



9. Integration and Inclusion

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9.1 Introduction

Metropolitan and regional transport operates as a network. This network is only as strong as its weakest link and the ability of people to change seamlessly from one mode to another – walking to the bus; cycling to the train station; changing from one bus to another – is critical. The features of a well-integrated transport system include the physical environment of stops and stations; the length and quality of the walk between services; crossing points; travel information; fares integration; cycle parking; shelter; frequency and capacity of connecting services.

Transport Integration also encompasses the manner in which the public transport, pedestrian and cycling networks link to other major facilities such as major rail stations, Dublin Port and Dublin Airport.

Finally, Transport Integration relates to the fact that the transport system operates in the context of wider social and cultural norms prevalent in the city region. The manner in which service providers and infrastructure respond to the wide variety of needs across all sectors of society is a central consideration.

In advance of setting out the various strands of investment in the individual modes of transport, this chapter addresses the way in which the NTA will continue to develop these strands into a seamless and inclusive transport network across the GDA over the coming years.

“Mobility plays a vital role in our daily lives and has become a defining factor of current society, the way we live and move. Mobility, or the ability to move from one location to the other, links cultural, economic, social and political aspects of our global society.

The global mobility demand continues to grow, along with the mobility systems’ carbon impact. In order to manage future mobility demand, and a much-needed transition to sustainable, low carbon mobility, it will be crucial to achieve seamless transitions from one transport mode to another. The sole provision of transport options will not be enough.”

Mobility Hubs Of The Future: Towards A New Mobility Behaviour, ARUP, 2020

9.2 Design and Planning of Schemes

In designing and planning transport infrastructure schemes, it can be tempting for agencies, stakeholders and the public to focus on the one primary objective of the scheme, without giving due attention to the myriad other aspects which need to be considered and the wider benefits which may accrue.

Examples of this include the step-change in the quality of the cycle network proposed as part of BusConnects Dublin, or the significant traffic calming and management improvements brought about by Luas in Dublin City Centre.

As such, the integration of all transport modes and wider transport considerations into the implementation of individual transport schemes is an important element.

Measure INT1 - Integration of all Modes in Transport Schemes

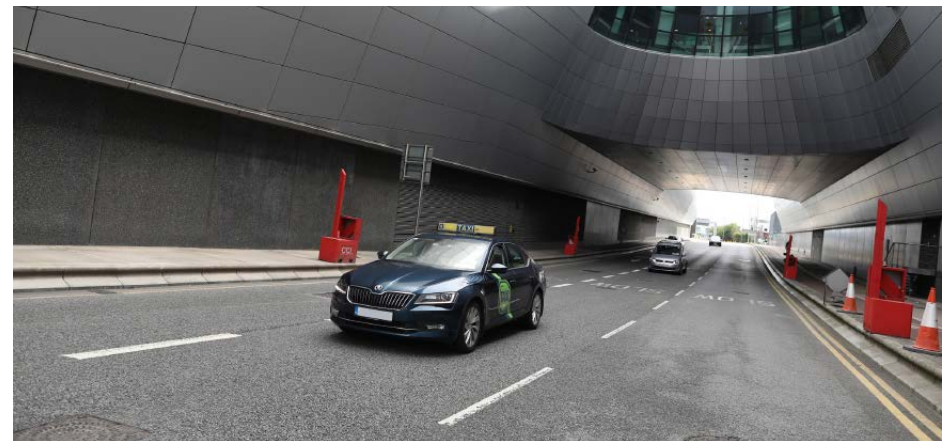
It is the intention of the NTA, in the design and planning of transport schemes, to ensure that the needs of all transport modes are considered, as appropriate, based on the objectives of the scheme and on the road user hierarchy.

9.3 International Gateways

Dublin Airport and Dublin Port are two of the most important economic assets in the state. It is the responsibility of the NTA, through this Transport Strategy, to ensure that the landside transport network meets the requirements of these international gateways.

In terms of Dublin Airport – as a major employer, passenger destination and freight hub – access by all modes is vital. This strategy incorporates MetroLink, BusConnects Dublin and demand management measures which will enhance and protect essential access to Dublin Airport, and ensure that it will operate in a sustainable fashion in terms of landside transport. Surface access to the Airport will be periodically reviewed and improved as necessary, including consideration of additional access from the western side of the airport campus.

In relation to Dublin Port, while the volumes of trips generated are significantly lower than those generated by the Airport, they are of primary economic importance. The location of the port is also a factor which places additional emphasis on the need to cater appropriately for goods vehicles. This



strategy incorporates additional road access for the South Port, protection of the national road network, public transport, HGV management and demand management measures across the city-region which will facilitate more efficient operations of Dublin Port, in tandem with the requirements of the wider city.

The NTA recognise that there are numerous ports and harbours in the GDA which require access and which may grow in importance during the lifetime of the strategy. It is the intention to ensure that these facilities are served by landside transport in the appropriate manner.

Measure INT2 – International Gateways

It is the intention of the NTA, in conjunction with public transport operators, TII, and the local authorities, to serve the international gateways with the landside transport infrastructure and services which will facilitate their sustainable operation.

Throughout the lifetime of the strategy, the NTA will continue to work with Dublin Port Company, other port and harbour operators and DAA in respect of Dublin Airport, in monitoring, assessing and delivering these transport requirements.



9.4 Park & Ride and Interchanges

9.4.1 Park and Ride

There is a substantial number of people in regional towns, the rural hinterland and to a lesser extent in the metropolitan area, who do not have ease of access to high quality public transport by walking or cycling.

Appropriately located and designed Park & Ride facilities can enable these people to access public transport and enhance their options to reach a wide range of destinations in a sustainable manner and increase the usage of public transport, thereby maximising the value of investment in existing and new schemes.

Park & Ride can intercept car trips where people are reliant on private car at an early point in their journey thereby reducing the distances travelled by private car with a corresponding reduction in carbon emissions and congestion.

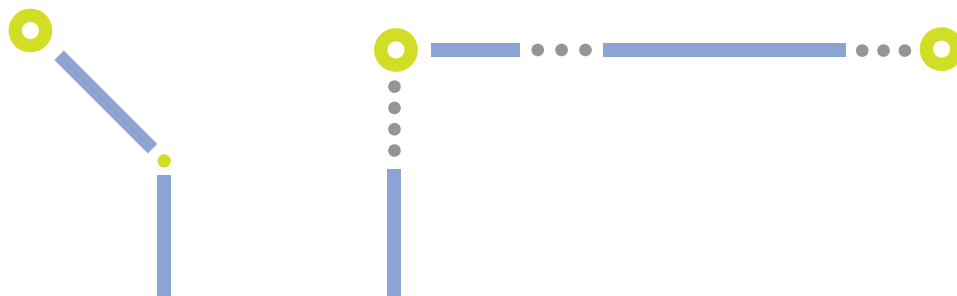
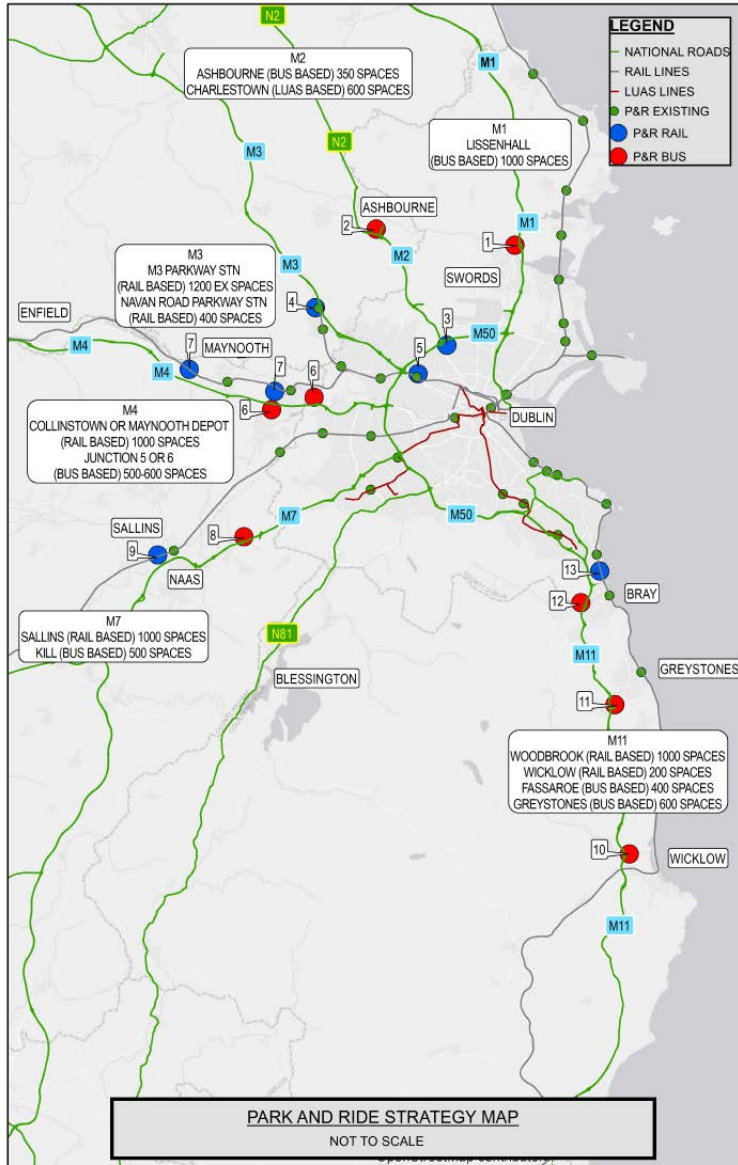


Figure 9.1: Park and Ride Strategy for the GDA



Corridor	Number on Strategy Map	Type of P&R	Indicative No. of Spaces
A (M1/N1)	1	Bus/Metro	1000
B(i) (M2/N2)	2	Bus	350
	3	Luas	350
B(ii) (M3/N3)	4	Rail	1200
	5	Rail	400
C (M4/N4)	6	Bus	500-600
	7	Rail	1000 (500 initially)
D (M7/N7)	8	Bus	500
	9	Rail	1000
F (M11/N11)	10	Bus	200
	11	Bus	600
	12	Bus	400
	13	Rail	1000

Caution must be exercised in the planning of Park & Ride facilities to ensure that unintended consequences do not arise as a result of their provision, such as:

- Encouraging more dispersed development patterns by enabling longer distance commuting;
- Allocating excessive public transport capacity to motorists and thereby promoting local car trips, including outbound trips, to the facility; and
- The opportunity cost of developing land for extensive uses in a highly accessible location.

A Park & Park and Ride Development Office was established within the NTA in February 2020 as recommended in the Climate Action Plan 2019. Through this office a set of recommendations for the development of park and ride facilities have been developed. Those recommendations have been incorporated into the Transport Strategy and the locations selected for potential development are shown in Figure 9.1.

Measure INT3 – Park & Ride

It is the intention of the NTA to secure the development of a network of regional level bus and rail based Park and Ride facilities in the GDA at appropriate locations where the national road network meets, or is in close proximity to, high capacity bus and rail services.

9.4.2 Major Interchange Facilities/Mobility Hubs

As high-capacity bus routes, heavy rail plus light rail increase their coverage across the urban area of Dublin and the region's settlements, the full benefit of this investment, (the “network effect”) can only be fully capitalised on by the development of high-quality interchange facilities or Mobility Hubs.

Examples of major interchanges in operation in the GDA include Bray and Dún Laoghaire stations and Tallaght, where a number of local bus routes meet rail services for onward travel to the city centre and elsewhere. Under BusConnects Dublin, a number of interchanges are currently in development and as the DART+ and light rail projects currently being designed are progressed, additional facilities will be developed. These will include major bus/bus, bus/rail and rail/rail interchanges. At these major interchanges, shared mobility options could be considered such as car club facilities, and significant numbers of secure and sheltered cycle parking and supporting services are also required. Taxis will also play a significant part in the overall public service offer at these locations.

These mobility hubs must be carefully designed to ensure the transfer or waiting experience is as efficient, safe, and attractive as possible. They could also perform an additional placemaking function by providing access to additional services that benefit the surrounding neighbourhoods serving as a vital part of the urban fabric, integrating people as well as transport. In many cases, such as Liffey Valley and Tallaght, it is intended to deliver these facilities within the major retail and services centres.

In general, high quality interchanges or Mobility Hubs can significantly broaden the transport offer for their catchment and add to the appeal and attractiveness of sustainable transport by ensuring that people can easily change services to access a wider range of places by these modes. They are an essential component of a regional transport system and will require particular focus as the strategy is implemented.

Measure INT4 - Major Interchanges and Mobility Hubs

It is the intention of the NTA, in conjunction with TII, Irish Rail and the local authorities, to deliver high quality major interchange facilities or Mobility Hubs at appropriate locations served by high capacity public transport services.

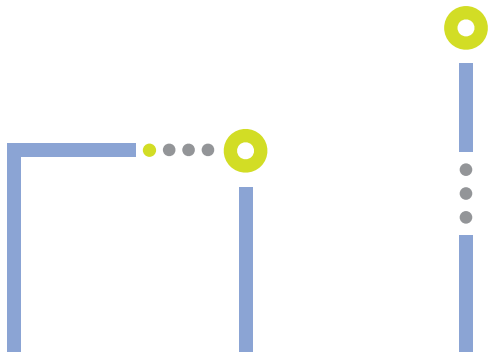
These will be designed to be as seamless as possible and will incorporate a wide range of facilities as appropriate, such as cycle parking, seating, shelter, kiosks selling refreshments plus the provision of travel information in printed and digital formats.

9.4.3 Other Interchanges

In addition to the major interchanges and Mobility Hubs linked to high capacity services, any point on the transport system where services intersect is considered an interchange and aspects of Measure INT4 will also apply to all of these locations. With the introduction of significantly enhanced orbital bus services as part of BusConnects Dublin, it is anticipated that the role of interchange will increase. The pedestrian environment, in particular how convenient and safe it is for passengers to cross roads between stops, becomes critical in these locations as improvements to services occur and as passenger numbers increase. The quality of the information and signage for passengers changing services is also a key factor in making the interchange as easy as possible.

Measure INT5 - Interchange

It is the intention of the NTA, in conjunction with local authorities and transport operators, to ensure that passengers wishing to change between services on the transport network are provided with as safe, convenient and seamless interchange experience.



9.5 Revised Fare Structure

As part of the Bus Connects Dublin programme, fares will be simplified in a way that will make interchange between Bus, Dart and Luas seamless, resulting in a more affordable, efficient and integrated public transport system.

The new fares structure will comprise of a short-distance fare on single leg journeys (approximately 3kms or less) and a 90 minute fare that will allow a customer any combination of travel on Bus, Dart/Commuter Rail and Luas services.

Provided customers commence the final leg of their journey within 90 minutes of the start of their overall trip, the new 90 minute fare will permit travel on all Bus, Luas and Rail services in Dublin including Dart and Commuter Rail services (up to a certain distance on the heavy rail services).

This revised structure will commence its phased introduction in line with the roll-out of the New Dublin Area Service Network (see section 12.2.2) in 2021.

Measure INT6 - Fare Structure

It is the intention of the NTA to revise the fare structure for transport in the GDA in the short-term. This new fare structure will be monitored throughout the period of the strategy and further changes implemented where appropriate.



9.6 Next Generation Ticketing

One of the NTA's overall objectives is to develop a state-of-the-art ticketing system that ultimately makes payments more convenient for passengers. The Next Generation Ticketing (NGT) element of BusConnects Dublin will implement an account based ticketing system as the preferred option. This system aims to use cashless technology, allowing for payments to be made using cEMV (contactless credit and debit cards), mobile phones and tokens, all linked to a payment account. In addition to the bus system, NGT will also be implemented across other public transport modes including Metro, Luas and Heavy Rail allowing for a seamless multimodal trip. The BusConnects Dublin NGT element, in conjunction with simpler fares, will also facilitate the bus boarding process and reduce dwell times at bus stops.

Measure INT7 – Next Generation Ticketing

It is the intention of the NTA to deliver Next Generation Ticketing in the short term, facilitating seamless multi-modal travel and reducing dwell times at bus stops.

9.7 Mobility as a Service

Mobility as a Service (MaaS) describes a mobile application that allows a single consumer portal for all forms of mobility to be planned, procured and compared. Economic research points to pricing as the primary driver of behaviour change, and through MaaS, customers can be better informed about the

price of different mobility options. In the GDA, this concept has been integrated into the Next Generation Ticketing which will be brought provide a foundation for the future development and roll-out of MaaS. The development of such services by the private sector will also be monitored and integrated where appropriate.

Measure INT8 – Mobility As A Service

It is the intention of the NTA to investigate the potential for MaaS to play a role in the GDA transport system and the use of the Next Generation Ticketing roll-out as a basis for its implementation, as appropriate.

9.8 Behavioural Change

Behavioural Change encompasses a wide range of measures which aim to encourage and incentivise sustainable transport behaviour. They can be targeted at individuals, neighbourhoods, workplaces, schools and colleges. Generally, they involve promotional campaigns and information dissemination rather than infrastructural investment, although in many cases investment in things like cycle parking and signage can form part of a programme. The NTA have been running Smarter Travel Workplaces and Campuses in some form since the agency's inception in 2009 and have managed the Travel Module of An Taisce's Green School Programme on behalf of the Department of Transport over that period as well. Behavioural Change is an integral part of the NTA's functions and responsibilities and will continue as such over the period of the Transport Strategy.

9.8.1 Smarter Travel Workplaces and Campuses

Smarter Travel Workplaces and Campuses is a public awareness programme working with large employers and colleges to implement voluntary travel plans based on the concept of Community Based Social Marketing.

A growing number of Irish employers are engaging in Smarter Travel, working with their employees to facilitate travel choice in favour of more sustainable transport, resulting in reduced costs, enhanced employee wellbeing and more effective parking management. The program has over 200 partners nationwide including clusters of companies in some locations. These include many of the largest employers in Ireland plus many local authorities and hospitals.

Smarter Travel Campus is a hands-on programme working with third level institutions to implement campus travel plans to encourage and support students and staff to walk, cycle, take public transport or carpool on the commute to campus.

The results from this direct engagement with workplaces and campuses have been extremely positive. A reduction in the use of the private car in the range of 10-24% has been achieved through the programme. The outcome of this programme, however, is not measured solely by the numbers of single-occupancy car trips being removed from the roads, but also by the fostering of a sustainable transport culture in places where the car had previously played a predominant role.



Measure INT9 – Smarter Travel Workplaces and Campuses

The NTA will continue to expand the Smarter Travel Workplaces and Campuses Programme in order to directly influence travel behaviour in the GDA and to maximise the use of public transport, walking and cycling infrastructure and services to be developed under the Transport Strategy.

9.8.2 Green-Schools Travel

Green-Schools is Ireland's leading environmental management and education programme for schools. Travel is the fourth module of the programme and through a wide range of measures and a high level of hands-on engagement with school communities, this programme has been extremely successful in promoting the sustainable travel agenda and reducing car use for travel to school. The success of the Green-Schools Travel programme is based on two factors. The first is that the Green-Schools Travel module is delivered through their effective '7 Step' methodology (as set out on the Green Schools website), which acts as a guide to teachers and pupils.

The second success factor is that experienced An Taisce Green-Schools Travel Education Officers are on hand to assist schools interested in changing travel behaviour. They offer resources, advice, and the opportunity to network with other schools. The NTA is committed to the maintenance and expansion of this programme on a national basis.

Measure INT10 – Green Schools Travel

The NTA will continue to support An Taisce in the operation and expansion of the Green-Schools Travel Module as a key measure in reducing car use to school and in the fostering of a sustainable transport culture from a young age.

9.8.3 Residential Travel Planning

Residential Travel Planning or Personal Travel Planning programmes involve delivering a set of measures to a neighbourhood or development area. The overall aim is similar to workplace, campus or schools programmes, but the programmes are delivered on a door-to-door personalised basis. They include undertaking surveys; providing personalised travel information; holding events; and monitoring and evaluation. As they relate to large populations and require an individualised and personal approach, these programmes require significant resources, including personnel.

They are often used in single large developments, such as major apartment schemes and new development areas such as Adamstown – a pilot project was undertaken here in 2010 – but could be rolled out to any location in the GDA. The development of major new infrastructure and significant improvements to public transport services as part of the implementation of the Transport Strategy may

offer an opportunity for this type of direct engagement with communities.

Measure INT11 – Residential Travel Planning

The NTA, in conjunction with the local authorities and the transport operators, will consider the role of Residential Travel Planning programmes as a means of encouraging sustainable travel behaviour across the GDA.

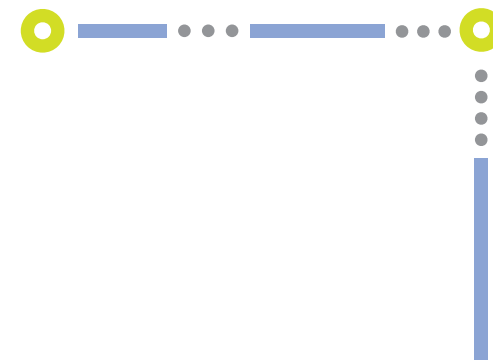
9.9 Small Public Service Vehicles

Taxis provide an important transport service offering door-to-door trips and form a key component of the overall public transport system. Taxis offer the ability to complete one-off trips that are difficult to provide for efficiently by other modes and are an intrinsic part of the region’s public transport system. There is therefore potential for taxis to play an important role in Mobility Hubs and Interchanges as set out in 9.4.2. The following measures will be brought forward in cooperation with the local authorities and the taxi industry over the period of the strategy.

Measure INT12 – Small Public Service Vehicles

The NTA, with the cooperation of the local authorities and the taxi industry, will support the operation of an efficient and effective taxi service for the GDA through the following actions:

- The provision of appropriate additional taxi rank space in towns and cities, taking into account the needs of all transport users;
- Continuing to review the national maximum fare for taxi use approximately every two years;
- Investigating the need for driver welfare facilities to be provided at public transport interchanges and in town centres;
- Incentivising the use of low and zero emissions vehicles, and;
- Ensuring that the fleet transitions to be a 100% accessible fleet during the period of the Transport Strategy;



9.10 Late Night Transport

The provision of night-time transport options is essential for any modern city. Late night transport is critical to meet the travel needs of late-night/early-morning commuters, to serve the night-time economy of Dublin City, major suburban centres and regional towns, and to provide a reliable transport alternative to the private car.

In recent years, the NTA has begun to introduce 24-hour bus services and is committed to expanding the standard public transport offer outside of the traditional peak periods and beyond the traditional schedules, subject to the provision of necessary funding.

The safety of people walking and cycling at night time is also an important factor and will need to be considered more carefully in the design of transport schemes and services.

Measure INT13 – Late Night Transport

In order to serve those who travel to work outside the AM and PM peaks; to support the night-time economy of Dublin City and the wider GDA; and to generally broaden access to public transport at all times for all trip purposes, the NTA will expand a range of public transport services to run on a 24-hour basis as appropriate.

Measure INT14 – Walking and Cycling at Night

The NTA and local authorities will ensure that personal security and safety for those travelling at night by walking and cycling are carefully considered in the design process for new schemes and in retrofitting existing schemes where such issues arise.

9.11 Accessible Infrastructure

There are many bus and rail stations on the network that did not have universal design in mind when they were originally built many decades ago. In order for all people to be able to utilise public transport, the infrastructure must not create barriers to people in accessing the services. Significant work has already been undertaken in retrofitting train and bus stations to provide enhanced accessibility by people with disabilities but further work is required to ensure that all stations are fully accessible.

There are many lifts in existing train and tram stations, which are essential for some passengers being able to access a platform or station building. Lifts that break down or are out of service for long periods of time cause a customer to lose confidence in being able to access that station and potentially

stop them from using public transport altogether. Significant funding is being provided to replace and/or renovate older lifts to ensure that they are in good working order for their passengers. Video surveillance of the lifts is being installed to reduce the potential of future breakdowns caused by vandalism.

Most bus stops in the GDA are serviced by low floor buses and are accessible to wheelchair users who board the bus via a wheelchair ramp. On coach routes, which operate at higher speed and don't permit standing passengers, wheelchair lifts are used on some vehicles. Wheelchair lifts require significantly more space at footpath level to allow the wheelchair lift to operate.

A retrofit programme to create suitable stops at which to operate coach wheelchair lifts is ongoing and will be continued as part of this Transport Strategy. In addition, the NTA has invested in newly developed low floor coach vehicles, which allow more convenient access by wheelchair ramp from conventional bus stops.

Measure INT15 – Accessible Infrastructure

During the period of the Transport Strategy, the NTA will ensure that public transport infrastructure, and facilities in the GDA are made accessible for all users.

9.12 Accessible and Reliable Information

The NTA recognise the need for passengers to be able to plan their journey and get reliable information in an easy and accessible manner. The TFI website is constantly being updated so that customers have one place to go to get information on all the transport modes. The National Journey Planner App allows people access information on their journeys in real time to allow them to make an informed decision.

At present, bus poles are a variety of red, grey and yellow poles at bus stops, which are maintained by different operators including commercial operators. The installation of a single style bus stop pole at all bus stops in Ireland will allow decluttering of the bus stop area. A yellow/green head plate and yellow carousel on the bus pole (providing additional visibility for the visually impaired), will have up to date information of the services stopping at that location. A QR code will allow a passenger to be connected directly to the Journey Planner App to obtain the real time information of the services stopping at that specific stop.

Measure INT16 – Travel Information

The NTA will ensure that public transport information on websites, apps, on-street, at key destinations, and in-vehicle – in both digital and printed format – is standardised, up-to-date and universally accessible.

9.13 Travel Assistance Scheme

Using the Public Transport System can seem daunting for many people with disabilities. The Travel Assistance Scheme, which is funded by the NTA, provides a service to meet with individuals and show them how to travel from their home to their preferred destination until the person feels confident to do so on their own. This covers all of the State provided public transport services within the GDA.

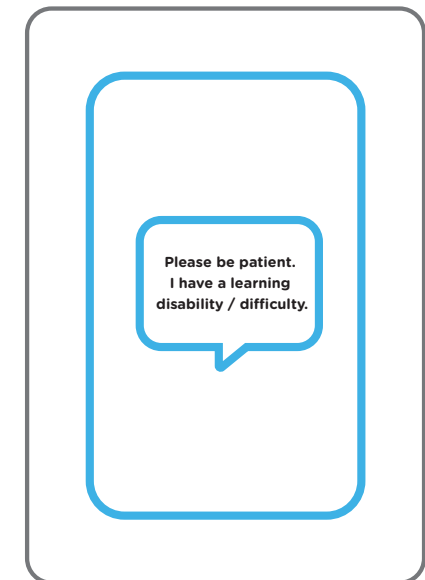
Measure INT17 – Travel Assistance Scheme

The NTA, in conjunction with the transport operators, will maintain and expand the Travel Assistance Scheme.

9.14 Equality and Inclusivity Campaigns

The public transport system aims to be a reliable and accessible system but also where people feel confident and safe to travel on. Campaigns will continue to be run on all modes of public transport to remind people of politeness and etiquette for others as we travel together. Anti-racism; JAM Card (a card which allows people with a learning difficulty, autism or communication barrier tell others they need ‘Just A Minute’ discreetly and easily); LGBTQ+; and Respect for staff campaigns will continue to be highlighted on the public transport system.

Inclusivity Campaigns:
Anti Racism campaign poster (top) and the JAM Card (bottom)



Measure INT18 - Equality and Inclusivity

The NTA, in conjunction with the transport operators, will continue to implement inclusivity campaigns across the GDA's public transport network.

9.15 Equality Impact Assessment

Related to inclusivity, there is a requirement to ensure that the Transport Strategy meets the standards of equality across the nine grounds under which people may potentially experience inequality, as follows:

- Gender;
- Marital status;
- Family status;
- Age;
- Disability;
- Sexual orientation;
- Religion;
- Race; and
- Membership of the Traveller community.

While many transport measures within the Transport Strategy seek to address inequality by improving access to the transport system for all ages and abilities; and while the system itself may be considered to be neutral under some of these headings, it is prudent and appropriate for the NTA to subject the emerging final Transport Strategy to an equality assessment prior to its formal completion.

Measure INT19 - Equality Assessment

The Transport Strategy will be subject to a full Equality Assessment in advance of its finalisation.



9.16 Enforcement of Road Traffic Laws

The NTA and local authorities invest significant sums of public monies in the provision of transport schemes, such as cycle lanes, bus lanes and rail lines. The level of service that this investment provides is reliant on a high degree of compliance with road traffic laws and such compliance is not always achieved. In particular, the following offences can have a significant adverse impact on the utility of transport infrastructure:

- Parking on footpaths;
- Parking on cycle tracks and cycle lanes;
- Disabled Parking Spaces being illegally used by non-disabled persons;
- Loading from cycle tracks and cycle lanes;
- Motorists driving in bus lanes;
- Motorists, in particular truck drivers, striking railway bridges;
- Motorists stopping on Luas tracks;
- Speeding on motorways leading to turbulence and congestion;
- Red-light jumping causing collisions with trams and suspension of services;
- Failure to stop at railway level crossings causing collisions with barriers and suspension of services;
- Cyclists travelling on footpaths or pedestrianised streets;
- Footpaths being blocked by construction material and other working equipment; and
- Dangerous driving leading to accidents and a hostile environment for pedestrians and cyclists.

The NTA, local authorities and An Garda Síochána will continue to cooperate with each other and other relevant agencies, such as the Road Safety Authority and TII, in addressing the above issues. A number of proposals and methods will be considered including greater use of camera technology (including on-board cameras), education campaigns and additional legislation.

Measure INT20 – Enforcement of Road Traffic Laws

The NTA, in conjunction with the local authorities, the Road Safety Authority, TII, transport operators and An Garda Síochána, will ensure that investment in transport infrastructure and services is protected through comprehensive enforcement of road traffic laws, including exploring innovative new methods, and will support public information and education campaigns around this issue.

