

Establish active travel connectivity and target development along routes, building on the Department of Infrastructure Active Travel Project

1. EXECUTIVE SUMMARY

- 1.1. This report reviews active travel connectivity and the relationship between settlement patterns and growth direction as impacting on active travel and assisting a move from cars to alternative methods of transport, namely walking and cycling.
- 1.2. Direct emissions from transport result primarily from the use of fossil fuels. Direct greenhouse gas (GHG) emissions from transport were 0.162 metric tonnes CO₂ equivalent (MtCO₂e) in 2017 accounting for 19% of IOM GHG emissions.
- 1.3. The current Department of Infrastructure (DOI) Active Travel Investment Plan justifiably focuses on the Douglas area as this has the highest proportion of workers who live in the area. In any vision of a zero carbon Island there must be a shift from the car to more efficient forms of transport. This requires excellent infrastructure, much better integration between modes of transport and requires less dependency on cars. Demand reduction is a necessary part of meeting climate change targets.
- 1.4. Moving forward a greater understanding of distances and commuter travel patterns is required to enable the setting of more ambitious targets. For demand reduction, walking, cycling and public transport schemes must be promoted.
- 1.5. There is a need to ensure cycling and walking infrastructure opportunities are maximised in all planned infrastructure projects.
- 1.6. There are a number of strategies already in place to increase cycling and walking but they are spread over several Government Departments. Active travel is the first step towards smarter more sustainable transport options.
- 1.7. The long standing dominance of the motor car and the most recent figures showing a slight increase in private car use for travel to work, suggest it is likely that any strategies will require significant momentum to impact in the short to medium term.
- 1.8. To facilitate behaviour change, societal changes will be required. It will also be necessary to adapt planning of the projects and land use to minimise distances and maximise opportunities for walking, cycling and public transport.

2. ISLE OF MAN CONTEXT

- 2.1. The Intergovernmental Panel on Climate Change (IPCC) suggests that, when coupled with public-transport oriented development, urban regeneration and investment in new walking and cycling infrastructure, these measures could reduce global emissions by between 20% and 50% by 2050 against a 2010 baseline (Seto *et al.* 2014).
- 2.2. The built environment plays an important role in facilitating physical activity for most people. Towns and infrastructure need to be designed to be conducive to promote active travel. On IOM there are many types of road users that all share the same infrastructure, school children walking to school and HGVs making deliveries.

Current and historical emissions from surface transport on IOM

- 2.3. Emission trends for each greenhouse gas are covered in Inventory Report (Aether, 2019). This Report highlights the major contribution that carbon dioxide has in total national emissions.
- 2.4. Transport accounts for 19% of the IOM GHG’s 2017 and are predominantly CO₂, [0.612 MtCO₂e in 2017]. Annual emissions of greenhouse gases over the time series are presented in Figure 1 (Aether, 2019).

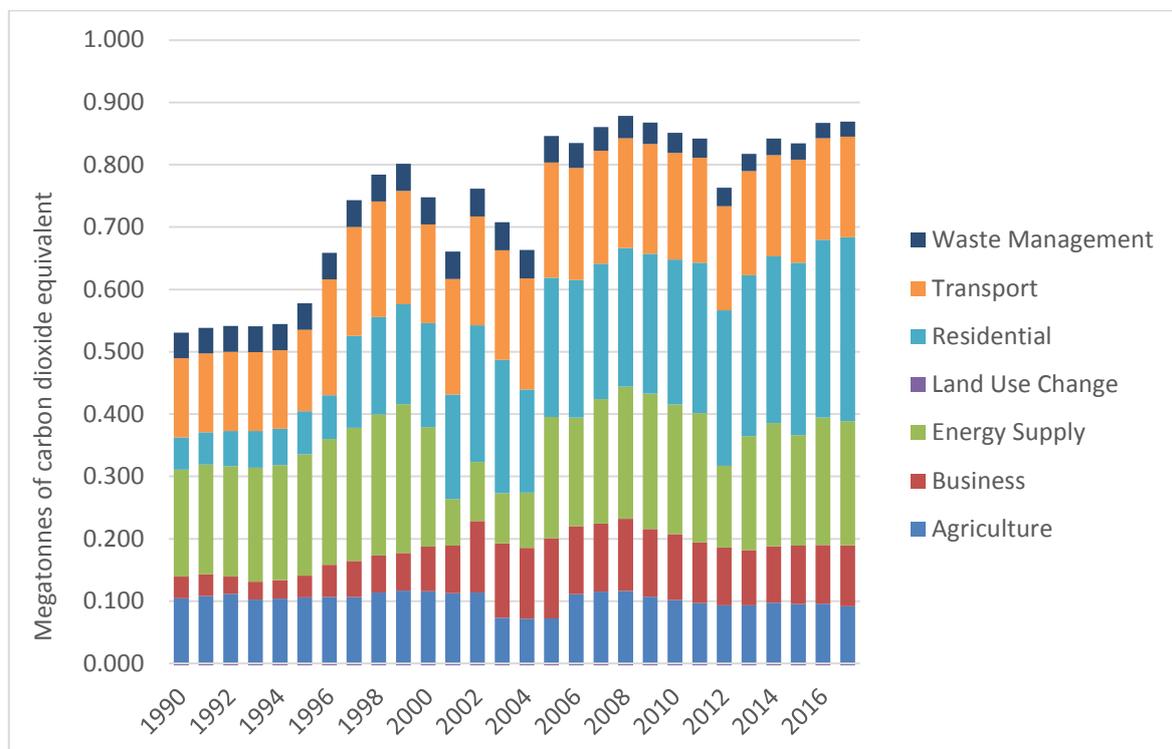


Figure 1 showing emissions from all sectors (2017)

- 2.5. With regards to Transport the general trend has been an overall increase since 1990. The Figure 2 focuses on the share of emissions by mode of transport.

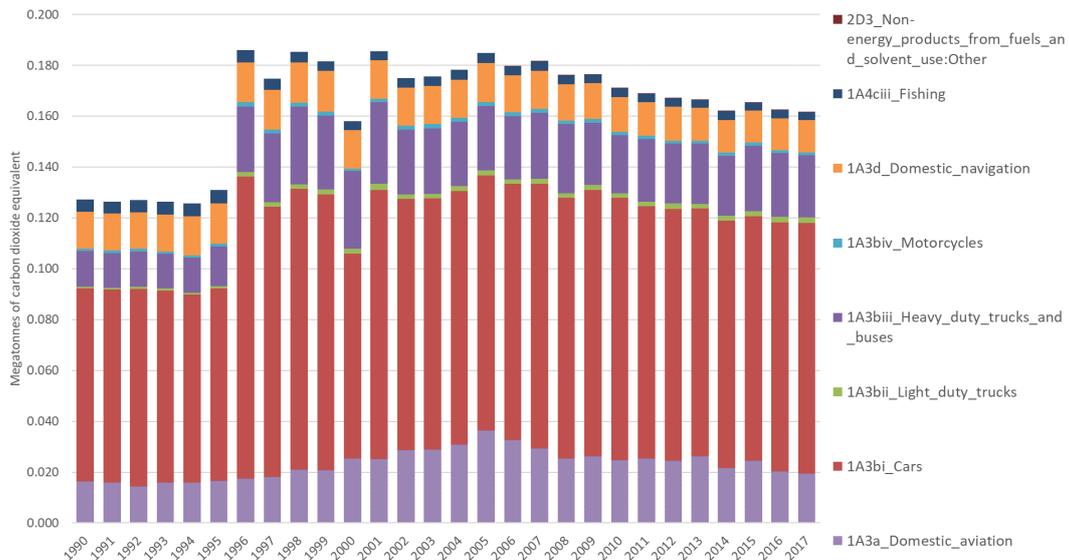


Figure 2 showing current emissions from surface transport sector 1990-2017 (2017)

2.6. Cars are the most significant source of emissions, accounting for 61% of all the emissions (Figure 3).

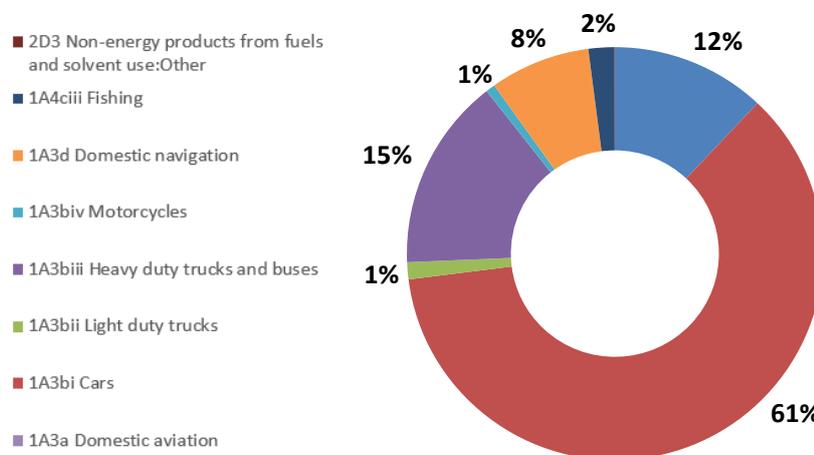


Figure 3 Percentage break-down of subsector contributions to total Transport emissions for 2017

- 2.7. Passenger car emissions have increased by 30% between 1990 and 2017 and 1% between 2016 and 2017.

3. CURRENT TRANSPORT POSITION

Background data

- 3.1. The 2001 and 2011 Census Reports provide background information with regards to travel to work journeys (IOMG 2001, 2011).

Table 1 Modal Split of Transport Type for Travel to Work

Census Year	Total travelling	Travelling by foot	Travelling by cycle	Total travelling actively ¹	% travelling actively	Total travelling by public transport	% travelling by public transport	Total driving by car or van	% travelling by car or van
2001	39,050	4,851	362	5,213	13.35%	2,448	6.27%	24,735	63.34
2011	43,134	5,737	406	6,143	14.24%	2,425	5.62%	28,835	66.85
					0.89%		-0.65%		3.51%

- 3.2. While the data shows a small increase in numbers of workers actively travelling to work, this has been accompanied by a small reduction in people travelling by public transport and an increase in workers travelling by car or van.

Car ownership

- 3.3. There are currently around 60,000 light vehicles (cars, motorbikes and vans) and around 2,000 heavy vehicles (lorries, buses and machinery) on the Island (Cabinet Office, 2019). As at August 2019, there were 64,726 cars registered on the Isle of Man, 6,514 motorcycles and 2,965 other types of vehicle.

Working in own area census data

Table 2 % of Working Population Working in own Area for the Four Towns/Location of Employment (IOMG 2001, 2016a).

Towns	% working in own area 2001 Census	% working in own area 2016 Census
Douglas	82.13	81.9
Ramsey	51.62	54.5
Peel	36.71	32.2
Castletown	33.46	33.3

¹ Taken to be foot and cycle

- 3.4. Over the 16 years of this information the figures for people living and working in the same area remains fairly the same and Douglas still has the highest proportion of residents working where they live.
- 3.5. These figures suggest that there is scope for much larger numbers of active travel users within each town, assuming that their overall travel distance is small. Further research could be done to find out if the respondents are able to travel actively and if the trip purpose is compatible with active travel modes and the definition.

Social attitudes survey

- 3.6. As of 2016 annual Social Attitudes Surveys (IOMG 2018) were conducted to understand public attitudes on a wide range of issues, as well as collecting information on activities and public health. These built upon the Quality of Life Surveys from 2002 and 1991.
- 3.7. With regards to transport and travel, these surveys asked about transport patterns, commutes, infrastructure quality and in 2018 additional questions about road and traffic safety were introduced.

Location of employment

- 3.8. The 2016 survey identified that the majority of individuals residing in each of the regions stated that Douglas was their place of employment. With 47% of those living in the north, 76% of those in the east, 63% in the west and 52% in the south stating Douglas as their place of work (IOMG 2016b).

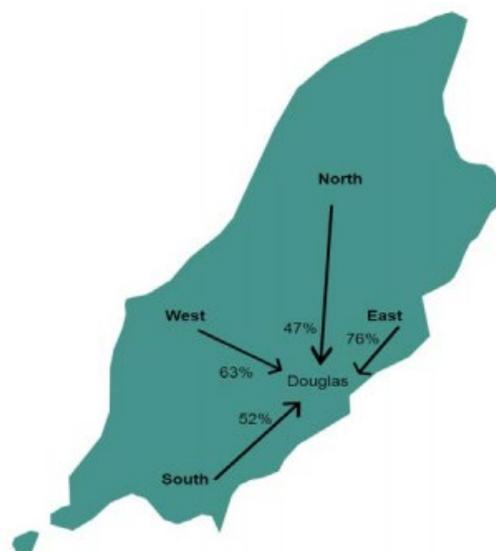


Figure 4 Extract from Isle of Man Government 2016 Survey regarding employment region by residence region.

- 3.9. These figures suggest that the general principle is that a significant percentage of people commute to Douglas for work.

Transport to work

- 3.10. In the 2016 Social Attitudes survey, the questions were about the primary mode of transport to work. The 2017 version of the survey expanded on this to look into types of commuter transport and the frequency of use. Below summary comparisons are made between these two slightly different sets of questions, 2016’s Figure 19 “How do you travel to work?” to Figure 87 “Transport to work” described in 2017 as ‘Daily’². Summary comparisons between these sets of data show there was no significant increase in people more likely to travel to work in a private car (+4% in 2017). There has been a 6% reported increase in the proportion of respondents who walk to work, and a decline in the proportion who take public transport (6% in 2016 to 3% in 2017) (IOMG 2017).
- 3.11. Summary comparisons between the sets of data collected in the Census and the Social Attitudes Survey show only a slight increase in the percentage of respondents travelling to work by car, from 66.85% in 2011 Census to approximately 68% in the 2017 Survey. These figures show a slight increasing trend in private car use for travel to work.
- 3.12. Active travel as the main mode of commuting increased from 14% (13% walking and 1% cycling) in 2011 Census to 23% (21% walking and 2% cycling) in 2017 Survey.

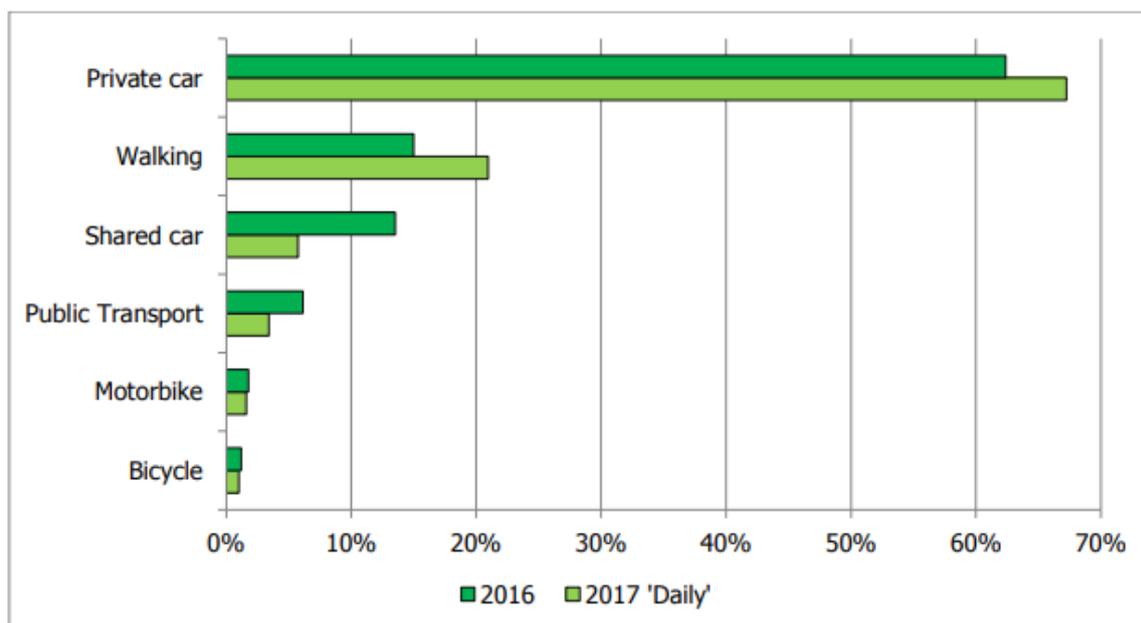


Figure 5 Extract from Isle of Man Government 2017 Survey regarding transport to work, 2016/17

² The 2016 data collection requested information on the respondents primary mode of transport and for 2017 the data collection requested information on the daily mode of transportation, If so, the observed variations could be due to sampling variation rather than a real increase / decrease in modal share.

Barriers to active travel

- 3.13. The 2017 survey identified, distance, weather, safety, facilities at destination, storage, lack of clear route and cost of equipment as barriers to adoption of active travel models. A comparison of the results of the 2017 and 2018 (IOMG 2017a, 2018a) Surveys indicated that safety, the availability of changing and/or storage facilities, the lack of clear routes, and the cost equipment are all slightly less impactful barriers to active transport than was indicated in 2017.
- 3.14. Distance and weather account for a larger share of stated barriers. This Survey also found that the majority of employed respondents (approx. 57%) commute to work in less than 20 minutes.

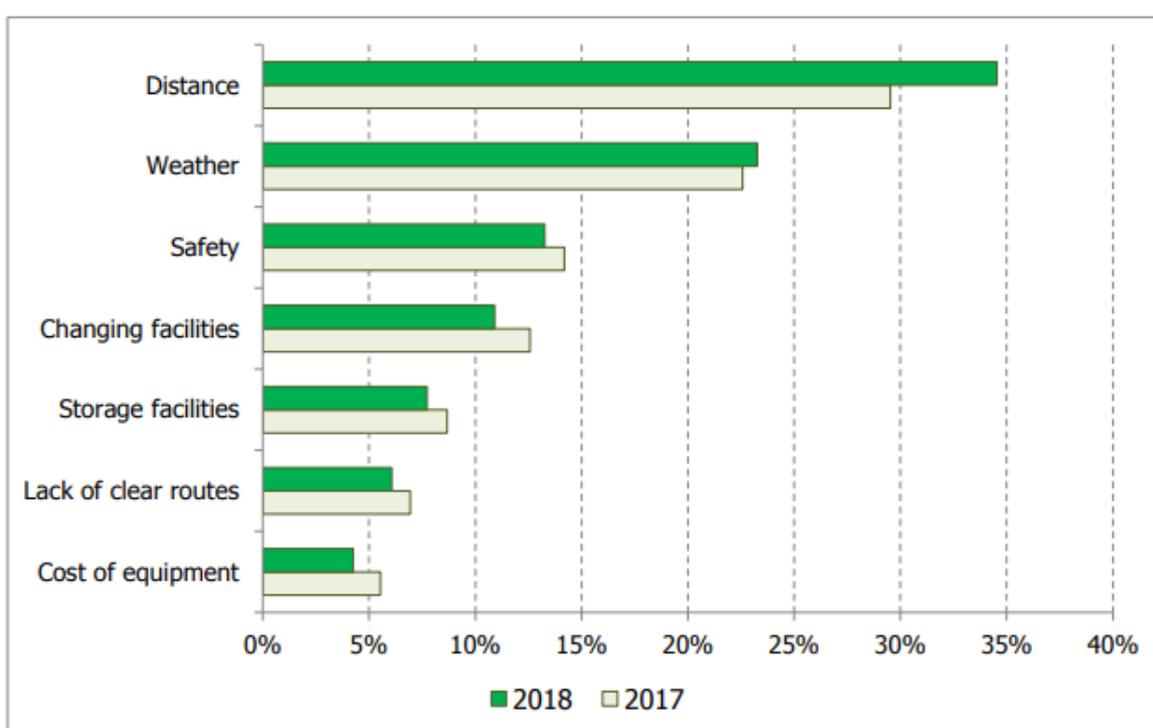


Figure 6 Extract from Isle of Man Government 2018 Survey regarding barriers to active transport 2017-18

Summary points:

- Many workers commute to Douglas, scope for reviewing wider transport solutions;
- Scope for much larger numbers of active travel users within each town;
- Scope to review the questions in both the Survey and the Census to provide more detailed data;

- majority of employed respondents (approx. 57%) commute to work in less than 20 minutes, travel distances would be more meaningful than travel time since the time can be highly variable based on the travel mode;
- Further research might be conducted to estimate what might be regarded as a 'manageable distance' for active transport and barriers for this set of commuters; and
- Distance and weather were identified as the top two barriers to active travel.

4. POLICY CONTEXT ON ISLE OF MAN

Key Strategies and Policies

- 4.1. Planning plays a key role in delivering sustainable development (IOMG 2016c). Policies generally seek to accommodate housing growth within a form of settlement hierarchy, which aims to first locate new development at higher densities within and around larger towns before expanding smaller towns and villages.
- 4.2. There are a number of key Strategies and Policies/Measures promoting alternative forms of transport;
 - Agenda for Change 2013
 - Environment and Infrastructure Policy 2013
 - Isle of Man Strategic Plan 2016
 - Area Plan for the South 2013
 - Area Plan for the East (currently at inquiry)
 - Manual for Manx Roads
 - The Active Travel Strategy 2018-2021
 - The Active Travel Investment Plan (ATIP) March 2019
 - Encouraging Active Travel on the Isle of Man - Consultation Analysis December 2017
 - Highways Forward programme
 - Public Rights of Way Policy and Strategy 2018 – 2028
- 4.3. Other Strategies/Plans not covered in detail here;
 - Health and Social Care in the next 5 years 2015
 - Isle of Man Destination Management Plan 2016 - 2020

- Isle of Man Strategy for Sport 2014 – 2024

Environment & Infrastructure Policy (2013)

- 4.4. The key objectives of which were agreed by the Council of Ministers in May 2013, relates directly to climate change mitigation and sustainable development whereby:
- Government will adopt a greenhouse gas emissions target for the Isle of Man of 80% reduction of 1990 levels by 2050.
 - Government will develop policies and strategies that will lead to reductions in greenhouse gas emissions to meet that target.
 - Government will formulate a long-term strategy for sustainable development which meets the needs of the present generation without compromising the ability of future generation to meet their needs.
- 4.5. The Environment & Infrastructure Policy (2013) led to the Council of Ministers approving the **Policy on Sustainable Development and Mitigating Climate Challenges (IOMG 2015a)**, which included a policy where:
- To deliver the agreed scale of emissions reduction it will be necessary to ensure that all surface transport will be powered by ultra-low greenhouse gas emission technology by 2050.

The Isle of Man Strategic Plan 2016 (IOMG 2016d)

- 4.6. The Isle of Man Strategic Plan first approved in 2007 was partially updated in 2016, in response to the 2011 Census with more up to date population data and new population projections. The Strategic Plan forms part of the Development Plan, a key strategic document of the Government along with the Area Plans, sets out the Government's policies regarding land-use and development (IOMG Website 2019a). It is instrumental in the allocation of land for development and in the assessment process of planning applications.
- 4.7. The Strategic Plan aims to "plan for the effective provision of services and infrastructure, and to direct and control development taking into account the principles of sustainability whilst at the same time preserving, protecting and improving the quality of the environment of our precious Island" (foreword 2016 to the document and Strategic Aims) (IOMG 2016b).
- 4.8. Some relevant Strategic Objectives:
- Resources - to reduce the need for travel, especially by private car, and to make the best use of existing infrastructure, including existing and former railway routes.
 - Transport and Communications - to develop an integrated transport strategy which balances the growth of car usage with the promotion of more sustainable alternatives such as public transport, cycling and walking - to

locate new housing and employment close to existing public transport facilities and routes, or where public transport facilities are, or can be improved, thereby reducing the need to use private cars and encouraging alternative means of transport - to encourage development which would result in a more integrated transport network - to provide for improvements to the Island's road network such as to ensure that travel demand is met in a safe, effective and environmentally acceptable manner - to safeguard existing and abandoned railway routes.

4.9. Relevant Policies and associated text;

- Strategic Policy 10 states (Chapter 4 para 4.5): Transport and Communications New development should be located and designed such as to promote a more integrated transport network with the aim to:

- (a) minimise journeys, especially by private car
- (b) make best use of public transport
- (c) not adversely affect highway safety for all users
- (d) encourage pedestrian movement

4.10. Chapter 11 recognises the need to 'balance the growth in car usage with improvements to other more sustainable alternatives' (para 11.1.4). It goes on to state that '*new development should where possible be located and planned so as to reduce the need for travel and encourage means of travel other than by private car, in particular walking, cycling and public transport use*' (para 11.2.3) and goes on to say that '*the layout of ...new development such as housing estate should also be planned to allow bus routes to be extended into them and also to encourage travel by walking and cycling, and this will require the provision of bus routes, footpaths and cycle routes which where possible link to existing routes. Works to existing traffic routes in order to make them usable by full size buses and more attractive to pedestrians and cyclists are also to be encouraged*'.

4.11. Transport Policy 2: The layout of development should, where appropriate, make provision for new bus, pedestrian and cycle routes, including linking into existing systems.

4.12. Transport Policy 3: New development on or around existing and former rail routes should not compromise their attraction as a tourism and leisure facility or their potential as public transport routes, or cycle/leisure footpath routes.

4.13. Transport Policy 5: Any improvements to the Island's highway network, including the provision of new roads, footpaths, and cycle routes, should be undertaken in accordance with the environmental objectives of this plan.

Local and area plans

- 4.14. Until replacement Area Plans have been produced to cover the North, West and East of the Island there are a number of Local Plans and parts of the Isle of Man Planning Scheme (Development Plan) Order 1982 which, along with the Strategic Plan provide the planning framework against which applications for development are assessed (IOMG Website 2019b).
- 4.15. The Area Plans should elaborate on the broad policies set out in the Strategic Plan and relate them to site specific proposals.

Area plan for the south 2013

- 4.16. Proposed residential sites and the Strategic Reserves refer to provision of pedestrian and cycleway facilities as part of the proposals.
- 4.17. Site SR 2, South of Ronaldsway Business Park, Malew has been designated as a strategic reserve site and any application must demonstrate arrangements for public transport provision in the form of the location of bus stops, cycleways and pedestrian links to the airport and steam railway halt.
- 4.18. Site 1, St Marks Road, Ballasalla, Malew, proposed designation predominantly residential must consider the provision of pedestrian and cycleway facilities as part of the proposals.
- 4.19. Site 2, Crossag Farm, Ballasalla, Malew, proposed designation predominantly residential footways and a cycle route linking to the replacement primary school site within Crossag Farm should be provided.
- 4.20. Site 6 Corner of Douglas Road and Victoria Road, Castletown proposed designation predominantly residential states that pedestrian/cycleway facilities should be an integral part of the proposals to link the development to the centre of Castletown.

The Area Plan for the East (See Figure 28 on page 51 with the Area Plan document)

- 4.21. Site BE002/BE006, west of Coil Road has been designated as a site of strategic reserve which, when developed, could include the provision of cycle and walking routes that help people travel to and within the site along the Enterprise way corridor.
- 4.22. Proposals for 'Town Centre – Mixed Use Proposal 8b and 8c' stipulate that any proposals will include improved pedestrian and cycle links.
- 4.23. Comprehensive Treatment Area 3 and 4 – Riverside and Peel Road (East) states that 'Provision for a cycle route that could eventually link to the Millennium cycleway shall be included'.

The Manual for Manx Roads (IOMG 2017b)

- 4.24. Pedestrians and cyclists are placed at the top of the 'desired user hierarchy' for "local" and "local access" roads as defined on the Isle of Man Government's Road Hierarchy Map.
- 4.25. Chapter 5 Connectivity, Accessibility and Layout provides design criteria for developers stating 'priority should be given to pedestrian and cycle movements, and access provided to high quality public transport facilities.....[and] opportunities for sustainable transport modes should be taken up to reduce the need for major transport infrastructure improvements (para 5.1).
- 4.26. There are also a number of references to active travel (para 3.2.9). Setting down that Active travel should be prioritised and walking and cycling routes should be safe and form a continuous, accessible network. Developers are referred to active planning toolkits and active travel guidance (para 9.2.2) mainly in the form of 'Design Guidance Active Travel (Wales) Act 2013 (2014) (Welsh Government, 2014) for advice and guidance on specifications and facility provisions particularly in relation to cycle parking, facilities and infrastructure and shared use paths.

Public Rights of Way Policy and Strategy 2018 – 2028 (IOMG 2018b)

- 4.27. The planning of upcoming improvements to PRowS will give priority, where possible and practical, to increasing accessibility for users with disabilities (Strategy 2).
- 4.28. Some footpaths are to be converted to cycle-paths and bridlepaths (Strategy 4).
- 4.29. As part of this work public rights of way have been categorised and classified to into four categories, with the more popular and frequently used paths receiving the highest standards of maintenance, most resources and allocation of budget (IOMG n.d.).
- 4.30. Although Active Travel is defined as trips of necessity useful in consideration of links across the Island.

The PRow Proposed Programme of Improvements for 2018 – 2028

- 4.31. The Active Travel Investment Plan March 2019 (page 54) refers to the proposed programme from 2018 to 2028, which predominantly relate the identified Premier Routes in the above Strategy.

Highways Forward Programme (IOMG 2019)

- 4.32. This programme of works could present opportunities to improve active travel provision over the proposed time period for delivery.

HIGHWAY SCHEMES - LONG RANGE PROGRAMME		
Road Name	Location	Proposed Year
East Quay, Peel - reconstruction	Including Manx Utility works and flood wall	2019
Bowring Road - Stone Bridge - resurfacing	Re-kerbing	2019
32nd Milestone Improvement		2019
Kirk Michael Village	Improvement scheme. Traffic and drainage.	2020
New Castletown Rd, Santon Motel to Fairy Bridge – reconstruction	Footway near bridge to be included (Bridge?)	2020
West Quay/Derby Road, Ramsey - reconstruction	Flood consideration. (CCA)	2020
Derby Road, Peel - reconstruction	Remainder of Derby Road	2020
Ballafletcher Road - Resurfacing + drainage		2021
Glencrutchery Road, Douglas - reconstruction	St Ninians junction improvement to be carried out after the Prom.	2021
Between Airport roundabouts - reconstruction	Northbound carriageway and Northern roundabout	2021
Market Street, Douglas - reconstruction		2022
Upper Promenade, Port Erin - reconstruction		2022
Ballaquayle Road, Douglas - resurfacing	Top of Broadway to St Ninians	2022
Andreas Road - resurfacing	Andreas to Ballacorey - resurfacing	2022
Victoria Street, Ridgeway Street, Lower Douglas - regen/reconstruction		2023
Bucks Road - reconstruction	Including footways - Circular junction to Derby Road,	2023
Andreas Road - resurfacing	Various section Regaby to Ramsey	2024
Fistard Road - resurfacing	Overlay	2026
Old Laxey Hill - resurfacing		2026
Crosby Crossroads - improvement		2026
Willaston Footways	Near shops	2020
Nunnery/Tesco road bridge		2027
Quarterbridge - big roundabout		2027
Well Road Hill Improvements		2027

Figure 7 Highway Forward Programme, Department of Infrastructure (2019)

Encouraging active travel on the Isle of Man - consultation analysis December 2017 (IOMG 2017c)

- 4.33. The Department of Infrastructure carried out a consultation exercise between 31 July 2017 and 25 Sept 2017 entitled “Encouraging active travel for the Isle of Man”.
- 4.34. The aim of the consultation was to collect information to help formulate an action plan working towards one of the objectives from the Isle of Man’s Programme for Government:- to increase the number of people who choose active travel. The document details the findings of the consultation.
- 4.35. Some main points emerging are:
- 59% of respondents said they travelled actively - of those who specified, 35% said they walked, 44% cycled and 21% did both.

This question was set to ascertain the level of participants already engaged in active travel and based on the framing of the question it is not clear if this figure comprises of people who use active travel on a daily basis or less frequently.

- 82% of respondents agreed with the proposed vision: “The Isle of Man is to be an Island where cycling and walking are normal and realistic transport choices for people of all ages and abilities.” (para 5.2)
- 82% of respondents agreed with the principles of an action plan focussing on key issues including infrastructure provision, behaviour change and improved education, a network of routes for people to walk and cycle on and partnership working and delivery. (para 8.1)

- When asked "is there anything else that should be included within the action plan to assist the Department in meeting its long-term vision for active travel?" responses were received around the following themes - education; roads and pavements; infrastructure; financial incentives; discourage motorised transport; school travel; bicycles and cyclists; heritage railway lines; walking and cycle route networks; cycle to work scheme; and planning.

4.36. A number of suggestions were received, which include:

- ways to undertake appropriate monitoring to understand the impact of any of the proposed initiatives;
- better education and communication;
- any necessary legislative changes;
- increasing and improving signage along cycling and walking routes;
- incentives for people to make the modal switch to want to travel actively, discouraging car journeys;
- integrating public transport with walking and cycling;
- identifying cycle routes, active travel routes, and walking routes that are well defined;
- the introduction of community bikes (similar to "Boris" bikes in London);
- improving and increasing access to facilities such as showers, dry rooms and secure lock-up facilities; and
- making footpaths shared use as far as possible (para 10.5).

Active Travel on the Isle of Man

The Active Travel Strategy 2018-2021

4.37. The Active Travel Strategy aims to increase the number of people using active travel for everyday trips to work and school. It sets out the vision for the Island and the targets;

- Vision - An island where cycling and walking are normal and realistic transport choices for people of all ages and abilities.
- Targets - To increase people travelling actively to work to 20% by 2020 from a base of 14% in the 2011 Census and to 30% by 2025.

The Active Travel Investment Plan (ATIP) March 2019 (IOMG 2019b)

- 4.38. The Active Travel Investment Plan (ATIP), drawn up by Sustrans, looks at the potential for providing infrastructure and behaviour change measures as a way to encourage more cycling, walking and other methods of active travel. This document is based on the UK DfT's Local Cycling and Walking Infrastructure Plans (LCWIPs) (introduction).
- 4.39. The ATIP covers an area measured as 2.5 miles from the centre of Douglas and the focus is to encourage more "Journeys for a purpose" rather than leisure or tourist trips (ATIP) (executive summary) and prioritises a number specific interventions/projects (chapter 14). This is a 3 year programme with £4million investment.

IOMG Wellbeing Group – Alternative Transport Day 27th September

- 4.40. Views are being sought on the ease of alternative transport to work (other than the car) to the various Government offices.

Isle of Man definition of Active Travel

- 4.41. In 2017 the Isle of Man Government published the Programme for Government 2016-2021, which set down the priorities for the next five years. One of the commitments was to 'develop a strategy for active transport to increase the number of people using walking and cycling to get around' (IOMG 2015b) .
- 4.42. Following that being identified as a priority the Department of Infrastructure (DOI) launched a consultation "Encouraging active travel for the Isle of Man", the results of which was published in December 2017 (IOMG 2017c).
- 4.43. One of the main functions of the consultation was to establish a 'definition of active travel' and 'long-term vision'. The outcomes of which resulted in the following definitions;
- 4.44. Long-term vision: to be an Island where cycling and walking are normal and realistic transport choices for people of all ages and abilities. One of the main ways in which to achieve this vision will be to increase the number of people travelling actively.
- 4.45. Active travel: "Walking or cycling (including the use of electric bicycles) as an alternative to motorised transport (cars, buses, motorcycles etc.) for the purpose of making everyday journeys. The terms "walking" or "walker" are used as generic terms to include running as well as non-motorised uses for instance wheelchairs, electric wheelchairs, mobility scooters and other mobility aids, scooters and other means of self-propulsion" (IOMG 2018c).
- 4.46. Subsequently a cross government working group was established to consider the results of the public consultation exercise and to work to produce an action plan

based on the contents of the consultation and its subsequent analysis and looks at ways people can use walking and cycling for journeys of purpose.

Isle of Man current targets

- 4.47. The Active Travel Strategy proposes the following targets and appropriate monitoring, through the Census and Social attitudes survey, to be able to review the work being undertaken in the ATIP and determine the level of success.

Year	Total travelling to work (based on 2011 census)	Actual travelling actively	% travelling actively target
2011	43,134	6,143	14.24
2020		8,626	20 (estimate)
2021		9,489	22
2022		10,352	24
2023		11,214	26
2024		12,077	28
2025		12,940	30

Figure 8 Extract from Active Travel

Cycle to Work Scheme

- 4.48. Introduced in April 2017 the scope of the scheme was widened in April 2018 to include certain electrically assisted pedal cycles (IOMG 2018d). The scheme enables businesses to take advantage of a benefit in kind tax exemption by buying a bike on behalf of an individual. At the time of writing details about the rate of take up of the scheme were unable to be officially sourced.

Summary points

- 4.49. The policy context on the Isle of Man consists of a number of documents that while supporting active travel fails to set a clear overarching strategy for the Island or a specific requirement to adopt this approach and the supporting grid infrastructure in the medium or long term. There is also very little guidance on how to deliver it and any design tools that may be appropriate.

5. CURRENT POLICY THINKING IN OTHER JURISDICTIONS

- 5.1. During the research on this work stream much of the policy around this topic appears to be focused on active travel and the alignment of active travel and public transport rather than on settlement patterns and growth direction as much of that policy seems to be inherent the planning system. Although Sustrans have produced some toolkits and guidance and the Royal Town Planning Institute have produced a research paper on this topic. The following looks at a few adjacent jurisdictions sustainable transport policy rather than the planning system. This is looked at later on.

Jersey

- 5.2. Sustainable Transport Policy 2 July 2010 (Jersey Government 2010)
- 5.3. Set down in policy the Sustainable transport hierarchy and promotes a holistic transportation package for users to persuade people out of the cars and onto alternative means, such as increased parking charges in centres coupled with improving public transport.

Making Greener Travel Choices

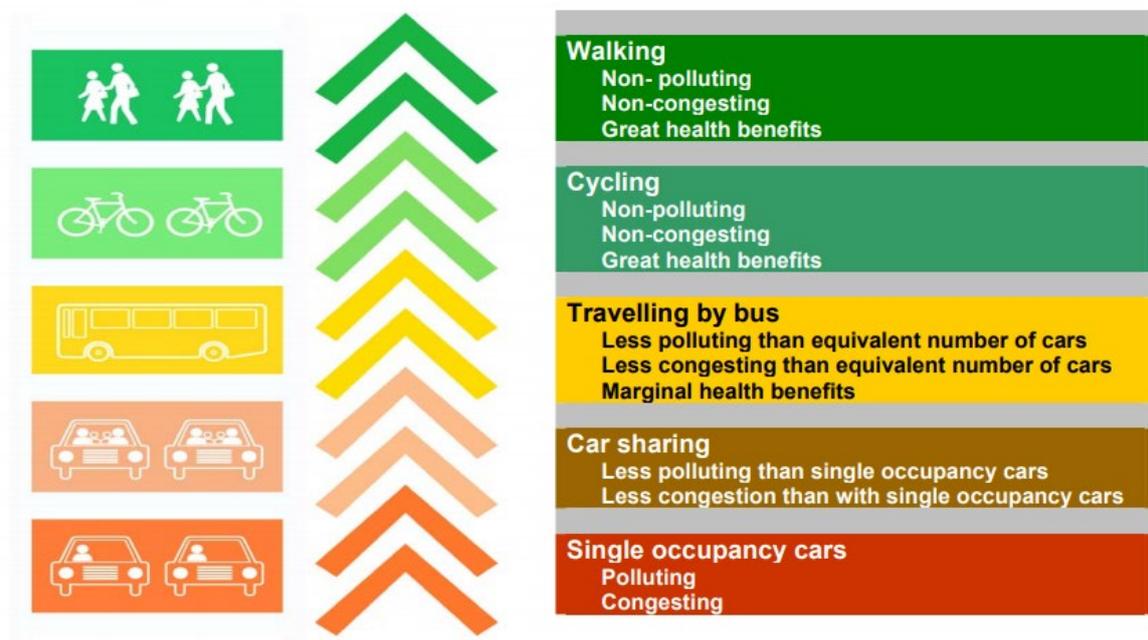


Figure 9 Extract from Jersey Sustainable Transport Policy (Jersey Government 2010)

England

- 5.4. Under the Infrastructure Act 2015, the government is required to set a cycling and walking investment strategy (CWIS 2017) for England. The first ever CWIS for England was published in April 2017. The CWIS sets out a long-term vision for walking and cycling to 2040.
- 5.5. The CWIS sets the following aims and targets, to 2025:
 - Double cycling, where cycling activity is measured as the estimated total number of bicycle stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025;
 - Increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 300 stages per person per year in 2025, and will work towards developing the evidence base over the next year;

- Increase the percentage of children aged 5 to 10 that usually walk to school from 49% in 2014 to 55% in 2025.

5.6. Manual for Streets (2007) primarily focusing on residential streets advocates a more back to more traditional street patterns for accessibility and assimilation to surrounding areas while turning the access hierarchy around with a high priority on meeting the needs of pedestrians, cyclists and public transport.



Figure 10 Extract from Manual for Streets (PG 19) (2007)

Wales

- 5.7. Active Travel (Wales) Act (2013) requires local authorities to map and continuously improve routes and facilities for “active travel” – defined as walking and cycling for a purpose, like accessing work or services, rather than for leisure. Guidance was issued to support delivery in addition to a non-statutory Active Travel Board and Action Plan.
- 5.8. The most recent Welsh Government’s annual statistical bulletin on active travel in Wales (Welsh Government 2018a) showed little change in active travel rates since the Act was passed.
- 5.9. In March 2018 the Economy, Infrastructure and Skills Committee undertook a review of the Active Travel Act to see if it was working. Published in June 2018 the report (Welsh Government 2018b) lessons learnt were said to relate to lack of leadership, funding and ambition combined with skills gaps and missed opportunities to foster culture and behavioural change.

Scotland

- 5.10. Scotland has published 'A long term vision for active travel in Scotland 2030' (Scottish Government 2014). As part of this vision for what Scotland will look like includes journeys up to 2 mi replaced by walking, and journeys up to 5 mi can be replaced by cycling.

6. SETTLEMENT PATTERNS AND GROWTH DIRECTION

- 6.1. While much of the developed land is already in existence future new developments provide the opportunity for consideration from the design stage rather than retrofitting.

Interaction with existing Planning and Building Regulations

Planning

- 6.2. Planning law requires that applications for planning approval be determined by having regard to the provisions of the development plan, any relevant statement of planning policy, other considerations as may be specified in a development order or a development procedure order, so far as material to the application; and all other material considerations (Section 10 Town and Country Planning Act 1999).
- 6.3. These would only apply at the time the decision was made. There are no provisions in planning law to retrospectively apply policies or strategies to development that has already been approved.

Building Regulations

- 6.4. Similarly as with planning, the standards that are applied are those that are in place at the time the submission is made, after the application has started it is recorded as live with no maximum duration. There are no provisions for developments with current approvals, even if delivered over a number of years, to be required to comply with future legislation.

Planning housing growth to enable active travel and public transport

- 6.5. The Royal Town and Planning Institute (RTPI) published research in 2018 (RTPL 2018) to begin to understand better where development is taking place in cities across the UK. The initial results suggest many new developments gaining permission are outside of built up areas and only just over one in ten are within walking distance of commuter hubs. This is likely to pose significant sustainable transport problems and there is a need to better understand spatial patterns of growth if we are to align housing and transport policy.
- 6.6. The Intergovernmental Panel on Climate Change (IPCC) suggests that, when coupled with public-transport oriented development, urban regeneration and investment in

new walking and cycling infrastructure, these measures could reduce global emissions by between 20% and 50% by 2050 against a 2010 baseline (Seto *et al.* 2014).

6.7. Much of the evidence gathered relates to the UK and other European Countries, which may not be wholly applicable across the Isle of Man notwithstanding this the main points relate to;

- Location;
- Density – optimise use of land – availability and capacity of infrastructure and services existing and proposed to promote sustainable travel modes through limiting the need to travel and offering a genuine choice of transport modes;
- Locating along transport corridors;
- Reduce the need and distances required to travel;
- Maximise the efficiencies of the existing transport network;
- Increasing provision and capacity for travel modes that are most sustainable (walking, cycling and public transport); and
- Create better places, where people want to live and do business (RTPL 2018).

Planning new developments for active travel and public transport

6.8. As part of the Active Travel Toolbox Sustrans Part 3 looks at Active travel and public transport planning in new housing developments. The key messages include;

- Sustainable transport usage will be significantly increased if direct, attractive and safe walking, cycling, and public transport infrastructure are built both within and to connect new developments to existing networks.
- The sooner sustainable transport is fully considered within the planning of a new development the more efficient their location, use and value will be.
- In order to maximise sustainable travel, it is important to ensure: a The right transport infrastructure is built into new developments from the outset; and b New developments are connected to existing sustainable transport networks to enable people to reach their destination.
- Walking routes should be coherent, direct, safe, comfortable and attractive.
- The provision of safe, direct and attractive cycling routes alongside convenient and secure cycle parking should be provided.
- A clear sensible layout with through routes ensuring the permeability of new developments for walking, cycling and public transport routes is essential.

- In conjunction with sustainable transport provision, private motor vehicle use should also be managed - for example speed restrictions and parking management.
- There are a number of freely accessible tools to help plan and develop the business case for cycling and walking schemes to connect new developments to employment and other services people require access to.
- Active travel provision should also integrate with public transport use for longer journeys to enable convenient, attractive sustainable modes from door to door. This needs to include improving access and secure parking infrastructure for bikes.
- Requirement to demonstrate public transport, walking and cycling feasibility should be a much higher priority for all new developments. Attach more weight to these factors, particularly when considering planning applications. PPS could endorse this position more robustly.
- New housing should be built close to existing services
- Opportunities to travel by foot or cycle should be maximised by providing short cuts and links to existing road and paths.

7. MANAGEABLE DISTANCE

- 7.1. There is a significant amount of literature available for active travel modes. (Sustrans). As such there are numerous recommendations available to increase active travel which are well evidenced. Steep gradients will naturally deter many people from walking and cycling and for some people it could prevent them entirely. For cycle routes, a maximum gradient of 3 per cent is recommended but this can rise to 5 per cent over a distance of up to 100 metres. Where it is unavoidable, a gradient of up to 7 per cent over a distance of no more than 30 metres is acceptable (ATIP).
- 7.2. In Scotland, as part of their long-term vision for active travel (2030) (Scottish Government 2014) they consider that journeys up to 2 mi can be replaced by walking, and journeys up to 5 mi can be replaced by cycling.
- 7.3. It is noteworthy to mention that with the numerous electromobility options (incl. electric assisted bikes) that the acceptable distance for cycling is increasing, along with what is considered acceptable from a topographical perspective.

Modelling

- 7.4. A core part of the UK DfT's Walking and Cycling Investment Plans is the theoretical modelling section. This builds layers of data based on various factors that can be used to determine the most likely alignments where growth in walking and cycling can be expected if investment is made.

- 7.5. This modelling is used in the ATIP by Sustrans for journey flow mapping, identifying corridors of use (theoretical based on data input) as a strategy for investment.
- 7.6. The basis for predicting cycle usage along routes being prioritised is a Propensity to Cycle Tool (PCT). A simple PCT is available for all to use online, but the Isle of Man is not covered.
- 7.7. In order to build a bespoke PCT model it is necessary to obtain postcode data pairings of origin (where people live) to destination (where they work, go to schools etc) and unfortunately this data was not captured by the Isle of Man 2011 census and the Isle of Man does not have information on work trip origins, destinations and mode used in any one survey.

8. THE ACTIONS – POLICY DEVELOPMENT

- 8.1. This weft is focused on facilitating the wider use of electric vehicles for private use including charging points in new buildings and provision of more public charging points the availability of vehicles and taxation regime is dealt with elsewhere

Knowledge Gap – necessary ambition

- 8.2. In order for the Isle of Man to gain maximum benefit from active travel it needs to be linked to a smarter way to travel.
- 8.3. We need to gain a greater understanding of the who, what, why and how of travelling to particularly with those in the 20 minutes commuting time, although distances would be more meaningful.
- 8.4. Links to other tools already out there, but not in use on Isle of Man, i.e. Propensity to Cycle Tool or route selection tool (UK Government, n.d.)
- 8.5. Recommendation:
 - The questions in the surveys be reviewed in order to gain increasingly valuable information such as - Distances to travel, Commuter options, Public perception on manageable distances
- 8.6. That the IoM ask for home origin, mode used, and work destination in the Social Attitude Survey 2019 and in future census surveys in 2021.
- 8.7. Utilise the background work done for the ATIP across the other 3 main towns.
- 8.8. This needs to be a continuous improvement and will be crucial to understanding what is required to facilitate behavioural and societal changes.
- 8.9. Given the long standing dominance of the motor car and the most recent figures showing a slight increasing trend in private car use for travel to work it is likely that any strategies will require significant momentum to impact in the short to medium term.

8.10. The World Health Organisation's Health Economic Assessment Tool (HEAT Website, n.d.) can be used to conduct economic assessments of the health impacts of walking or cycling unfortunately the Isle of Man is not covered by tool.

8.11. No High ambition actions have been identified as this is crucial moving forward.

Proposed policy principles

8.12. Active travel is part of a wider package of measures seeking to decarbonise transportation. Seeking to reduce the number of vehicles on the road in the first instance and then decarbonise / electrify the remaining may be a more sustainable strategy.

Necessary ambition

Communication

8.13. Behavioural change will form a significant part of any modal shift, part of which will be a communication strategy to help understand the options available.

8.14. As part of the work on the ATIP, the workshops identified the need for clear signage/markings where there is a walking and/cycling route.

Policy development opportunities

8.15. Aligning strategies leading to sustainable travel for maximum impact, view cycling and walking as part of a wider Sustainable Transport Option package island wide.

8.16. It is crucial to ensure that all proposals align and maximise the benefits of existing and planned infrastructure, particularly when considering cycling and walking infrastructure.

8.17. Assessing planning applications to ensure sustainable transport outcomes, over other forms of transport. Active and public transport provision can play a significant role in ensuring specific planning applications, especially for housing developments ensure health and active travel outcomes.

8.18. Requirement to demonstrate public transport, walking and cycling feasibility should be a much higher priority for all new developments. Attach more weight to these factors, particularly when considering planning applications. PPS could endorse this position more robustly.

8.19. Introduction of Travel Plans, Transport Assessments and Statements.

8.20. Travel plans are traditionally undertaken for any business to understand the opportunities available for its staff to travel more sustainably. This can directly contribute to increased active travel through the implementation of cycle to work schemes, installation of secure bike storage and showering facilities, car sharing and business operated shuttle services for staff.

- 8.21. In relation to the location of development they are designed to assess and mitigate the negative transport impacts of development in order to promote sustainable development. The UK Travel Plans, Transport Assessments and Statements PPG defines Travel Plans as 'long-term management strategies for integrating proposals for sustainable travel into the planning process'.
- 8.22. Travel Plans should account for the anticipated transport impacts arising from the development and set proportional measures to promote and encourage sustainable travel. A Travel Plan should be presented as part of the pre-application stage and considered in parallel to development proposals to be fully integrated into the design rather than retrofitted at a later date. Transport Assessments and Statements are described as 'ways of assessing the potential transport impacts of developments' and they may propose mitigation measures to enable sustainable development. (Sustrans Toolkit Part 1).
- 8.23. Requirement for design standards and use of assessment tools i.e. Building for Life and BREEAM communities.
- 8.24. Roll out/utilise the methodology in Active Travel Investment Plan to other towns.
- 8.25. Ensuring that active travel options are clearly signposted, well promoted and that people have the skills and confidence to use them. This can be very simple; in the form of maps showing local routes, more intensive such as personal travel planning, or by offering cycle training and including the following;
- ATIP Schools initiative for cycle training could be widened to include maintenance classes.
 - "My Journey Planner" single point website.

Types of cycles/Cycle to Work Scheme

- 8.26. Wider availability of electric bikes and electric scooters could persuade those who find walking or non-electric cycling difficult to choose these options over the car. Electric cargo-bikes also offer opportunities for people who have to carry large or heavy items.

High ambition

Policy development opportunities

- 8.27. Transport policy geared to subsidised public transport, road pricing, cost of parking etc.
- 8.28. Series of local cycling and walking infrastructure plans – connecting to each other all Island.
- 8.29. Use of developer contributions.

- 8.30. For new developments there are established mechanisms to fund new infrastructure required to support these, including active travel routes and facilities.
- 8.31. Community Infrastructure Levy (CIL) on new development in their area to support infrastructure needed. The system applies a charge to most new buildings with the charge based on the size and type of the new development where there is an adopted charging schedule in place. For infrastructure needs that are directly linked to a new development there also remains the opportunity to fund these through negotiated planning obligations. Include consideration of required active travel infrastructure both in setting CIL charging schedules and in individual negotiations.
- 8.32. Balance delivery of smaller walking and cycling schemes in rural areas with more active travel schemes elsewhere
- 8.33. 'Boris bikes' - It is worth noting that the implementation of hire bike schemes requires a supporting logistics system to redistribute bikes at the end of each day so that the supply of bikes meets the expected demand at the beginning of each day. Experience of bike hire schemes in other cities which do not have this provision have found that users do not commonly use bikes to cycle both to and from work leading to a deficit of bikes in one area and a surplus in another. This would need further examination to see if it would work on the Island.
- 8.34. Active travel routes between rural settlements and from them to larger settlements or towns as part of public transport network.

9. THE COSTS AND RETURNS

- 9.1. There are significant co-benefits in terms of air quality improvements, health benefits, congestion reduction, noise reduction and other infrastructure enhancements.
- 9.2. If integrated from an early stage in infrastructure design would be absorbed through the normal projects costs.
- 9.3. The ATIP report sets out some unit costs for different types of infrastructure elements for active travel infrastructure.

Element	Unit	Rate	
		Low	High
New traffic-free route (incl. path adjacent to road)	m	£125	£160
New separated on-road route (kerb separated or stepped)	m	£1,000	£1,500
Widen existing traffic-free route by 1m, full width resurface	m	£75	£100
Resurface existing traffic-free route	m	£50	£80
New toucan crossing (or similar)	item	£50,000	£75,000
New bridge (small, span < 5 m)	item	£20,000	£40,000
New bridge (large, span > 5 m)	m	£5,000	£7,500
Quiet road treatment	m	£5	£10
Ancillary items, fencing, drainage, signs	%		10%

Figure 11 Extract from Active Travel Investment Plan

- 9.4. Of course actual costings would not be known until more detailed work of the provision required had been carried out. This would need to be done on a case by case basis.
- 9.5. This report also identified costs in relation to lower cost measures that can be utilised to help raise profile of cycling.

Measure	Cost
Advance Stop Lines	£4000 per unit
Cycle Contra-Flow	£2000 (approx. as dependent on length and complexity)
Way marking	£50

- 9.6. Some of the projects/interventions are already underway by the DoI, the costings of these projects will be useful moving forward.

What is the carbon emission reduction potential of active travel?

- 9.7. New research from the University of Oxford presents realistic, empirically derived evidence on the potential of walking and cycling to displace motorized travel and thus reduce GHG emissions. Conducted by the iConnect research group, the study estimates the potential impact on carbon emissions of a shift from driving to walking and cycling in Cardiff (Neves and Brand, 2019)
- 9.8. The new paper reflects the lack of evidence at the micro-level on the realistic, empirically derived potential of walking and cycling to displace motorized travel and thus reduce greenhouse gas emissions.
- 9.9. The aim of this study was to investigate the potential for carbon emissions savings from replacing short car trips with walking and cycling, similar to the ATIP for Douglas, It also looked at the extent to which high-quality infrastructure for walking and cycling may influence day-to-day travel decisions and impact on overall carbon emissions from motorised travel.
- 9.10. The study found that about half of all car trips were less than 3 miles. Taking into account constraints around trip chains and trip purpose, the study found that walking or cycling could realistically substitute for 41% of short car trips. In this case the estimated potential reduction in CO₂e emissions by approximately 4% from all surface passenger transport.

The risks and potential barriers

Both necessary and ambitious timescales	
Miss the opportunity to review the questions in Census and other Surveys	
There is some evidence that shared spaces are not preferred by either user	
Behavioural change – user behaviour on its own likely to be high risk but when linked to other potential measures would drop to amber while not hard to implement could be hard to be effective	
Some infrastructure roll out is already committed	
The average cost of an e bike plus maintenance	
Making sure at design stage for infrastructure projects (including Planning) that schemes ensure walking and cycling is part of the initial design	
Safety and weather were identified as a barrier by the Surveys	
Consumer behaviour	
Infrastructure roll-out – developing the infrastructure	
Necessary Timescale	Ambitious Timescale
Lack of support for introduction of Travel Plans or assessment tools	Boris bike – would need demand redistribution at end of the day to meet demand
	CIL may not be adopted as a practice
	Links to wider transport network for commuters are not forthcoming
	Providing the skills – cycling and maintenance

Table 3: Risk Matrix for Proposed Actions

Costs not known	Funding schemes for other e-bikes Expanding on Cycle to work scheme		Transport policy geared to subsidised public transport
Costs known better than to 100%		Developing on using current policies (planning and manual for Manx roads)	
Costs known better than to 50%	Knowledge Gap and Data Capture Communication strategy		Further policy development and assessment tools Cycling and walking infrastructure plans
	Little chance of failure	Less than 30% chance of failure	May fail

The impacts and mitigations for them

- 9.11. Ensuring active travel should be carried out a part of an Island wide project looking at sustainable methods of travel. While there are quite high figures of people living and working in the same towns, there is quite a significant proportion of people commuting to Douglas.
- 9.12. Much of change at the user levels will be behavioural and this requires a greater understanding of routes, trip types and the other psychological barriers, such as time.

Impacts	Mitigation
More people cycling on the roads – increasing conflict with other users	Better education and training for all users Clearer signposting for cycle ways ensuring these users have proprieties

The co-benefits (the positive benefits associated with the climate action)

- 9.13. While the principle aim of active travel is decarbonising and reducing reliance on the car it also delivers multiple other benefits. As well as benefits to reducing carbon emissions it can also contribute to;
 - Health – building the habitual use of active transport into a daily routine leads to an increase in physical activity.
 - Physical Activity – can contribute to fitness, combat obesity and other health benefits.
 - Pollution – use of motor vehicles contributes to air pollution and reduces air quality affecting and contributing to respiratory diseases, which would be reduced if vehicle miles reduced
 - Green infrastructure – improvement and greening of routes could enhance ecosystem restoration, ecological compensation, mitigation and the establishment of habitat (nature-based solutions)
 - Reducing fossil fuel dependency – motor vehicles currently are oil dependent
 - Economic development/productivity – indirect costs health care, hours of work lost to ill health
 - Local micro-economies - Increasing population densities and boosting local pedestrian and cycling traffic flows could increase the economic viability of cafes and corner stores, and improve access to jobs and services without increasing congestion or vehicle emissions

- Vitality and Social cohesion – creating neighbourhoods and neighbour knowledge/interaction
- Reducing inequalities Access to jobs, services and leisure will be widened for all – including children, older people, people with disabilities and people on low incomes
- Delivering liveable, more pleasant communities

10.CONCLUSIONS

- 10.1. The policy foundations for Active Travel are already in place, strong leadership is required to ramp up the policy effort to send a strong signal to developers and consumers.
- 10.2. In delivery terms the Isle of Man is moving forward with Active Travel, however there is a need to be clear as to what the starting point is and how this will affect any future strategies. The work undertaken by Sustrans for the ATIP represents a good starting place.

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