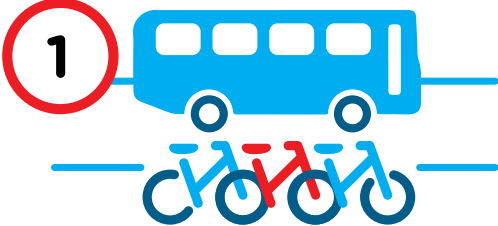
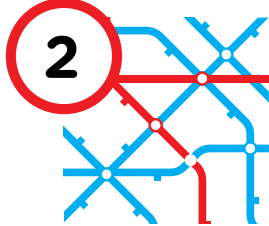
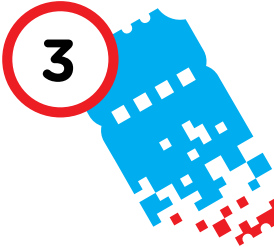

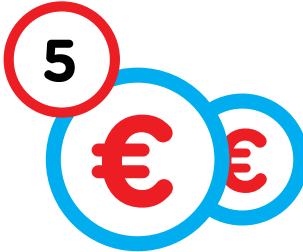




Public Consultation was held on a redesigned network of bus services for the Cork Metropolitan Area. In addition, concept development and option selection studies were being progressed for the Sustainable Transport Corridors. A Strategic Assessment Report was also prepared.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2021	Phase 1 Scope and Purpose	€1.6m

To learn more about the Bus Connects Cork, please see:

<https://busconnects.ie/cork/>

BusConnects Cork

-  **1** Building a network of **new sustainable transport corridors**
-  **2** **Completely redesigning the network of bus routes**
-  **3** New state-of-the-art **ticketing system**
-  **4** Implementing **Cashless payment system**
-  **5** **Revamping the fare system**
-  **6** **New bus livery**
-  **7** **New bus stops** with better signage and information
-  **8** **New Park & Ride** sites in key locations
-  **9** Transitioning to a **zero emissions bus fleet**

Bus Fleet Acquisitions | €81.5m in 2021

The NTA assumed control of the procurement of new Public Service Obligation (PSO) buses and coaches in 2017. The fleet acquisition includes the renewal and expansion for the existing bus fleet operating in:

- › The Dublin Metropolitan Area (DMA)
(i.e., BusConnects Dublin Fleet)
- › The Regional Cities and other town services
(i.e., BusConnects Urban Non-DMA Fleet)
- › Regional and commuter services operating
coach type fleet (i.e., Non-Urban Fleet).

PROGRESS IN 2021

The impact of COVID-19 coronavirus outbreak, and related and coincidental global supply shortages, did result in delays and stoppages to fleet production during 2021 impacting the outstanding deliveries from 2020 and orders due for delivery in 2021. Notwithstanding these issues NTA received delivery of 370 buses and coaches in 2021.

During 2021 the NTA has continued on the pathway to transitioning the bus fleet to lower emission fleet. This included delivery of 256 hybrid double deck buses, orders placed for zero emission battery electric single deck buses and completion of a tender process for zero emission battery electric double deck buses.



BUSCONNECTS URBAN NON-DMA FLEET

As part of the transition to lower emission bus fleet and the expansion of bus fleet to provide additional capacity, accommodate new routes and enhanced frequency in the regional cities, NTA placed orders for 61 hybrid double deck buses. At the end of 2021, 60 buses had been supplied to Bus Éireann for operation, with the remaining bus expected for delivering in early 2022.

In addition, a milestone order for 11 battery-electric single deck buses to facilitate the transition of the Athlone Town Service to 100% Zero Emission Fleet was placed in July 2021. All buses currently programmed for delivery during 2022.

NON-URBAN FLEET

A total of 61 single deck regional commuter vehicles were delivered in 2021, of which 52 were added to the non-urban fleet for use by Bus Éireann.

The other 9 vehicles, along with a further 11 vehicles that were on order at the end of 2021, will enter service with the successful tenderer for East Coast Commuter services once that tenderer has mobilised following contract award.

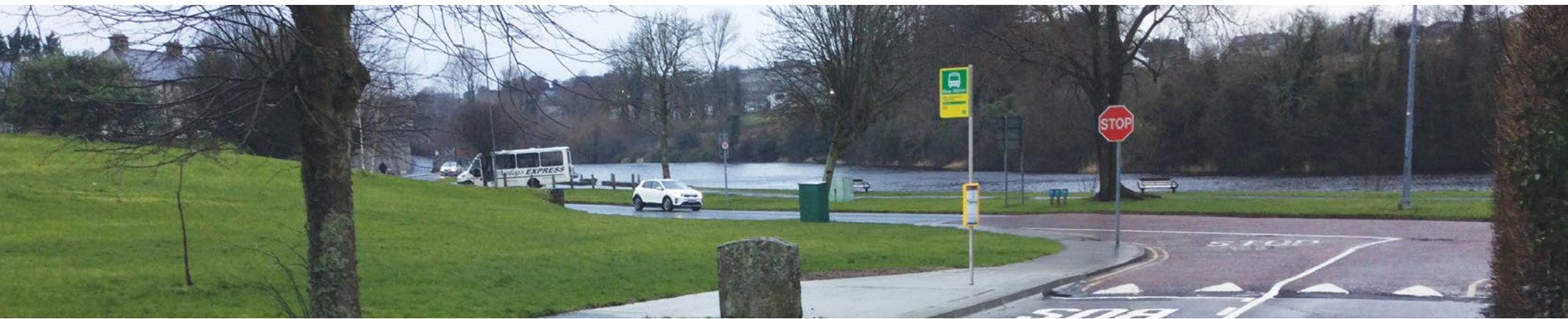
A total of 53 double deck regional commuter vehicles were also delivered in 2021, all of which were added to the non-urban fleet for use by Bus Éireann.

These vehicles incorporate a flat floor on the lower deck and a higher ceiling on the upper deck to increase the space available to passengers, together with a permanent wheelchair space within the lower saloon accessible via a ramp at the centre doorway.

In addition, an order was placed on 1st October 2021 for a further 50 new double deck regional commuter vehicles for the non-urban fleet, all of which are programmed for delivery during 2022.



Investment Area	Vehicle Type	Transport Operator	No. of Vehicles
BusConnects Dublin Fleet	Double deck hybrid urban buses	Dublin Bus	196
BusConnects Urban Non-DMA Bus Fleet	Double deck hybrid urban buses	Bus Éireann	60
Non-Urban Fleet	Single deck regional commuter vehicles	Bus Éireann	52
	Single deck regional commuter vehicles	East Coast Commuter	9
	Double deck regional commuter vehicles	Bus Éireann	53
Total Number of Vehicles delivered in 2021			370



Bus Roadside Facilities (Bus Shelters & Stops) | €4.2m in 2021

BUS SHELTERS

During 2021 the NTA continued to undertake, through its contractor JCDecaux Ireland, the maintenance and repair of existing bus shelters and the provision of new bus shelters on bus routes throughout the State as follows:

Installation of 56 standard bus shelters of the Reliance design, at 56 individual locations.

- › 43 of the 56 were new shelter locations; and
- › 13 of the 56 were replacement shelter locations.

11 further locations were future proofed by means of casting the supporting steel cage and fixing bolts in the ground in addition to finishing footpaths and kerbing.

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 2021, the NTA undertook upgrade works at stops in Sligo and Limerick which included installation of new TFI branded bus poles. The NTA also provided resources to Dublin Bus, Bus Eireann and Meath County Council to upgrade additional stops nationwide.





PARK & RIDE

“The 2021 Capital expenditure on Park & Ride was **€1.9m**”

LUAS P+R

Cuimhnigh cláruimhir d'fheithicle.
Íoc ag Meaisíní Ticéad Luas ar an ardán.

Remember your vehicle registration number.
Pay at Luas Ticket Machines on platform.

Park and Ride (P&R)

The NTA adopted a Park and Ride 5 Year Strategy in November 2019. As part of this strategy and in line with a range of policies, strategies and plans at national, regional, and local level, the NTA has committed to establishing and providing park and ride facilities as part of the on-going investment in the public transport network.

IÉ Car Park Programme | €1.0m in 2021

The IÉ Car Park Programme consists of the upgrade/renewal of Maynooth South Car Park (completed in 2020), Maynooth North Car Park, the expansion of the car park at Sallins & Naas station and the development of a National Car Park Strategy (completed in 2020). The National Car Park Strategy identified the need for additional car parking facilities at Ballybrophy and Portlaoise.

PROGRESS IN 2021

During 2021, works for the Maynooth North Car Park and the car park expansion at Sallins & Naas station were completed. The expansion of the car park at Sallins & Naas station consisted of refurbishing and leasing 200 spaces in an underground car park within the Waterways development adjacent to the station.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2018	Phase 6 Construction and Implementation	€1.0m

NTA Park and Ride Development Office (PRDO) | €0.9m in 2021

To support the timely delivery of Park and Ride and a cohesive overall programme, the NTA established a dedicated Park and Ride Development Office (PRDO) in February 2020. The NTA 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 NTA has been providing park and ride facilities as part of on-going investment in the public transport network. A number of existing strategies and plans have outlined NTA’s commitment to developing parking facilities.

PROGRESS IN 2021

The PRDO completed a P&R Strategy for the Greater Dublin Area and are progressing option selection studies for the identified locations for Park & Ride. Strategies in Galway, Limerick & Waterford were progressed to support the metropolitan area transport strategies for these cities.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2020	Phase 2 Concept & Option Selection	€0.9m

LIGHT RAIL

“The 2021 Capital expenditure on 64 Light Rail projects/programmes was **€60.5m**”



METROLINK

MetroLink | €36.4m in 2021

MetroLink is the development of a high-capacity, high-frequency, automated rail line running from Swords to Charlemont, linking Dublin Airport, IÉ, DART, Dublin Bus and Luas services, creating fully integrated public transport in the Greater Dublin Area.

As well as linking major transport hubs, MetroLink will connect key destinations including Swords, the Mater Hospital, Dublin City University and Trinity College Dublin.

Much of the 19 kilometre route will run underground, an exciting innovation for Irish public transport. MetroLink will carry up to 50 million passengers annually, cutting journey times from Swords to the city centre to 25 minutes.

The MetroLink Project integrates with IÉ, Dublin Bus and Luas to provide a fully integrated public transport system in the Greater Dublin Area. The corridor is predominantly in tunnel and includes 16 new stations, 11 of which are underground and a park and ride facility.

PROGRESS IN 2021

Planning and design for the MetroLink Project developed throughout 2021. The Project team further developed the preliminary design, Environmental Impact Assessment Report and Preliminary Business Case for the project.

The Preliminary Business Case was submitted to the Department of Transport in December 2021 for consideration for onward submission to Government for approval. Pending Government approval of the Preliminary Business Case the formal submission of Railway Order documentation to An Bord Pleanála will be progressed in 2022.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2016	Phase 3 Preliminary Design	€36.4m

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

KEY FACTS

- › Fast service; City to Swords in 21 minutes, City to Airport in 17 minutes
- › High frequency; will run every 90 seconds at peak time
- › High capacity; up to 50 million passengers per year

- › 3000 Park & Ride Spaces
- › Easy interchange to Luas, Bus and Rail Services
- › Less traffic on roads
- › Environmentally friendly public transport


METROLINK

Green Line Capacity Enhancement | €12.1m in 2021

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, developing options for a turn back at St. Stephens Green (SSG) and extending the Sandyford depot.

PROGRESS IN 2021

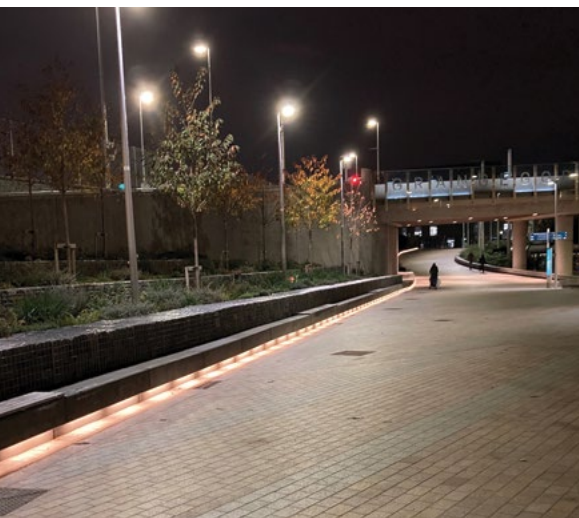
All 26 tram extensions and 8 new trams were fully delivered and operational by Q2 2021. Transport modelling and options assessment on the SSG turn back was further developed in 2021. The close out Programme for the GLCE project is being developed and a new project will be set up for SSG turn back design development, planning and implementation.

KEY FACTS

- › Replace obsolete or unsupportable assets that no longer or will no longer be able to achieve the asset objectives.
- › Integrate new technologies and new methods of work which have tangible benefits for Luas.
- › Replace and renew of components that are worn or reached end of life service.
- › Improve reliability and supportability.
- › Increase the operational life and functionality of in-service assets.
- › Ensure compliance with relevant standards as applied to the asset groups.
- › Maintain the improvement of the safety of Luas operations.
- › Deliver interventions that have a tangible sustainability benefit to the ongoing Luas operations.
- › Improve the passenger experience and relieve congestion.
- › 40% overall increase in service capacity.
- › Increase in capacity of 3,000 passengers per direction per hour.
- › Increase length of the existing fleet (26 trams) to 55m long.
- › Purchase of 8 new trams.

Project Initiation	Project Completion	Project Budget (including VAT)	Project Phase (as at end 2021)	2021 Expenditure
2015	2022	€95m	Phase 6 Construction and Implementation	€12.1m





Luas Lifecycle Asset Renewals | €8.5m in 2021

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.

PROGRESS IN 2021

A Business Case for the programme was developed and approved by NTA in 2021. The LCAR Programme for 2021 mainly consisted of contact wire replacement works, track renewals and 600,000km overhauls on rolling stock. The LCAR Programme for 2021 also comprised of a number of other projects, such as central systems server upgrade, pedestrian crossing improvements, 90 minute fare upgrade and new automated fare collection validators.

Public Transport Luas Upgrades | €1.4m in 2021

The Public Transport Luas Upgrade (PTLU) Programme is a series of enhancement projects which focus on upgrading and carrying out minor works on Luas assets to ensure the standard of Luas operations is maintained and will allow for increased user accessibility to the Luas network.

The PTLU Programme includes upgrades that ensure Luas operates to the latest safety requirements, ensuring the safety of both users and staff, upgrades to the public realm, and updates that will improve accessibility plus intermodal facilities for active modes.

PROGRESS IN 2021

A Business Case for the programme was developed and approved by NTA in 2021. The PTLU Programme for 2021 mainly consisted of completion of works at Broadstone Plaza, repointing and monitoring of the Midland Great Western Retaining walls and bridge expansion joints replacements. The PTLU Programme also comprised a number of other projects, such as installation of bridge reference plates, civil works at weather stations and repair of planters.



Luas Finglas, Dublin

| €1.4m in 2021

Luas Finglas is the next extension of the Luas Green Line. It will create a new public transport connection between the communities of Charlestown, Finglas Village, Finglas west, St Helena's, Tolka Valley and the city centre.

The proposed route is 3.9 kilometres in length and will include four new stops: St Helena's, Finglas Village, St Margaret's and Charlestown.

A 350-vehicle park and ride facility will be provided near the St Margaret's Road stop, close to the M50.

The route will provide interchange opportunities with bus networks at all the new stops and with mainline rail services at Broombridge.

PROGRESS IN 2021

Planning and route design development progressed in 2021 and a non-statutory public consultation on the Preferred Route alignment commenced to seek community feedback on the preferred option.

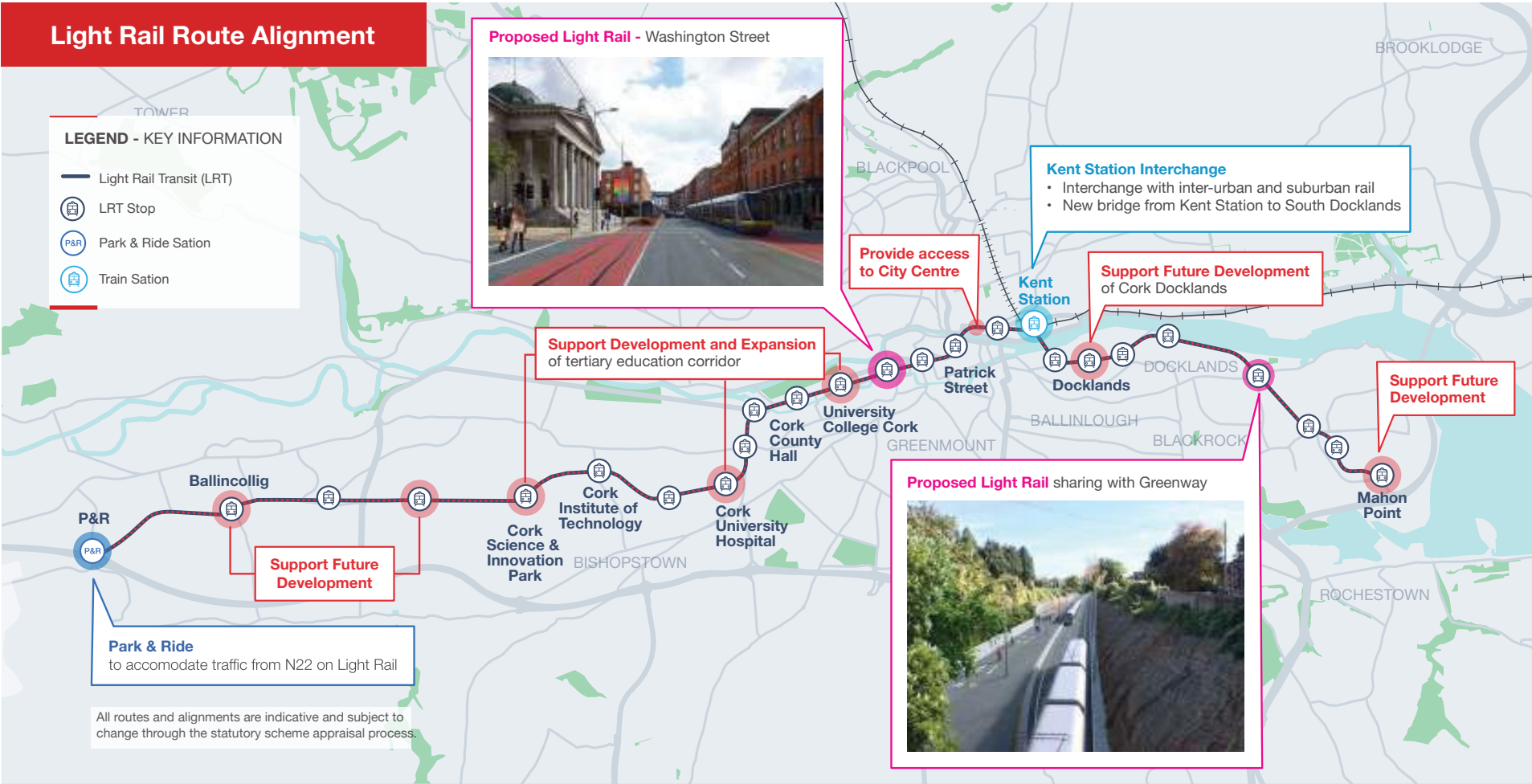
Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2019	Phase 2 Concept Development and Option Selection	€1.4m



Cork Light Rail Transit (LRT) | €0.6m in 2021

The Cork LRT project was identified in the Cork Metropolitan Area Transport Strategy as a key east west corridor forming part of the integrated transport network. In August 2020 TII appointed consultants to progress the option selection and feasibility process. The option selection process continued throughout 2021 with a view to holding public consultation on an Emerging Preferred Route in mid-2022.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2020	Phase 2 Concept Development and Option Selection	€0.6m



A close-up, low-angle shot of a person sitting in a wheelchair. The wheelchair has a purple frame and large, silver-rimmed wheels with white tires. The person is wearing a dark grey jacket. The wheelchair is positioned on a cobblestone path. In the background, there are blurred trees and a fence. A teal arrow-shaped graphic points from the left towards the text.

ACCESSIBILITY

“The 2021 Capital
expenditure on
Accessibility was
€7.7m”



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

Railway Station Accessibility | €4.8m in 2021

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 2021

- › The construction of accessible lifts and a footbridge at Edgeworthstown station (Co. Longford) was opened to the public.
- › Accessible lifts and footbridges constructed and opened to the public at Ennis station and Carlow station.
- › Construction of wheelchair accessible lifts and bridges commenced at Gormanston (Co. Meath) and Dalkey (Co. Dublin) in Q4 2021.
- › 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) has been identified as the first station for implementation for this upgrade to compliment the new wheelchair lifts and bridge that opened in 2021. The upgrade of two platforms to the updated standard commenced in 2021.





Bus Eireann Accessibility | €0.9m in 2021

This is Bus Eireann'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.

NTA previously funded audits of bus stations to determine what works are required to bring the stations to the required standard under Technical Guidance Document (TGD) - Part M Accessibility.

This led to a new project in 2021 for internal accessibility upgrades in Bus Stations which is currently at design stage. Wheelchair accessible bus bays were completed at Bus Stations in Wexford, Tramore and Athlone in 2021.

Local Authority Accessibility | €0.4m in 2021

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.

During 2021, construction was completed on eight wheelchair accessible bus stops including locations at Shannon, Tullamore Co Offaly, Arklow and New Ross Co Wexford. The Covid construction shutdown had a significant impact on these projects. However a further 24 stops nationwide are currently at various stages of the construction phase.

The Wayfinding Centre

| €0.2m in 2021

NTA is part funding the development of The Wayfinding Centre (TWC). This is a National Council for the Blind Ireland (NCBI) project for an indoor transport training centre to train and empower people with reduced mobility, or specific access needs, in utilising public transport. The TWC will also provide space for transport users, operators, policy makers, planners and engineers to come together to provide training, awareness raising and educational opportunities.

PROGRESS IN 2021

In 2021, the design and planning documentation was developed and planning permission was received in August 2021 for a facility at Botanic Road, Glasnevin Dublin. Tenders for the construction and fit out of the facility were received and the contract for works is expected to be awarded in 2022.

The proposed facility will be run and operated by the NCBI.

Project Initiation	Project Phase (as at end 2021)	2021 Expenditure
2019	Phase 5 Detailed Design & Procurement	€0.2m

Wheelchair Accessible Vehicle Grant Scheme (WAV)

| €1.4m in 2021

One of the key objectives of the NTA is the promotion of a quality service by small public service vehicles (SPSV) and their drivers, and the promotion of access to such vehicles by persons with disabilities. The Wheelchair Accessible Vehicle (WAV) Grant Scheme was introduced in 2014 to address the decline in wheelchair accessible vehicle numbers within the SPSV fleet.

PROGRESS IN 2021

The WAV Grant Scheme 2021 introduced 379 grant aided vehicles to the fleet at a total cost of €1.4 million.

Overall as at 2021 year end, there are a total of 3,250 wheelchair accessible vehicles within the SPSV fleet accounting for 17.2% of the fleet total.

TRANSPORT TECHNOLOGY

“The 2021 Capital
expenditure on
Transport Technology
was **€13.2m**”



Transport Technology Projects | €13.2m in 2021

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)

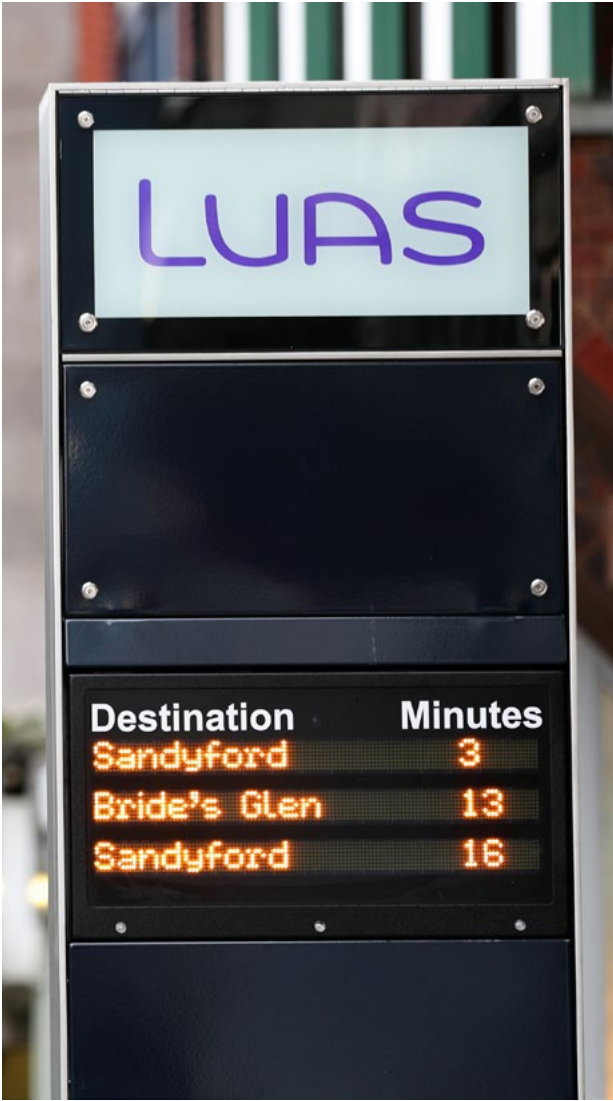


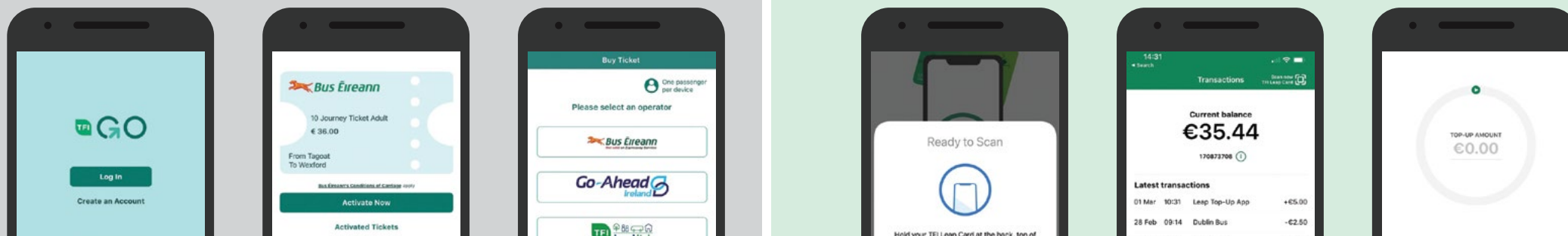
REAL TIME PASSENGER INFORMATION (RTPI) AND NATIONAL JOURNEY PLANNER (NJP)

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.

PROGRESS IN 2021

In 2021, significant work was undertaken to extend the life of the current 800+ on-street display signs by upgrading to a supportable platform and moving the associated back office to an accessible cloud-based solution. All signs were successfully upgraded in 2021. In addition, during 2021, the delivery of a new NJP system (and associated solutions and services in the areas of scheduling, real time and timetable production) was substantially advanced ahead of planned completion in 2022. This new solution will supersede the NTA's current 'Real Time Ireland' and 'Journey Planner' applications.





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.

PROGRESS IN 2021

Following a successful pilot in 2020, the NTA launched an updated version of the TFI Go application extended to allow users to search for and buy tickets for 87 Bus Éireann routes around the country in 2021. Following the successful introduction of this capability, a second phase will add more routes, more operators and additional ticket types, which is due to be completed in 2022. The new phase will add multi-operator capability, allowing the app to be extended to work on other services such as those provided by TFI Local Link and on Dublin Commuter routes operated by Go Ahead Ireland.

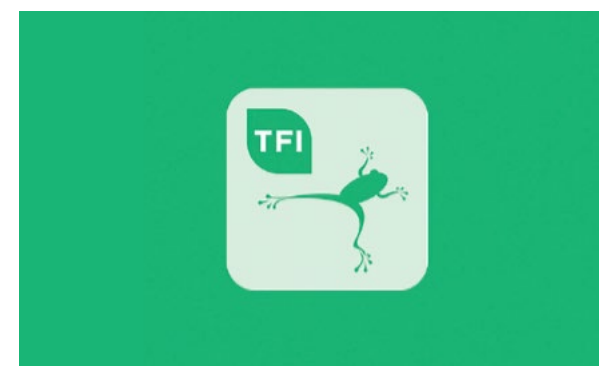


INTEGRATED TICKETING (TFI LEAP CARD)

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 near-field 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 2021

During 2021 development of the iPhone version of the Leap Top-up application was completed and the application was launched in April. The iPhone Leap Top-up application has been a huge success and played a significant role in increasing the application channel share.



INTEGRATION & SUPPORT PROJECTS AND SERVICES

“The 2021 Capital expenditure on Integration & Support Projects and Services was **€13.4m**”



Integration and Support Projects and Services

| €13.4m in 2021

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 2021, extensive modelling was undertaken to support projects and initiatives including the Greater Dublin Area Transport Strategy, Galway Transport Strategy projects, the Cork Metropolitan Area Transport Strategy, the Limerick Shannon Metropolitan Area Transport Strategy, MetroLink, BusConnects, Dart+ Programme and the Active Travel Programme.



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 2021, significant work was undertaken to further enhance various facets of governance and assurance. Examples include the development of a comprehensive governance framework for the BusConnects Dublin programme, 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.

In 2021, the procurement process for the Consolidated Contact Centre operator was substantially progressed.



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 2021, significant progress was made on the development of transport strategies nationally including the publication of the Draft Transport Strategy for the Greater Dublin Area and on the development of transport plans across Limerick-Shannon, Waterford and other local authorities across Ireland.

GREATER DUBLIN AREA



The NTA published the Draft Transport Strategy for the Greater Dublin Area in November 2021 for public consultation. A number of online events were held throughout the 8-week consultation period and over 1,000 submissions were received.

The strategy report was finalised in April 2022, and is now due to be submitted to the Eastern and Midlands Regional Assembly, the Joint Oireachtas Committee on Transport and the Minister for Transport for their consideration, in accordance with the prevailing legislation.

The NTA engaged with all local authorities in the GDA on their preparation of development plans and local area plan and were also consulted on the preparation of numerous local transport plans for key towns and other settlements.

LIMERICK - SHANNON METROPOLITAN AREA



The NTA, in conjunction with Limerick City and County Council, Clare County Council and Transport Infrastructure Ireland, continued work on the preparation of the proposed Limerick - Shannon Metropolitan Area Transport Strategy (LSMATS).

Following the evaluation of submissions on the Draft LSMATS as published in 2020, significant additional work was carried out in 2021. This included the re-examination in greater detail of the potential for suburban rail to play a more significant role in transport in the LSMATS. The NTA took the opportunity to re-engage with a number of selected stakeholders in early 2021 to give initial responses to their feedback on the draft LSMATS. The NTA engaged with both Limerick City and County Council and Clare County Council on the preparation of their development plans and on the preparation of a local transport plans for Shannon.

An initial draft LSMATS was developed by June 2021 which required further revisions after consideration of the revised National Development Plan and Climate Action Plan.

WATERFORD

The NTA, in conjunction with Waterford City and County Council, Kilkenny County Council, Transport Infrastructure Ireland and the Southern Regional Assembly, continued the preparation of a Transport Strategy for the Waterford Metropolitan Area. It is expected that the transport strategy will be completed during 2022. The NTA engaged with Waterford City and Council on the preparation of their development plan.

OTHER AREAS

The NTA engaged with numerous local authorities around the country, providing input through written submissions on the preparation of development plans, advice and input into the profiling of transport demand patterns at county level, as well as the preparation of local transport plans for certain key towns and other settlements within their administrative areas.

Much of this work was undertaken to help inform policy making as part of the development plan or local area plan review process and the prioritisation of transport investment.

The NTA were also consulted on a number of national roads schemes, as part of their option selection processes.

APPENDICES

The following sections provide a full breakdown of capital projects and programmes with capital spend in 2021




 HEAVY RAIL SAFETY & DEVELOPMENT			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
DART + Programme (Inc. Fleet)	<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>IÉ completed the tender process for the procurement of DART+ Fleet, progressed with Public Consultations and continued with the planning and design of all elements of the DART+ Programme.</p>	<p>Phase 3 Preliminary design</p> <p>Phase 6 Construction and Implementation (DART+ Fleet)</p>	€160.5m
National Train Control Centre	<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 progressed with the construction of the NTCC Building and completed the preliminary design for the traffic management system.</p>	Phase 6 Construction and Implementation	€42.5m
Cork Area Commuter Rail Programme	<p>The Cork Area Commuter Rail (CACR) Programme involves the development 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>IÉ issued the tenders for the design services for each of the elements in the CACR programme. A Strategic Assessment Report for the entire programme has been prepared.</p>	Phase 1 Scope and purpose	€0.9m
Pelletstown Station	<p>The project is to develop and construct a new train station at Pelletstown, Dublin on the existing Sligo/Maynooth railway line. The new Pelletstown station is situated between Ashtown and Broombridge stations and serves the existing community of Ashington as well as the new community at Royal Canal Park.</p> <p>IÉ completed the construction and opened the station in September 2021.</p>	Phase 6 Construction and Implementation	€3.2m



HEAVY RAIL SAFETY & DEVELOPMENT


Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Woodbrook Station	<p>The project consists of the construction of a new passenger train station in the Woodbrook-Shanganagh area of Dublin. It is envisaged that this station will cater for DART services.</p> <p>IÉ received planning permission for the new DART Station and commenced the development of the more detailed design.</p>	Phase 4 Statutory processes	€0.9m
Kildare Route Project	<p>This project was the precursor of the current DART+ South West project, extending from just west of Heuston Station to Hazelhatch Station in Celbridge. While significant work was carried out over a decade ago on the scheme, more recent expenditure has focussed solely on completion works at Kishogue Station, which was substantially completed in 2009 but remained unopened.</p> <p>During 2021 the main workstream was the assessment of options for the undertaking of certain upgrading works to fully commission and open the station. The next phase will see the undertaking of these works, which will be managed as a separate project from the older Kildare Route Project.</p>	Phase 7 Close out and review	€0.1m
Colbert Station - Transport Interchange Limerick	<p>Following on from the development of the Colbert Station Plaza in 2016, this project seeks to develop an improved transport interchange at Colbert Railway Station. In 2021, IÉ progressed with the detailed design, procurement and tender process.</p>	Phase 5 Detailed Design and Procurement	€0.6m
Limerick Fuel Slab	<p>The objective of the project is to prevent future contamination of the local soil and groundwater environment at the Limerick Depot refuelling area by installing an impermeable concrete slab track in the external servicing area, an overhead canopy, new fuelling and servicing points, bunded storage areas and bunding to the existing fuel storage tanks.</p> <p>IÉ reached substantial completion in August 2021 and the fuel slab is in service. Snagging of mechanical & electrical (M&E) works is ongoing.</p>	Phase 6 Construction and Implementation	€1.5m

 HEAVY RAIL SAFETY & DEVELOPMENT			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Ceannt Station Redevelopment Galway	<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>IÉ progressed with the detailed design development, fire safety certificate and Disability Access Certificate (DAC) applications for submission in early 2022. Urban Regeneration and Development Fund (URDF) funding for the project was also confirmed in 2021.</p>	Phase 5 Detailed Design and Procurement	€1.7m
Galway – Capacity Study	<p>The objective of the project is to identify the potential for and scope of short, medium and long-term capacity improvement options for Athenry to Galway to enable a strategy to be developed.</p> <p>IÉ progressed with the study in 2021 which has been developed into the Galway-Athenry-Portarlington Capacity Improvements Project in 2022. The study is nearing completion with capacity improvement options identified and costed. The Capacity Study itself will be completed in early 2022.</p>	Phase 1 Scope and purpose	€0.1m
41 Intercity Railcars (ICR's) Purchase	<p>The objective of the project is to provide additional capacity on existing rail services on the Dublin Commuter lines. It includes the purchase of additional carriages to expand the existing peak period commuter rail service.</p> <p>IÉ completed the design phase of the project and construction of the new vehicles commenced within 2021.</p>	Phase 6 Construction and Implementation	€2.3m
AdBlue fuelling installation at Chief Mechanical Engineer (CME) Locations	<p>The Ad Blue Fuelling infrastructure is required to support the introduction to service of the 41 InterCity Railcars project to comply with the Emissions Regulations (2016/1628/EU).</p> <p>IÉ completed a tender process and a contract was awarded to the successful vendor. IÉ commenced with the installations and is at advanced stages at all locations.</p>	Phase 6 Construction and Implementation	€1.6m



HEAVY RAIL SAFETY & DEVELOPMENT

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Railway Station signage and wayfinding programme	<p>The signage and wayfinding programme will replace non-compliant, inadequate, and deteriorated station signage, enabling any railway customer to identify and navigate the stations.</p> <p>IE progressed with the signage and wayfinding at the 27 DART stations and is 90% complete.</p>	Phase 6 Construction and Implementation	€1.7m
East Coastal Railway Infrastructure Protection Projects	<p>The East Coastal Railway Infrastructure Protection Projects (ECRIPP) involve the identification and implementation of infrastructural protection strategies for IE Infrastructure on the East Coast of Ireland.</p> <p>IE has awarded one contract to date under the main works, for the development of the business case. IE has also commenced the procurement for a multi-disciplinary consultant for the design and preparation of tender documentation for the construction phase.</p>	Phase 1 Scope and purpose	€0.3m
Rail Infrastructure coastal works at Rosslare, Bray head and Killiney	<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>IE commenced works in the Rosslare area following the award of various supply and works contracts. IE also progressed with the design of works at Killiney and Bray Head.</p>	Phase 6 Construction and Implementation	€3.5m
Lifts & Escalator Renewal Works	<p>The investment in lift and escalator renewal works is part of the IE "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>IE completed the upgrade and renewal of 17 lifts, 2 escalators and 32 unsupported lift control systems in 2021.</p>	Phase 6 Construction and Implementation	€5.2m

 HEAVY RAIL SAFETY & DEVELOPMENT			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
City Centre Re-signalling Project	<p>Construction of the City Centre Re-signalling Project includes the resignalling of the area from the Customs house to Killester and the area on the Sligo line as far as Glasnevin Junction.</p> <p>IE completed the de-commissioning of the redundant signalling system for the Phase 2 and 4 schemes of the City Centre Re-signalling Project in 2021.</p>	Phase 6 Construction and Implementation	€1.9m
Railway station renewal and upgrade program	<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>IE completed the repair and repaint of building fabric elements and structures that were in a deteriorated condition at 22 stations.</p>	Phase 6 Construction and Implementation	€1.0m
LED lighting program	<p>The LED Lighting Programme involves the renewal of LED lighting in all areas that provide step-free access in train stations across the IE network. This will see the renewal of existing luminaires located on lift shaft entrances, over track bridges and stairs. IE implemented LED lighting installs in conjunction with Lift Passenger Call systems to provide CCTV coverage of lift door zones and bridges at a number of stations (including Park West, Fonthill, Kishogue, Adamstown, Thurles, Templemore, Ballybrophy and Hazelhatch).</p>	Phase 6 Construction and Implementation	€0.9m
Ticket Vending Machines Printer Cutter Boards Replacement	<p>This project involves the replacement of component elements in IE 330 Ticket Vending Machines (TVMs) which had reached end of life.</p> <p>The options selection, business case development and procurement strategy were developed by IE during 2021.</p>	Phase 2 Planning	€0.9m



HEAVY RAIL SAFETY & DEVELOPMENT


Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
2003 Security - End of Life	<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>The options selection, business case development and procurement were developed by IE during 2021.</p>	Phase 3 Procure	€0.8m
29000 exterior vinyl livery 14 x units	<p>This project aims to complete an external refurbishment by means of a vinyl wrap film application to the remaining 44 cars on the 29000 fleet. There are 116 cars in total in the 29000 fleet, 72 cars have been painted in-house with the new livery.</p> <p>IE completed the tender process and the contract was awarded in October 2021 with works due to commence in 2022.</p>	Phase 6 Construction and Implementation	€0.6m
Heuston Station toilets redevelopment	<p>The objective of this project is to double the capacity of current station passenger toilet facilities. It will provide an accessible changing room and a designated accessible toilet off the station concourse level. A new Mechanical & Electrical (M&E) plant room and upgraded drainage systems will be located at basement/roof space level to cater for the enlarged toilet development.</p> <p>Detailed design and procurement were undertaken in 2021 with a contractor appointed in October 2021. Works have commenced and continue into 2022.</p>	Phase 6 Construction and Implementation	€0.5m
Customer Information System Strategy	<p>The project is to develop a national Customer Information System Strategy together with a costed prioritised implementation plan to meet IE’s current and future needs. The Customer Information System Strategy was completed and agreed with NTA in 2021. An implementation plan was developed which is informing the development of projects contributing to the improvement of Customer Information on the rail network.</p>	Phase 7 Close out and review	€0.5m

 HEAVY RAIL SAFETY & DEVELOPMENT			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Lift Passenger Call System	<p>This project involves the installation of lift passenger call systems at unmanned stations due to repeated anti-social behaviour events that result in lift outages. This is part of an overall IÉ objective to install approximately 120 lift passenger call systems in lifts across the IÉ network.</p> <p>IÉ delivered lift passenger call systems to 15 stations covering approximately 34 lifts that are repeatedly vandalised.</p>	Phase 6 Construction and Implementation	€0.5m
Pearse Station Roof Renewal	<p>The Pearse Station Roof Renewal project is to renew the existing running shed roof and car park roof safely, cost effectively and with the minimum interruption to customers or services.</p> <p>The Pearse Station Roof Renewal was substantially complete in 2020. During 2021 final snagging was completed and the final account was agreed.</p>	Phase 6 Construction and Implementation	€0.3m
Bicycle lockers & facilities	<p>The project involves the provision of secure, customer friendly and modern bicycle storage facilities at a selection of stations across the IÉ network. These storage facilities are intended to promote cycling as an attractive mode of transport and to facilitate interchange with railway services.</p> <p>In 2021, 154 new bike lockers were installed which brings the total to date to 462 bike lockers installed at stations across the IÉ network.</p>	Phase 7 Close out and review	€0.2m
Other Technology Projects	Other technology projects were progressed in 2021 including Revenue Equipment Upgrade, Revenue Protection Unit - Back Office, IÉ Website Development, TaxSaver Migration, CCTV System Replacement and others.	N/A	€2.8m
NTA Heavy Rail Support Costs	This is internal NTA support spend on the Heavy Rail investment programme to conduct independent reviews of the Public Spending Code deliverables and Feasibility Studies for projects such as Navan Rail Line Study and DART+ Tunnel Study.	N/A	€1.4m
			€238.8m



BUS PROGRAMME


Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
BusConnects Dublin	<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>In 2021, planning and design works continued for each of the 12 proposed Core Bus Corridor (CBC) schemes. NTA launched the H-spine and C-Spine under the new network redesign which included the supply 196 buses to Dublin Bus and installation of over 700 TFI poles and 36 hardstanding installations. A short list of candidates for the delivery of the NGT system was identified and detailed tender documents were also developed in 2021.</p>	Phase 3 Preliminary Design	€104.6m
BusConnects Cork	<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 2021, public consultation was held on a redesigned network of bus services for the Cork Metropolitan Area. In addition concept development and option selection studies were being progressed for the Sustainable Transport Corridors. A Strategic Assessment Report was also prepared.</p>	Phase 1 Scope and Purpose	€1.6m
Bus Fleet Programme	<p>The main areas for fleet acquisition include the new buses to renew and expand the fleet operating in the Dublin Metropolitan Area (BusConnects Dublin Fleet), the Regional Cities and other town services (BusConnects Urban Non-DMA Fleet) and regional and commuter services operating 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 2021, 60 double deck hybrid urban buses were supplied to Bus Éireann (BÉ) for BusConnects Urban Non DMA, 52 single deck regional commuter vehicles and 53 double deck regional commuter vehicles were supplied to BÉ for non-urban fleet, and 9 single deck regional commuter vehicles were supplied to East Coast Commuter for non-urban fleet.</p>	N/A	€81.3m

 BUS PROGRAMME			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Bus Roadside Facilities (Bus Shelters & Bus Stops)	<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>In 2021, the NTA progressed with the installation of 56 standard bus shelters, maintenance at 11 locations, and installation of approximately 150 Transport for Ireland (TFI) poles.</p>	N/A	€4.2m
Dublin Bus Fleet Refurbishment	<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. During 2021, refurbishment of 58 buses which were registered in 2014 was completed and repainting in the new livery was undertaken in line with the 4 year repainting programme for buses.</p>	Phase 6 Construction and Implementation	€3.0m
Bus Éireann (BÉ) (Infrastructure and Technology)	<p>The NTA provides a capital grant allocation to BÉ on an annual basis for a number of infrastructure and technology projects/programmes.</p> <p>In 2021, €1.9m was grant funded to BÉ to support a number of projects, programmes and initiatives including, but not limited to, support for the business transformation team, garage management, network performance decisioning system, new fleet technology and CCTV On-Bus project.</p>	Multiple	€1.9m
Dublin Bus (DB) (Infrastructure and Technology)	<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 2021, €1.4m was grant funded to DB to support a number of projects and programmes including, but not limited to, On-Bus systems development, installation of electric vehicle charging points at DB depot locations, network switch end of life, night service bay modifications and adblue pumpset upgrades.</p>	Multiple	€1.4m



BUS PROGRAMME


Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Connecting Ireland	<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>During 2021 the scope of the Connecting Ireland Plan was further developed through detailed analysis and liaison with local authorities. A Business Case was developed for the plan. In October 2021 a public consultation on the proposed plan was launched and ran until 10th December 2021.</p>	Phase 3 Preliminary Design	€0.8m
Other Technology Projects	<p>NTA provided capital funding to other technology bus projects in 2021 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. The NTA also funded Córas Iompair Éireann (CIE) for the enhancement of existing systems and introduction of new systems, services and reporting to support and develop the Operating Companies Cyber Security strategies.</p>	Multiple	€0.7m
BusConnects Galway	<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>In 2021, non-statutory Public Consultations were carried out on the emerging preferred route.</p>	Phase 1 Scope and Purpose	€0.1m
			€199.6m

 PARK & RIDE			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
IÉ Car Park Programme	<p>The IÉ Car Park Programme consists of the upgrade/renewal of Maynooth South Car Park (completed in 2020), Maynooth North Car Park, the expansion of the car park at Sallins & Naas station and the development of a National Car Park Strategy (completed in 2020). The National Car Park Strategy identified the need for additional car parking facilities at Ballybrophy and Portlaoise.</p> <p>During 2021, works for the Maynooth North Car Park and the car park expansion at Sallins & Naas station were completed. The expansion of the car park at Sallins & Naas station consisted of refurbishing and leasing 200 spaces in an underground car park within the Waterways development adjacent to the station.</p>	Phase 6 Construction and Implementation	€1.0m
NTA Park and Ride Development Office	<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.</p> <p>The NTA has been providing park and ride facilities as part of on-going investment in the public transport network. A number of existing strategies and plans have outlined NTA's commitment to developing parking facilities.</p> <p>During 2021, the PRDO completed a P&R Strategy for the Greater Dublin Area and are progressing option selection studies for the identified locations for Park & Ride. Strategies in Galway, Limerick & Waterford were progressed to support the metropolitan area transport strategies for these cities.</p>	Phase 2 Concept & Option Selection	€0.9m
			€1.9m



LIGHT RAIL

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
MetroLink	<p>MetroLink is the development of a high-capacity, high-frequency, automated rail line running from Swords to Charlemont, linking Dublin Airport, IÉ, DART, Dublin Bus and Luas services, creating fully integrated public transport in the Greater Dublin Area. During 2021, planning and design for the MetroLink Project developed with the Preliminary Business Case submitted to the Department of Transport for consideration for onward submission to Government for approval.</p>	<p>Phase 3 Preliminary design</p>	€36.4m
Green Line Capacity Enhancement	<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.</p> <p>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.</p>	<p>Phase 6 Construction and Implementation</p>	€12.1m
Luas Lifecycle Asset Renewals Programme	<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. In 2021, A Business Case for the programme was developed by TII and approved by the NTA. The LCAR Programme for 2021 mainly consisted of Contact Wire Replacement works, track renewals and 600,000km overhauls on rolling stock.</p>	Multiple	€8.5m
Public Transport Luas Upgrades	<p>The Public Transport Luas Upgrade (PTLU) Programme is a series of enhancement projects which focus on upgrading and carrying out minor works on Luas assets to ensure the standard of Luas operations is maintained and will allow for increased user accessibility to the Luas network.</p> <p>In 2021, A Business Case for the programme was developed by TII and approved by the NTA. The PTLU Programme for 2021 mainly consisted of completion of works at Broadstone Plaza, repointing and monitoring of the Midland Great Western Retaining walls and bridge expansion joints replacements.</p>	Multiple	€1.4m

 LIGHT RAIL			
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Luas Finglas	<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>Planning and route design development progressed in 2021 and a non-statutory public consultation on the preferred route alignment commenced to seek community feedback on the preferred option.</p>	Phase 2 Concept Development and Option Selection	€1.4m
Cork Light Rail Transit (LRT)	<p>The Cork LRT project was identified in the Cork Metropolitan Area Transport Strategy as a key east west corridor as part of the integrated transport network. In August 2020 TII appointed consultants to progress the option selection and feasibility process. The option selection process continued throughout 2021 with a view to holding public consultation on an emerging preferred route during 2022.</p>	Phase 2 Concept Development and Option Selection	€0.6m
Luas Lucan	<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 2021, TII progressed with an updated feasibility assessment study.</p>	Phase 1 Scope and Purpose	€0.1m
Luas Cross City	<p>The Luas Cross City project consisted of a 5.6 km 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. In 2021, there was a small amount of close out and final retention payments.</p>	Phase 6 Construction and Implementation	€0.1m
			€60.5m



ACCESSIBILITY

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
IÉ Station Accessibility Programme	<p>In 2014, a feasibility report was completed by IÉ assessing the accessibility improvements required across the 54 stations. The objective of the Accessibility Programme is to improve the accessibility across the 54 stations.</p> <p>During 2021, construction of accessible lifts and footbridges was completed at Edgeworthstown, Co. Longford and Ennis Station.</p>	Multiple	€4.8m
Wheelchair Accessible Vehicles	<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 2021 introduced 379 grant aided vehicles to the fleet.</p>	N/A	€1.4m
Bus Éireann Accessibility	<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>In 2021, wheelchair accessible bus bays were constructed at Wexford, Tramore Co. Waterford and Athlone Co. Westmeath bus stations while construction is nearing completion in Ballina, Co. Mayo. These projects included other accessibility improvements in the station environments including wheelchair accessible car set down areas, improved paving and waiting areas. The design of Cork and Ennis, Co. Clare bus stations, and bus stops at Mullingar Co. Westmeath and Kilkenny train stations progressed in 2021.</p>	Multiple	€0.9m



ACCESSIBILITY

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Local Authority Accessibility	<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 2021, construction was completed on eight wheelchair accessible bus stops including locations at Shannon, Tullamore Co Offaly, Arklow and New Ross Co Wexford.</p>	Multiple	€0.4m
The Wayfinding Centre	<p>The Wayfinding Centre project includes the construction and development of a state of the art indoor accessible transport training centre, to empower people with access needs when preparing for and during their journey using public transport.</p> <p>In 2021, the design and planning documentation was developed and planning permission was received in August 2021 for a facility at Botanic Road, Glasnevin Dublin.</p>	Phase 5 Detailed Design & Procurement	€0.2m
			€7.6m



TRANSPORT TECHNOLOGY

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Leap Operational Investments	<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 2021, an iPhone version of the Leap Top-up app was launched. In addition, a new online Student Leap Card application process was developed and launched and some of the hardware used for the Leap app server was refreshed.</p>	Multiple	€3.2m
Leap Infrastructure Investments	<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 2021 a number of IT servers and software applications were replaced and upgraded and a project was commenced to migrate some services to the Cloud.</p>	Multiple	€2.5m
Technology Services Group	<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 2021, a number of enhancements to the current National Journey Planner system and to the systems that produce the data required to support the journey planner were completed.</p>	Multiple	€2.5m
Mobile Ticketing	<p>Mobile Ticketing is a project to introduce a mobile phone application that will sell and hold tickets for Public Service Offering (PSO) services nationwide.</p> <p>During 2021, the first release of the mobile ticketing system, called “TFI GO” was delivered and is now in live use. Additional enhancements and features were added as part of the second phase of the staged delivery of the solution, which is expected to complete in 2022.</p>	Phase 6 Deploy/Rollout	€1.4m

TRANSPORT TECHNOLOGY

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
PTO Investments	<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 2021 a number of additional private bus operators joined the Leap Card scheme and new handheld inspection devices were supplied to transport operators for use by their revenue protection staff.</p>	Multiple	€1.3m
TaxSaver	<p>The purpose of this project is to provide a more improved experience to both employers and employees when participating in the TaxSaver scheme. The TaxSaver processes are being revamped to include a one stop shop for all TaxSaver needs including a more user friendly web-based frontend.</p> <p>During 2021, preliminary design and planning work was undertaken to scope and architecture the proposed new system.</p>	Phase 6 Deploy/Rollout	€0.8m
Finance System Project	<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. In 2021, the project completed the Concept and Initiating Project Approval Guideline gateways.</p>	Phase 2 Planning	€0.8m
Travel Information System (TIS) - System & Display	<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 2021, all of the on-street RTPI signs were upgraded and connected to a new cloud based back-end, delivering greater resilience to the provision of public transport information.</p>	N/A	€0.5m
Leap OpCon Transition	<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 2021, a procurement process was undertaken with the final contract award deferred until 2022.</p>	Phase 3 Procurement	€0.3m
			€13.2m



INTEGRATION & SUPPORT PROJECTS AND SERVICES

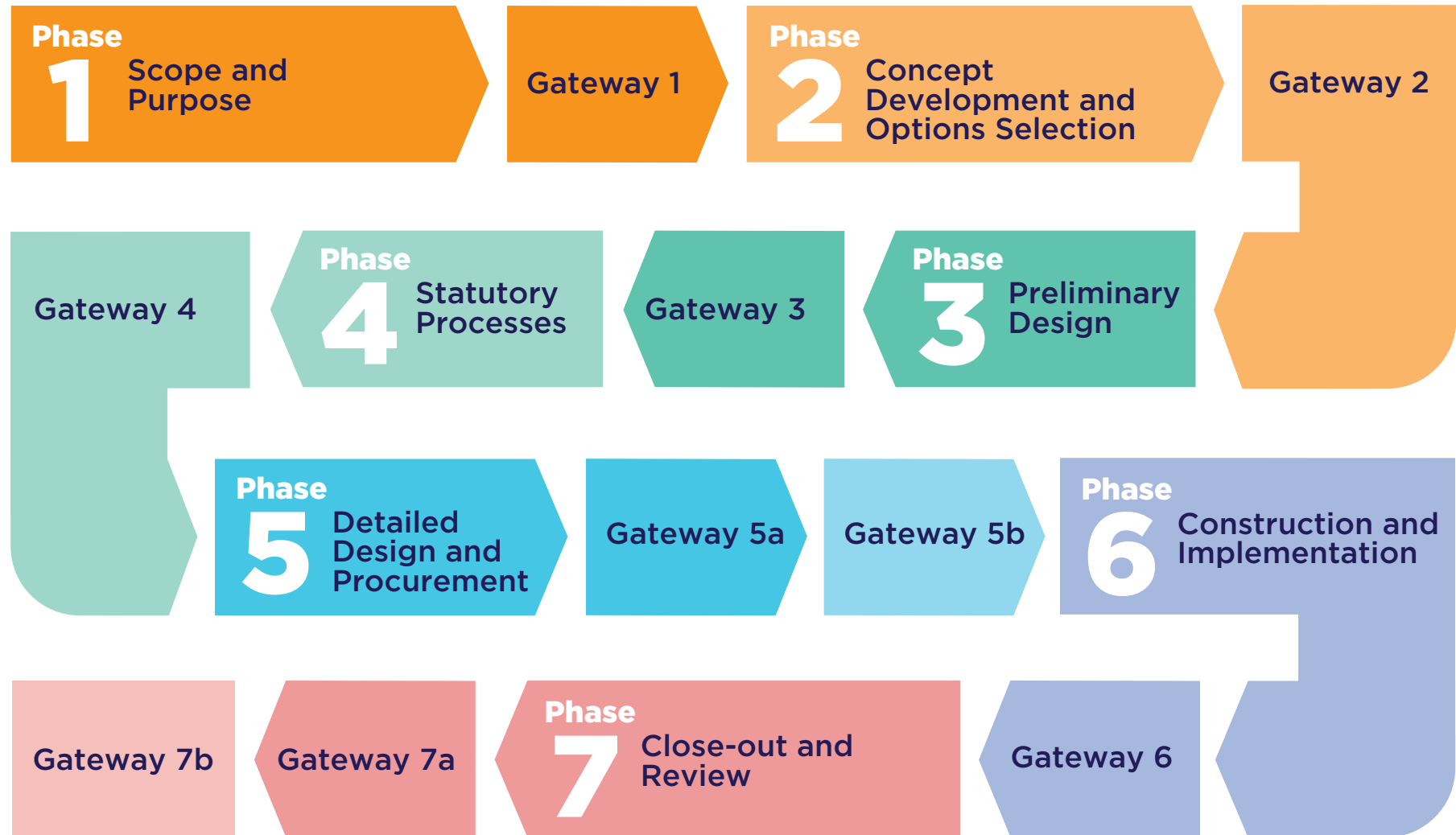
Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Transport Technical Support	<p>The NTA engages services to support internal teams and enable progress across capital projects such as data analytics, technical advisory, finance advisory and other areas.</p> <p>In 2021, The Business Intelligence Analytics Platform was enhanced to ingest, process and analyse external data from bus operators in an anonymised format. Several dashboards were developed for external and internal consumption and the Boarding and Alighting tool (BAT) was modified to meet the needs of the BusConnects project and extended to include Go-Ahead data. A Network Analytics Strategy was also developed in consultation with Transport Operators.</p>	N/A	€5.2m
Transport Modelling	<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 2021, the NTA undertook reviews to assist in projects such as Greater Dublin Area Transport Strategy, Galway Transport Strategy, Cork Metropolitan Area Transport Strategy, Limerick Shannon Metropolitan Area Transport Strategy, MetroLink, BusConnects, Dart+ Programme and the Active Travel Programme.</p>	N/A	€3.4m
Strategy Development	<p>The NTA has responsibility for the development and delivery of strategic transport plans.</p> <p>In 2021, the NTA published the Draft Transport Strategy for the Greater Dublin Area, continued work on the preparation of the proposed 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	€2.1m



INTEGRATION & SUPPORT PROJECTS AND SERVICES

Project/Programme	Description and 2021 Progress	Project Phase at Dec 2021	2021 Spend
Capital Programme Office	<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 2021, the CPO launched an updated Capital Grants Management System to enable better financial reporting and monitoring of capital spend. The CPO team also completed a number of governance reviews across major projects in line with its requirements under the PSC.</p>	N/A	€1.9m
Consolidated Contact Centre	<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 2021, the pre-qualification assessment was undertaken, with four candidates being admitted to the subsequent tender stage of the procurement process. The contract, contract schedules, award criteria, operator business model and Invitation to Negotiate (ITN) documentation were drafted and refined through to Q4 in 2021.</p>	N/A	€0.4m
Transport Regulation	NTA capital funded clamping IT system updates and Taxi IT development.	N/A	€0.4m
			€13.4m

Phases of an NTA Project Life Cycle - Capital Investment



Phases of an NTA Project Life Cycle – ICT







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