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THE STATES OF DELIBERATION
of the
ISLAND OF GUERNSEY

COMMITTEE *FOR THE* ENVIRONMENT & INFRASTRUCTURE

THE ON-ISLAND INTEGRATED TRANSPORT STRATEGY – FIRST PERIODIC REVIEW

The States are asked to decide whether, after consideration of the Policy Letter entitled "The On-Island Integrated Transport Strategy – First Periodic Review" dated 27 December 2019, they are of the opinion:

1. To note the progress to date on meeting the objectives of the On-Island Integrated Transport Strategy; and

2. To direct the Committee *for the* Environment & Infrastructure to report back to the States with a second periodic review in 2023.

Propositions have been submitted to Her Majesty's Procureur for advice on any legal or constitutional implications in accordance with Rule 4(1) of the Rules of Procedure of the States of Deliberation and their Committees.

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THE ON-ISLAND INTEGRATED TRANSPORT STRATEGY – FIRST PERIODIC REVIEW

The Presiding Officer
States of Guernsey
Royal Court House
St Peter Port

27 December 2019

Dear Sir

1 Executive Summary

1.1 In May 2014 the States approved the On-Island Integrated Transport Strategy ("the Strategy") as set out in the resolutions[1] and detailed in the Minority Report[2]. This Policy Letter sets out the progress against the Strategy's objectives. The Committee *for the* Environment & Infrastructure ("the Committee") is also presenting as an appendix report[3] the First Periodic Review of the Strategy, which measures and evaluates progress towards the Strategy's core aims and objectives. The States is also asked to direct the Committee to report back with a second periodic review in 2023.

1.2 The vision statement ("the Vision") at the heart of the Strategy is:

> *"To facilitate safe, convenient, accessible and affordable travel options for all the community, which are time and energy efficient, enhance health and the environment and minimise pollution."*

[1] Resolutions Billet D'État No IX, 2014
[2] Annexe, Billet D'État No IX, 2014
[3] Integrated Transport Strategy: First Periodic Review, dated November 2019

The Strategy's aim is to encourage active travel as a priority, followed by encouraging the use of public transport and reducing vehicle movements, particularly the number of solo-occupancy car journeys.

1.3 Transport plays a critical role in virtually every aspect of our community. A sustainable and integrated transport strategy seeks to give people the freedom to choose how they move around Guernsey, whilst recognising the importance of our environment and the island's unique culture and history.

1.4 Access to transport is fundamental to social equity. The Strategy therefore helps to deliver the Policy and Resource Plan (Future Guernsey Plan) principal policy outcome 'One Community: inclusive and committed to social justice'. A safe and efficient transport system provides economic and social benefits and mitigates negative environmental impacts. This supports the principal policy outcomes of the Policy and Resource Plan relating to 'Our Quality of Life' and 'Our Economy' – specifically 'Healthy Community' and 'Strong, Sustainable and Growing Economy'. Improving road safety also accords with another principal policy outcome of a 'Safe and Secure Place to Live'.

1.5 The Strategy is key to the successful delivery of the States' agreed areas of focus to enhance the seafront and mitigate climate change. It will support the delivery of the Economic Development Strategy, the Disability, Equality and Inclusion Strategy, the Health and Wellbeing Policy under the Partnership of Purpose and identification of the strategic requirements for meeting Guernsey's energy needs and transport related infrastructure across the island. The Strategy also supports the delivery of the aims and objectives of the Strategic Land Use Plan and the Harbour Action Areas and Regeneration Areas, which are key designations approved by the States in the Island Development Plan.

1.6 The Strategy's effectiveness in meeting some of its objectives has (as anticipated) been diluted by the absence of several important policy levers designed to encourage change, such as charging for commuter parking through paid long-stay parking, free bus travel and a first registration duty based on width as well as emissions. Even without these key policy levers, however, progress has been made.

1.7 Guernsey's physically constrained road infrastructure limits the potential for engineering solutions to issues such as congestion and traffic management: in other words, making our roads wider often isn't an option. This makes the Strategy's 'demand side' solutions particularly important.

1.8 The Strategy identifies a range of objectives designed to achieve the aim of encouraging active travel and realising the Vision. In summary, the key

achievements identified in the First Periodic Review and listed in accordance with the agreed Strategy objectives are detailed below.

Table 1 – Key Achievements listed by Strategy Objective

Strategy Objective	Key Achievements since 2014
To reduce the number of car journeys, particularly solo-occupancy trips - reducing peak-hour traffic by an expected 10%.	• Average weekday traffic movements into Town in the morning commute have reduced by 4.7% (representing 130 fewer motor vehicles entering Town between 08:00 and 09:00 each day); • Average 24 hour weekday vehicle movements on key arterial routes into Town have reduced by 1.6% (842 movements per day); • The number of cars registered annually in Guernsey has reduced by approximately 19%; • Solo-occupancy vehicle journeys have reduced by around 5%.
To increase the number of journeys made by alternative forms of transport, particularly active travel modes - ideally doubling the number of people travelling by foot, bike and bus.	• Bus passenger numbers have increased by over 32%, representing an additional 470,000 passenger journeys per annum (equivalent to circa 1,175,000 fewer car miles per annum); • Bus passenger journeys originating from Town during the weekday afternoon commute (between 16:00 and 18:30) have increased by approximately 25%, up from circa 570 to 710; • Surveys of people walking along Glategny Esplanade show a 25% increase during the morning commute; • Surveys of people cycling along Les Banques show an increase of up to 50%; • Surveys of people who purchased an e-bike under the subsidy scheme in 2018 indicate an estimated reduction of 100,000 car journeys per annum (equivalent to circa 250,000 fewer car miles per annum).
To achieve a greater proportion of smaller motor vehicles, especially in terms of car widths.	• Registrations of new small cars have remained at or around 15% of the annual total over the last 5 years, with small cars now making up approximately 9% of total cars registered in Guernsey – compared to just 4% in the UK.
To achieve a greater proportion of cleaner, low emissions motor vehicles.	• Electric car numbers have increased around 14-fold to 384 from a low base in 2014. The number of hybrid cars has more than doubled in

	the same period to 473 and the number of electric motorcycles has quadrupled to 46; • Nitrogen Oxide and Particulate Matter emissions from Guernsey's new buses have reduced by 98% and 90% respectively. Resultant annual NOx emissions across the fleet are down 75% from 15.0T to 3.7T; • 33 of the 125 licensed taxis are now hybrid cars, compared to just a couple in 2014.
To improve safety for all road users, particularly vulnerable road users.	• Bikeability training is now being delivered across all States primary schools; • New pavements and safe crossing points have been introduced at key locations and improvements made to the seafront cycle path; • Speed limits have been reduced in areas where there is a heightened risk of conflict between motor vehicles and vulnerable road users.
To improve transport accessibility for all members of the community, particularly non-drivers and those with disabilities or on low incomes.	• Improvements to the scheduled and school bus services have been introduced, including new routes, with fares and concessions maintained at affordable levels. • The public bus fleet is now fitted with a passenger announcement system providing both visual and verbal prompts for passengers who may require assistance with using the service. An Access Card scheme to assist passengers who may have a hidden disability has also been introduced; • Accessible Taxi Cabs have been licensed since 2015, markedly improving the availability of wheelchair-accessible taxis; • parking spaces have increased in number and their location and design improved; • Dropped kerbs and blister paving are now considered as part of all road resurfacing projects.
To improve the public realm, particularly in the main centres	• The public amenity of Market Street has been enhanced and a trial with a view to improve North Plantation is underway.

1.9 Important new priorities identified by the Committee following consideration of the First Periodic Review include improving access within the St Sampson and Vale Main Centre and Main Centre Outer Areas, carrying out cost benefit analyses of mechanisms to enhance and improve enforcement of road safety measures, reviewing the option of assessing the effectiveness of workplace parking levies as a means of achieving various transport objectives and reviewing first registration duty rates in light of the increase in the registration of vehicles in the highest emissions brackets.

1.10 Other priority areas relating to investigating the feasibility and viability of installing a bus and taxi lane southbound between Bulwer Avenue and the Red Lion, improving public amenity space and addressing a variety of road safety issues are also highlighted in Section 6 of this Policy Letter.

1.11 In terms of its overall Vision, the Strategy is moving in the right direction. In many areas there has been significant progress on the stated objectives, despite the absence of some key policy levers upon which the original Strategy was based.

1.12 However, the Strategy is very much a work in progress and more needs to be done to achieve meaningful and effective change for the better.

1.13 The Committee is therefore determined in its efforts to build on the successes to date to improve the efficiency of our transport system and provide a safer, less congested, and less polluted environment in which to live.

2 Background

2.1 In May 2014 the States approved the On-Island Integrated Transport Strategy as set out in the resolutions[4] and detailed in the Minority Report[5]. The Strategy was, however, subject to some significant changes over the following 14 months which fundamentally affected the dynamics of the Strategy as originally envisaged and agreed.

2.2 As with any strategy, it is useful to understand its effectiveness and to update it as necessary. Therefore, the States resolved:

> *"To direct the Environment Department to conduct a review of the Transport Strategy and report back to the States by December 2018 with an analysis of the effectiveness of the measures implemented, and recommendations in relation to changes that may be required in order to continue to deliver the Vision."*

[4] Resolutions Billet D'État No IX, 2014
[5] Annexe, Billet D'État No IX, 2014

2.3 To fulfil this resolution, the Committee *for the* Environment & Infrastructure has collected, collated, and analysed as much relevant data as possible in order to measure current indicators against specific objectives. This is set out in Appendix A and evaluates how successful the implemented Strategy has been in achieving its original aims. It also highlights some of the reasons why certain expectations of the Strategy have not yet been realised. Brief summaries of each of the objectives are provided in the body of this Policy Letter.

2.4 The submission of this Policy Letter is later than originally planned, mainly due to key officers being required to work on pressing Brexit-related issues. However, the delay has allowed time for more data to be gathered which has resulted in more detailed reporting.

3 Strategic context

3.1 Transport is important in virtually every aspect of our community. Transport infrastructure connects people to jobs, education, healthcare, and social interaction, while also facilitating the supply of goods and services to the community. The universal aim of transport policy is to allocate transport resources as efficiently and effectively as possible to maximise its advantages and minimise its detriments. An efficient transport system provides economic, health and social benefits and mitigates negative environmental impacts.

3.2 The delivery of a sustainable and integrated transport strategy is fundamental to social equity, providing for freedom of movement and access to transport for all, while safeguarding vulnerable road users. This policy area provides essential support for a vibrant economy by facilitating access to businesses and services and the efficient and safe movement of goods and people around the island. Inadequate transport systems will be a barrier to the delivery of many of the Areas of Focus in the Policy and Resource Plan including Economic Development Policy, the Disability, Equality and Inclusion Strategy and the Health and Wellbeing Policy under the Partnership of Purpose.

3.3 Improving road safety, including driver competency, safety, and licensing, is one of the priorities within the Strategy. This accords with a principal policy outcome of the Policy & Resource Plan, being a 'safe and secure place to live', given that interaction with the public highway is generally a necessity for all members of the public as soon as they leave the security of their home or place of work.

3.4 The Strategy is key to the successful delivery of other States-agreed priorities, such as the Seafront Enhancement Area Programme and Fighting Climate Change, as well as the identification of strategic requirements for meeting Guernsey’s energy needs and transport related infrastructure across the island.

3.5 The Committee has within its mandate the responsibility to advise the States on policy matters relating to climate change and is currently leading on the States' area of focus to develop a climate change policy and action plan for the island. A more sustainable integrated transport system that encourages and enables alternative modes of transport will play a critical role. In respect of road transport, managing the shift from internal combustion engine (ICE) vehicles towards active travel and electric vehicles (EVs) is one of the aims of the Strategy and will support the long-term work on climate change.

3.6 The Committee also has within its mandate the responsibility to advise the States on strategic land use policy. The Strategic Land Use Plan (SLUP), approved by the States in 2011, is the critical instrument in identifying the best way to achieve the States' objectives through land use and spatial planning, with an emphasis on the delivery of positive, sustainable development. A core objective of the SLUP is that support be given to corporate objectives and associated policies relating to, amongst other things, reduction of our carbon footprint, which is one of the key drivers of the Strategy. The SLUP acknowledges one of the main contributors of greenhouses gases in the island is through use of motorised vehicles and requires that policies that lead to a reduction in the need to travel by them should be supported. It notes that this can be achieved through reducing the overall need to travel (for example by reducing journey distances through supporting mixed use development concentrated in centres) and ensuring good accessibility to public transport and other sustainable travel modes.

3.7 The States' land use spatial strategy provides for the development of sustainable centres and is at the heart of the island's land use policies. The SLUP recognises that the promotion of safe and easy access within and between the sustainable centres is an intrinsic part of the success of the spatial strategy. The SLUP requires the States to support projects that enable the Town and the Bridge to be maintained as the island's main economic centres by, amongst other things, ensuring they are accessible by a range of transport methods. The States have agreed, through the SLUP, that it should investigate measures and support projects for Town and the Bridge that improve access by foot and by bike, improve public transport links, and facilitate the provision of appropriate levels of car parking. Therefore, there are some specific requirements set out in the SLUP which guide the Strategy objectives. A number of principles in the Strategy are fundamentally essential to the delivery of the States' approved spatial strategy and, in turn, its land use policies embodied in the Island Development Plan.

3.8 The Strategy will also have a direct influence on the delivery of the Harbour Action Areas and Regeneration Areas which are designations approved by the States in the Island Development Plan.

3.9 Transport strategies around the world share the common aim of increasing levels of access to economic and social opportunities by making mobility more efficient. For all but the most isolated locations, domestic land transport policies typically aim to do this by reducing the use of private motor vehicles and increasing the use of public transport and active travel modes. This is because public transport and non-motorised modes are a much more efficient use of resources, including money, oil, surface area and even time, and generate far fewer negative impacts and/or more positive impacts in terms of public health, safety, infrastructure, public realm, economic growth, social connectivity, congestion, pollution, and climate change. This is particularly important in Guernsey where land is a scarce resource and often infrastructure cannot easily be expanded.

3.10 Cars often seem more convenient than public transport, but they are costly, low capacity and both energy- and area-intensive. Motor vehicles present the highest levels of risk to the travelling public, are the main causes of congestion and pollution (primarily air and noise pollution), limit economic productivity in urban areas and present the biggest barrier to active travel. These are some of the main reasons transport policies everywhere seek to reduce dependency on cars and increase the range and viability of more efficient and sustainable alternatives.

4 Funding and resources

4.1 Prior to the introduction of the Strategy, funding was largely limited to maintaining the existing road infrastructure. There was very little money available to invest in road safety and improvements aimed at facilitating alternative travel options such as walking and cycling.

4.2 The annual budget for the Strategy was set by the States in 2015 with a maximum limit of £3.45m. It is funded from a combination of three sources, namely a £1.1m increase in the Committee's annual cash allocation to meet the additional cost of the bus service contract over the 2014 figure, an emissions-based First Registration Duty and bus fare income.

5 Progress against Strategy objectives

5.1 <u>To reduce the number of car journeys, particularly solo-occupancy trips - reducing 'peak-hour' traffic by an expected 10%</u>

5.1.1 There are four main arterial routes into St Peter Port, namely Les Banques (from the north), the Grange and Fountain Street (from the west) and Le Val des Terres (from the south). These roads are exceptionally busy during commuter periods (08:00 to 09:00 and 17:00 to 18:00 Monday to Friday) but

can also experience high traffic volumes at other times, particularly when other nearby roads are closed. Road space is at a premium during these times. These four routes currently accommodate a combined total of circa 53,000 two-way vehicle movements per day (Monday to Friday). Up to 19,000 vehicle movements occur each weekday along The Quay between the Albert Pier and Victoria Pier.

5.1.2 When an arterial route into Town is closed, traffic volumes on remaining routes into St Peter Port increase sharply, causing congestion. Closure of other busy roads such as Landes du Marché or Mont Arrive can also cause congestion as nearby junctions struggle to manage increased flows of traffic. More generally, congestion concentrates around junctions where competing traffic flows come into conflict.

5.1.3 Studies show that people use cars for a number of reasons[6]. These include ease and convenience, travel time, comfort, encumbrance, trip chaining (i.e. where one journey is dependent on or closely associated with another), and cost. There are two important underlying influences: habit, and the availability of alternatives. As the Strategy does not go as far as it originally envisaged in terms of direct push and pull factors (paid long-stay parking and a free bus service), it does not have as much influence to reduce the number of car journeys.

5.1.4 However, despite the absence of these critical policy levers, there is evidence that there has been a reduction in vehicle movements since the Strategy was first introduced. For example, vehicle movements during the morning commute Monday to Friday on key routes into Town have reduced by 4.7% (down from 2,767 to 2,637 vehicle movements on average per weekday between 2014 and 2018). This equates to 130 fewer vehicle movements into Town each weekday, or 33,800 fewer movements per annum. Daily average vehicle movements Monday to Friday on key routes into and out of Town have also reduced by 1.6%, down from 53,071 to 52,229 movements on average per weekday between 2014 and 2018. Overall, this represents a reduction of approximately 842 vehicle movements each weekday or 218,920 vehicle movements per annum. Data also show that there has been a slight decrease in solo occupancy vehicles, from 85% to 80%.

5.1.5 The following analysis compares weekday average traffic movements along the four key arterial routes into and out of St Peter Port in 2014 and 2018 over a 24hr period and during the morning commute.

[6] Task Force – Technical Note 15: Why do People Travel by Car? Roads Task Force Thematic Analysis, 2013

Table 2 – Weekday average 24 hour vehicle movements (both directions)

Principal Roads	Weekday Average 2014	Weekday Average 2018	Difference	% change
St George's Esplanade	22,319	22,152	-167	-0.7%
St Julian's Avenue	13,524	13,381	-143	-1.1%
Le Bordage	9,775	9,480	-295	-3.0%
Le Val des Terres	7,453	7,216	-237	-3.2%
Total	**53,071**	**52,229**	**-842**	**-1.6%**

Source: Traffic counter studs (24 hour)

Table 3 - Weekday average movements into Town during the morning commute

Principal Roads	Weekday Average 2014	Weekday Average 2018	Difference	% change
St George's Esplanade	1,127	1,043	-84	-7.5%
St Julian's Avenue	650	615	-35	-5.4%
Le Bordage	481	468	-13	-2.7%
Le Val des Terres	509	511	+2	0.4%
Total	**2,767**	**2,637**	**-130**	**-4.7%**

Source: Traffic counter studs (08.00-09:00)

5.1.6 The busiest route into and out of St Peter Port is through St George's Esplanade, which handles around 22,000 vehicle movements per weekday (both directions combined). In contrast, just 7,500 vehicles use Le Val des Terres in the same period. At peak times, more than 1,000 vehicles per hour travel southbound along St George's Esplanade, as compared to 500 using Le Val des Terres.

5.1.7 Another busy area, particularly on Saturdays, is the road network linking the Bridge to the centre of the island, including Braye Road, Camp du Roi and Landes du Marché. Here traffic volumes can exceed 12,000 movements per day.

5.1.8 Seafront motor vehicle journey times during the morning commute from Bulwer Avenue into Town have increased marginally since 2013 when baseline

surveys were carried out, averaging 16min 3sec in 2018 as compared to 15min 39sec in 2013. However, journey times halve during school holidays, dropping to 7min 1sec and 7min 8sec respectively.

5.1.9 Annual registrations of cars in Guernsey have reduced by approximately 14.9% between 2014 and 2018 (down from 4,055 registrations in 2014 to 3,451 in 2018). A further reduction of around 5% has been experienced during the first eleven months of 2019.

5.1.10 In terms of the working population (as defined by employment sector), the number of people in employment has increased from 31,632 in December 2014 to 32,723 in June 2019, an increase of 1,091 (3.4%). This increase could have been expected to generate a small increase in commuter traffic volumes, so in real terms the reduction in car journeys is a little greater than the raw data suggest. In other words, it is extremely likely that traffic volumes would have been higher and congestion more prevalent but for the increases achieved in other transport modes, most notably in relation to bus use.

5.1.11 The Strategy has therefore had a positive impact in terms of reducing traffic volumes and the consequent impact on existing road infrastructure.

5.1.12 Several signalised junctions already operate at or close to practical capacity (see 5.1.13 below), examples being Braye Road/Route Militaire, La Vrangue/Grand Bouet and Admiral Park/Les Banques. Other busy junctions, especially on Saturdays, include Landes du Marché/Les Rouvets and Grand Fort Road/Route Carre. The filter-in-turn at Les Banques/Vale Road is also exceptionally busy, particularly on weekdays, and is not operating as efficiently as it could if it were signalised.

5.1.13 As signalised junctions exceed 90% practical capacity (the maximum efficient throughput), traffic flow becomes increasingly congested and long delays can ensue, particularly if significant numbers of vehicles are attempting to turn right against the priority flow of traffic. The absence of dedicated right turn lanes, in most cases due to insufficient road width or lack of available land to widen the carriageway, exacerbates the issue. Traffic signal technology such as priority green arrows and MOVA (Microprocessor Optimised Vehicle Actuation) can improve matters slightly, but there are limitations to what can be achieved.

5.1.14 The Committee intends to review junction designs and investigate potential technological solutions to assist with managing traffic flows.

5.1.15 Significant reductions in car journey times during school holidays highlights the potential benefits from reducing dependence on private motorised transport.

5.1.16 The Committee is prioritising several initiatives in 2020 aimed at reducing demand during peak periods:

- Introducing lift sharing technology that can be used in schools, workplaces, and the public sector;
- A trial priority parking initiative for multi-occupancy vehicles;
- Maximising the use of school bus services;
- Progressing measures to make public sector travel plans more effective (more on this in 5.2 below); and
- Investigating measures to make corporate travel plans effective, including (but not limited to) recommendations on workplace parking levies or benefit in kind, with a view to reporting back to the States in due course.

5.2 <u>To increase the number of journeys made by alternative forms of transport, particularly active travel modes – ideally doubling the numbers of people travelling by foot, bike and bus</u>

5.2.1 Because the baseline data were very limited on numbers of journeys made on foot or by bike, it is difficult to accurately quantify progress towards this objective since the start of the Strategy. However, like-for-like surveys show a 25% increase of people walking along Glategny Esplanade and a 48% increase in people cycling along Les Banques. Anecdotal and proxy evidence from employers, bike retailers and the Guernsey Bicycle Group also support the hypothesis that there has been a significant increase in people riding for transport (especially to and from work) over the last five years.

5.2.2 A cohesive, continuous, and safe infrastructure platform is essential to achieve meaningful change in the numbers of people choosing to walk or cycle. Whilst progress so far has been encouraging, the Committee is looking at ways to allocate more road space to these travel modes, for example by providing better pavements and cycling infrastructure, making roads one-way where necessary. This will have the added benefit of making roads safer, giving greater protection to vulnerable road users and reducing pavement surfing. Priority areas for continuous, safe walking and cycling routes include primary access routes into Town, the Seafront Enhancement Area and in the vicinity of schools.

5.2.3 Providing protected infrastructure (pavements and cycle paths separated from the main carriageway by a kerb, for example) for vulnerable road users is the optimum solution, as many people are put off the idea of travelling by foot or by bike if it means mixing with motorised traffic, but it is not always a realistic option on our roads. The Committee is investigating the possibility of creating an off-road foot and cycle path that would ultimately link the west coast with the east coast, from Cobo to St Peter Port – an idea originally suggested and scoped by a local chartered architect and surveyors' firm.

5.2.4 Given that commuters taking the bus to work are currently caught up in the same congestion as other motorised vehicle users during peak periods, the Committee also intends to investigate the feasibility of introducing a southbound bus/taxi lane along parts of the eastern seafront between Bulwer Avenue and the Red Lion. This would make commuting by public transport more convenient, especially during the morning commute.

5.2.5 The Committee has been supporting the Health Improvement Commission in the development of a communications strategy for promoting Active Travel. This is aligned to and consistent with The Committee *for* Health & Social Care's (HSC) Partnership of Purpose and is a good example of government working with the third sector.

5.2.6 The Committee continues to promote the adoption of travel plans across the States estate and the private sector. Travel plans are a package of actions designed to encourage safe, healthy, and sustainable travel options which, by reducing reliance on travelling by car, can improve health and wellbeing, free up car parking space and make a positive contribution to the community and the environment. Work in this regard to date includes:

- Commissioning and delivery of a comprehensive travel plan for the Princess Elizabeth Hospital (for the Committee *for* Health & Social Care);
- Commissioning and delivery of a comprehensive travel plan for Sir Charles Frossard House (for the Policy & Resources Committee);
- Assisting the Committee *for* Education, Sport & Culture with preparation of travel plans for the one school on two sites model; and
- Working with schools and businesses on the promotion and creation of travel plans in conjunction with the Health Improvement Commission.

5.2.7 In April 2018 an e-bike subsidy scheme was launched: a 25% discount was given on new e-bike purchases (subject to various conditions), 20% of which was met by the States of Guernsey and 5% by the retailers. The results of participant surveys indicate that, on average, each e-bike completed 683 miles over 12 months. This is equivalent to circa 250,000 miles in total, many of which (the survey confirms) would have otherwise been travelled by car.

5.2.8 Buses play a key role within the Strategy and use of the public bus services has risen significantly in each consecutive year since its inception. Because buses are considerably more space-efficient than cars, they are the most effective means of reducing congestion and the associated pollution that it generates.

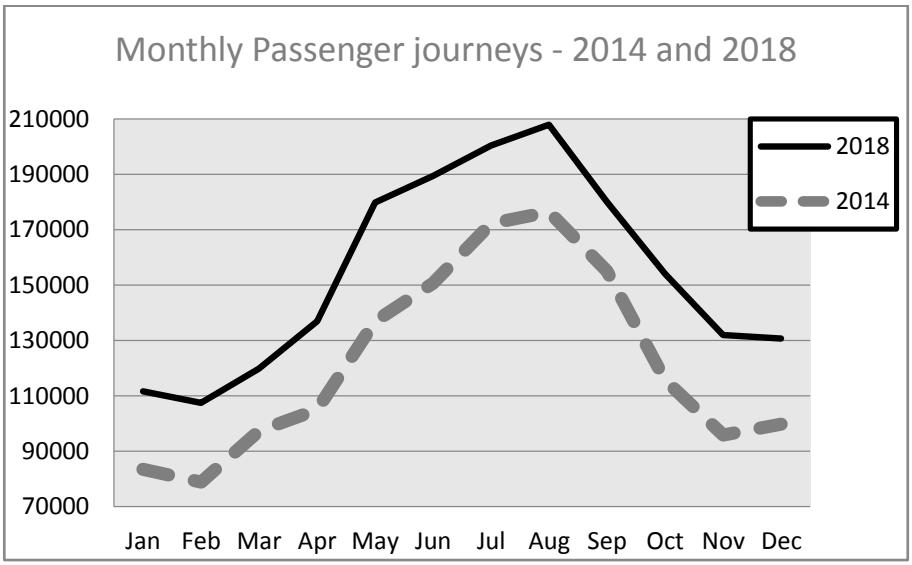
5.2.9 The upward trend in bus passenger journeys over the last four years has been significant, with 1,837,560 passengers carried on scheduled bus services in 2018. The additional 370,457 passenger journeys since 2014 represent an

increase of 25.3%. Up until 30th November 2019, an additional 100,489 passenger journeys have been recorded over and above the figures for 2018, representing a further increase of nearly 6%.

5.2.10 Using a conservative estimate of 2.5 miles per passenger journey, circa 1.18 million more road miles were travelled by bus in 2019 as compared with 2014. Again, many of these journeys might otherwise have been taken by car.

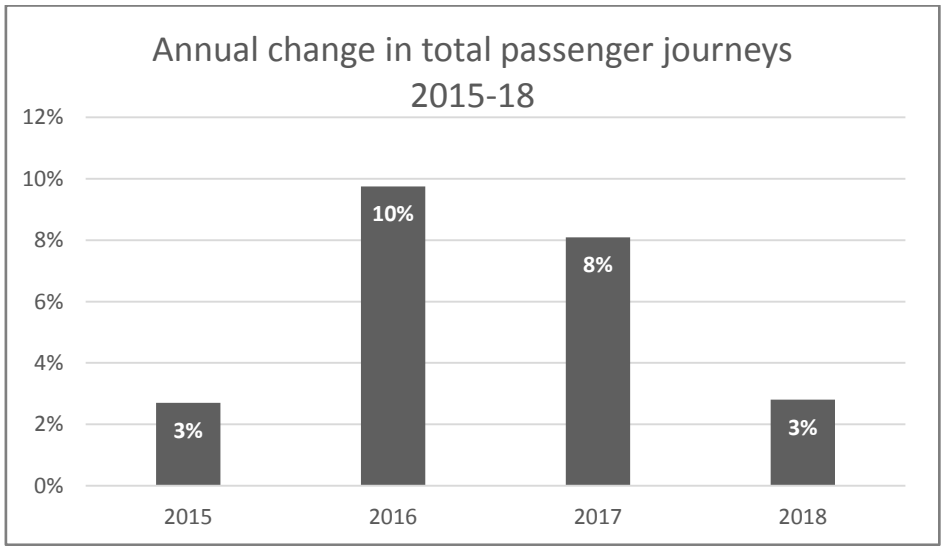
5.2.11 When adding the unpublished data, which include students using integrated school services and 'transfer' passengers using the same ticket to undertake a single journey across two services, the total number of passenger journeys on the public bus network exceeded 2 million for the second year running in 2018. It is set to rise still further in 2019. In addition, a further 170,000 students are transported to/from school annually on private hire coaches.

Graph 1 – Monthly bus passenger journeys since 2014



Source: Ticketer

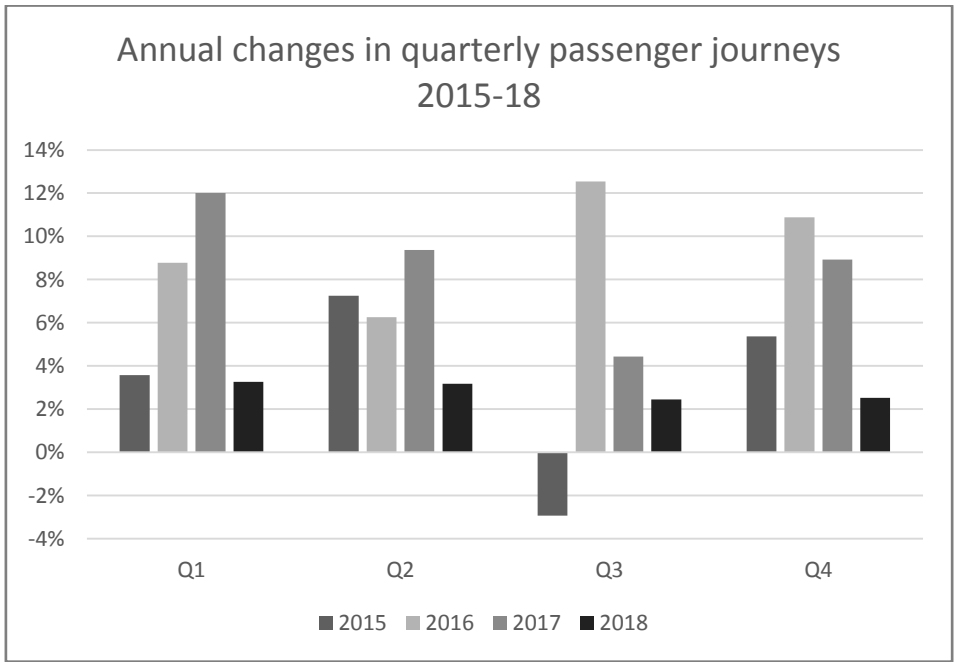
Graph 2 – Annual change in published scheduled bus service passenger journeys



Source: Ticketer

5.2.12 Annual growth in scheduled bus service journeys is being experienced throughout the year across the network, but is most evident in the shoulder months (Q1 and Q4) when the service is primarily used by the resident population. During the first quarter of 2019, passenger journeys totalled 375,673, representing an increase of 11% compared to the same period in 2018 – up 45% from the first quarter of 2014 when just 259,691 journeys were recorded.

Graph 3 – Annual change in quarterly published passenger journeys on scheduled bus services



Source: Ticketer

5.2.13 Growth in passenger journeys during commuter times is encouraging, with a 16.1% increase identified since new ticketing equipment was introduced in 2015. Analysis of all passengers boarding the bus from the Town Terminus and other central Town stops between 4.00pm and 6.30pm on a weekday in November 2015 and again on a weekday in November 2019 shows that the number of passengers using the bus during the afternoon commuter period is up by around 25% (from circa 570 passenger journeys to 710).

5.2.14 With much of the bus fleet now consisting of new Euro 6 Ultra Low Emission (Diesel) StreetVibe buses (including free Wi-Fi and USB charging points) and an improved route network, using the bus has become less polluting, more convenient, and more accessible. It remains an affordable travel option, especially compared to using a car.

5.2.15 The Committee, along with the current service provider CT Plus, will strive to continue delivering growth in annual bus passenger journeys. Further proposed improvements in the public bus network include switching to a more user-friendly app for real time information on personal phones, providing real time information at key bus stops around the island, and building more bus shelters, especially at interchange hubs.

5.2.16 Having completed Phases 1 and 2 of the Bus Replacement programme, the Committee's preference for the next phase, Phase 3, is to invest in hybrid/electric vehicles if the market is able to produce vehicles that meet Guernsey's requirements in terms of vehicle width, range and capacity. The eight remaining Euro 3 Dart Nimbus buses are currently due for replacement from 2020.

5.2.17 A number of additional school bus services have been provided in recent years: approximately 1,900 students per day (1,450 secondary school pupils and 450 primary school pupils) are now making use of integrated and private hire school bus services. There are currently some 87 dedicated school bus services operating on school days, 40 in the mornings and 47 in the afternoons.

5.2.18 Improving school bus service provision, particularly when the new one school on two sites model is introduced by the Committee *for* Education, Sport & Culture, is an important element in reducing the overall impact of vehicle movements in areas local to schools and on the wider road network in general. The impact of school run traffic on vehicle congestion is clearly illustrated by the reduction in vehicle congestion during school holidays. The change from a four-school to a one school on two sites model will have an impact on dedicated school bus services, and this change is currently being addressed.

5.2.19 Overall, there has been significant progress towards the Strategy objective of increasing the number of journeys made by alternative forms of transport. The work streams that are now complete, close to completion or ongoing are listed below:

Physical Environment

- Replacement of Bus Fleet Phases 1 and 2 (34 of the old Dennis Dart fleet replaced by new StreetVibe buses purchased following a States resolution);
- Expanding the scheduled bus network and increasing capacity at peak times;
- Enhancements to school bus services;
- Walking Infrastructure – measures to improve walking as a safe mode of transport, including new pavements – e.g. La Vallette and L'Eree;
- Road and pavement widening at La Vrangue;
- Improvements to Seafront Cycle Path – junction improvements at La Salerie and Toucan crossing at Grandes Maisons Road;
- The introduction of a 'shared' pavement at Le Val des Terres, allowing people on bikes to ride uphill;
- Increased provision for bike racks, hoops, and shelters;
- Improved terminus (kiosk) and waiting facilities;
- Extension of bus shelter provision;
- Introduction of Bus Wi-Fi;
- Introduction of 'real time' information on the location of buses;
- Trial free bus service for hospital workers.

Education and information

- Development of travel plans for States buildings and schools, and support for business travel plans;
- Bikeability programme for primary schools and other groups;
- Promotion and funding incentives for e-bikes;
- Development and promotion of safe walking routes to schools, community facilities, and workplaces.

Improving standards and requirements

- Updating and improvement of technical guidance for pavements;
- Complete review of cycle path legislation requirements;
- Introduction and extension of cycling through closed roads policy.

Increased data and analysis

- Increased data collection and analysis: e.g. vehicle speeds/speed limits, vehicle and pedestrian movements and collision data.

5.3 <u>To achieve a greater proportion of smaller motor vehicles, especially in terms of car widths</u>

5.3.1 The benefits of owning a small car often include a more affordable purchase price, fuel efficiency, manoeuvrability on our narrow roads and preferential parking. The number of small cars registered annually in Guernsey between 2014 and 2018 continues to represent around 15% of all new car registrations. Overall, small car models currently in production make up about 9% of all cars on the vehicle database. This compares favourably to the UK where the figure is just below 4%.

5.3.2 In the absence of the hard incentive originally built into the Strategy, options to further encourage the use of small cars are currently limited to soft incentives such as providing more preferential parking spaces.

5.4 <u>To achieve a greater proportion of cleaner, low emissions motor vehicles</u>

5.4.1 Progress towards this objective has been slower than it might have been had the financial subsidy for electric vehicles been implemented as per the original Strategy, but even so, an increase in the proportion of cleaner, low emissions vehicles (both in terms of private vehicles and public service vehicles) has been achieved.

5.4.2 The last few years have seen significant changes in the market, with more fuel efficient motor vehicles being produced all the time. This has meant that fossil fuel consumption for road transport has gradually fallen, with more efficient vehicles replacing older vehicles, typically in the region of 2 to 3% per annum. The market will continue to drive further changes, influenced by factors including consumer demand and governments moving towards a considerably lower-carbon economy.

5.4.3 In Guernsey, the registration of electric vehicles has increased from only 28 in 2015 to 384 by the end of September 2019. Whilst this figure still represents less than 1% of the total number of vehicles currently registered in the island, the increasingly rapid uptake of EVs is a clear trend that is likely to continue. Car manufacturers will continue to respond to and shape consumer preferences, with many planning to cease the production of the traditional internal combustion engine (ICE) vehicles in the short to medium term. Car manufacturers are planning to cease the production of purely ICE vehicles well in advance of any government ban (the UK, for example, has a target of 2040 for the cessation of the sale of ICE vehicles).

Table 4 – Number of registered electric cars/vans, motorcycles and hybrids

Date	Electric Vehicles	Electric M/Cs	Hybrids
31/12/2015	28	12	181
31/12/2016	52	16	236
31/12/2017	147	21	288
31/12/2018	281	23	384
30/09/2019	**384**	**46**	**473**

Source: Driver and Vehicle Licensing Database

5.4.4 In terms of current emissions, the Committee has made significant efforts to reduce its carbon footprint on its own fleet of vehicles. The recent replacement of 33 States-owned Euro 3 diesel buses with 34 Euro 6 Ultra-low emission buses (ULEBs) has reduced Nitrogen Oxide (NOx) and Particulate Matter (PM) emissions by as much as 98% and 90% respectively. Atmosclear units (formerly called Cgon) have been fitted to the remaining eight Euro 3 diesel buses, further reducing bus fleet emissions to a mere fraction of what they were previously. The Committee also operates an electric vehicle and owns a pool of e-bikes that are shared around various States offices.

5.4.5 The Committee instigated and is supporting a broader work stream looking at phasing electric vehicles into the wider States fleet. A couple of different vehicle types may soon be trialled to determine suitability.

5.4.6 Considering the anticipated future growth of EV and hybrid vehicles, there is also a pressing need for the States to invest in the necessary physical infrastructure. The Committee is rolling out the programme for publicly accessible EV charging points, the next sets of which will be installed at Salerie Corner and the Odeon Car Park in St Peter Port and at Le Crocq, St Sampson.

5.4.7 In recognition of the increased weight of certain electric vehicles it may also be necessary to increase the maximum permitted weight of a vehicle to be driven on a Category B driving licence to approximately 4,250 kg.

5.5 <u>To improve safety for all road users, particularly vulnerable road users</u>

5.5.1 This is a key element of the Strategy: everyone should feel safe travelling from A to B in the island. Accordingly, several measures have been implemented to improve safety, both in actual terms and in terms of how safe people feel.

5.5.2 People's perception of safety is just as important as the factual data relating to collisions on our roads, as it is much more often the fear of a collision rather than an actual experience of one that acts as a barrier to walking and cycling. Numerous studies have borne this out.

5.5.3 In April 2019, the Committee introduced Phase 1 of the Island Speed Limit Review, expanding the existing 25mph speed limits within some Local Centres and Main Centre Outer Areas where there is a heightened risk of conflict between motor vehicles and vulnerable road users, and extending the lower limit to four new zones of the same profile. Initial results of speed surveys undertaken before and after the changes were implemented show small but significant reductions in speeds on all of the roads that have been subject to a speed limit reduction. Average speeds have reduced by 3.6mph in the case of Saltpans Road (heading east), for example, where the peak hour speed has reduced from 24.4mph to 20.8 mph. In Braye Road, average speeds have reduced from 30.1mph to 28.7mph in a westbound direction and from 29.7mph to 27.8mph in an eastbound direction.

5.5.4 These decreases in speed are encouraging considering that no traffic calming measures have been introduced. For each 1 mph decrease there is an approximate 4% to 5% reduction in the likelihood of serious injury or death being caused in the event of a collision with anyone not inside a vehicle.

5.5.5 Phase 2 of the Island Speed Limit Review is likely to concentrate on areas around schools, States housing estates and areas where speeding is known to be a potential problem. As part of this, the Committee would like to investigate the possibility of introducing technology to assist with managing traffic speeds.

5.5.6 Another important safety concern is that there are many key roads in Guernsey, including some within Local Centres, that do not have adequate – or any – pavements, or safe crossing points. The Strategy has already enabled many new or widened pavements to be introduced and several new crossings have been installed.

5.5.7 There are currently only two sections of separated cycling infrastructure in the Island (Baubigny and the eastern seaboard). The Strategy is delivering incremental improvements to both established cycle paths.

5.5.8 Investing in new infrastructure for people walking or cycling is proven to be the most effective way of encouraging more people to travel by foot and bike. Good quality infrastructure improves both road safety and people's perceptions of road safety. Ideally, walking and cycling infrastructure should be designed for people of all ages and abilities, known as the AAA standard, and should be designed in such a way that minimises potential conflict between motorised and non-motorised vehicles.

5.5.9 In terms of vehicle safety, the phased introduction of periodic roadworthiness tests for all cars over five years old and motorcycles over three years old is planned to commence in 2021. Initially this will be restricted to inspections of all vehicles meeting the age criteria entering international traffic (excluding driving in the UK) or being imported into the island for the first time (including

second hand vehicles imported from the UK). This will then be followed in 2023 by the commencement of regular testing of all registered vehicles in Guernsey with cars being inspected at five years and every three years thereafter, motorcycles at three years and every two years thereafter, and commercial vehicles annually.

5.5.10 This is a significant piece of work. The Committee is considering the most appropriate means of introducing testing of vehicles by way of an options appraisal. Options include a UK style roadworthiness test centre approach or a private sector or government-run single test centre approach along the lines operated in Ireland and Northern Ireland respectively.

5.5.11 A considerable amount of work has been undertaken to meet this objective of the Strategy, including:

Physical environment

- Provision of new zebra crossings in La Vrangue and La Couture, and an informal crossing point at South Esplanade;
- Restoring grip to granite surfaces at Smith Street/Hirzel Street, Pier Steps, and St James Street;
- Improved signage and illuminated cats' eyes at notorious black spots.

Information and education

- Road safety educational campaigns;
- Resourcing for Bikeability in schools;
- Education of young drivers in partnership with Guernsey Police.

Improving safety standards and requirements

- Speed Limit Review – Phase 1 (Local Centres, Main Centres and Main Centre Outer Areas);
- Register of Driving Instructors – project approved;
- A commitment to the phased introduction of periodic technical inspections of all motor vehicles;
- HGVs – implementation of enhanced standards for wing mirrors, sideguards and rear under-runs;
- Review of rear seat belts (legislation by the Committee *for* Home Affairs).

Improved data and analysis

- Data collection to better understand the issues and the impact of potential solutions has been undertaken across a range of areas including road layout, traffic volumes, walking desire lines (including risk profile), collision statistics and junction capacity, etc.

The next step will be to present data spatially on a map to further enhance performance reporting in future reviews.

5.6 To improve transport accessibility for all members of the community, particularly non-drivers and those with disabilities or on low incomes

5.6.1 One of the key elements of any transport strategy is to make transport as inclusive as possible. This requires consideration at all levels, including the need to provide a public transport service that has good network coverage and is accessible, affordable, timely and reliable.

5.6.2 It is also important that operators of licensed public service vehicles have access to disability awareness training, that adequate provision is made for disabled parking in key locations and that safe access is provided to roads and pavements.

5.6.3 Investment in our road infrastructure has historically been less than the rate of deterioration and there had been little provision for the introduction of safe crossing points, dropped kerbs and blister paving. However, in line with the aims of the Strategy, it is now standard practice to give consideration to vulnerable road users when planning road resurfacing projects, including for people with mobility issues or other disabilities that might impact their ability to get around.

5.6.4 All our public buses are fully accessible. Since 2015 the Committee has issued four additional taxi plates specifically for accessibility compliant taxis and has provided a programme of disability equality training for all public service vehicle drivers.

5.6.5 The Committee has been working with Health Connections to investigate the possibility of introducing a demand responsive/dial-a-ride service, specifically regarding people with mobility issues and people who do not drive. This is a very important piece of work, especially with respect to the ageing demographic. Because alternative transport options aren't always viable for older people, many are fearful of losing their independence if they lose or relinquish their driving licence. As a result, our current system encourages some people to hold on to their driving licence for longer than they feel comfortable driving. A demand responsive/dial-a-ride service could offer an affordable and convenient service to those who do not live on a scheduled bus route, for example, and could give people confidence that they will not lose their independence if or when they stop driving.

5.6.6 Financial accessibility to transport is another key consideration. The cost of operating a car is considerably more expensive than cycling or using the bus, albeit in Guernsey the current cost of owning and operating a car is significantly

cheaper than Jersey and the UK, where one-off and annual taxes and duties are much higher. These issues are explored in more detail in the First Periodic Review document appended to this Policy Letter.

5.6.7 Achievements to date on this objective include:

Physical environment

- Dropped kerbs and blister paving installed at locations such as Havelet, Le Truchot, Les Gravées, Route de Carteret and Rocque Poisson/Les Adams;
- New zebra crossings at La Couture and La Vrangue and an informal crossing at South Esplanade;
- A review of disabled parking provision and updating of parking space design.

Education and information

- Disability and Inclusion training for public service vehicle drivers.

Improving standards and requirements

- Updating technical guidance on pavements to better accommodate wheelchair users;
- Review of Disabled Badge policy;
- Introduction of Accessible Taxi Cab plates.

Improved data and analysis

- Data collection/survey work to determine accessibility priorities.

5.7 <u>To improve the public realm, particularly in the main centres</u>

5.7.1 The opportunity to enhance the public realm by providing a sense of connectivity between people and place is important. It is one of the statements of intent of the Seafront Enhancement Area Programme that brings with it a host of community benefits. The Strategy is working to support the delivery of that connectivity.

5.7.2 The Strategy is rejuvenating walking routes in the centre of Town. Granite pavements and steps in Town can become 'polished' (worn) through many decades of use and can be slippery, especially when wet. The Strategy is improving the areas of highest risk on a rolling basis. Work so far has restored grip to surfaces at the top of Smith Street on both sides towards Hirzel Street and Rue du Manoir respectively, St James Street, and Pier Steps.

5.7.3 Following this work, there have been no reported slips on these surfaces, whereas there had been a number previously, particularly amongst older members of the community. Giving those with mobility issues the confidence

to be able to walk and shop in their Town is of great benefit to the community. These projects have been well received by the public and the parish.

5.7.4 When Market Square was originally closed to through traffic in the early 2000s it resulted in significant improvements to the public realm, attracting increased footfall and dwell time. Recent work to improve accessibility in Market Street has further enhanced the area as a public space. Other recent successes include the replanting of trees and pavement reinstatement works in St Julian's Avenue and works to improve walking infrastructure at La Vallette, Havelet Waters, South Esplanade Plantation, Cornet Street and Le Truchot. Pedestrianisation of North Plantation on a trial basis for large parts of the day this summer, followed by a proposed full resurfacing project in 2020/21, will see similar improvements to the public realm along parts of the seafront.

5.7.5 Access issues within St Peter Port and St Sampson are acknowledged as a potential block to people with disabilities and the Committee is cognisant that these concerns need to be addressed. Recent improvements undertaken at Market Street, Cornet Street, Town Church, Le Truchot and South Esplanade are positive, but these improvements need to extend into the High Street and Le Pollet to have wider benefits. This is likely to present logistical challenges. There will also be a need to strike the right balance between improving access and finding the right solution in terms of accessibility, cost, and heritage in what is a historically and culturally important area.

5.7.6 The Seafront Enhancement Area has provided an added impetus and political support for public realm improvements in Town. Potential initiatives include pedestrianisation of Church Square and the resurfacing of the High Street to improve accessibility. Other measures that have already delivered significant improvements in the physical environment to support community priorities include:

- Putting in place measures to address nuisance parking, primarily in coastal car parks;
- The provision of more dedicated small car parking spaces as an enabler for other road improvements, such as the provision of an informal crossing and pavement at La Vallette;
- Investigating expansion of the current residents' parking scheme.

6 Proposed new priority work streams

A number of further initiatives have been identified following the implementation of the original Strategy and analysis of its effectiveness and potential.

6.1 Improved access within the St Sampson and Vale Main Centre and Main Centre Outer Areas

6.1.1 Realisation of potential development in the St Sampson and Vale Main Centre and Main Centre Outer Area will provide further opportunities to improve the public realm and enhance facilities for vulnerable road users. It may also be necessary to review existing traffic management arrangements and to assess whether the operational capacity of junctions which have previously been identified as operating at or close to capacity can accommodate potential further changes.

6.1.2 Opportunities to reduce demand on road space (and therefore additional pressure on junction capacities) will help to mitigate the impact of future development. There may also be opportunities to make use of new technology to better manage existing junction capacities.

6.1.3 The Committee is already in discussion with the Development and Planning Authority as to how to mitigate potential impacts and will continue to liaise as necessary with the Constables of the Vale and St Sampson with a view to considering how meaningful and effective change might be implemented.

6.2 Mechanisms to enhance and improve enforcement of road safety measures

6.2.1 The Committee sees merit in investigating mechanisms to enhance and improve road safety, including the potential benefits of introducing a points-based system for driving licences, the use of fixed speed cameras and systems that facilitate the use of video (dash cam) footage as permissible evidence in law enforcement. The Committee will investigate these and other potential mechanisms in greater detail in consultation with the Committee *for* Home Affairs.

6.2.2 Many countries have some form of penalty points system, which penalises drivers who break the law by allocating demerit points for offences such as speeding or using a mobile phone at the wheel, with the threat of disqualification on the accumulation of a given number of points. Such schemes are proven to be an effective deterrent[7]. They are often linked to driver awareness and retraining schemes that offenders can opt for in lieu of a fine and/or disqualification.

6.2.3 There is a substantial body of evidence from studies in the UK and internationally[8] showing that the introduction of speed cameras causes a significant reduction in speeding, and that this reduction is sustained over time.

[7] https://www.roadsafetyobservatory.com/Evidence/Details/11287
[8] https://www.roadsafetyobservatory.com/HowEffective/compliance-and-law/safety-cameras

Studies also show that the most notable reductions in excessive speed are in 30mph and 40mph zones, and that fixed speed cameras are significantly more effective than mobile speed cameras, showing an average drop of 70% of vehicles exceeding the speed limit at fixed camera sites compared with just 18% at mobile camera sites.

6.2.4 Another emerging area worthy of investigation is in relation to dashboard camera (dash cam) footage of road safety offences. A 2016 pilot scheme in North Wales called Operation SNAP trialled a system that allowed them to process dash cam footage quickly and efficiently as evidence, and the pilot was so successful that it has now been extended to all four police forces in Wales. Similar initiatives are being rolled out in forces across the UK.

6.2.5. The Committee will therefore investigate the feasibility of these options in the Guernsey context, in conjunction with the Committee *for* Home Affairs. These investigations will focus on whether opportunities might exist to help simplify enforcement procedures and, if so, to determine how matters might be taken forward. Any proposed changes would result in the need to amend existing legislation, so a full report would be brought to the States at an appropriate time.

6.3 First Registration Duty

6.3.1 Data show that while overall numbers of vehicle registrations have fallen by approximately 19% since the introduction of the first registration duty, registrations in the highest emissions brackets for diesel and petrol vehicles have risen by 7.7% and 12.4% respectively in the last year alone. This illustrates that the rate of duty for these upper brackets (£690) is not effective in encouraging a switch from high emissions to low emissions vehicles. The Committee will review the first registration duty rates accordingly.

6.3.2 Vehicles in the highest emissions brackets tend to be larger, with consequentially greater negative impacts in terms of space efficiency, pavement surfing and the perceived and actual safety of other road users. There are a number of factors that influence vehicle purchasing decisions but islanders' choices closely reflect the patterns and trends in the UK market, despite factors such as our short travel distances, narrow lanes and granite walls. The Committee will consider (within a cost neutral envelope) a range of potential mechanisms relating to the Strategy's objectives and will return to the States with any recommendations it considers appropriate.

6.4. Benefit in kind/workplace parking levy

6.4.1 Investigations into categorising corporate parking as a benefit in kind for tax purposes or implementing a workplace parking levy were carried out by the

former Treasury and Resources Department in 2015, as directed by a resolution in the Strategy. Either one of these initiatives would have been an important complementary component of paid long-stay parking: charging some commuters to park on public land while others could continue to park in space provided free of charge by their employer would have been perceived as unfair unless mitigating measures were also implemented.

6.4.2 Because paid long-stay parking was not progressed, neither was this work stream. However, it may be worth re-examining the potential advantages and disadvantages of such schemes in their own right, as corporate parking has a significant influence on commuter travel. Also, compared with 2015, there is now a lot more data with which to assess the effectiveness of workplace parking levies in achieving various transport objectives. The Committee will therefore investigate whether this work stream should be revived.

6.5 Other matters

Public transport priority lane

6.5.1 Currently commuters using the bus to travel into St Peter Port are delayed by the same traffic queues as they would if they had been driving a car. Whilst opportunities for creating dedicated infrastructure for public service vehicles is somewhat limited in Guernsey, the Committee considers that it is worthwhile investigating whether a southbound bus/taxi lane can be created along the seafront between Bulwer Avenue and the Red Lion. Data indicate that such an initiative could reduce commuter journey times during the morning peak by as much as 10 minutes.

Reducing unnecessary vehicle movements through Town

6.5.2 Investigating means of improving public amenity space within St Peter Port, including opportunities to reduce unnecessary vehicle movements through the centre of Town, is an area of work that has been identified as being worthy of further investigation as part of the Seafront Enhancement Area Programme.

Personal light electric vehicles

6.5.3 There are a few different types of personal light electric vehicles (PLEVs) such as e-scooters, self-balancing vehicles, and motorised skateboards on roads worldwide. These have various benefits and disadvantages. It is currently illegal to ride a PLEV on the public highway in Guernsey, but the Committee believes there would be benefit in clarifying the position moving forward. At present

only an e-cycle is exempted from the requirement to be registered and these are subject to certain qualifying criteria. There is no straightforward way to extend this exemption to other PLEVs, making this a (perhaps surprisingly) complex piece of work, but it is a necessary one given the increasing popularity of these vehicles.

Licensing of commercial vehicle operators

6.5.5 One major area where domestic driving licence and vehicle construction and use legislation differs to EU standards is in relation to the licensing of commercial vehicle operators. This is not such an issue for domestic traffic but may have an impact if Guernsey registered commercial vehicles are driven abroad. Consideration is currently being given to the requirements for establishing a system of operator licensing in Guernsey, including options relating to supporting continuous driver training that will make it easier for commercial drivers wishing to drive abroad.

Domestic cats

6.5.6 There are numerous incidents involving motor vehicles and domestic cats on our island roads. Cats are frequently seriously injured and too often die because of these collisions, but their owners are oblivious to the fact often until it is too late to help. Current legislation does not require anyone to report an incident involving a domestic cat as, unlike horses and dogs, cats are not recognised as animals for the purpose of the relevant traffic laws. The Committee has resolved to improve on the current situation.

7 Reporting future progress

7.1. The Committee intends to report back to the States of Deliberation with the second periodic review of the Strategy during 2023.

8 Legislation

8.1 There is a variety of legislative requirements associated with various Strategy work streams approved by the States in 2014. Many of these have already been implemented in accordance with the relevant resolutions. Further work in this regard will be prioritised in accordance with established procedures.

9 Engagement

9.1 The Strategy is reliant in part on the enforcement of both existing and any proposed new road traffic legislation and therefore the Committee's officers work closely with Guernsey Police on day-to-day roads policing issues and

priorities. It is proposed that any changes to existing traffic laws and, more specifically, any changes to traffic offences or penalties will be discussed in detail with the Committee *for* Home Affairs.

9.2 The Committee has engaged and will continue to engage with the Development and Planning Authority and the Constables of St Peter Port, the Vale and St Sampson regarding specific measures within the Strategy relating to public realm, traffic management and road safety initiatives impacting the island's Main Centres as defined in the Island Development Plan.

9.3 The Committee's Strategy also closely aligns with several health and social related policies determined by the Committee *for* Health & Social Care and so the Committees will work together on matters of mutual relevance.

9.4 As previously mentioned in paragraph 3.5, the Committee has within its own mandate the responsibility to advise the States on policy matters relating to climate change. Transport is the single biggest source of Guernsey's carbon emissions, and the majority derive from our road transport. A more sustainable transport system that reduces reliance on energy-intensive motorised transport and encourages and enables low energy alternatives will be a critical part of the island's long-term response to climate change.

10 Conclusions

10.1 Transport plays a role in virtually every aspect of our community and the delivery of a sustainable and integrated Strategy is fundamental to social equity. Providing for freedom of movement and access to transport supports integration, thereby helping to deliver the Policy and Resource Plan's principal outcome being 'One Community: inclusive and committed to social justice.' Provision of a safe and efficient transport system provides economic and social benefits and mitigates negative environmental impacts. This supports the principal policy outcomes of the Policy and Resource Plan relating to 'Our Quality of Life' and 'Our Economy' – specifically 'Healthy Community' and 'Strong, Sustainable and Growing Economy'. Improving road safety also accords with another principal policy outcome of being a 'Safe and secure place to live'.

10.2 The Strategy will also have a direct influence on the successful delivery of the States' agreed areas of focus to enhance the seafront and mitigate climate change. It will support the delivery of the Economic Development Strategy, the Disability, Equality and Inclusion Strategy, the Health and Wellbeing Policy under the Partnership of Purpose, and identification of the strategic requirements for meeting Guernsey's energy needs and transport-related infrastructure across the island. The Strategy will also have a direct influence on the delivery of the aims and objectives of the Strategic Land Use Plan and the

Harbour Action Areas and Regeneration Areas which are key designations approved by the States in the Island Development Plan.

10.3 At the heart of the Strategy are the aims to improve road safety, promote alternative forms of transport and improve accessibility through a variety of different but integrated measures. Whilst good progress is being made on these priorities, particularly in relation to the number of journeys being undertaken by public bus services, it is recognised that there is more to be done if meaningful change is to be achieved. Areas where greater focus is required are highlighted in this report.

10.4 In terms of its overall Vision, the Strategy is moving in the right direction, as illustrated by a range of positive indicators listed in Section 1.8 of this Policy Letter and summarised in the closing summary of the First Periodic Review document.

10.5 The Committee also recognises that the Strategy can further support a vibrant economy and provide a safer, less congested, and polluted environment in which to live.

10.6 This policy letter represents the first periodic update of progress towards the objectives of the On-Island Integrated Transport Strategy approved by the States in 2014. It is proposed that a further progress update be provided in 2023.

11 Compliance with Rule 4 of the Rules of Procedure

11.1 Rule 4 of the Rules of Procedure of the States of Deliberation and their Committees sets out the information which must be included in, or appended to, motions laid before the States.

11.2 In accordance with Rule 4(1), the Propositions have been submitted to Her Majesty's Procureur for advice on any legal or constitutional implications.

11.3 In accordance with Rule 4(4) of the Rules of Procedure of the States of Deliberation and their Committees, it is confirmed that the propositions above have the unanimous support of the Committee.

11.4 In accordance with Rule 4(5), the Propositions relate to the delivery of sustainable and integrated transport policy which is fundamental to social equity, providing for freedom of movement and access to transport for all, whilst safeguarding vulnerable road users. This was approved as part of the Committee's policy plan approved by the States in June 2017 (Billet d'État XII – Appendix 6).

Yours faithfully

B L Brehaut
President

M H Dorey
Vice-President

H L de Sausmarez
S Hansmann Rouxel
S L Langlois

Committee *for the*
Environment & Infrastructure

APPENDIX A

INTEGRATED TRANSPORT STRATEGY: FIRST PERIODIC REVIEW

Welcome to the first periodic review of the Integrated Transport Strategy.

This review analyses how effective the Strategy has been since its full introduction in July 2015 in achieving its aims and realising its Vision:

> **"To facilitate safe, convenient, accessible and affordable travel options for all the community, which are time and energy efficient, enhance health and the environment and minimise pollution."**

The Strategy proposes that "progress should be subject to a major review approximately every four years" and new measures or adjustments made in light of the evidence.

This review studies the evidence and progress to date and the accompanying policy letter identifies new work streams and opportunities to further enhance and development the Strategy.

BACKGROUND

In May 2014, the States approved the Integrated Transport Strategy as set out in the resolutions[1] and detailed in the Minority Report[2]. This specified a co-ordinated set of measures that had been designed to work in unison to achieve the Strategy's aims and objectives.

Over the following 14 months, between the approval of the Strategy and the start of its implementation in July 2015, several of the key policy levers underpinning these measures were altered or removed. However, the aims and objectives were not adjusted accordingly.

Potential discrepancies between what the Strategy seeks to achieve and the mechanisms by which it can do so is a relevant consideration in reviewing its overall effectiveness. However, success is not merely determined by numbers and percentages. Many of the benefits of the Strategy establish mechanisms through which greater accessibility and improved road safety are promoted.

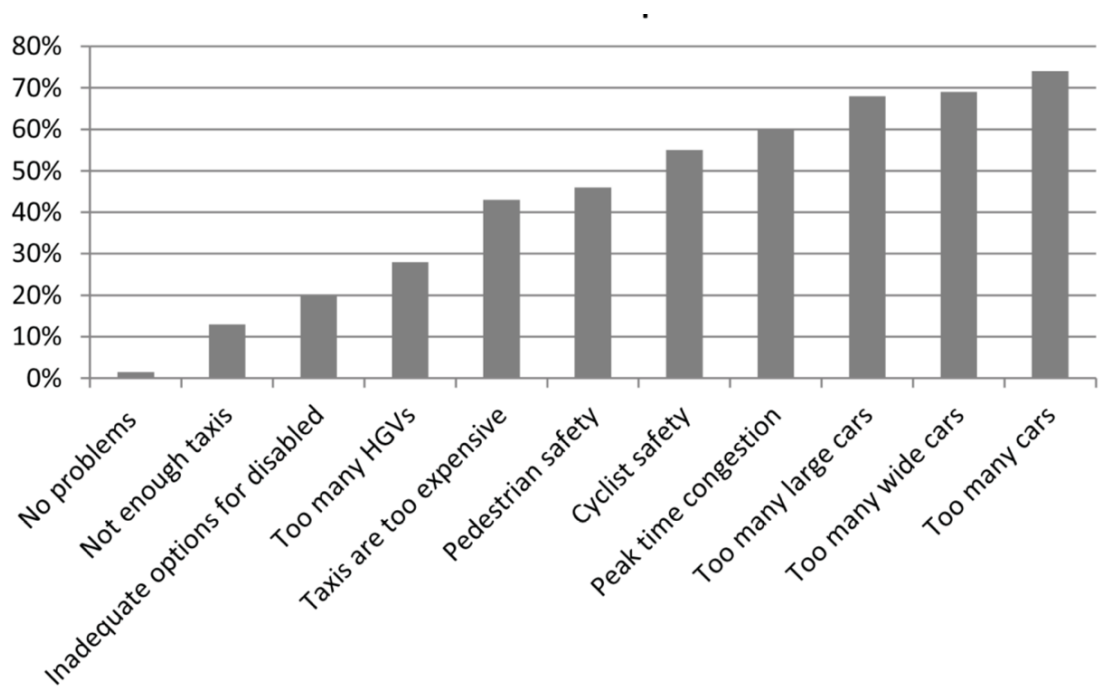
[1] Resolutions Billet D'Etat No IX, 2014
[2] Annexe, Billet D'Etat No IX, 2014

AIMS

The Strategy was developed to address the problems with our current transport system, largely as identified by the community through five sets of consultation.

> *"When asked what was wrong with the current situation in Guernsey, the most numerous responses were that there are too many cars, too many of them are too big or too wide and there is too much congestion in certain areas at certain times."*

Graph 1 - Responses to 2013 public survey identifying the main transport issues



These subjective responses correspond with objective analysis of Guernsey's transport model that shows we are a car-dependent society – in other words, people feel they have little choice other than to use a car.

The Strategy aims to create a more balanced transportation system, where people have a greater range of viable transport options.

Table 1 - Auto Dependency and Balanced Transportation Compared
Factor Automobile Dependency Balanced Transportation

Factor	Automobile Dependency	Balanced Transportation
Motor vehicle ownership	High per capita motor vehicle ownership	Medium per capita motor vehicle ownership
Vehicle use	High per capita motor vehicle use	Medium per capita motor vehicle use
Land use density	Low	Medium
Land use mix	Single-use development patterns	Mixed-use development patterns
Land for transport	Large amount for roads & parking	Medium amount devoted to roads & parking
Road design	Road designs favouring automobile traffic	Road designs balancing modes
Street Scale	Large scale streets & blocks	Small to medium streets & blocks
Traffic speeds	Maximum traffic speeds	Lower traffic speeds
Walking	Mainly in private malls	On public streets
Signage	Large scale, for high speed traffic	Medium scale, for lower-speed traffic
Parking	Generous, free, rigid requirements	Modest, some priced, flexible requirements
Site design	Parking paramount, in front of buildings	Parking sometimes behind buildings

Source: The Costs of Automobile Dependency and the Benefits of Balanced Transportation, Todd Litman, The Victoria Transport Policy Institute, 2002

Car dependency can cause a variety of problems, given that it is typically inefficient in terms of time, space, energy and resources. Personal choice, convenience and mobility are inhibited, transport costs are high and regressive, and public health and the environment are negatively impacted.

One aspect that is poorly understood outside transport policy circles is the economic impact of car use. There is a common misconception that car use generates a net economic benefit, but research has shown that car use in fact generates a net economic loss.[3] [4] On the other hand, forms of

[3] Science for Environment Policy, European Commission, Issue 418, June 2015

active travel such as walking and cycling have a net economic benefit to society. As one study[5] observes,

> *"Critiques of automobile dependency are sometimes accused of being 'anti-automobile', which represents this as an ideological rather than an economic issue. Reducing excessive automobile dependency is no more anti-automobile than healthy diets are anti-food."*

Achieving a more efficient and economically beneficial mobility balance is at the heart of the Strategy, which is "designed to make a significant and worthwhile start on the path to an integrated and sustainable transport system."

The principal aim of the Strategy is to achieve modal shift – in other words, to reduce the number of miles travelled in cars in favour of walking, cycling and bus use. It seeks to do this "principally by making the alternatives significantly easier and more attractive than at present."

The Strategy explains the numerous positive outcomes of effecting this modal shift, including economic benefits to retail centres, safer journeys, improved energy efficiency, reduced pollution, enhanced health, better accessibility and inclusivity and a more attractive public realm.

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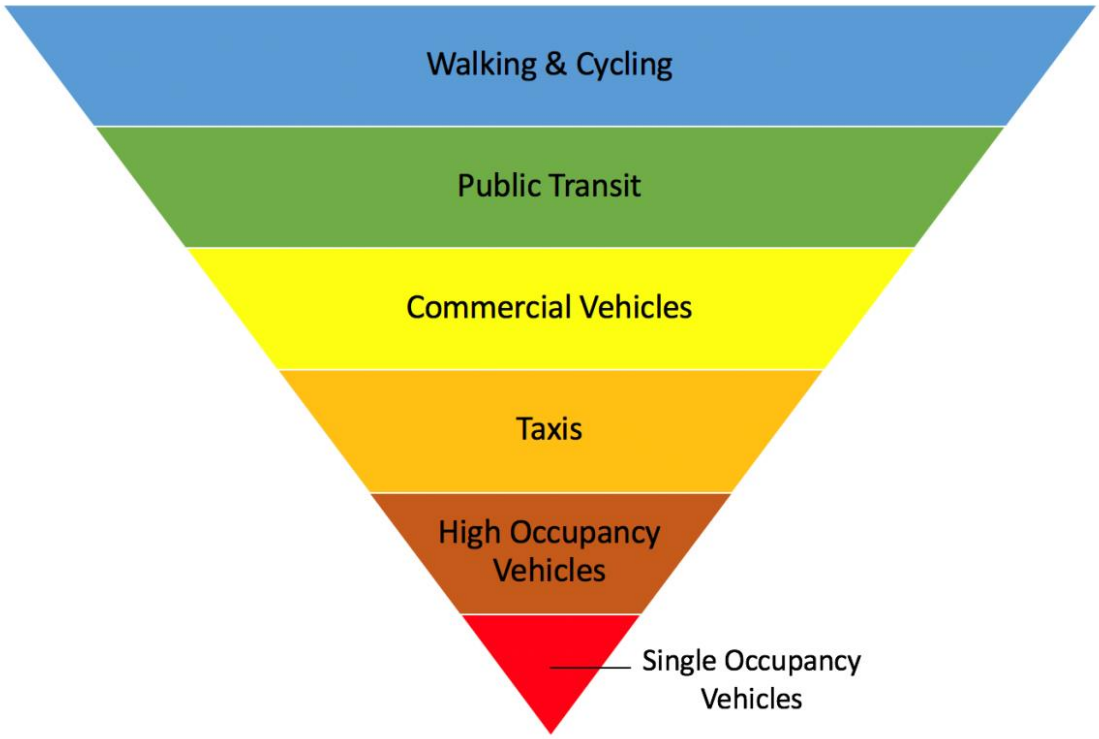
[4] Transport transitions in Copenhagen: Comparing the cost of cars and bicycles. Gössling, S. & Choi, A. S. (2015). Ecological Economics 113: 106–113.

[5] The Costs of Automobile Dependency and the Benefits of Balanced Transportation, Todd Litman, The Victoria Transport Policy Institute, 2002

One of the resolutions agreed by the States was the adoption of the Transport Hierarchy, which sets out a specific order of preference in terms of modes of transport. This hierarchy underpins the Strategy.



Walking and cycling are given equal weight in terms of promotion because both are non-polluting, affordable, energy-efficient forms of active travel that deliver health, economic and environmental benefits.

However, the Strategy recognises that in terms of vulnerability, people travelling by foot are at the very top of the hierarchy, above people riding bikes, who are themselves also vulnerable road users. Risk to these road users derives not from their modes of transport per se, but almost exclusively from motorised transport, especially from larger and heavier vehicles.

The Strategy makes clear that

> *"The strong message from the consultations is that one of the main reasons people do not walk or cycle is because they fear being hit by a motor vehicle. This must be addressed."*

It also stresses that those who choose to drive larger, heavier vehicles have an additional responsibility towards more vulnerable road users, proportionate to the risk they inherently present.

These aims and core principles were endorsed by the States in May 2014 when the Strategy was first adopted and they remain extant. This mandate transferred to the Committee *for the* Environment & Infrastructure in May 2016: in delivering the Strategy the Committee has adhered to these principles whilst working towards the overall aims.

OBJECTIVES

The Strategy identifies a range of objectives to work together to achieve the aims and realise the Vision:

- To reduce the number of car journeys, particularly solo-occupancy trips – reducing peak-hour traffic by an expected 10%;
- To increase the number of journeys made by alternative forms of transport, particularly active travel modes – ideally doubling the numbers of people travelling by foot, bike and bus;
- To achieve a greater proportion of smaller motor vehicles, especially in terms of car widths;
- To achieve a greater proportion of cleaner, low emissions motor vehicles;
- To improve safety for all road users, particularly vulnerable road users;
- To improve transport accessibility for all members of the community, particularly non-drivers and those with disabilities or on low incomes;
- To improve the public realm, particularly in the main centres.

POLICY MECHANISMS

The key policy levers originally agreed by the States in May 2014 to achieve these objectives were:

- Charges for commuter parking through paid long-stay public parking and a tax or levy on corporate parking (with commensurate improvements to free parking for retail and residents) to discourage people to commute by car, generating revenue to help adequately fund the Strategy;
- An improved, free-at-point-of-use (fare-free) bus service complete with fit-for-purpose bus infrastructure to encourage people to make journeys (commuter journeys in particular) by public transport, and to make transport more affordable;
- Significantly increased investment in walking and cycling infrastructure to make active travel safer, easier, more accessible and more affordable to encourage greater take up of these modes;
- A first registration duty based on emissions and vehicle width to actively incentivise cleaner, narrower vehicles (with subsidies for the cleanest and narrowest) and dis-incentivise wide, high emissions vehicles (with a maximum charge of £5,600 for the widest and most polluting), generating the bulk of the revenue to fund the Strategy;
- A policy of preferential parking for small cars and electric cars to make the use of small vehicles and low emissions vehicles more convenient than large vehicles and high emissions vehicles;
- Review speed limits to enhance safety for people using non-motorised modes of transport such as walking and cycling;
- Support the development and implementation of travel plans for schools, businesses and States departments;
- Embed the principles of accessibility and active travel into the Island Development Plan, and take accessibility into consideration across all work streams;
- Renovate specific areas of the public realm in the main centres to make them more attractive, vibrant and accessible to the public.

The policy levers that were subsequently altered by States decisions were:

- Charges for long-stay public commuter parking and a tax or levy on corporate commuter parking were not introduced (meaning the commensurate improvements to short-stay retail parking were also foregone), removing the key disincentive to commute to work by car, whilst also removing a revenue stream for the Strategy;
- Free bus travel was not introduced, removing the key incentive to commute by public transport by negating the competitive advantage of fare-free buses compared with charged-for commuter parking;
- First registration duty was heavily diluted: the width element was removed altogether, whilst the emissions element was charged at a fraction of the intended rate (maximum cost of £690 as opposed to £3,200 as originally intended, removing the subsidy for narrow or electric vehicles and also removing any meaningful disincentive to purchasing wide, high emissions vehicles;
- The funding mechanisms were significantly altered, greatly reducing anticipated investment in active travel infrastructure, ruling out the potential option of constructing a purpose-built bus depot which would have made the operation of the bus service more efficient.

These significant shifts in policy profoundly affected the Strategy's likely capacity to realise the original objectives and fully realise the Vision, but the Vision and objectives remain the measure by which the effectiveness of the Strategy are to be assessed.

MEASURING PROGRESS

Objective:

To reduce the number of car journeys, particularly solo-occupancy trips – reducing peak-hour traffic by an expected 10%

Progress

Fixed traffic studs are counters are positioned at various locations around the island and record vehicle movements on a 24/7 basis. Where data is missing or insufficient for analysis purposes, average figures are used (see figures in below tables highlighted in grey).

The table below analyses peak-hour (08:00 – 09:00) Monday to Friday vehicle movements during the morning commute along the four main arterial routes into Town. It shows a 4.7% reduction since 2014.

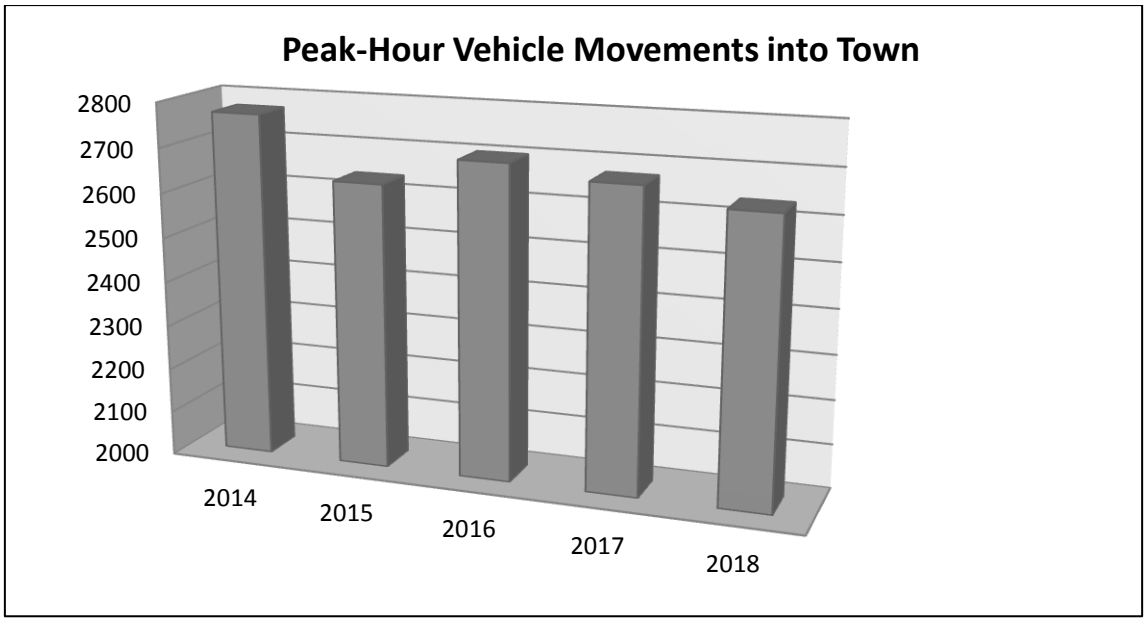
Table 2 – Weekday average movements into Town during the morning commute

'Peak-Hour' Movements into Town (08:00 - 09:00)						
Year	**St George's Esplanade**	**St Julian's Avenue**	**Le Bordage**	**Le Val des Terres**	**Total**	**% change from 2014**
2014	1127	650	481	509	**2767**	
2015	1049	653	449	486	**2637**	**-4.7**
2016	1094	649	479	479	**2701**	**-2.4**
2017	1068	611	469	526	**2674**	**-3.4**
2018	1043	615	468	511	**2637**	**-4.7**
Period Average	1076	636	469	502	2683	

Source: Fixed traffic studs and counters

The reduction in vehicle movements is encouraging and is further illustrated in the graph below.

Graph 2 – Peak-Hour Vehicle Movement Analysis into Town (08:00–09:00 Weekdays)



Source: Fixed traffic studs and counters

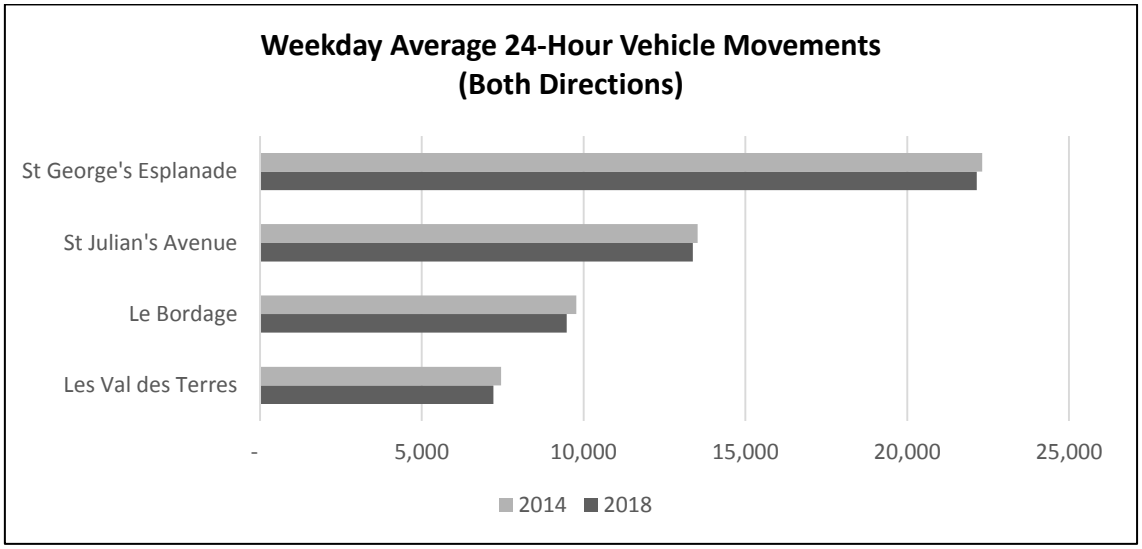
The table below shows average daily weekday counts (in both directions) along the same four arterial routes into and out of Town. The data indicates a slight reduction in combined weekly vehicle movements on these roads totalling 842 movements (down 1.6% since 2014).

Table 3 – Weekday Average 24-Hour Vehicle Movements (Both Directions)

Principal Roads	**Weekday Average 2014**	**Weekday Average 2018**	**Difference**	**% change**
St George's Esplanade	22,319	22,152	-167	-0.7%
St Julian's Avenue	13,524	13,381	-143	-1.1%
Le Bordage	9,775	9,480	-295	-3.0%
Le Val des Terres	7,453	7,216	-237	-3.2%
Total	**53,071**	**52,229**	**-842**	**-1.6%**

Source: Fixed traffic studs and counters

Graph 3 – Weekday 'Peak' Hour Movements



Source: Fixed traffic studs and counters

Baseline data[6] was collected in 2013 as part of the original Strategy in order to identify the method of travel used to commute to Town. A vehicle survey carried out along Les Banques between 07:30 and 09:00 on a weekday identified a total of 1,732 motor vehicles and 56 bicycles. The vehicle count results were as follows:

- 56 were bicycles (3.1%)
- 50 were motorcycles (2.8%)
- 1,446 were cars, taxis or minibuses (80.9%)
- 172 were goods vehicles (9.6%)
- 52 were heavy goods vehicles (2.9%)
- 12 were buses or coaches (0.7%)

A separate survey identified that approximately 85% of cars during the morning commute were driven by a solo-occupant.

A more detailed vehicle and passenger survey undertaken on 17 May 2019 at the same times and location as the 2013 survey counted 2,473 people heading towards Town in a total of 1,810 motor vehicles plus 83 bicycles.

[6] Billet D'Etat No IX, 2014, Appendix F

Of the totals:

- 65 were people walking (2.6% of commuters)
- 83 were people riding bikes (4.4% of vehicles) (3.4% of commuters)
- 144 were people travelling by bus (5.8% of commuters)
- 52 were people riding motorbikes (2.7% of vehicles) (2.1% of commuters)
- 1,400 were people driving cars (74% of vehicles) (56.6% of commuters)[1]
- 347 were people driving commercial vehicles (18.3% of vehicles) (14% of commuters)[1]
- 11 were bus drivers (0.6% of vehicles) (0.5% of commuters)
- 371 were passengers in cars or commercial vehicles (15% of commuters)

[1] Approximately 80% of cars or commercial vehicles were driven by a solo occupant.

Table 4 – Analysis of Vehicle movements by type along Les Banques during the morning commute (07:30–09:00)

Mode of transport	2014 Survey	Overall %	2019 Survey	Overall %	Difference by Mode 2014/19 %
Bikes	56	3	83	4	+48
Motorcycles	50	3	52	3	+4
Cars	1,446	81	1,400	74	-3[1]
Commercials	224	12	347	18	+55[1]
Buses	12	1	11	1	-8
Total	**1,788**	**100**	**1,893**	**100**	
Solo-occupancy vehicles		85		80	

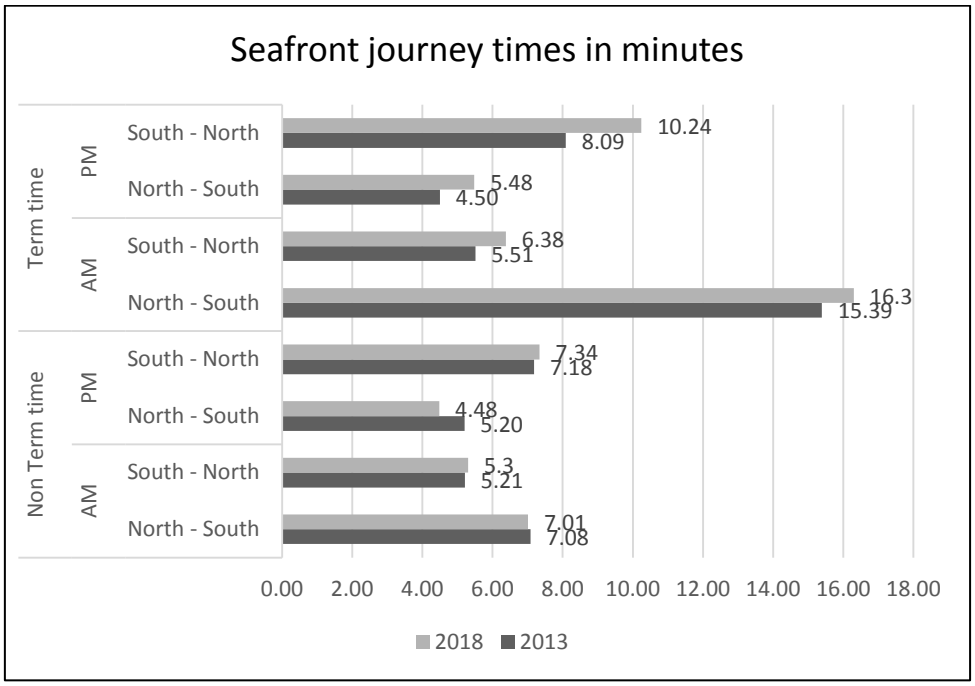
[1]Categorisation of cars and commercials may have varied across the two surveys

Source: Manual surveys

In summary the 2019 survey identified a 48% increase in people riding bikes along Les Banques compared to 2013, a 4% increase in people riding motorbikes and a 5% reduction in solo-occupancy car use.

Journey times along the eastern seafront were also measured as part of the Transport Strategy data collection in 2013 and then compared again in 2018. In broad terms there is no significant change in journey times along that route, although on average journeys in 2018 can take a little longer. What is particularly noticeable is that outside of school term times there are significant reductions in journey times along this route, in common with many other routes, specifically in the morning commute.

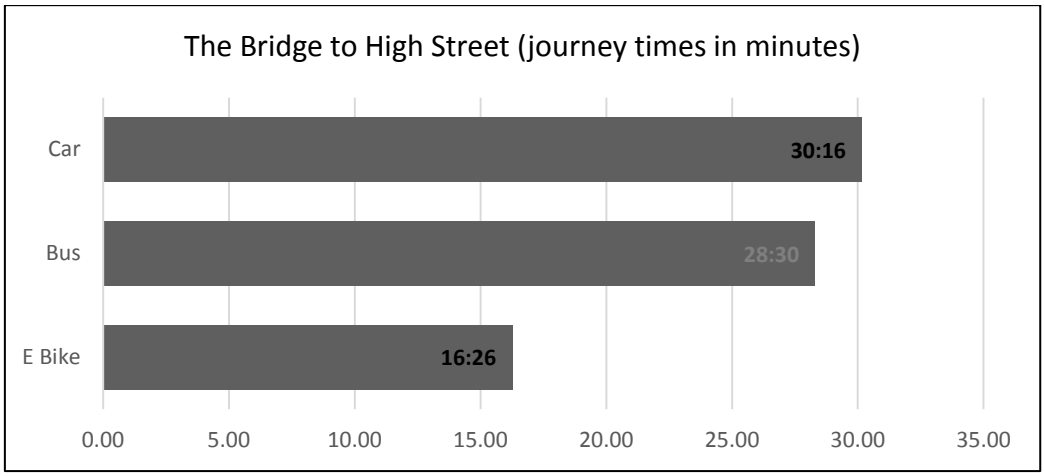
Graph 4 – Seafront Journey Time Driven Surveys



Source: Manual surveys

A comparison between three different modes of transport (a bus, a car and an e-bike) on a typical commuter journey door to door from the Bridge to Town departing at 8am shows that the car commute took the longest (at 30 minutes 16 seconds); the bus journey was around two minutes quicker (at 28 minutes 30 seconds) and the e-bike (at 16 minutes 26 seconds) was nearly twice as quick as the same journey by car.

Graph 5 – Seafront Journey Time Surveys for different modes of transport



Source: Manual surveys

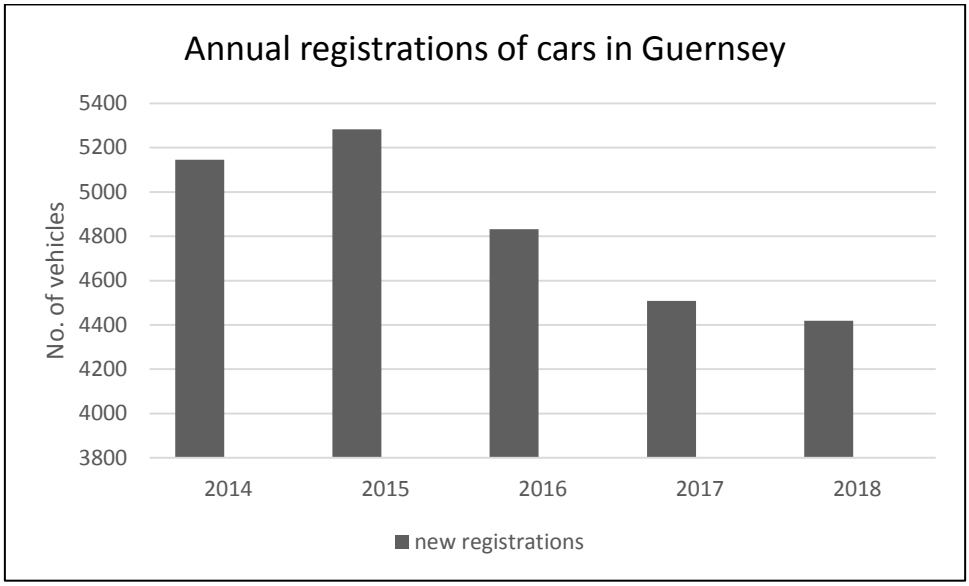
In terms of vehicle numbers, annual motor car registrations (both new and used) continue to fall, with just 3,451 cars being registered in the island in 2018 compared to 4,159 in 2015. In total the number of cars registered per annum since 2014 has dropped by 14.9%.

Table 5 - Annual Car Registrations

Year	New	Used	Total	Annual Variation	%	Cumulative since 2014 %	Cumulative since 2014 - new cars only %
2014	2642	1413	4055				
2015	2766	1393	4159	104	2.6	2.6	4.7
2016	2477	1294	3771	-388	-9.3	-7.0	-6.2
2017	2341	1218	3559	-212	-5.6	-12.2	-11.4
2018	2175	1276	3451	-108	-3.0	-14.9	-17.7

Source: Driver and Vehicle Licensing Database

Graph 6 – Annual registrations of new and used cars in Guernsey



Source: Driver and vehicle licensing database

At the end of November 2019 a total of 1,795 new cars and 1,210 used cars had been registered (3,005 in total) compared to 2,074 and 1,177 (3,251 in total) during the same period in 2018. This represents a further 7.6% drop in annual registrations.

As regards car parking, there are currently some 1,830 commuter long-stay (5hour and 10hour) parking spaces in St Peter Port, the majority located on the North Beach, Salerie, Castle Emplacement, South Esplanade, La Vallette and Odeon Car Park. Short-stay (½hour to 3hour) parking occupies approximately 1,340 spaces, primarily on the Albert and Crown Piers and at the front of the North Beach car park.

Demand for long-stay parking has historically been very high: it is typically between 95% and 100% occupancy on weekdays. Demand on Saturdays is similar, especially in the summer, albeit commuters are replaced to an extent by shoppers and people making use of harbour facilities. Data collated since the Strategy began shows that 10-hour spaces are typically taken by around 08:15 on weekdays, or earlier on North Beach. Anecdotal and observational data suggest that many commuters also park in short-stay spaces (mainly 3 hour) and either move their vehicle, change their parking clock or risk not changing their parking clock during the working day. This demonstrates that demand for free commuter parking is

unsurprisingly high – a phenomenon called supply-led demand. In other words, the fact that these spaces are not charged for on a user-pays basis is in itself inducing that high level of demand[7] [8].

There is usually short-stay parking available in Town on weekdays, even on busy cruise ship days. However, there is a clear preference for parking on the piers, with little appetite from shoppers to walk even modest distances. Saturdays are usually the busiest day with shoppers competing with port users for available short-stay parking. Demand in the winter months for short-stay parking is generally lower, with the exception of the run-up to Christmas when changes to short-stay parking arrangements are made to allow extra time for people to shop, albeit at the expense of a lower turnover of parking spaces.

Conclusions

Results to date have shown an encouraging shift away from car journeys (especially solo-occupancy) at peak commute times, given the absence of the main 'push' mechanism (paid long-stay commuter parking) and the main 'pull' mechanism (free bus use) envisaged in the original Strategy objectives.

Key positives include:

1) **A reduction in traffic flows in the morning commute of 4.7% since 2014;**
2) **Weekday average vehicle movements on key arterial routes into and out of Town have also reduced by 1.6% compared to 2014;**
3) **Annual car registrations are down 14.9% since 2014.**

In more general terms, local research[9], confirmed by empirical evidence[10], shows that even though fuel prices have been relatively high in recent

[7] Understanding Transport Demands and Elasticities: How Prices and Other Factors Affect Travel Behavior, Todd Litman, Victoria Transport Policy Institute, February 2017

[8] Europe's Parking U-Turn: From Accommodation to Regulation, Michael Krodansky and Gabrielle Hermann, ITDP, Spring 2011

[9] Billet D'Etat No IX, 2014

years, this is unlikely to be a significant push factor away from car use. Fuel price is (perhaps surprisingly) inelastic and has a proportionately small effect on modal shift, but may account for any small reduction in traffic volumes.

The high long-stay parking space occupancy rates are possibly one of the most effective push factors, as searching for or securing a suitable parking space can be time-consuming and stressful, as can using a short-stay space. These twin issues make commuting by car a little less convenient than some people may be prepared to tolerate. However, this in itself is a self-limiting push factor: average occupancy rates don't tend to drop for any length of time because when a valuable asset such as a long-stay parking space is offered for free, demand will always rise to meet the supply, keeping occupancy rates at (or very near) saturation point.

Journey times could also be a push factor. As stated above, on a typical commuter journey 'door to door' from the Bridge to Town departing at 08:00, an e-bike was substantially quicker than a bus or car journey. If dedicated public service vehicle infrastructure (for buses and taxis) could be provided along the seafront, at least in part, then journey times for these modes of transport could be substantially improved.

Providing short-stay parking of even shorter duration (½hr or 1hour duration as opposed to 2hour or 3hour) close to Town shops might assist retail and act as a deterrent to commuters who might otherwise abuse short-stay parking spaces.

Improving congestion on the school commute could also have significant benefits for reducing journey times into St Peter Port.

[10] Understanding Transport Demands and Elasticities: How Prices and Other Factors Affect Travel Behavior, Todd Litman, Victoria Transport Policy Institute, February 2017

Notwithstanding this, bus passenger numbers at commuter times are up more than 16% in the last four years, indicating that the steadily increasing popularity of the bus service may be a pull factor, especially when considered in conjunction with the push factors described above. Similarly, improved walking and cycling infrastructure along that main commuter corridor and the rising popularity of e-bikes may be another pull factor.

Without these initiatives, car journeys would almost inevitably have increased in recent years, especially taking into account the increase in working population.

Objective:

To increase the number of journeys made by alternative forms of transport, particularly active travel modes – ideally doubling the numbers of people travelling by foot, bike and bus

Progress

These targets are ambitious but show the level of change required to make a meaningful difference to vehicle journeys recorded, particularly during commuter periods. Baseline data[11] for active travel journeys in 2013 along the east coast commuter route prior to the implementation of the Strategy showed that walking and cycling both had a low modal share – around 3% each. The number of people commuting by solo-occupancy car journey was also very high at 85%.

- ***Bus Use***

The most successful element of the Strategy to date is the significant annual increases that have been experienced in bus passenger journeys. There are comprehensive records of bus passenger numbers stretching back many years, which can be analysed at quite a granular level.

A total of 1,837,787 passenger journeys were recorded on public scheduled bus services during 2018, representing an increase of 50,218 journeys, or a 2.8% increase when compared with the previous year. This was the fifth consecutive annual increase recorded and represented a total annual increase in passenger numbers of 370,457 since 2014. This provides an impressive compound annual growth rate of 6%.

Figures to November 2019 show further significant growth with an additional 100,489 passengers carried to date this year as compared to 2018 representing a 6% increase. In mileage terms, assuming an average

[11] Billet D'Etat No IX, 2014, Appendix F

journey length of 2.5 miles, an overall increase of 470,946 passengers equates to around 1,177,365 fewer car miles per annum.

Bus passenger journeys in the summer months can be heavily influenced by fluctuations in the numbers of journeys undertaken by tourists and, in particular, cruise ship passengers. Since the last dip in passenger numbers in 2013, Q2 & Q3 (April to September) passenger journeys have risen by 41.5% to September 2019. Importantly, it is in the winter months where significant growth has also been witnessed with Q4 & Q1 (October – March) passenger journeys increasing by 37% to March 2019. This is particularly encouraging as passenger journeys in the winter months are largely undertaken by the resident population.

Modest growth has been experienced across most fare types in 2018 as compared with 2017 with the number of fare paying passengers rising by 42,705 (3.2%), student users up by 5,753 (3.1%) and concessions (OAPs) up by 3,944 (1.6%). The Nightowl services operated across three routes on Friday and Saturday evenings continue to be popular with an additional 3,355 passengers using the service in 2018, representing a growth rate of 15%.

The number of Smart Card fare products increased by 72,832 (13%) in 2018, with the corresponding number of people paying by cash reducing by 30,127 (4%). With the recent introduction of contactless technology, it has never been easier to catch the bus.

Annual passenger journeys had previously peaked in 2010 before declining swiftly in 2013 to a level of 1.35 million, then increasing steadily again to the current level of 1.84 million in 2018. Historically, numbers have declined since the heydays of the 1960s and 70s when multiple car ownership was much less prevalent, falling to a low of just 878,111 in 2000. With an estimated 1.95 million passengers expected to be carried on scheduled bus services during 2019 this shows the extent of the turnaround in the contribution of public transport services to the island's daily transport requirements. A monthly breakdown of passenger carryings is detailed in Table 6, with longer-term historical analysis provided in Table 7.

Table 6 – Annual comparison of bus passenger journeys 2014 – 2018

Month	2014	2015	2016	2017	2018	Increase	%
January	83,440	89,692	88,290	100,019	111,572	28,132	33.72
February	78,870	81,962	94,760	102,032	107,027	28,157	35.70
March	97,381	97,303	109,504	125,639	119,782	22,401	23.00
April	104,925	114,465	128,097	139,292	136,911	31,986	30.48
May	136,879	148,609	153,692	164,847	179,514	42,635	31.15
June	150,660	157,860	165,453	184,971	188,129	37,469	24.87
July	172,226	170,188	185,114	192,477	199,929	27,703	16.09
August	176,443	163,826	193,896	203,997	209,130	32,687	18.53
September	155,028	154,946	171,282	178,204	179,675	24,647	15.90
October	115,663	122,697	134,097	145,859	150,695	35,032	30.29
November	95,870	98,907	109,642	126,713	126,906	31,036	32.37
December	99,718	106,346	119,901	123,519	128,290	28,572	28.65
Total Year	**1,467,103**	**1,506,801**	**1,653,728**	**1,787,569**	**1,837,560**	**370,457**	**25.25**

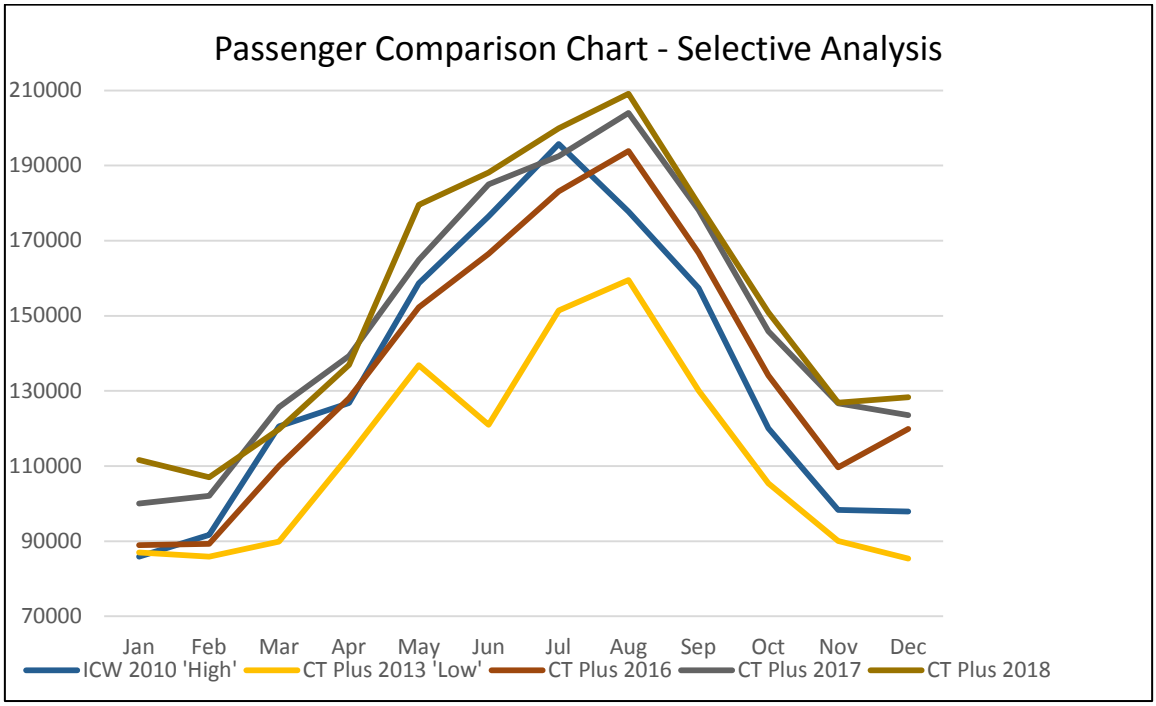
Source: Ticketer

Table 7 – Historical analysis of bus passenger journeys (1996 – 2018)

Year	Passengers	Year	Passengers	Year	Passengers
1996	1,093,212	2004	1,304,049	2012	1,486,205
1997	1,128,101	2005	1,393,693	**2013**	**1,354,993**
1998	1,054,185	2006	1,405,414	2014	1,467,103
1999	941,052	2007	1,438,803	2015	1,506,801
2000	**878,111**	2008	1,531,257	2016	1,653,728
2001	954,908	2009	1,567,565	2017	1,787,569
2002	1,057,627	**2010**	**1,607,017**	**2018**	**1,837,787**
2003	1,201,799	2011	1,563,966	**2019**	***Est 1,950,000***
Period Lows		Period Highs			

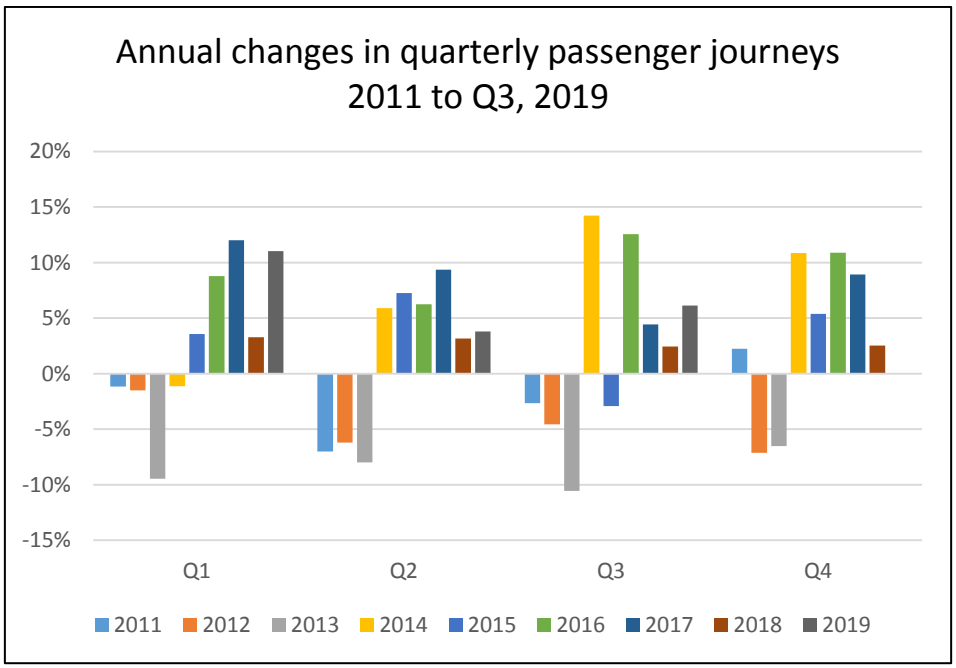
Source: Ticketer

Graph 7 – Compares previous 'high' (2010), 'low' (2013) with the period 2016 to 2018



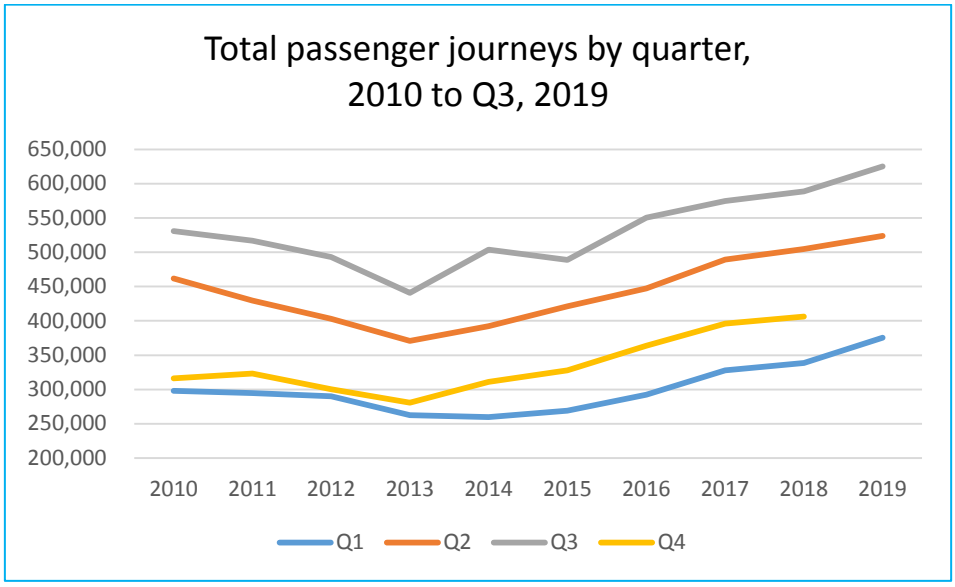
Source: Ticketer

Graph 8 – Annual changes in quarterly bus passenger journeys



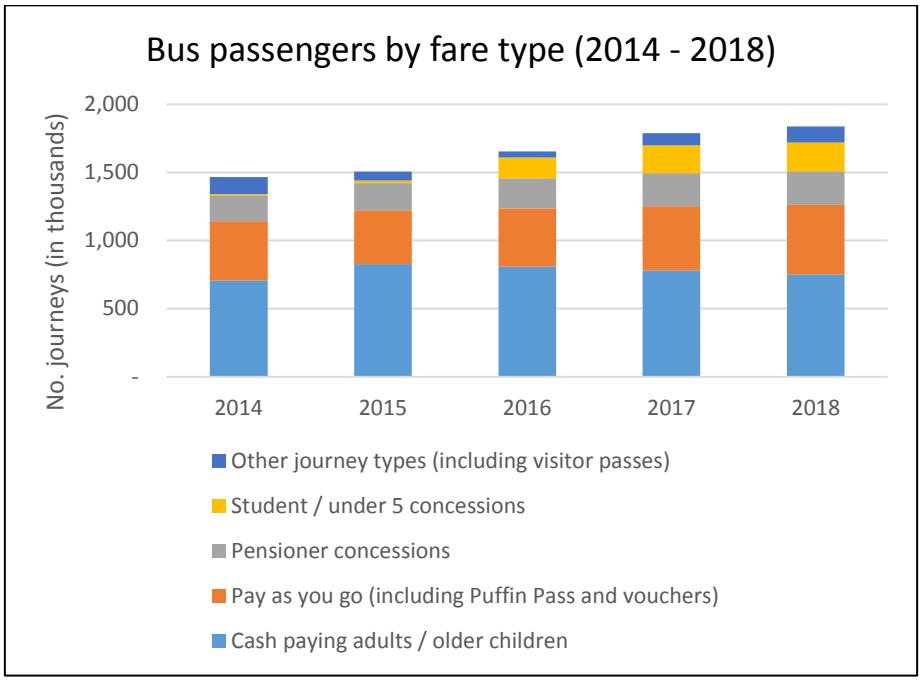
Source: Ticketer

Graph 9 – Total bus passenger journeys by quarter



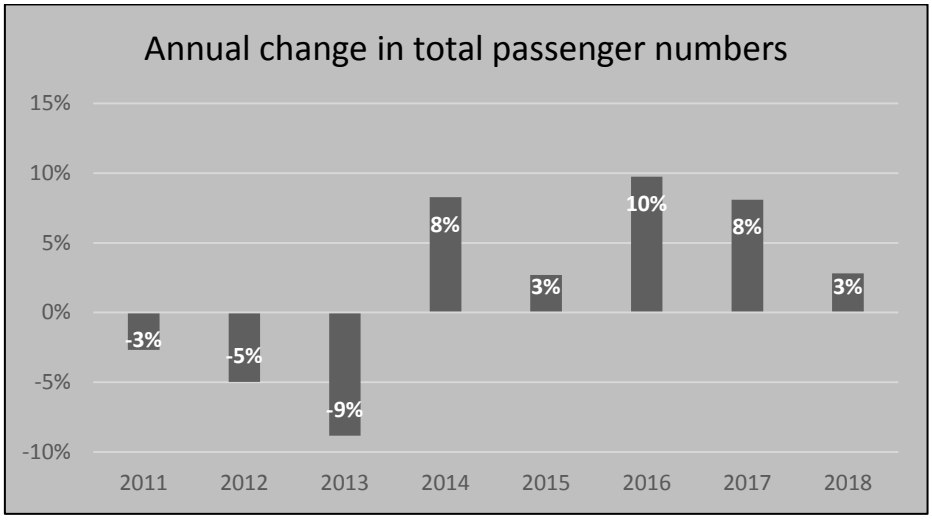
Source: Ticketer

Graph 10 – Total number of bus passenger journeys by fare type



Source: Ticketer

Graph 11 – Annual change in total bus passenger journeys



Source: Ticketer

Table 8 - Total bus passengers by quarter (2014 – Q3, 2019)

	Total passenger journeys			
Year	**Q1**	**Q2**	**Q3**	**Q4**
2014	259,691	392,464	503,697	311,251
2015	268,957	420,934	488,960	327,950
2016	292,554	447,242	550,292	363,640
2017	327,690	489,110	574,678	396,091
2018	338,381	504,564	588,734	**406,067**
2019	**375,673**	**523,730**	**624,847**	

Source: Ticketer

As Table 8 illustrates, the quarterly figures have risen substantially since 2014.

These increases are reflected in average route loadings as set out in Table 9.

Table 9 – Average loadings by bus route (Terminus to Terminus)

Route	Average Loading July'14*	Average Loading July'19**	Route	Average Loading July'14*	Average Loading July'19**
11	19	24	60	N/A	4
12	17	28	71	18	27
21	9	12	81	15	23
31	13	19	91	62	44
32	N/A	14	92	35	33
41	30	32	93	33	28
42	29	31	94	N/A	25
51/52	14	11	95	N/A	24
61	15	17	P2	N/A	8
13	N/A	25			

*week of 28 July – 1 August 2014

**1 July – 31 July 2019

Source: Ticketer

Passenger journeys during the commuter period (06:00–09:30 and 16:00–18:30) in Quarter 1 have also shown a significant increase between 2016 and 2019 with a growth of some 16,950 passengers (16.1% in three years) as evidenced in Table 10 below.

Table 10 – Quarterly commuter bus passengers

Commuter Passenger Analysis - Quarter 1 (Jan-Mar)							
Year	AM (06:00-	PM (16:00-	Total	Annual Increase	Cumulative Increase	% increase	Cumulative Increase
2016	50,000	55,331	105,331				
2017	53,964	57,537	111,501	6,170		5.9	
2018	53,831	59,867	113,698	2,197	8,367	2.0	7.9

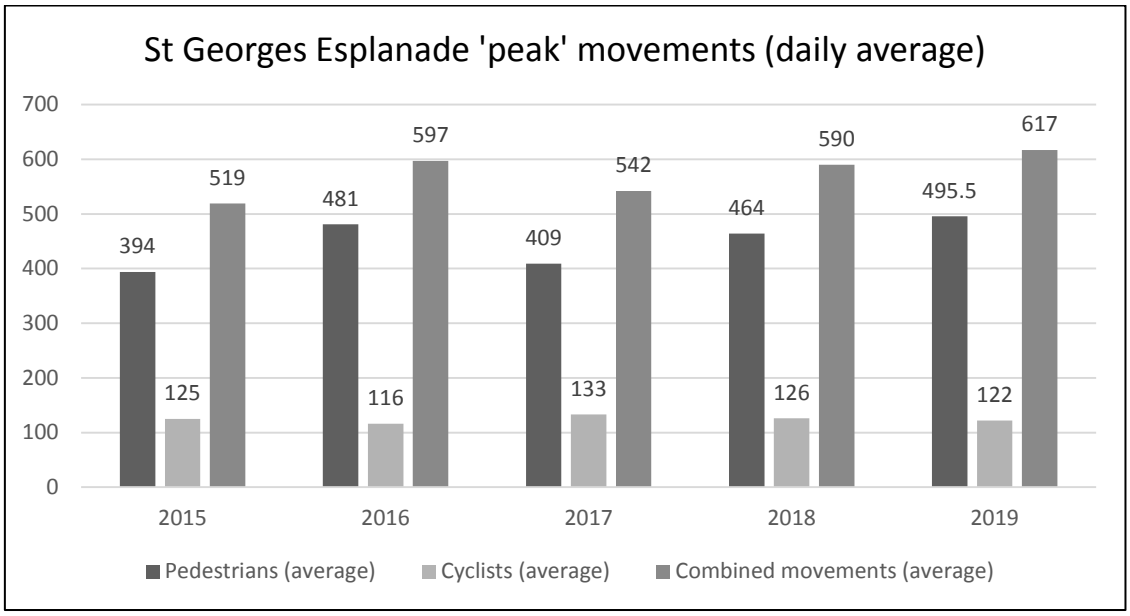
2019	57,366	64,915	122,281	8,583	16,950	7.5	16.1

Source: Ticketer

- **Walking & Cycling**

Baseline data for walking and cycling is limited to St George's Esplanade, Les Banques and the Baubigny cycle contraflow system. Because of this limitation, accurate analysis of progress towards this objective is difficult, but the increase in active travel we can see from like-for-like comparisons of these existing small data sets is encouraging. Beyond these data, we have some very loose proxies.

Graph 12 – Walking and cycling counts during the morning commute (07:30–09:00)



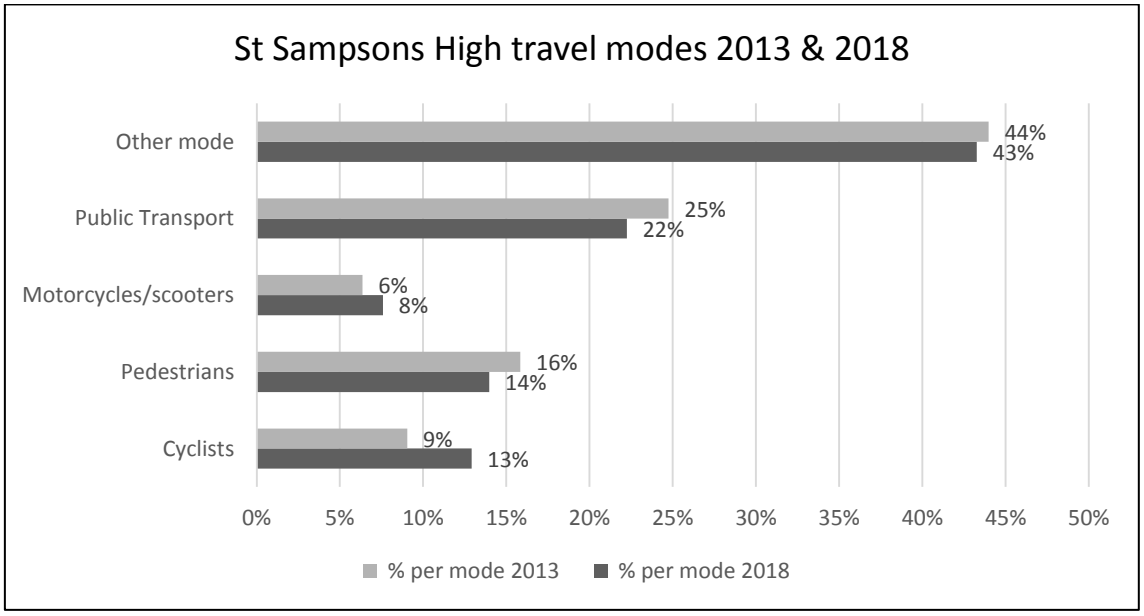
Source: Manual surveys

Counts of people walking along Glategny Esplanade at peak commuter times show that numbers have increased by around 25% when compared to 2015, up from 394 to 495 across the survey period. This increase is largely attributable to more people walking. However, these particular counts include people driving cars who subsequently walk into Town having parked in the Salerie Car Park, so may include an element of 'car sharing' or changes in parking habits.

The number of people cycling appears fairly constant in these limited data, unlike the surveys undertaken in 2013 and 2019 along Les Banques which indicate a potential growth in cycling of up to 48%. This is perhaps more in line with anecdotal evidence from various workplaces which report a marked increase in numbers of people cycling to work over the past five years.

In other areas, modal share for cycles at St Sampson's High School dropped from 23% in 2009 to just 9% in 2013, but had increased to 13% again by 2018. Modal share for walking dropped slightly from 16% in 2013 to 14% in 2018.

Graph 13 – Walking and cycling counts during the morning school commute (07:30–09:00)



Source: Manual surveys

Membership of the Guernsey Bicycle Group, the local organisation for people who ride bikes, was around 1,000 by 2014; by the end of 2018 it was more than 1,830 – an increase of around 80%. Although this is a very loose and highly generalised proxy measurement, it is nonetheless a positive indication that cycling as a mode of transport is growing in popularity in the island.

Bicycle retailers report a general increase in bike sales and a new shop dedicated to e-bikes opened in early 2019. These are both indicators of a growing market.

In April 2018 a total of 387 e-bikes were sold by local retailers as part of an initiative to promote this alternative form of transport in which a 25% discount was offered on all sales. Subsequent surveys of people who purchased an e-bike under this initiative suggested that, on average, each e-bike had been ridden for 683 miles over 12 months. If the average mileage figure is then applied to all of the e-bikes sold under this initiative it would give a total of circa 265,000 miles per annum. Other data collected from these surveys show that 57% of those e-bike journeys mainly replaced car journeys, while 63% of those e-bike owners reported that their e-bike has replaced motor vehicles as their primary mode of transport.

Although we don't have pre-Strategy baseline data to compare, we do have two years' worth of public bicycle stand occupancy data. These show that comparing 2017 with 2018, average bicycle stand occupancy across the 19 public bicycle parking areas increased by 8.9% in the mornings and by 5.9% in the afternoons, although interestingly the afternoon occupancy rates in both years are at least 20% higher than morning occupancy rates.

These factors support the suggestion that more people are travelling by bicycle now than they were at the start of the Strategy.

Conclusions

Bus passenger numbers have increased month on month and year on year since 2014. The States' continued investment in the bus service has paid significant dividends, providing a stable platform on which to develop a reliable, affordable, timely and quality service – all important factors in building passenger confidence. With expected carryings up by nearly 500,000 passenger journeys by the end of 2019 this equates to a potential 1.25 million miles of saved car journeys per annum based on a conservative estimate of each passenger journey averaging 2.5 miles.

Based on Q3, 2019 data, passenger numbers have increased by 24% since 2014, up from 503,697 passengers to 624,847 for the first quarter in just 5 years. Compared to the low of 2013 the increase is 41.7%.

Since 2014, a number of new bus routes have been introduced and frequency increased at peak times on key corridor routes. In addition to the figures quoted above, school bus services (provided by a mix of States and private hire operators) carry an estimated **350,000** students to and from school annually as compared to around 322,000 in 2014. Improving school transport provision is an important element of seeking to address commuter transport congestion.

New bus shelters, free Wi-Fi, a bus real-time information app and the recent introduction of on-bus contactless payments are all helping improve the experience of travelling by public bus.

Feedback from the travelling public and the Bus Users Group confirms that the new fleet has been well received as the new vehicles are considered smarter, narrower, more comfortable and convenient than the ageing fleet they replaced. These improvements all contribute to the quality of the service, which is one of the most important pull factors.

Key positives include:

- **Bus passenger numbers have increased by 32% since 2014 with solid growth in both the commuter peak and the shoulder months;**
- **At the current rate of growth, annual passenger journeys on scheduled bus services should exceed 2.0 million in 2020 (up over 500,000 since 2014);**
- **These 500,000 additional bus journeys may have reduced car journey miles by an estimated 1.25 million per annum on Guernsey roads.**

Although the comparisons for walking and cycling are based on relatively small data sets, the apparent upward trend in active travel commuting is positive given the modest improvements that have so far been made to walking and cycling infrastructure.

The policy of allowing people to ride cycles (carefully) through roads closed to motor traffic has been very well received by the bike-riding community, as has the shared-use path uphill only on Le Val des Terres. Soft measures like these may have helped support the apparent increase in cycling by making travelling by bike feel safer and more convenient.

It is probable that the rising popularity of e-bikes has contributed to the apparent increase in cycling uptake.
The Strategy's 2018 e-bike initiative was very successful in meeting its objectives. 387 new e-bikes were bought by local residents through the scheme and results across a wide range of transport, health and wellbeing outcomes have been very positive and sustained. Over 60% of participants surveyed reported that their e-bike has replaced motor vehicles as their primary mode of transport and 55% have found using an e-bike more convenient than driving. Since the initiative, demand for e-bikes is reported to have gone from strength to strength, with the island's first dedicated e-bike retail outlet opening early in 2019 to meet this sustained increase in demand. This significant degree of modal shift underscores the further potential of e-bikes in achieving the Strategy's Vision.

Another Strategy initiative that has made cycling a more viable transport choice has been the linking up of Ruettes Tranquilles to form a network of routes, promoted through clearer signage, a map and an app. This network makes it easier to avoid main roads and makes cycling more accessible to visitors and to locals, especially those looking for bike-friendly commuter routes. At the end of August 2019, the app had been downloaded 2,561 times.

An on-going programme of cycling infrastructure enhancement has seen the introduction of various other improvements, such as safer crossings, additional cycles stand locations and covered cycle shelters.

Similarly, an ongoing programme of infrastructure enhancement for people travelling on foot (including those in wheelchairs and on scooters etc) has already improved the experience in many areas. Wider footpaths, more and better designed crossings and improved lighting all contribute to greater convenience and safety for people on foot, while the Ruettes

Tranquilles network again has helped people find more pleasant walking routes away from the main roads.

Key positives include:

- **Surveys of people who purchased an e-bike under the subsidy scheme in 2018 indicate a potential combined annual saving on car miles of up to 265,000 miles;**
- **Surveys along the seafront indicate a rise in both cycling and walking during the morning commute.**

Objective:

To achieve a greater proportion of smaller motor vehicles, especially in terms of car widths

Progress

Small cars are popular in Guernsey as they bring many benefits, including fuel efficiency, low emissions, and ease of manoeuvrability on our constrained road network.

However, beyond these inherent benefits, there are only two policy-related incentives to buy a small vehicle: the low (or zero rated) first registration duty and preferential parking. The relative advantage of paying a low first registration duty under the current system (with its maximum charge of £690 for the highest emissions vehicles) is significantly less than it would be in the UK, or indeed than it would have been under the duty originally agreed by the States in 2014, where the maximum charge would have been £5,600 for the largest and highest emissions vehicles.

In order to be classed as a small car in Guernsey, cars need to be less than 3.7m long. There is no width restriction but small cars are usually narrower than 1.7m and are certainly amongst the narrowest in circulation.

Registrations of new small cars in 2018 made up approximately 15% of the overall car market. This is a similar percentage to recent years and reflects

the popularity of this sector of the car market in Guernsey. Overall, the number of small car models currently in production now make up approximately 9% of the car database in Guernsey. This compares favourably to the UK where the figure is just below 4%. However, the fact that the annual percentage has remained stable in recent years indicates that policy measures have not been a major influence in consumer habits.

Conclusions

Small car parking occupancy rates show high demand – although this is in line with most free public parking in Town, so it simply confirms that there are high enough numbers of small cars in circulation to regularly saturate the 139 small car spaces available.

Preferential parking for small vehicles is a soft incentive that is unlikely to have had much (if any) influence over vehicle purchasing habits. It may, though, have had some bearing on the specific vehicle chosen for specific journeys to Town in households where choice exists. Accordingly, any increase in proportion of small and/or narrow vehicles will be due to incidental factors rather than policy levers.

Incidental pull factors include the relative convenience of smaller cars on our narrow roads and lanes, and the fact that smaller cars tend to be lighter, which tend to burn less fuel and therefore cost less to run than a bigger vehicle.

Key positives include:

- **Small cars continue to be popular in Guernsey and make up approximately 15% of annual new car registrations;**
- **Approximately 9% of total cars registered in Guernsey are now small cars, compared to just 4% in the UK.**

Objective:

To achieve a greater proportion of cleaner, low emissions motor vehicles

Progress

Since moving away from motor tax in 2008, there has not been any mechanism by which to collate accurate figures for vehicles in circulation on the island's roads. However, by analysing annual registrations and de-registrations since motor tax was abolished, the total figure of 84,327 motor vehicles officially registered as at the end of 2018 can be reduced to an estimated 61,300 vehicles in active use in the following categories:

Cars – 45,400;
Commercial vehicles – 8,200;
Motorcycles – 7,700.

The Strategy's first registration duty[12] is based on CO2 emissions but, unlike the UK and many other jurisdictions, there is no active incentive (i.e. subsidy) for zero emissions vehicles. The quantum of the charge for high emissions vehicles is typically a very small proportion of the total cost of the vehicle. Accordingly, despite a continuing reduction in annual vehicle registrations and environmental improvements and fuel efficiencies being made in combustion engine design, revenue from first registration duty has remained fairly constant and for 2019 has already exceeded the sums raised in both 2017 and 2018.

Income from first registration duty since its introduction on 1st May 2015:

2016 - £634,070 (from 01/05/16);
2017 - £1,193,780;
2018 - £1,162,255;
2019 - £1,180,120 (up to 16/12/19)

[12] See Appendix 13

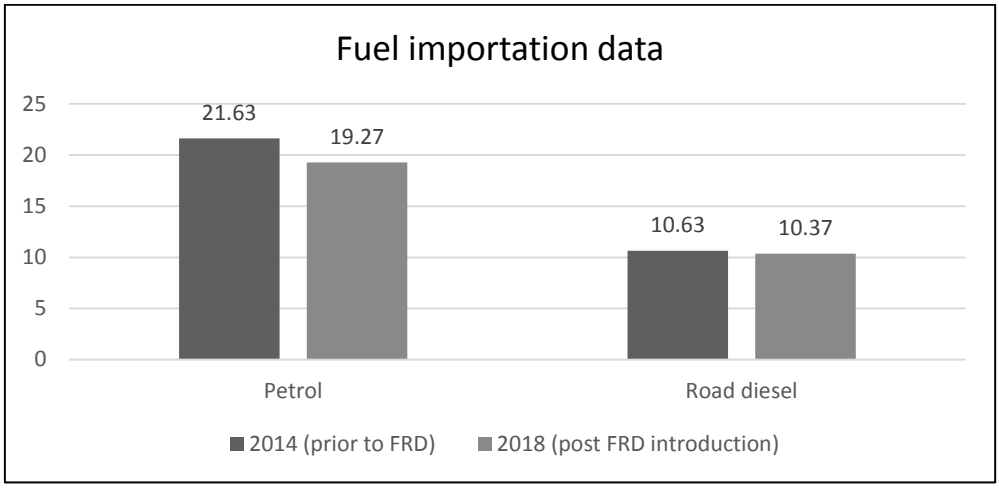
Looking more closely at first registration duty income it is clear that the current rates are having no impact on the number of higher emissions vehicles being registered in Guernsey. For example, the number of diesel vehicles registered in the highest emissions bracket (over 141 g/km) between 1 January and 19 December 2019 is 7.7% higher than it was at the same point last year (392 vehicles versus 364 in 2018). The position is the same for petrol cars registered in the highest emissions bracket (over 166 g/km) where the number has risen by 12.4% in the same period (371 vehicles versus 330 in 2018). This contrasts with the overall position where the total number of cars being registered annually continues to fall.

These high emissions vehicles are likely to be larger models such as Sport Utility Vehicles (SUVs), which typically consume around a quarter more energy than a medium-sized car. This reflects a growing trend of rising SUV sales internationally, which threatens to cancel out the emissions reductions from improved fuel efficiency in smaller cars and increasing EV numbers. In fact, according to the International Energy Agency[13], SUVs have been the second-biggest cause of the rise of global CO2 emissions over the last decade, behind only the power sector and ahead of heavy industry, heavy goods vehicles and aviation.

Fossil fuel consumption for road transport is falling gradually, in line with trends in other jurisdictions, as newer, more fuel-efficient passenger cars replace older models. There is a direct correlation between fuel consumption and carbon emissions, so this gradual decrease is evidence that the island's fleet as a whole is generating fewer emissions.

[13] Growing Preference for SUVs Challenges Emissions Reductions in Passenger Car Market, Laura Cozzi & Apostolos Petropoulos, International Energy Agency, October 2019.

Graph 14 – Fuel import analysis for petrol and road diesel

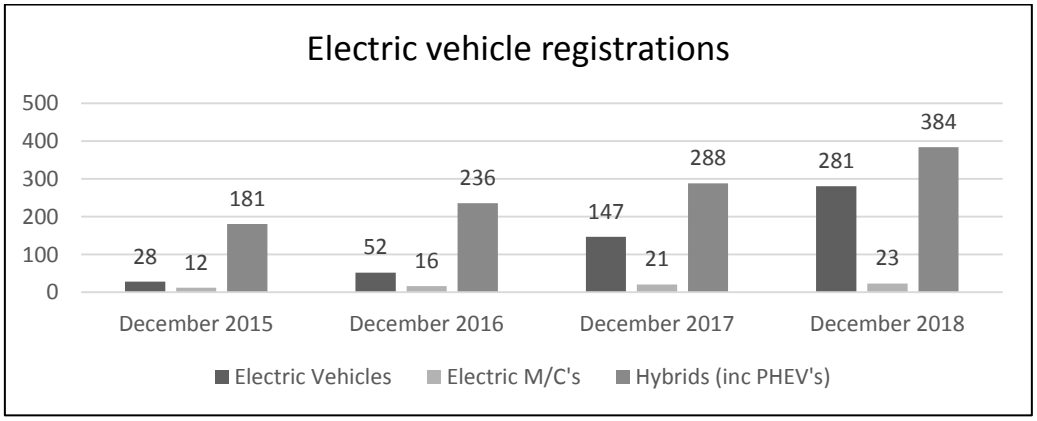


Source: Guernsey Facts & Figures Booklet

Baseline greenhouse gas emissions data shows emissions from transport-related fuel consumption in Kilotonnes of CO2 equivalent as 117.6 in 2013, 117.3 in 2014, 115.5 in 2015 and 114.1 in 2016: a downward trend that mirrors increasing fuel efficiency and the transition to electric vehicles (EVs).

Registrations of EVs in Guernsey continue to grow, and whilst they still represent less than 1% of the estimated total number of car and light vans currently in circulation on Guernsey's roads, electric vehicles are now accounting for around 3.7% of new registrations annually. EVs and alternative fuel vehicles together account for around 7% of the total number of annual registrations.

Graph 15 – Electric/Hybrid vehicle registrations

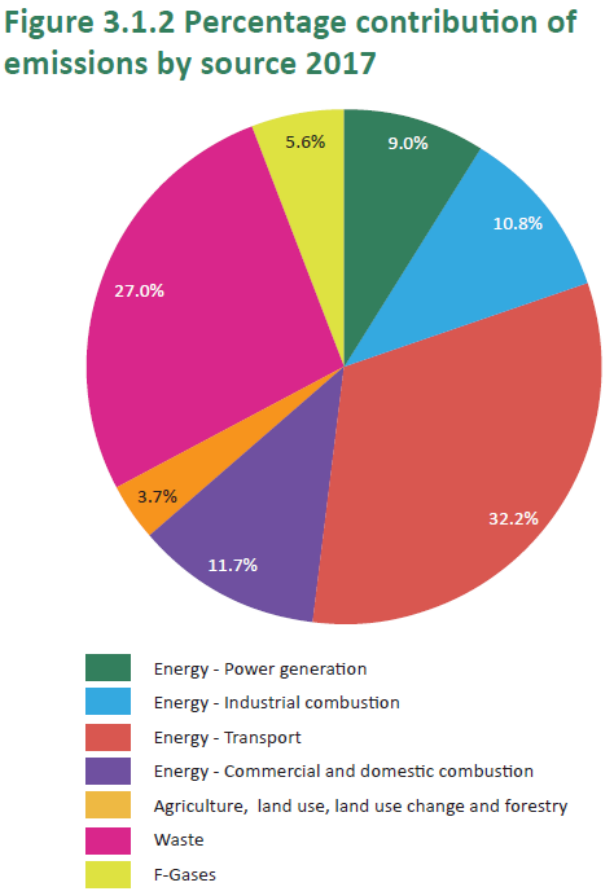


Source: Driver and Vehicle Licensing database

The number of EVs has continued to rise in 2019, with a total of 384 vehicles registered by 30 September, an increase of more than 100 vehicles compared with the start of the year. The overall number of hybrid cars registered has also increased by a similar amount in 2019, up 89 to 473 at 30 September. The number of electric motorcycles has more than doubled from 22 to 46 in the last nine months, with the introduction of a number of new models to the market this year.

Notwithstanding this, in global terms progress towards this objective is slow. The most recent greenhouse gas emissions data available show that transport is responsible for the biggest proportion of Guernsey's emissions – over a third of the total. In 2017, transport contributed 32.2% of the total greenhouse gas emissions, as illustrated in Graph 16.

Graph 16 – Greenhouse gas emissions data



Source: States of Guernsey Facts & Figures 2019

In terms of licensed public transport operations, there has been a notable switch to alternative fuelled vehicles in the taxi industry, with some 34 hybrid vehicles now in regular use in a fleet of 125 taxis. This equates to approximately 850,000 miles per annum driven by hybrid taxis.

The Committee has recently replaced 33 of its Euro 3 diesel buses with 34 new Euro 6 Ultra-low emission StreetVibe buses (ULEBs). This has resulted in reductions in emissions of the most harmful pollutants, Nitric Oxide and Particulate Matter, by as much as 98% and 90% respectively. For comparison, 50 of the new Euro 6 buses emit the same levels of Nitric Oxide between them as just one Euro 3 bus. The following table provides a comparison between the emissions of a Euro 3 Dennis Dart and our new Euro 6 StreetVibes.

Table 11 – Comparison of emissions data for public buses

Emissions	Euro III (g/KWh)	Euro VI (g/KWh)	% change
Nitrogen Oxide (NOx)	5.0	0.01	-98%
Particulates (PM)	0.1	0.01	-90%
Carbon Monoxide (CO)	2.1	1.5	-29%
Hydrocarbons (HC)	0.66	0.13	-80%

Source: Official EU emissions data

Cgon units (now called Atmosclear) have been fitted to the remaining eight Euro 3 diesel buses in order to reduce emissions further. Initial indications show a reduction in both fuel consumption and emissions on these vehicles. Overall emissions of the bus fleet are now a small fraction of what they were just three years ago.

Conclusions

Although there is nominally a policy mechanism to encourage a switch towards lower emissions vehicles through the first registration duty, which is based on CO2 emissions, the duty is set at a rate that is unlikely to influence consumer behaviour.

Guernsey's duty is also a one-off cost, typically considered part of the purchase cost for people buying a new vehicle. The top band for the most polluting vehicles is just £690. The UK equivalent (in common with many other jurisdictions) is not a one-off cost: vehicle excise duty is payable in each of the first six years after registration.

The top band for the most polluting vehicles in the UK is £2,000 in the first year, then either £140 or £450 (depending on the value of the vehicle) per year for the next five years. The total duty over six years is therefore between £2,700 and £4,250 for very high emissions vehicles. The higher one-off cost on top of annually recurring charges are more likely to influence consumer choice than a lower one-off charge.

It is unsurprising, then, that there has been no significant change in purchasing habits towards lower emissions vehicles since first registration duty was introduced in 2016. Indeed, the notable increase of vehicles in the highest emissions bracket is evidence that the first registration duty is not at all effective in that respect.

The rise in numbers of electric and hybrid vehicles in the last three years has been steep, but it started at a very low base: EVs are still only a tiny fraction of the island's vehicle numbers overall.

EVs have a growing share of the market internationally, driven by government subsidies and investment into research and development by manufacturers. EV market share in Guernsey is well behind that of other jurisdictions[14]: it is less than half that of the UK, where EVs represent 1.86% of the market, and many orders of magnitude smaller than Norway, where EVs have a 39.2% market share.

As there is no subsidy for electric vehicles in Guernsey, the move towards them is likely to be influenced by a number of external factors. As the EV market matures there is a greater range of choice and availability, including in the second-hand market (in which EVs are much closer to cost parity with internal combustion engine vehicles).

[14] December – EV Registrations, Society of Motor Manufacturers and Traders, May 2018

Environmental considerations influence the purchasing decisions of some Guernsey consumers, as do running costs. Because the only taxes levied on vehicles in Guernsey are first registration duty (which is zero-rated for EVs)

and fuel duty, because electricity is a far cheaper form of fuel than petrol or diesel (largely because it is not taxed) and because EVs typically require less maintenance, it costs significantly less to run an EV compared with an ICEV.

These pull factors help to explain the rise in EV numbers locally, while the absence of a subsidy helps to explain why that rise hasn't been greater. External market forces seem to be driving the majority of progress towards meeting this Strategy objective.

Key positives include:

- **A 14-fold increase in the number of electric cars and a 4-fold increase in the number of electric motorcycles;**
- **Over 25% of the local taxi fleet is now hybrid;**
- **A significant reduction in annual emissions from the States owned public bus fleet.**

Objective:

To improve safety for all road users, particularly vulnerable road users

Progress

Road safety can be measured in two ways: by the objective facts relating to data such as collisions and injuries, driven speeds etc, and by people's perception of safety. Both are valid and relevant. There is often a mismatch between the two.

The objective data show us that Guernsey is a safe place to travel, with few deaths and serious injuries resulting from road harm, both in absolute and relative terms. Notwithstanding this fact, it is important to acknowledge that every death or serious injury has a significant impact on these individuals and their loved ones. Not all road traffic collisions are reported to Guernsey Police, so injury data (especially for minor injuries) are likely to be inaccurate. A UK report[15] concluded that "injuries sustained on Britain's roads may be around five times more common than police injury statistics suggest."

Three of the top roads for reported collisions in Guernsey are St Julian's Avenue, South Esplanade and Collings Road. Collisions are more likely in areas where there are high volumes of motorised and non-motorised transport modes mixed.

Collision data recorded in Guernsey between 2014 and 2018 as compared with the UK and Jersey is shown in Tables 12 to 16.

[15] Road Injuries in the National Travel Survey: Under-Reporting and Inequalities in Injury Risk, Dr Rachel Aldred, 2018.

Tables 12-16 – Collision reports involving injury

Table 12 - Recorded Collision Data for 2014						
Jurisdiction	**Deaths**	**Per 100,000**	**Serious injury**	**Per 100,000**	**Slight injury**	**Per 100,000**
UK	**1,775**	**3**	**22,807**	**35**	**169,895**	**264**
Jersey	**1**	**1**	**50**	**50**	**326**	**323**
Guernsey	**0**	**0**	**11**	**18**	**145**	**233**

Table 13 - Recorded Collision Data for 2015						
Jurisdiction	**Deaths**	**Per 100,000**	**Serious injury**	**Per 100,000**	**Slight injury**	**Per 100,000**
UK	**1,732**	**3**	**22,137**	**34**	**162,340**	**247**
Jersey	**0**	**0**	**66**	**65**	**257**	**255**
Guernsey	**1**	**1**	**10**	**16**	**88**	**141**

Table 14 - Recorded Collision Data for 2016						
Jurisdiction	**Deaths**	**Per 100,000**	**Serious injury**	**Per 100,000**	**Slight injury**	**Per 100,000**
UK	**1.792**	**3**	**24.101**	**37**	**155.491**	**237**
Jersey	**2**	**2**	**69**	**66**	**244**	**234**
Guernsey	**0**	**0**	**9**	**15**	**133**	**214**

Table 15 - Recorded Collision Data for 2017						
Jurisdiction	**Deaths**	**Per 100,000**	**Serious injury**	**Per 100,000**	**Slight injury**	**Per 100,000**
UK	**1,793**	**3**	**24,831**	**38**	**146,162**	**221**
Jersey	**1**	**1**	**55**	**52**	**221**	**209**
Guernsey	**2**	**3**	**18**	**29**	**101**	**163**

Table 16 - Recorded Collision Data for 2018						
Jurisdiction	**Deaths**	**Per 100,000**	**Serious injury**	**Per 100,000**	**Slight injury**	**Per 100,000**
UK	**1.782**	**3**	**25.484**	**38**	**134.894**	**203**
Jersey	**N/A[1]**		**N/A[1]**		**N/A[1]**	
Guernsey	**0**	**0**	**7**	**11**	**119**	**190**

[1]Data unavailable at the time of going to print

Source: Department for Transport – Reported road casualties in GB: 2014-2018 Annual Reports & Guernsey and Jersey Police Accident statistics

Subjective data shows that people can feel vulnerable walking or cycling in Guernsey and that the size, width, volume and perceived speed of vehicles are a concern to many.

If the rise in high emissions vehicles identified through first registration duty equates to a greater number of SUVs on Guernsey's roads, this will have implications with respect to this objective. SUVs have a disproportionately negative impact on road safety compared with other personal motor vehicles. A range of factors including their height, weight, shape, rigidity and headlight line combine to make SUVs significantly riskier to all road users, including their own occupants, people in passenger cars with good safety standards, and especially people who are not inside a vehicle. Once SUVs establish a foothold in a market, sales tend to increase sharply. Economist Michelle White describes this phenomenon as an "arms race"[16]: as more SUVs appear on the roads, people in passenger cars feel increasingly vulnerable and are more likely to switch to an SUV, strengthening the feedback loop.

First registration duty data suggest this pattern could exist in Guernsey. It seems probable that we have both a relatively high percentage of small cars and, conversely, a growing proportion of large vehicles.

'Vulnerable road users' is the broad term given to people using non-motorised forms of transport – so people who are walking, riding a bike, travelling in a wheelchair or mobility scooter or being pushed in a buggy, for instance. The most fundamental form of vulnerability is that of the human body to withstand force: people using non-motorised forms of transport are therefore put at much greater risk by people using faster moving, heavier vehicles. The heavier the vehicle and the faster it is travelling, the greater the responsibility of the person in control of it for other road users' safety.

[16] The "Arms Race" on American Roads: The Effect of Sport Utility Vehicles and Pickup Trucks on Traffic Safety, Michelle White, University of California, San Diego, 2004.

Some groups of road users are inherently more vulnerable than others. People over the age of 65 are significantly more susceptible to injury than other age groups in the event of a collision[17] (both inside and outside a vehicle), for example, and primary school-aged children cannot accurately judge the speed of vehicles travelling over 20mph[18] so are at greater risk than adults in that respect. People with visual or hearing impairments, as well as people with limited mobility, are also at greater risk of being involved in a collision.

Traffic volumes are another key risk factor: vehicular traffic presents a risk to all road users, so reducing the number of motorised vehicles (which pose the highest risk) improves road safety for everyone. Even regardless of traffic volumes, though, increasing numbers of people walking and cycling also has a positive impact because of a phenomenon known as the safety-in-numbers effect[19]. In other words, the more people that walk or ride a bike, the safer each will be, even where traffic volumes don't drop. However, the combination of reduced traffic volumes and increased active travel is optimal: a modal shift from motorised vehicles to non-motorised forms of transport makes travelling less risky for everyone.

The safe system approach is based on the principle that death or serious injury on our roads is never acceptable: it takes a holistic view of the transport system (i.e. interactions between road users, roads and roadsides, vehicles and vehicle speeds) to minimise the likelihood of anyone getting hurt on our roads and to minimise the severity of any collisions that do occur. The safe system approach is proven to be a very effective form of road safety management, which is why both the World Health Organisation[20] and the Organisation for Economic Cooperation and Development[21] (among others) recommend that all countries implement

[17] Road Traffic Injuries in the Elderly, W Y Yee, P A Cameron, M J Bailey, Emergency Medicine Journal, Volume 23, Issue 1, April 2006

[18] Reduced Sensitivity to Visual Looming Inflates the Risk Posed by Speeding Vehicles When Children Try to Cross the Road, John P Wann, Damian R Poulter, Catherine Purcell, Psychological Science, Volume 22, Issue 4, April 2011

[19] Safety-in-numbers: A Systematic Review and Meta-Analysis of Evidence, Rune Elvik, Torkel Bjørnskau, Safety Science, Volume 92, February 2017

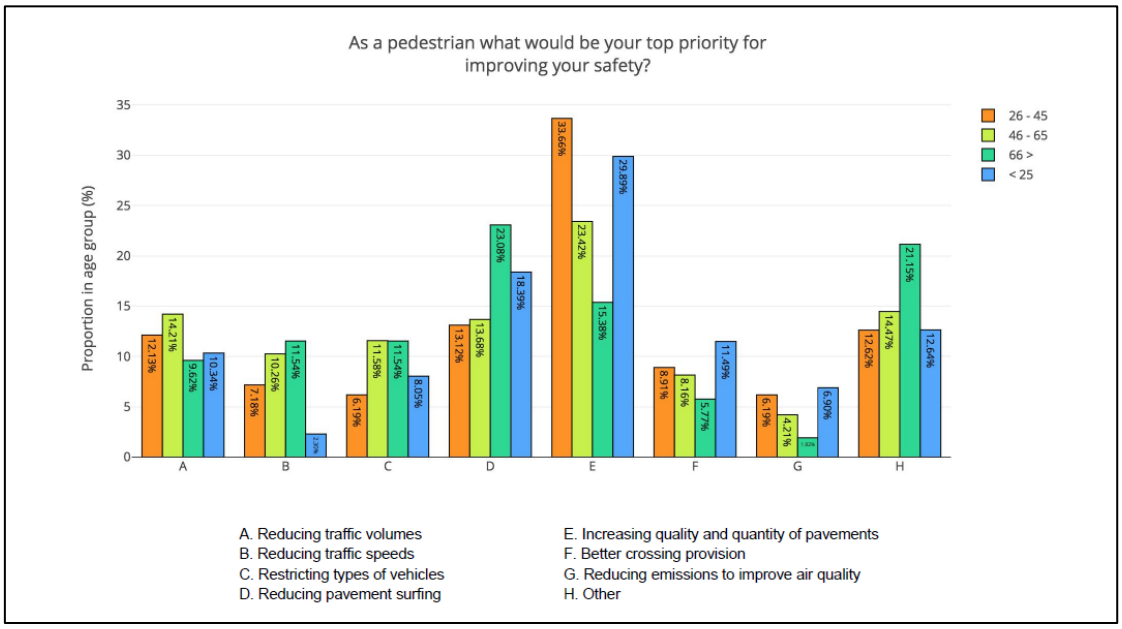
[20] Global Plan for the Decade of Action for Road Safety 2011-2020, United Nations Road Safety Collaboration, March 2010

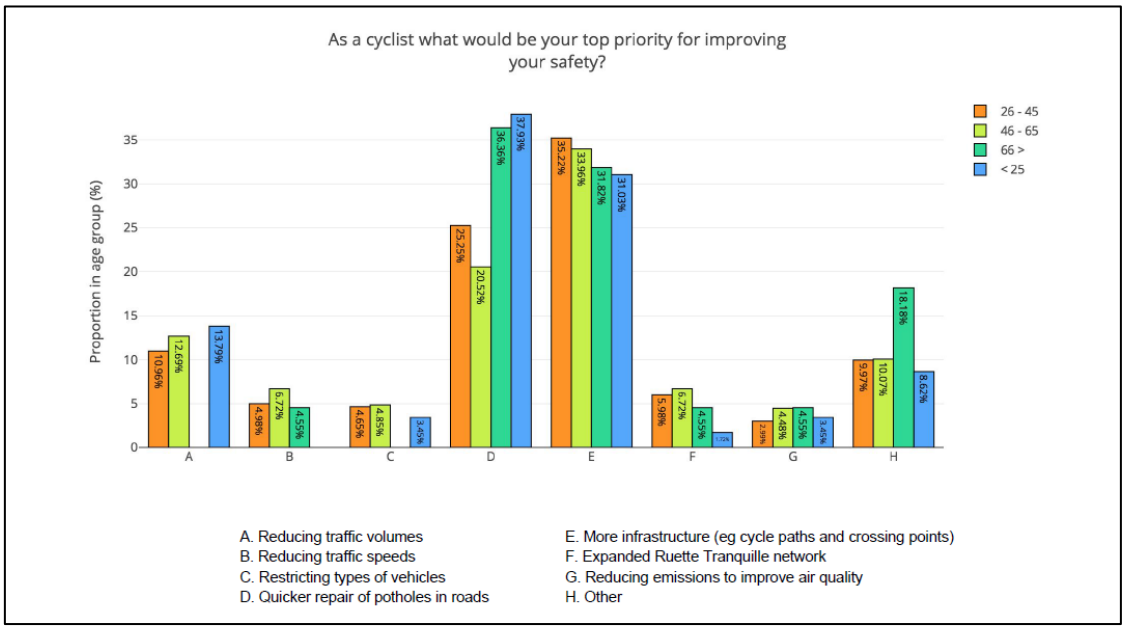
[21] Towards Zero: Ambitious Road Safety Targets and the Safe System Approach, Joint Transport Research Centre for the OECD and the International Transport Forum, January 2008

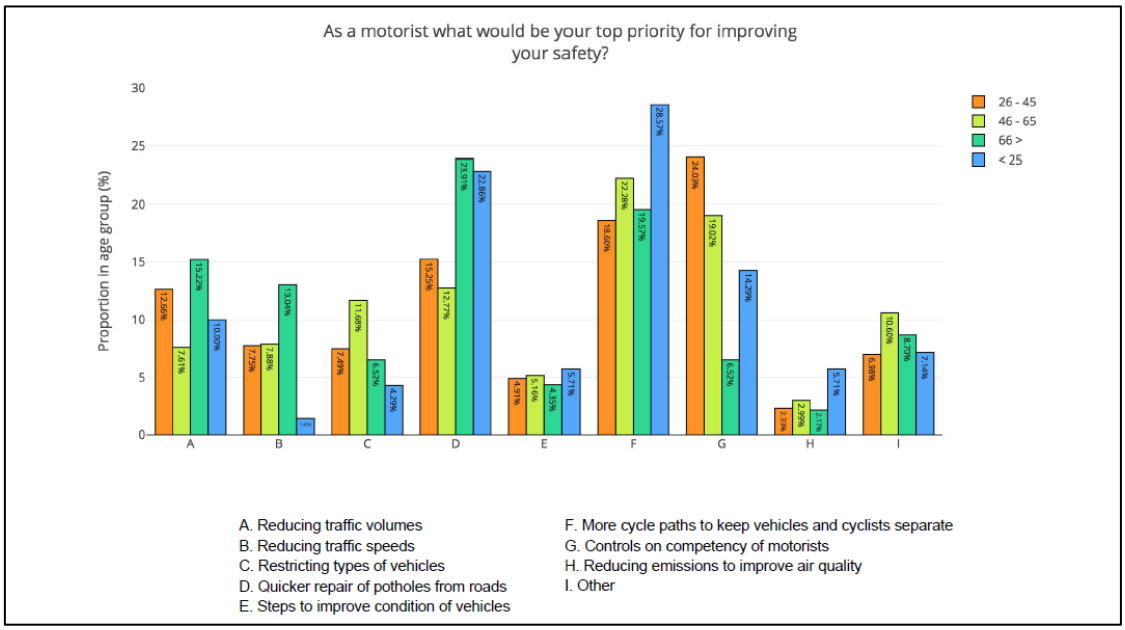
it. The safe system approach also aligns with broader social, economic and environmental goals, such as more vibrant and accessible town centres, increases in physical activity and reductions in congestion and pollution.

The safe system approach recommends that speed limits should be 'self-explaining' (or 'self-enforcing' as it's sometimes known) as far as possible. Studies show that zones are usually the most effective and reliable way to reduce speed in small areas, especially where the road geometry is adjusted, for example making traffic lanes narrower and less straight, introducing physical calming measures such as speed cushions, and using visual cues such as different textiles and clear signage.

Graphs 17-19: Apptivism survey – headline results







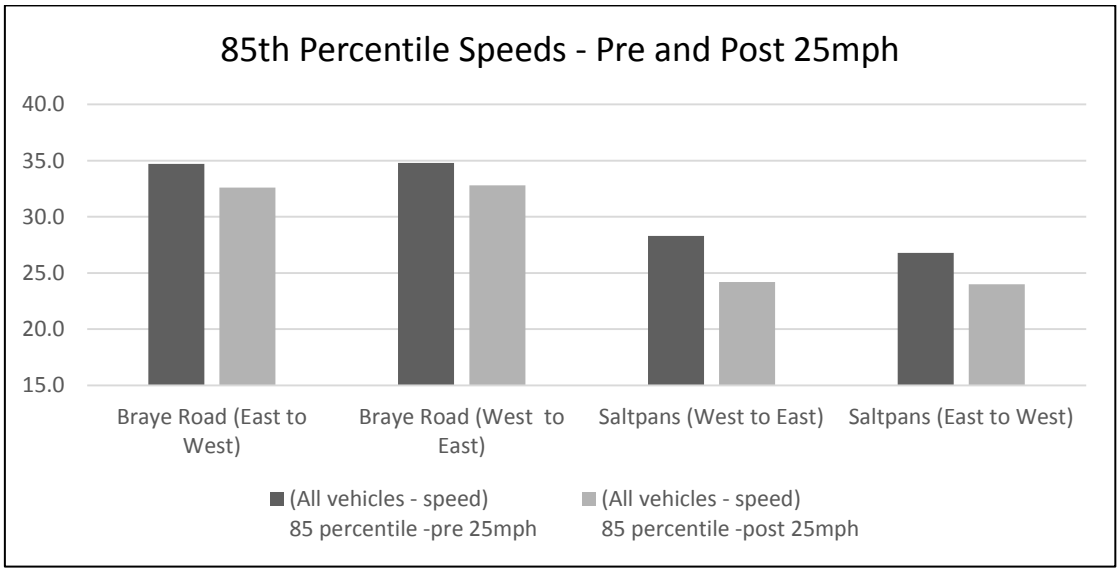
The universal priority across all three categories of road user in terms of safety was improved infrastructure, primarily in relation to the creation of more dedicated space for walking and cycling, but also in respect of highway maintenance. People who walk or drive also prioritised driver education/competency in their top three responses. Volumes of traffic and traffic speed were also identified.

A number of infrastructure projects relating to the provision of new pavements and improving existing shared facilities have been initiated. Measures have also been taken to address driver speeds. Phase 1 of the speed limit review better aligned busy community hubs with lower speed limits, following the principles of the safe system approach. Four new 25mph zones were created around local centres and a school, while the boundaries of five existing 25mph zones were adjusted to reflect development.

Initial results of speed surveys undertaken during peak hours before and after the changes were implemented show that average speeds (the sum of each vehicle speed divided by the total number of vehicles observed) have reduced by as much as 3.6mph, and 85th percentile speeds (the speed at or below which 85% of all vehicles are observed to travel) have reduced by as much as 4.3mph.

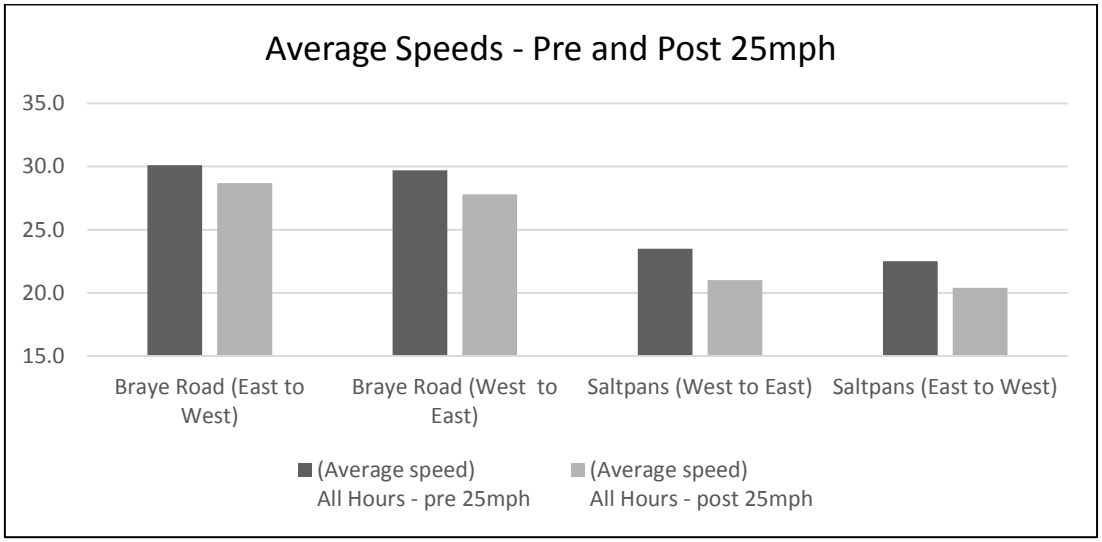
In Braye Road, for example, average speeds during peak hours have reduced from 29.5mph to 27.8mph in a westbound direction, and from 28.3mph to 26.3mph in an eastbound direction. In Saltpans, average speeds during peak hours have reduced from 23.1mph to 20.0mph in a westbound direction and from 24.4mph to 20.8mph in an eastbound direction.

Graph 20 - Analysis of 85th Percentile traffic speeds in Braye Road and Saltpans



Source: Traffic counters

Graph 21 - Analysis of Average traffic speeds in Braye Road and Saltpans



Source: Traffic counters

These decreases in speed are encouraging, particularly considering that no traffic calming measures have been introduced at this time. For each 1mph decrease there is an approximate 4 to 5% reduction in the likelihood of serious injury or death being caused in the event of an accident with a vulnerable road user.

Historical data show that there is a statistically significant increase in walking and cycling associated with similar speed limit decreases in equivalent local areas in the UK[22]. It is reasonable to expect to see a similar effect in Guernsey.

Most of the current 25mph limits in Guernsey are part of zones (as opposed to limits for individual roads) and the use of roundels at key entry points helps to emphasise the parameters of the zone. Other measures have been used sparingly to date. One example is at the Longfrie where data showed that average speeds into the St Pierre du Bois 25mph zone from the west along La Route du Longfrie were excessive, even after the introduction of a filter at the junction at the crossroads (which was introduced primarily for traffic flow reasons but did have a measurable traffic calming effect). A raised table has now been built at the junction,

[22] 20mph Research Study: Process & Impact Evaluation Headline Report, Atkins, AECOM and Professor Mike Maher (UCL), November 2018

both to slow traffic speed going into the St Pierre du Bois 25mph zone and to help vehicles turning onto La Route du Longfrie.

A watching brief is being kept on the other 25mph zones so that appropriate measures can be trialled and/or implemented if speed limits are not proving to be sufficiently self-explaining.

Bikeability training has been rolled out to all States primary schools and is proving popular. Programmes delivered in conjunction with the emergency services educate those in secondary school on the dangers of speeding and other forms of dangerous driving. Other ongoing programmes of walking and cycling infrastructure enhancements are improving safety for vulnerable road users. However, a network is only as strong as its weakest link, so the cohesion of walking and cycling routes is an important factor.

Conclusions

There are still many key roads in Guernsey (even within some local centres) that do not have adequate – or any – footpaths, or adequate safe crossing points. Footpaths have been widened and new crossings introduced in a number of locations, including features such as dropped kerbs and blister paving to assist people with disabilities. However, many footpaths are still too narrow for people to pass each other without stepping into the carriageway and there are still many key walking routes that are interrupted by a lack of safe crossing points. Some proposed crossings (such as on Rue Poudreuse) have not been progressed as planned as they require the permission of private landowners, which has been withheld.

There are currently only two sections of separated cycling infrastructure in Guernsey, one in Baubigny and the other being the principal cycle route along the eastern seaboard. Some improvements have been made to the eastern seaboard cycle path: access and egress to/from Bulwer Avenue in the north has been made safer, as has the junction with Salerie car park. Further improvements are planned to signs and lines, access to Victoria Avenue and in relation to the various bus laybys that intersect the cycle

route along the eastern seaboard at given points. Improving access to and from the path at the Weighbridge/North Beach was identified as a priority in an independent report in 2015, but progress has been frustratingly slow. The creation of a separate bus/taxi lane along part of the seafront would help to circumvent the safety issues presented by bus laybys cutting into the cycle path.

The provision of separated footpaths and cycle paths is far safer than mixing people travelling on foot or by bike with motorised transport, and the few areas that exist in the island are well used. However, notwithstanding the modest improvements in recent years, Guernsey's separated cycling infrastructure is not high quality compared with provision in other places.

Separated infrastructure in combination with one-way systems will need to be introduced if meaningful changes are going to be made.

Working alongside the Committee *for* Education, Sport & Culture, Travel Plans are being introduced at the two proposed new school sites and work is ongoing on the introduction of Travel Plans at other schools.

Key positives include:

- **Bikeability training is now being delivered across all States primary schools;**
- **A reduction in average and 85th percentile speeds has been achieved in areas where there is potential for greater conflict between motor vehicles and vulnerable road users;**
- **New pavements and other safety improvements have been introduced in a variety of locations.**

Objective:

To improve transport accessibility for all members of the community, particularly non-drivers and those with disabilities or on low incomes

Progress

Being able to access transport and then reach an intended destination is fundamental to a functioning society. It can be precluded by poor road infrastructure or poor provision of appropriate options. In line with the aims of the Strategy, specific consideration is now given to including improved facilities for vulnerable road users, including people with mobility or other disabilities that might impact their ability to get from A to B, when designing planned road resurfacing projects. Most usually this involves the inclusion of dropped kerbs and tactile paving at road junctions but can also include the provision of new or widened pavements, improved bus waiting facilities and either controlled or uncontrolled (informal) crossing points to assist people walking to cross the road in a safer environment. Recent examples where accessibility standards have been improved include works undertaken at L'Erée, Les Gravées, Ruettes Brayes and South Esplanade.

In recent years the number, location and design of disability parking spaces in public areas have been improved with emphasis on ensuring sufficient availability, proximity to amenities and ease of access to/egress from vehicles.

Priority is also being given to improving accessibility to, from and within community areas, as the value of providing improved accessibility is only as good as the weakest link. More recent achievements in this regard include improvements in Market Street, Le Truchot, at the bottom of Cornet Street and at the Town Church. Church Square, the High Street and Le Pollet have been identified as priorities for accessibility improvements.

In terms of public transport, all of our buses have been wheelchair accessible since 2003 and, more recently, with the introduction of a new fleet of buses we have introduced a passenger announcement system

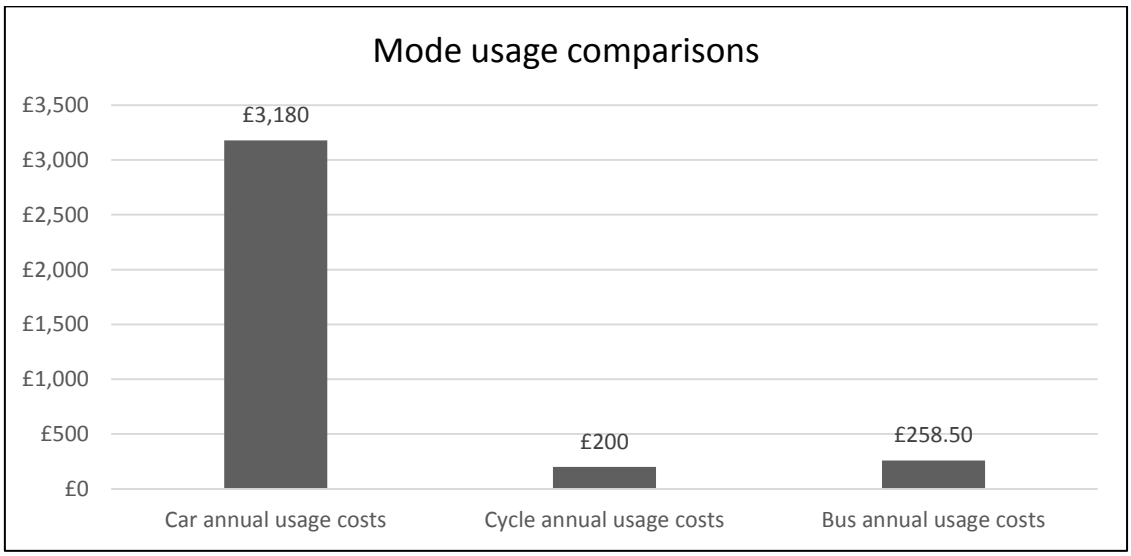
which provides both visual and audio prompts as to where and when to alight the vehicle. Disability awareness training has been undertaken by all scheduled bus service drivers and has also been offered to taxi drivers. In 2018, a new “Access Card” was introduced on all scheduled bus services. The cards can be shown to bus drivers to help them identify the person’s disability or condition so they can be offered additional support if required. Approximately 500 cards have been issued to people with a wide range of disabilities or health-related issues.

Four new wheelchair-accessible taxi plates have been issued in a new accessibility category and the Committee *for the* Environment and Infrastructure can also license an additional four accessible taxi plates if demand outstrips the service provision.

The importance of public transport as a social service should not be underestimated. In this regard it needs to be accessible and affordable, have good network coverage and be timely and reliable.

Financial accessibility to transport is another key consideration.

Graph 22 - Affordability – cost of transport – per mode



These figures are based on:

- Bus fares previously charged at 55p per Puffin Pass x 470 journeys per annum = £258.50 per year.

- Cycle ownership being the purchase cost divided by 10 (years of ownership) + estimated annual maintenance @ £50 per annum Therefore: £1,500/10=£150+£50 = £200 per year.

- Car ownership being the purchase cost (say £17,000 or £1,700 per annum over 10 years), Fuel Use (6,000 miles per annum based on 40mpg = 150 gallons/682.5 litres @£1.35 = £920) plus insurance @£260 and servicing/maintenance @£300 = £3,180 per year.

This analysis shows that for someone earning approximately £30,000 per annum, car ownership would account for 10% of their salary.

However, comparisons with the UK and Jersey show that the cost of running a car in Guernsey is relatively cheap, primarily because of the absence of consumption taxes.

Table 17 – Estimated cost of running a car in Guernsey. Jersey and the UK

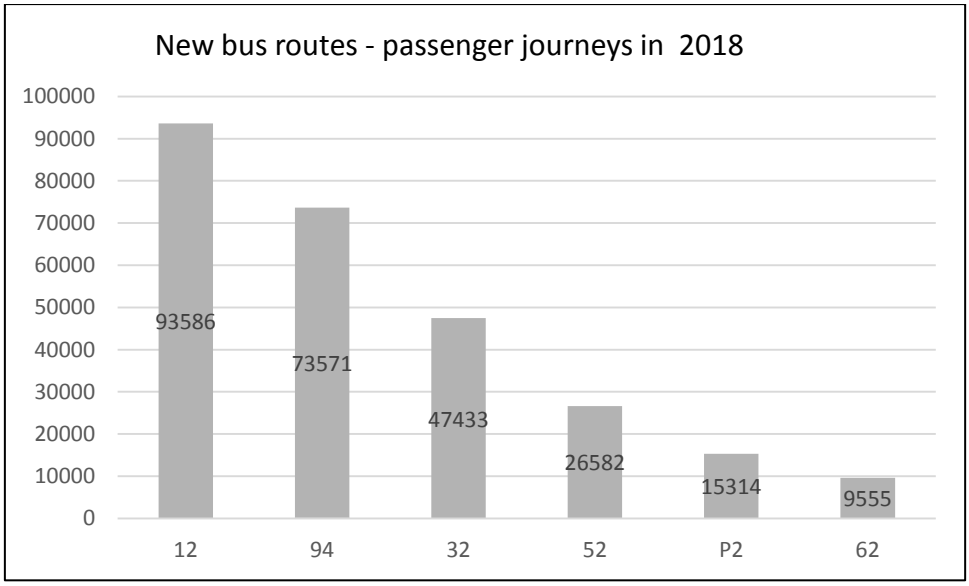
	Guernsey £	**Jersey £**	**UK £**
Annual:			
Fuel Duty	438	313	377
Vehicle Tax	-	-	140
Consumption tax on fuel and insurance	-	34	182
Parking and roadworthiness test	-	125	102
TOTAL ANNUAL COSTS	**438**	**472**	**801**
One off costs:			
First registration	150	268	220
Consumption tax on purchase	-	801	3,204
TOTAL ONE OFF COSTS	**150**	**1,069**	**3,424**

Source: Policy & Resources Committee – Taxation of Motoring Policy Letter

Over a five-year period, the average annual costs would be £468 in Guernsey, £686 in Jersey and £1,486 in the UK.

The Scheduled bus service network offers a comprehensive island-wide service with a minimum frequency of 30mins at peak times on all routes. With approaching 2 million passenger journeys on the network every year, the service has become an important and integral part of society and none more so than for non-drivers, those on low incomes or those with disabilities. New scheduled bus routes introduced since 2014 include Routes P2, 12, 32, 52, 60 and 94. In 2018 these routes facilitated a total of just under 127,000 passenger journeys.

Graph 23 – Passenger journeys on new bus routes during 2018



Source: Ticketer

Fares have been maintained at an affordable level, with the flat rate for a single journey capped at £1 and cheaper multi-buy fares available with a Puffin Pass. Fare-free concessions for children, students and over 65s ensure there is no financial barrier to bus use for those groups. By comparison with Jersey and the UK, the Guernsey scheduled and school services are more affordable and financially more accessible for people on low incomes.

School buses also have an important role to play: they currently complete some 350,000 student transfers per year, using a mix of States owned and private hire vehicles. Since 2014, new school bus services have been introduced at Castel, Grammar, St Martin and Les Beaucamps schools.

Conclusions

Significant incremental improvements are being made to our road infrastructure to improve accessibility but this is a long-term objective and will take time to complete.

Using the public bus service represents a viable and cost effective alternative to car ownership and, for some, is the only form of transport that they can afford. Using a taxi at times when buses aren't available or to reach bespoke destinations is a viable option for many. Both forms of public transport have seen further improvements in accessibility provisions for people with a physical disability.

Key positives include:

- **An affordable, timely and fully accessible public bus service;**
- **Provision of wheelchair accessible taxis;**
- **Completion of a review of disabled parking provision and updating of parking space design;**
- **Continued improvements to road infrastructure to support accessibility.**

Objective:

To improve the public realm, particularly in the main centres

Progress

Public realm enhancements in Market Street were completed in May 2019 and have transformed the area into a vibrant and attractive place to be. Similar proposals for the North Plantation are at an advanced stage of planning.

In each area, vehicle movements are restricted, the road resurfaced and the surrounding aesthetics improved to make it more welcoming to people to move around on foot and to spend time there – for example by facilitating al fresco dining or socialising.

Some high footfall areas of old flagstone pavement in Town become so smooth over time that they are slippery in wet weather. Several of these areas of paving such as the Pier Steps and St James Street have been regenerated to restore their grip and make them safer to walk on.

The first two major public realm projects have taken a long time to get through the concept, design and planning phases, largely because of the different stakeholders involved. However, the results in Market Street show the benefits that can be achieved.

Conclusions

Market Street is an excellent example of how a previous tarmacadam road can be transformed into something far more practical from an accessibility perspective and aesthetically pleasing on the eye.

More subtle changes being implemented at South Esplanade and La Vallette have had similar results and the next project will see a more ambitious resurfacing scheme being undertaken at North Plantation.

Further schemes of this nature will increase the potential for the businesses in the locality to grow their revenue from improved customer dwell time, as well as enhancing the general look, feel and ambience of Town. Other more ambitious areas for enhancement include the High Street, Church Square and the Lower Pollet.

Key positives include:

Noticeable improvements in the visual appearance of parts of Town providing improved opportunities for businesses to attract customers.

CLOSING SUMMARY

Despite the absence of several key policy mechanisms (for example, paid long-stay parking, a free bus service and a first registration duty based on width as well as emissions), there has been some notable progress towards the Strategy's objectives.

There has been a modest reduction in the number of car journeys, including solo-occupancy trips, reducing peak hour traffic by around 5% against a loose target of 10%.

There has been a significant increase in the number of journeys made by alternative forms of transport. In terms of active travel, small data sets and broader proxies suggest an increase in people walking – possibly by about 25% – and in people riding bikes – possibly by about 50%. These increases would not meet the original idealised target of doubling active travel numbers, but nonetheless represent a positive improvement since the introduction of the Strategy. Bus use has been very strong with significant growth, increasing year on year since 2013, now totalling nearly 42% above that baseline.

While the overall proportion of smaller cars on the vehicle register continues to increase, as per the Strategy's objective, the annual percentage of small car registrations has remained at or around 15% for the last five years. There is neither any mechanism to specifically encourage nor any data set to easily quantify the change in proportion of narrow vehicles, but it is unlikely that there will have been any significant change in this respect either.

There has been some notable growth in the uptake of cleaner, low emissions motor vehicles, with EV registrations rising around 14-fold from a very low base at the start of the Strategy. In total numbers, however, they still represent less than 1% of vehicles in circulation on Guernsey's roads. There has been no significant swing towards lower emissions ICE vehicles; in fact, conversely, there has been a marked increase of vehicles registered in the highest emissions bracket – an 8% increase in the highest emissions diesels and a 12% increase in the equivalent petrol vehicles in

the last year alone. These factors combined expose the ineffectiveness of the current first registration duty in achieving this objective.

Road safety is difficult to quantify, but it does appear there has been a general, modest improvement in terms of the statistics recorded by the Police as well as speed data in zones where limits have been reduced. Without a comparable baseline, progress in terms of the subjective data can't be measured, but they do highlight clear areas of focus. Incremental measures have been introduced to improve safety for vulnerable road users in particular.

Transport accessibility has also been improved: measures aimed at making travel options accessible for people with disabilities have been prioritised, as have measures to make alternative forms of transport easier, safer and more convenient. In terms of financial accessibility, active travel and bus use remain affordable options, even for those on low incomes.

The public realm in St Peter Port has been enhanced in several ways, big and small, and plans for further enhancements are in various stages of development.

In summary, there has been some good progress made towards several of the main objectives, especially given the discrepancies between what the Strategy seeks to achieve and the mechanisms by which it can do so. Overall, it has been partially effective in achieving its aims and realising its Vision.

This First Periodic Review can provide a new baseline for future periodic reviews and inform means of improving the effectiveness of the On-Island Integrated Transport Strategy in the interim.