



CITY OF CAPE TOWN
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URBAN MOBILITY DIRECTORATE

City of Cape Town's Draft Revised Travel Demand Management Strategy

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ABBREVIATIONS

BRT	Bus Rapid Transit
BMT	Bus and Minibus Taxi
CCAP	Climate Change Action Plan
CBD	Central Business District
CID	City Improvement Districts
CITP	Comprehensive Integrated Transport Plan
DMS	Development Management Scheme
FWP	Flexible Working Programme
GABS	Golden Arrow Bus Service
HOV	High Occupancy Vehicle
IDP	Integrated Development Plan
IPTN	Integrated Public Transport Network
MaaS	Digitalisation and Mobility as a Service
MBT	Minibus taxi
MPBL	Municipal Planning By-Law
MSDF	Municipal Spatial Development Framework
NLTA	National Land Transport Act
NMT	Non-Motorised Transport
PRASA	Passenger Rail Agency of South Africa
P&R	Park and Ride
SOV	Single Occupant Vehicle
TDM	Travel Demand Management
TLAA	Taxation Laws Amendment Act
TOD	Transit Oriented Development
VKT	Vehicle kilometres travelled
WCG	Western Cape Government

DEFINITIONS

City	Refers to the City of Cape Town, a municipality established by the City of Cape Town Establishment Notice No. 479 of 22 September 2000, issued in terms of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998), or any structure or employee of the City acting in terms of delegated authority.
Digital access	The ability of residents to connect to and use digital technologies.
Captive public transport users	Individuals who rely on public transport out of necessity, rather than choice.
Modal choice	The decision individuals make about which mode of transport to use for a given trip.

Carpooling	A form of shared transport when two or more commuters travel together, using a vehicle that belongs to one of them thus reducing the total number of trips made. Members of the carpool contribute towards the cost of the trip either in monetary contributions, or contributions in kind.
Reward	In the context of shared transport, any contribution is classified as a 'reward', even if it is non-monetary. Lift clubbing A form of shared transport that involves an arrangement whereby each member of the club take turns using their vehicle and no contributions or rewards are provided resulting in an exemption from legal requirements for permits.
Carsharing	Involves the rental of cars from an agency as and when needed. Participants may only be occasional car users.
Trip generations	The process of estimating the number of trips that will originate or end in a particular area or land use over a specific time.
Road pricing	By charging motorists for road access based on factors such as time, location, and vehicle type, road pricing aims to reduce congestion, promote sustainable transport modes, and generate revenue for infrastructure improvements.
Congestion pricing	A specific form of road pricing, whereby It imposes fees on vehicles entering high-traffic areas during peak hours, encouraging shifts to public transportation, carpooling, and alternative travel routes.
Preferential parking permits	Special authorisations issued by municipalities that allow certain individuals or groups to park in designated areas with exclusive or prioritised access, often under more favourable conditions.
Municipal rates abatement	Partial or full reduction in the amount of property rates payable by a property owner, granted under specific conditions set out in a municipality's rates policy.
Parking cash-outs	The reimbursement of the cash equivalent of parking cost to commuters who use alternative modes of transport.
Mixed traffic	Refers to a road or transport environment where multiple types of vehicles and users share the same space.
Micro e-mobility	Small, lightweight vehicles designed for short trips powered by electricity.

Micro-freight

The movement of small shipments - typically parcels or packages - using compact, sustainable modes of delivery within urban areas, often for the last-mile segment of logistics.

Road user charging

Is a levying of a fee or charge for road use that aims to use price as means to influence a proportion of the road users to change their driving behaviour and/or travel behaviour to manage the demand for the use of the road space.

1 INTRODUCTION

1.1 Problem statement

There are several transport challenges facing Cape Town which are exacerbated by the rapid urbanisation experienced in recent years. Growing demand for travel, increased private vehicle ownerships and increased share of single occupancy vehicles (SOV) have translated into congested roadways and longer travel times. This is considered unsustainable not only from a total cost to society perspective but also due to increased social and environmental impacts. In response, the City of Cape Town (hereafter referred to as the City) has developed various plans and policies to guide sustainable growth and travel behaviour.

Sustainable modes such as public transport and active mobility are supported through the Comprehensive Integrated Transport Plan (CITP)¹, the Integrated Public Transport Network (IPTN) Plan², the Walking and Cycling Strategy³ as well as this Travel Demand Management (TDM) Strategy. **TDM** is a collection of programmes, techniques and policies aimed at affecting the travel choices of people in terms of mode and time of trip, and the use of existing transport system capacity and related infrastructure. It promotes sustainable travel alternatives and mode choices over constructing new infrastructure for private vehicles.

1.2 Background

The first TDM framework was prepared for the City of Cape Town in 2006⁴. This framework set the stage for initiatives aimed at promoting public transport and increasing vehicle occupancy and includes the following:

- Park-and-Ride (P&R) Facilities Business Plan⁵;
- Business Plan for the promotion of Higher Vehicle Occupancies⁶;
- Employee Trip Reduction Programme (ETRP)⁷ called Travel SMART; and
- TDM awareness programmes which included policies, possible tax incentives, marketing, education and congestion pricing.

Subsequently, several urban mobility initiatives that support TDM measures have been achieved:

- The roll-out of Phase 1A of the MyCiti system (western corridor from Atlantis to Cape Town) and the current construction of Phase 2A (south-eastern Khayelitsha/Mitchell's Plain to Wynberg/Claremont corridor);
- N2 BMT lane (Public transport priority lane);
- Upgrade of existing park-and-ride facilities at 12 rail stations; and
- Implementation of a pilot Travel SMART Programme in partnership with the Western Cape Government (WCG) and five large private companies, Woolworths, Nedbank, Engen, Media24 and Metropolitan Health.

In 2012, the City developed the Travel SMART programme⁷ to promote sustainable travel options. It encouraged lift clubs, becoming a SMART Driver, and active mobility (cycling or walking), and the use of public transport where viable. This programme aimed to promote options that would make transport cheaper, healthier, greener, and more efficient. It focused on saving overall travel costs by reducing expenses such as fuel and parking, improving health and productivity, lowering environmental impacts, and decreasing traffic congestion, ultimately enhancing the quality of life for all Capetonians.

The 2017 TDM Strategy⁸ supported interventions and measures to encourage individuals to make better and more sustainable travel choices. This in turn, hoped to mitigate the negative impacts associated with private vehicle travel, especially SOV, while simultaneously contributing to broader socio-economic improvements.

1.3 Need for a revised TDM Strategy

The City requires an updated TDM Strategy for the following reasons:

- a) Many contextual changes have taken place, including those that require a review to ensure the City's response through the TDM Strategy is targeted and relevant. Changes include, inter alia:
 - i. Remote work activity participation (and associated trip substitution) that was accelerated by COVID-19 lockdown movement restrictions and growth in digital platforms or technology supporting digital access.
 - ii. Growing environmental concerns as reflected in national and local legislation/policies. Ensure emerging priorities around the climate change action plan (CCAP) and resilience are reflected in the low-carbon mobility response through the TDM. Within the City's Urban Mobility Directorate, TDM is crucial for delivering urgent climate action in the transport sector;
 - iii. Increasing car ownership and private transport use; and
 - iv. Public transport and walking and cycling continue to be difficult to promote as sustainable modal alternatives within escalating crime and road safety concerns.
- b) Required a review to monitor implementation progress.
- c) To update and consolidate the TDM Strategy to align with the current IDP⁹, CIP and Municipal Spatial Development Framework (MSDF) which have seen significant focus shifts from previous iterations.

2 KEY INFORMANTS

2.1 Overview

The development of the revised TDM Strategy draws from a multi-layered approach following a three-step process (refer to Figure 2-1): investigation of key informants, development of objectives and goals, and identification of TDM Programmes. Each step builds on the previous one, facilitating an evidence-based and consultative approach.

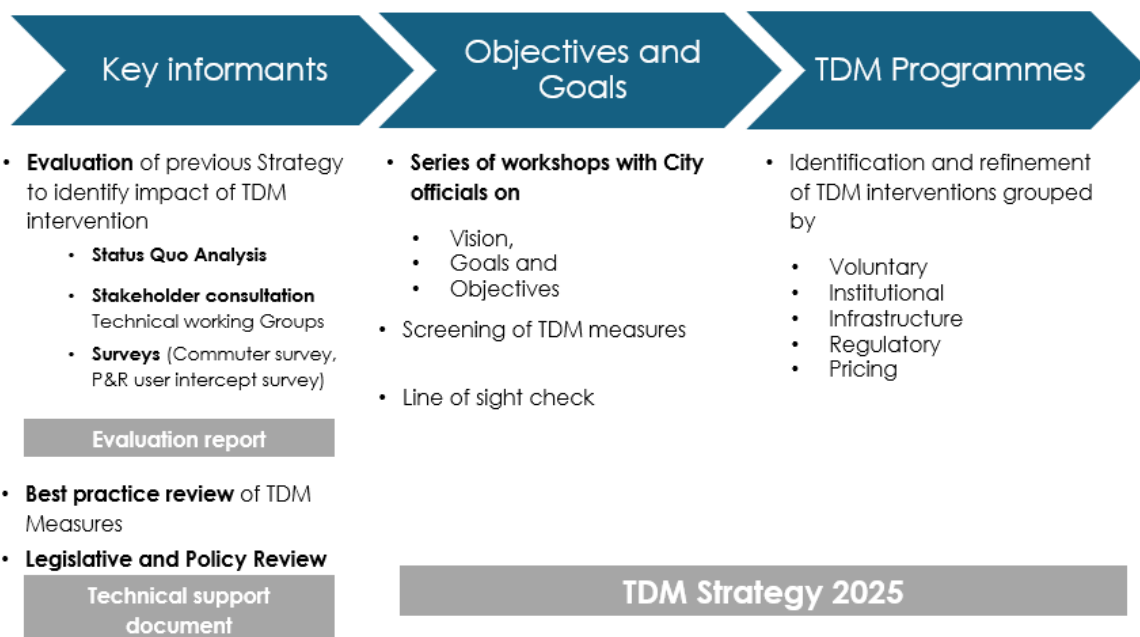


Figure 2-1: Process and informants of the updated TDM Strategy

The **key informants** included the following components which are available as standalone documents:

- Evaluation of the previous Strategy to identify the impact of previous TDM interventions. This is summarised in an **Evaluation Report** which includes the initial review and evaluation of the TDM Strategy since inception.
- Findings of the best practice review of available TDM Measures, and a
- Legislative and policy review included in a **Technical Support Document**.

A summary of these key informants is provided in the following sections of this chapter.

2.2 Evaluation of the previous strategy

As part of developing the new TDM Strategy, it is important to evaluate the impact of the 2017 TDM Strategy⁸, to ensure that the lessons learned inform the new TDM Strategy. Considering this, the section that follows provides an update on how the situational analysis has changed since the development of the 2017 TDM Strategy, and reviews the measures developed for the 2017 TDM Strategy (level of achievement of objectives and targets), the effectiveness of the planning process and identifying the impact of external factors.

2.2.1 Situational analysis

Travel demand refers to the number and nature of trips people make. It is shaped by factors such as demographics, economic development, and accessibility, including transport options, land use patterns, digitisation, road safety and individual security. Together, these elements influence travel behaviour and the choice of transport modes.

Notable changes in behaviour and travel demand were and are to some extent still evident after the pandemic. The impact of COVID-19 on travel demand is important since it created a milieu for commuters and companies to think differently about working from home, commuting and business travel. Although this has not necessarily resulted in a lasting reduction in traffic volumes, it did change peak commuter behaviour and the need for many business trips. The decline in rail services had a significant impact on the increase in road-based private and public transport. However, the modal split is expected to change back to rail again as the service improves. Cape Town's spatial form contributes to congestion. With the biggest portion of its workforce living in the metro southeast, employees are forced to travel long distances. Personal security is a major factor influencing modal choice.

2.2.1.1. Traffic volumes

The COVID-19 pandemic served as a catalyst to not only make working from home more widely acceptable, but it also created a culture of having meetings online and not in person. This affected traffic volumes across the morning and afternoon peak periods, moved trips into the interpeak (off-peak) due to flexible working hours.

- a) Traffic volumes are mostly back to pre-COVID values, but it is assumed that the traffic demand or volume levels would have been much higher had it not been for the COVID-19 travel restrictions that had a lasting effect on travel behaviour.
- b) Congestion in Cape Town is expected to continue to get worse if there is no improvement to public transport.
- c) Congestion is further exacerbated by the growing population, which has resulted in a growth in travel demand. This, coupled with the decline of the passenger rail service over the last few years, has resulted in a sharp increase in road-based travel demand.
- d) COVID-19 acted as a catalyst for digital transformation, driving the adoption of new technologies and processes to keep businesses afloat. This is only possible for firms with digital access and specific industries. Data for South Africa indicates that only 26% of all adults in wage employment are working online in any way, with this increasing to 42% for self-employed workers¹⁰.

2.2.1.2. Socio-economic considerations

Socio-economic factors, such as income and age, directly influence transport behaviour and are key drivers shaping travel demand and patterns. The following is important to note:

- a) Only 4% of the city's population falls into the higher-income group, earning above R40,000 per month, while 63% fall into the lowest two income groups, earning less than R3,200 or between R3,200 and R6,400 per month¹¹. Research¹² consistently shows a direct correlation between income and modal choice, with car ownership increasing as income rises - a trend confirmed by the 2024 Commuter Travel Survey¹³.
- b) Age is another influential factor. Millennials (aged 28–43) represent the largest age cohort in Cape Town, making up 30% of the population. As young and established

professionals, many in this group aspire to private car ownership¹⁴. The 2024 Commuter Travel Survey¹³ further confirmed that more than 50% of commuters aged 36 and older travel by private car. However, the assumption is that there is a small (but growing) percentage of those who tend to be more intentional in choosing where to live and work, prioritising work-life balance, and in turn, who chose not to use SOVs.

2.2.1.3. Mode choice/ Modal split

In terms of coverage, capacity, quality, and flexibility, the lack of sufficient public transport in general makes private car use attractive for captive public transport users to change to private transport options once their financial means allow for a change. These limitations in the public transport system have influenced shifts in mode usage, with notable implications for the distribution of demand across rail, minibus taxis, and buses:

- a) There is an increase in the number of people using minibus taxis (MBT) or buses. This can be mostly attributed to the decline in rail operations.
- b) With ongoing efforts to revive and stabilise the rail service, specifically with the City signing the Service Level Agreement on 21 January 2025 with the Passenger Rail Agency of South Africa (PRASA), a shift in the modal split towards higher rail ridership is anticipated.
- c) Cape Town's unique urban form and fragmented urban structure result in relatively long travel distances between places of living and work, coupled with high reliance on motorised travel.

2.2.1.4. Safety and security

Personal safety and security are major concerns and affect modal choice, as well as the likelihood of undertaking a trip at all.

- a) The 2024 Commuter Travel Survey¹³ highlights that safety and security are the most important factors impacting modal choice. Of the respondents, 88% indicated it as very important.
- b) Unsafe conditions foster the poor image of the public transport system. As a result, a modal shift from private to public transport is unlikely unless safety and security improves.
- c) PRASA started addressing this by providing two safety officers per coach. Research is needed to measure the effect of these safety initiatives.

2.2.2 Findings of the evaluation

It is important to evaluate the successes and failures of the 2017 TDM Strategy⁸. The evaluation includes the impact of the efforts undertaken (level of achievement of objectives and targets), the effectiveness of the planning process itself and the impact of external factors.

The evaluation found the following:

- a) **Improve and expand Park & Ride (P&R) facilities (at rail and BRT stations):** This measure had limited impact, mostly due to the decline in rail services and discontinued management and maintenance of P&R facilities thereof not being upheld. The impact can potentially be significant if there are reliable and high-

quality public transport services and the security issues are addressed both in-vehicle and at the P&R.

- b) **Flexible Working Programme (FWP)** for the City as an organisation had a high impact, mostly due to the pandemic restrictions. The City was in a better position and ready when COVID-19 hit, and the Hybrid Working Model and Remote Working Guidelines that were implemented essentially mirrored the FWP. The associated travel reduction is significant. It is estimated that the reduction in vehicle kilometres travelled (VKT) is close to 40% (for City offices located in the Central Business District (CBD)).
- c) **Promotion of Higher Vehicle Occupancies** (this includes measures to encourage and facilitate the use of carpooling; liftclubbing and carsharing):
- **Carpooling:** Carpooling had limited impact due to the lack of commuter buy-in and increased individual flexibility in trip timing after COVID-19 which makes it challenging to align travelling with others, as well as the legal and regulatory constraints related to carpooling. Any 'reward' triggers the requirements to obtain a Professional drivers permit (Prdp); to undertake an annual road worthy testing process; and to obtain an operating licence. This measure can however, have a big impact once the legislation is changed and employers support it (on a precinct level), and it is accompanied by guaranteed ride home programmes. According to a review of the legal framework for carpooling in 2017, the need for passenger liability insurance cover has fallen away with the amendment of the Road Accident Fund Act (Act 56 of 1996), however, specific motor vehicle policies will have to be considered still.
 - **Liftclubbing** doesn't trigger any legislative requirements which enables the City to more easily promote the use of lift clubs.
 - **Carsharing:** Options of carsharing were not pursued mainly due to a lack of engagement with and interest of the private sector, which typically spearheads carsharing initiatives (developing digital platforms, acquiring fleets, and managing operations). Further, carsharing also aims to provide an alternative to private vehicle ownership and its effectiveness is limited in cities with inadequate or unreliable public transport.
- d) **Parking cash-out:** This measure, specific to City employees, was not pursued mostly due to the successful application of the remote work guidelines and resultant trip substitution caused by COVID-19. Generally, parking cash-out can have a high impact if employers support it; however, incentives to the private sector must be clear.
- e) **Municipal-managed parking bays:** Parking management can make a significant impact to TDM if strategically implemented. However, the City's current impact is limited as only on-street parking is managed. Further pricing for on-street parking has not been used to discourage or disincentivise SOV-use during peak periods and in congested urban areas. Tariffs have remained fixed per area from 2019 to 2024, with no variations for peak time usage. In conclusion, facilitation of the overall parking management (on- and off-street) needs to be considered. This could also be achieved indirectly through reduced parking requirements for developments.

- f) **Private parking levies:** This measure was not implemented, but it is included in the 2024 draft Parking Implementation Plan actions (to investigate). Its potential impact can, however, be high if it is complemented by a strong public transport network.
- g) **Marketing and communications campaign:** Bringing the message of the proposed TDM measure to commuters. Commuters can only respond to what they know, and the impact that this measure has can potentially be very high. This measure is designed to address all trip characteristics: trip generations, trip timing, increase in vehicle occupancy, modal shift and route choice. Trip generations is the process of estimating the number of trips that will originate or end in a particular area or land use over a specific time. However, due to the slow implementation of measures (and complementary measures such as public transport services), the impact of marketing campaigns was limited.

2.2.3 Lessons learned

It is challenging to identify and quantify the impact of TDM measures within the complex system of economic, social and technological factors that influence travel behaviour. A case in point is the immense impact COVID-19 had on travel patterns and how it specifically accelerated a change related to the implementation of remote working and flexible working arrangements. The following are key take-aways of the evaluation:

2.2.3.1. Impact of TDM measures

- a) Very little active evaluation and monitoring were incorporated into the previous strategy, which together with limited programme funding or designated function assigned to manage various programmes, may have contributed to the low levels of implementation.
- b) The TDM programmes, as identified in the previous strategy, remain important and can potentially change travel behaviour. Specifically, the FWP was successful in terms of trip substitution and trip timing (albeit externally pushed as a result of COVID-19). Other measures such as parking management, are also important but the implementation actions were not followed through.
- c) Overall, voluntary measures in themselves were not so effective. Measures that 'lock-in' the benefits from travel behaviour change should be investigated in the revision of the strategy, i.e. measures that prevent single occupant car drivers from benefiting from the desirable behaviour of others. Improvements in congestion levels (for example through remote working) should not be lost to induced demand but rather sustained through effective demand management interventions.
- d) The target population needs to be understood and defined better. This refers to the socio-economic dimension (age, income, etc.) as well as geographical scope. Measures that work in one area, might not be very effective in another.
- e) Many of the proposed TDM strategies can only be effective if there is a viable alternative, like a good public transport system with multi-modal integration. Current public transport provisions are not perceived as viable nor attractive commute options. The main barriers include safety and security concerns and a lack of flexibility and availability.
- f) Rail must be prioritised. Rail should be the backbone of public transport in Cape Town and TDM measures should focus on rail revitalisation.

- g) Promote modes other than MyCiTi, e.g. MBT. Specific public transport awareness & incentive programmes can assist with that.

2.2.3.2. Project dependencies and transversal collaboration

- a) Different elements of TDM sometimes fall under different departments within the City. This is challenging and has resulted in the TDM measures and actions not actively driven or managed. For example, actions related to parking management, public transport zones and development management scheme (DMS) were happening outside of the TDM programmes even though they are closely linked.
- b) Besides other project linkages within the Urban Mobility Department, the role that land use planning plays in achieving reduced travel time⁹ is significant. A collaborative approach between Spatial Planning and Urban Mobility is necessary to integrate transport planning and land.

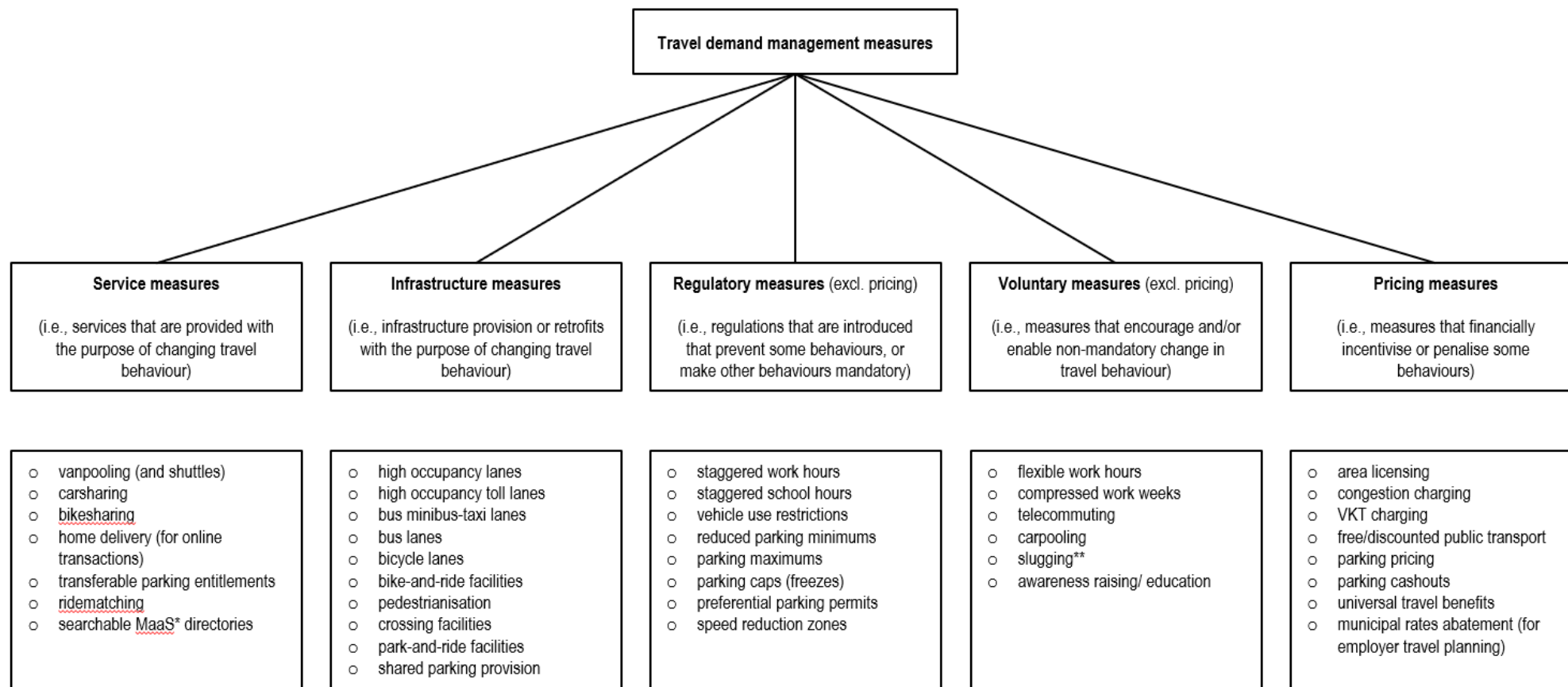
2.3 **Best practice review**

2.3.1 Screening of TDM Measures

TDM plans and programmes are globally accepted and applied to support shifts to sustainable transport and optimal use of transport infrastructure. A host of TDM measures are available. The outcomes and successes of these examples are dependent on the specific contexts and urban environments.

A list of potential TDM solutions is extensive and requires screening for local application. These identified measures were grouped into the following five categories (see Figure 2-2):

1. Service Measures;
2. Infrastructure Measures;
3. Regulatory Measures;
4. Voluntary Measures; and
5. Pricing Measures.



Definitions:

* Mobility as a Service (MaaS) integrates various forms of transport and transport-related services into a single, comprehensive, and on-demand mobility service. MaaS offers end-users the added value of accessing mobility through a single application and a single payment channel (instead of multiple ticketing and payment operations). Source: MaaS Alliance, 2025

** Slugging refers to casual carpooling: People looking for a ride to work will gather at a common park & ride location. Drivers pick people up from these groups based on their common work-area destinations. Slugging is very organic and only occurs in areas with a well-managed HOV lane system and sufficient population density. Source: VTPI, 2014

Figure 2-2: Categorisation of TDM measures

The measures were assessed against three criteria—each framed as a guiding consideration—to identify those most suitable for Cape Town. The three criteria with their respective sub-criteria are:

1. Is the measure responsive to current or emerging opportunities for travel behaviour change?
 - Continuing (post-COVID) remote working.
 - Potential rail service devolution and revitalisation.
2. Is the measure unaffected by current barriers to travel behaviour change?
 - Car aspirant captive passenger population.
 - Security and safety barriers to increased walking and cycling.
 - Uncompetitive public transport services for the passenger population with a choice.
 - Parking oversupply.
3. Is the implementation of the measure suited to City?
 - Local government powers and resources.
 - If within powers, is there likely asymmetrical public support and associated political will.

As a result, a list of TDM interventions was identified that are considered suitable (or 'low hanging fruit') for local government authority implementation in the current context. Some measures may be subject to local barriers. These were acknowledged in the process, particularly where the barriers can be overcome and the measures could have significant impacts despite the barriers.

2.3.2 Suitable TDM measures

Examples of best practices

The best practice review highlights that the measures that aim to change travel behaviour through infrastructure and pricing interventions, as well as regulatory changes, are potentially more suitable for Cape Town.

References to such measures from across the world, together with reference documents, are provided in Table 2-1. TDM measures which were not investigated, but have had success and appeal in the global arena include:

- Education and marketing, e.g. marketing campaigns and educational events.^{15, 16}
- Incentives and facilitation, e.g. guaranteed ride-home programmes and direct incentives for non-SOV travel.
- TDM supportive Policy, e.g. transit-oriented development and non-SOV supportive land use and TDM ordinance and policy development (that reduce car dependency and support densification).

Table 2-1: Overview of potential TDM Measures for Cape Town

Categories	Identified TDM Measure	Example Agencies/ Organisation, year	Document Reference
Voluntary Measures	Remote working & Flexible work hours	Worldwide, specifically after COVID-19	Beijing ¹⁷ , Perth ¹⁸ , etc.
	Carpooling	worldwide	"Let's Carpool" program in Wellington, NZ ¹⁹ , "Quick Ride" Bangalore, India
Infrastructure Measures	High occupancy lanes	worldwide (e.g. Brisbane, Ottawa, Madrid)	High occupancy vehicle lanes – worldwide lessons for European practitioners. 2006 ²⁰
	High-occupancy toll lanes	San Francisco	Bay Area Express Lanes. 2025 ²¹
	Bus minibus-taxi lanes	Cape Town	Comprehensive Integrated Transport Plan. 2023-2028

Categories	Identified TDM Measure	Example Agencies/ Organisation, year	Document Reference
	Bus lanes	Throughout South America	Latin America: A Transit Success Story. 2023 ²²
	NMT crossing facilities	worldwide	Comparative analysis of various pedestrian-crossing facilities 2024 ²³
	Park-and-ride facilities	Virginia USA	Virginia DoT: Park & Ride ²⁴
Regulatory Measures (excl. pricing)	Parking maximums	San Francisco, Atlanta	In These US Cities, Parking Reform is Gaining Momentum. 2024 ²⁵
	Parking caps (freezes)	Zurich, London ² , San Francisco	Capping Parking, Raising Quality of Life. 2011 ²⁶
	Preferential Parking Permits	Los Angeles	Los Angeles Department of Transport. Parking Permits ²⁷
Pricing Measures	Free/ discounted public transport	Luxembourg, Jakarta, Kuala Lumpur	More cities worldwide are experimenting with zero-fare public transport. 2023 ²⁸
	Congestion charging	London, Stockholm, Singapore	Road Pricing – Singapore's 30 Years of Experience ²⁹ , Long-Term Effects of the Swedish Congestion Charges Discussion Paper ³⁰
	Parking pricing	San Francisco	SF Park Pilot Programme. 2011 ³¹
	Municipal Rates abatement (for employer travel planning)	Auckland, NZ	Auckland Travelwise for Business. 2025 ³²

2.3.3 Takeaway of best practice review

The best practice review highlights that measures that aim to change travel behaviour through infrastructure and pricing interventions, as well as regulatory changes, are potentially more suitable to Cape Town. Specifically, the role of measures that 'lock-in' travel behaviour changes. These are measures that limit the benefits for single-occupant car drivers compared to the benefits to others using desirable modes (particularly referring to road space management and road pricing). Note that road pricing is an impactful measure and has been successfully implemented in several other cities. For the case of Cape Town, investigations are required to identify the most appropriate and accepted form of road pricing.

The potential measures for Cape Town are:

- Public transport priority lanes (bus, minibus, taxi lanes);
- Park & Ride facilities (rail revitalisation);
- Parking restrictions (parking maximums, parking caps or freezes);
- Parking pricing;
- Preferential parking permits;
- Remote working and flexible work hours;
- Carpooling;
- Free or discounted public transport;
- Municipal rates abatement (for employer travel planning);
- High-occupancy lanes; and
- Congestion charge (only to be considered once an effective public transport system is in place).

The reliance on motorised travel is also a product of the spatial form and disparities in land use distribution. Therefore, the role that land use planning plays in achieving the City's commitment to reducing the time residents spend travelling⁹, cannot be emphasised enough and actions in that regard are important in any TDM Strategy.

Refer to the technical support document for details of the best practice review.

2.4 Policy and Legal Framework Review

2.4.1 Laws and policies supporting TDM

Most of the existing laws and policies (at all levels of government) support TDM. They collectively offer a vision for sustainable, inclusive, and efficient transport in Cape Town, directly supporting TDM strategies aimed at enhancing mobility and promoting environmental stewardship.

2.4.1.1 Promoting sustainable modes, reducing the use of single occupancy vehicles

The national legislation, particularly the NLTA³³, and the local transport planning documents for the City of Cape Town (CITP¹⁶⁷, IPTN²**Error! Bookmark not defined.**) encourage public transport improvements towards reliability, affordability, and attractiveness of public transport systems, encouraging a shift from private car usage. Public transport as a sustainable mode of transport alternative to driving alone is in line with the objectives of the TDM Strategy.

The laws and policies support the integration of transport systems and emphasise the importance of creating seamless, multimodal networks that connect public transport, walking and cycling, and private vehicles efficiently. They also support achieving better accessibility for all population groups, including people with disabilities, which aligns with the City's equity and social inclusion objectives.

While roads remain essential, the policies emphasise more efficient modes with higher occupancy and environmental sustainability, i.e. public transport, car-pooling or car sharing over single occupancy private vehicle expansion.

2.4.1.2 Land use-transport integration and Transit Orientated Development (TOD)

Current policies promote integrated land use and transport planning such as the Municipal Spatial Development Framework (MSDF)³⁴ and the Transit-Oriented Development (TOD) Strategic Framework³⁵. They also support moving towards achieving higher densities, mixed-use nodes near public transport interchanges, reduced travel distances and promoting public transport. Encouraging sustainable urban development, reducing urban sprawl, and fostering compact, mixed-use development are all aligned with the objectives of the TDM Strategy.

2.4.1.3 Environmental sustainability

Legislation and policies at all levels of government support environmental sustainability through promoting environmentally friendly transport modes such as public transport, cycling, and walking. These are key informants of the TDM Strategy.

Additionally, laws requiring reduced emissions or fuel consumption standards can incentivise a shift from private car use to cleaner transport options. Legislation and policies are also in line with environmental objectives, which align with the TDM objectives to maintain environmental integrity in the future.

Cape Town's carbon-neutral and climate resilience commitments promote sustainable, low-emission mobility options.

2.4.1.4 Recent Taxation Amendment Act supports broader TDM objectives and actions

While the Taxation Laws Amendment Act (TLAA) 42 of 2024³⁶ does not directly implement Transport Demand Management strategies, it supports them indirectly by providing financial incentives and tax relief for eco-friendly transportation options. By encouraging the use of electric vehicles, supporting sustainable mobility infrastructure, and fostering research and development in the green transport sector, the TLAA helps to create an enabling environment for TDM implementation. This would be through reducing car dependence, promoting public transport, and encouraging cycling and walking.

These tax-related measures are part of a broader strategy by the South African government to promote sustainable mobility, reduce congestion, and lower emissions, which are key objectives of TDM.

2.4.1.5 UN Sustainable Development Goals

Although not a formal signatory, Cape Town has proactively aligned its local policies and initiatives with the UN Sustainable Development Goals (SDGs)³⁷. It has demonstrated its dedication to it by becoming the first South African city to publish a Voluntary Local Review (VLR) 2021³⁸.

The review highlighted eight priority goals for Cape Town (Goals aligning with TDM are in **bold**):

- SDG 1: No Poverty
- SDG 2: Zero Hunger
- SDG 6: Clean Water and Sanitation
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation, and Infrastructure
- **SDG 11: Sustainable Cities and Communities**
- **SDG 13: Climate Action**
- SDG 17: Partnerships for the Goals

Note that SDG **Goal 3 'Good health and wellbeing'** is very relevant for TDM (albeit not identified as a priority goal in the 2021 review).

The above-mentioned goals are reflected in the following TDM-related priority actions³⁹:

- Promotion of Non-Motorised Transport (SDG 11.2 and SDG 3.9)⁴⁰: Encourage walking and cycling through providing safe and inclusive infrastructure. This includes investment in pedestrian zones, cycling lanes, improved street connectivity and access to public transport, which in turn will reduce vehicular emissions and improve public health.
- Integration and Enhancement of Public Transport (SDG 11.2 and SDG 13.2)⁴¹: Expand and improve public transport systems.
- Land Use and Transport Integration (SDG 11.3 and SDG 9.1)⁴²: Promote compact, transit-oriented development (TOD) to reduce trip lengths and the need for private vehicles. This action supports more efficient use of infrastructure and services.
- Digitalisation and Mobility as a Service (MaaS) (SDG 9.5 and SDG 11.2)⁴³: Leverage technology to avoid trips completely, or to coordinate multiple transport services under a single digital platform to enhance service efficiency and user convenience, reducing the demand for private vehicle ownership.

2.4.2 Gaps in the legislation and policies

While most of the existing legislation and policies are supportive of the TDM Strategy, the following gaps are noted.

2.4.2.1 Definitions of environmentally friendly vehicles lack clarity

The promotion of more sustainable vehicles in the form of public transport, walking and cycling and alternative fuel vehicles e.g. electric scooters or bicycles are aligned to objectives of reducing dependence on SOVs and improving the environment. However, there are still some barriers to achieving this. This is pertaining to definitions of environmentally friendly vehicles or micromobility and the rules that regulate the use of these types of vehicles.

Micromobility refers to the use of small, lightweight vehicles designed for short trips, typically powered by electricity or human effort⁴⁴. These vehicles are meant to provide an alternative to traditional modes of transport, especially for short distances in urban environments. Examples include electric scooters, e-bikes, e-skateboards, and other similar vehicles.

Environmentally Friendly Vehicles⁴⁶ are those that produce little to no emissions, reducing their environmental impact. This category includes electric vehicles (EVs), hydrogen-powered vehicles, and other types of transport that help reduce greenhouse gas emissions compared to traditional internal combustion engine (ICE) vehicles.

The use of micromobility vehicles like e-scooters and e-bikes is regulated through the National Road Traffic Act, 1996⁴⁵ (NRTA). The National Road Traffic Amendment Act 8 of 2024 was assented on December 5, 2024⁴⁶ and introduces significant reforms aimed at enhancing road safety in South Africa. However, the associated regulations defining the rules associated with micromobility vehicles have not yet been prepared.

This creates uncertainty as to the final definition of environmentally friendly vehicles in the road traffic, road transport and environmental legislation. Predicting exactly what vehicle types would be regarded as non-motorised vehicles and what would fall within the ambit of the environmentally friendly environment is still to a large extent undetermined. This means that the vehicles may not be used on public roads or sidewalks and that the City cannot finalise by-laws including these modes until:

- a) The National Road Traffic Amendment Act 8 of 2024 is brought into force by proclamation in the Government Gazette; and
- b) The necessary regulations are made and published (and assuming that the regulations provide for the types of environmentally friendly vehicles).

In short, the development of draft legislation and consultation processes may still take several months to more than a year to finalise.

2.4.2.2 Lack of specific legislation enabling incentives or disincentives around the use of SOVs

There is currently no specific national law or regulation (such as under the National Road Traffic Act or related amendments) that empowers municipalities to levy congestion charges, impose SOV restrictions or offer tax incentives for carpooling or public transport use, or regulate SOV parking pricing as a formal disincentive tool.

Municipalities like Cape Town may set parking policies, manage road access in specific zones, promote alternative modes (TDM strategies) but their ability to directly implement financial or legal incentives/disincentives for SOVs is limited without enabling national or provincial legislation.

While TDM is supported in national policy documents like the White Paper on National Transport Policy (1996, revised 2021)⁴⁷ and frameworks like the NLTA (2009)³³, these do not provide specific legal instruments for municipalities to apply mandatory SOV restrictions or monetary disincentives.

This gap in legislation is one of the major challenges for advancing effective TDM interventions. The City can encourage lift clubs, provide park-and-ride facilities or designate high-occupancy vehicle lanes but cannot legally mandate or penalise SOV usage in the way cities like London or Singapore do with congestion charging or SOV tolls — unless national law is amended.

2.4.2.3 Lack of financial incentives in support of TDM measures

Policies can provide financial or logistical incentives that support TDM strategies. Examples include tax incentives for using public transport, subsidies for electric vehicles, or programmes that promote carpooling or ridesharing. These types of legislation or policies enabling the use of financial incentives in support of TDM measures are currently not in place.

Currently, there is no national or local legislation that enable municipalities to offer financial incentives (e.g., tax breaks, subsidies, or grants) for TDM measures such as carpooling, using public transport, cycling or walking or influencing peoples off-peak travel behaviour.

While Cape Town has implemented some TDM-supportive programs such as discounted MyCiTi fares for certain users, employer travel plans as well as park-and-ride schemes, these are generally voluntary or project-specific, not underpinned by enforceable legislation. The National Land Transport Act (NLTA) of 2009³³ and NRTA³³ focus on governance and public transport regulation, but do not mandate or legislate financial incentives as part of TDM strategies.

2.4.2.4 Lack of legislation for shared mobility solutions

While general support for TDM exists in policy documents (such as the NLTA, 2009³³, and various integrated transport plans), shared mobility services for example carpooling are not explicitly mentioned or supported in existing legislation. There are also no specific fiscal or operational incentives in the law or regulations that support measures such as HOV lanes, tax credits, or parking benefits.

The NLTA provides for categories of public transport services (e.g. minibus taxis, buses, metered taxis) but does not directly address non-commercial carpooling. The NLTA³³ defines public transport as “a service for the carriage of passengers by road or rail, whether scheduled or unscheduled, and whether for reward or not, but does not include a service — (a) provided by the driver of a motor vehicle who conveys passengers for reward without being the holder of an operating licence where such licence is required by this Act”³³. This could make carpooling illegal or require an operating licence if the driver charges more than recovery costs and thereby makes a profit from the carpooling scheme.

2.4.2.5 Weak implementation, enforcement and monitoring of existing legislation/ policies

Although the City has environmental policies such as the Climate Change Action Plan which is aimed at reducing the environmental impacts of transport, there are challenges in the enforcement of these measures. For instance, while there are “no-parking zones” and certain restrictions on car usage in specific areas, these are not always strictly enforced, which undermines the overall success of TDM strategies. Also, even though the City has adopted a range of policies promoting sustainable

transport, including the prioritisation of public transport and walking and cycling, restrictions on private vehicle use in certain areas, enforcement and monitoring is not always taking place.

These have implications for the TDM Strategy since behavioural change is unlikely to occur without consistent enforcement of these policies.

2.4.2.6 Lack of communication and engagement in support TDM measures

Successful TDM strategies require public engagement and a change in behaviour. Policies that promote public education about sustainable transport options, the environmental impact of driving, and the benefits of TDM strategies can help create a culture of change. Legislating support for campaigns, events, or programs that raise awareness of these options can significantly boost the success of TDM initiatives.

2.4.2.7 Collaborative governance is recommended in policies, but in reality not always achieved

Transport planning policies recommend collaboration between different sectors (such as transport, environment, health, and urban development) and stakeholders (including local governments, private companies, and citizens). Coordinated policies ensure that TDM strategies are not isolated efforts but are integrated into broader urban planning and sustainability initiatives. For example, policies that link transport planning with climate change mitigation or public health goals can amplify the benefits of TDM measures.

However, in reality, collaboration between various levels of government and within departments has not always been successfully achieved.

2.5 Induced demand

2.5.1 Induced demand and policy implications

The City recognises that infrastructure planning must acknowledge that road capacity increases play a significant role in creating the demand they purport to meet (as stated in the CITP⁴⁸⁶⁷).

Since at least the 1990s, it has been observed across the world that increasing road capacity for mixed traffic, if ever, alleviates congestion to the anticipated degree, because the volume of cars using the roads increases in response to the intervention. This has come to be called "**induced demand**", i.e. demand for road capacity that is induced by increases in road capacity.

Induced demand has a number of causes, but it fundamentally derives from the economic principle of demand elasticity. The delays and frustration represented by congestion are part of the total cost of travel also referred to as the generalised cost. If a road capacity upgrade relieves congestion, the generalised cost diminishes, and people with a choice may shift from public transport to private transport, or choose to travel in the peak hour, with more people may be willing to travel. Demand in the peak hours therefore may increase until equilibrium levels of congestion are again reached. Although the specific elasticities of travel demand vary based on context, the phenomenon of induced demand is consistent. However, in the process more people can travel in the same period compared to previously.

Increasing road capacity tends to reinforce, rather than mitigate, sprawl, making it imperative to resist the cycle of building more roads to accommodate dispersed development. This has broad implications for how transport is planned. It suggests that road capacity increases for mixed traffic are likely to be less effective and that providing more efficient and alternative means of travel is critical to ensure a balanced environment.

It implies that other approaches to improving urban mobility are as important. The City is in the process of evaluating previous road capacity increases, to inform future projects. The City focuses on improving the relative total costs of travel, costs measured in time, effort, and safety as well as money of high-efficiency modes such as public transport, compared to low-efficiency modes such as private vehicles. A powerful tool for shifting costs in this way is road capacity increases that are reserved for public transport. In this way, costly road infrastructure is targeted where it is likely to make a large and lasting difference, rather than simply inducing more congestion; the benefits of transport infrastructure are maximised within resource constraints.

In the context of induced demand and the limitations of traditional road expansion, TDM measures are highly relevant and strategically necessary. Their value lies in managing demand at its source, targeting the **underlying behavioural drivers** (refer to Clause 2.6), rather than trying to accommodate it through additional capacity for mixed traffic.

2.5.2 Need for collaboration between road authorities

In response to the above, there is a need that all stakeholders in the transport environment, specifically the Western Cape Government (WCG) and the South African National Roads Agency Limited (SANRAL) work together. The historical approach to road infrastructure provision to simply address congestion must be carefully evaluated. Future road capacity increases, by any implementing road authority, should be evaluated with due consideration paid to induced demand.

This requires a dialogue with the City's national and provincial partners about the context and function of the major road network within the Cape Town metro area, which addresses how mobility needs inform infrastructure investment priorities and shape future regional planning by balancing the need for access and mobility, and supporting economic development.

Recent road capacity investments by WCG and SANRAL, while aimed at improving mobility, may have had the unintended consequence of reinforcing car dependency, encouraged urban sprawl, and undermining the City's strategic objectives around sustainable, compact urban form and reduced private vehicle use. Therefore, this TDM Strategy must seek to improve coordination between stakeholders to advocate for the role of TDM and to include road infrastructure planning within broader transport and urban planning.

The Passenger Rail Agency of South Africa (PRASA) is equally important. As the primary provider of mass public transport, PRASA has the potential to absorb travel demand away from road-based modes, particularly if service reliability, safety, and integration with other modes are improved. Investment in the rail network must therefore be seen not just as a public transport initiative, but as a core TDM measure, directly contributing to congestion mitigation and emissions reduction.

In conclusion, TDM must be positioned at the core of all transport infrastructure and land use planning mandates. Integrated, cross-sphere collaboration is essential, with national and provincial actors aligning their investment decisions with the City's priority to prioritise public transport, walking and cycling.

2.6 Behavioural change

2.6.1 Drivers of behavioural change

It is widely accepted in the travel behaviour literature that travel choices, especially mode use to non-discretionary work trip destinations, are habitual and non-deliberative in nature.^{49,50,51} Commuters have been observed to engage in deliberation of alternative travel choices when faced with a choice problem for the first time. The behaviour change process at these moments in time

involves increased information-seeking and experimentation to find a new travel behaviour pattern that satisfies needs.^{52, 53, 54}

Loukopoulos *et al.* (2004)⁵⁵ posit that the experimentation associated with behaviour change involves commuters considering options by trading effectiveness (or 'goal achievement') against effort and cost. Consistent with the principle of satisficing, the change process is argued to be multi-staged, starting with options requiring least effort and cost (e.g., experimenting with new departure times or routes using the same mode), and if these are unsatisfactory, continuing to options requiring more effort and cost (e.g., planning trips by other travel modes, and if necessary, acquiring the requisite mobility tools).

The outcome of a new deliberate choice is remembered by the commuter. If the outcome was satisfactory, and the environment remains sufficiently stable, the choice is retrieved from memory and repeated whenever the commuter is faced with the same or a similar choice problem.⁵⁶ After adopting a new travel pattern, commuters stop actively seeking new information, and over time, the behaviour becomes habitual with little or no deliberation and information-seeking.⁵⁷

Past studies of habit-breaking^a have shown that shifts from non-deliberative to deliberative choice-making occur when a 'stressor' is experienced, which renders the prevailing travel habit no longer able to satisfy needs.^{58,59} Stressors take the form of 'key events' or 'critical incidents'. 'Key events' refer to expected changes in one's personal life, while 'critical incidents' are unforeseen events (e.g., car crashes, public transport muggings, or retrenchment). 'Mobility biography' research has revealed that the most common stressors to trigger changed behaviour include: changes in employment; changes in residence; acquiring a car and/or driver's licence; children starting school; and changes in household structure (e.g. marriage, childbirth, etc.).^{59,60,61}

The occurrence of the stressor opens a window of opportunity within which behaviour-change interventions can be targeted.^{62,52,57} Mobility biography analysis in Cape Town revealed that commuters changed travel mode almost immediately after the occurrence of a predictable 'key event' stressor.⁶¹ Commuters started deliberating and seeking information, on average, about two months before the event manifested.

2.6.2 Practical implications for the TDM strategy

For the implementation of TDM strategies to be effective, an understanding of the processes involved in travel decision-making, the factors that influence decisions, and when changes occur, is key. So, the above conceptualisation of the process of behaviour change has important implications for improving the impacts of TDM strategies.

Voluntary TDM measures are likely to be most successful when targeted at choice-makers who are about to experience a predictable key event, or have just experienced an unpredictable critical incident, and are therefore most susceptible to changing behaviour.⁶³

Targeting commuters immediately after a predictable stressor occurs – e.g., new homeowners, new employees, and new school parents – misses the 'window of opportunity' to influence deliberative decisions and the formation of new more desirable habits. These decision-makers need to be targeted before the occurrence of predictable stressors. It is house-seekers, jobseekers, school-seekers, etc., rather than new homeowners, new employees, new school parents, etc., who need to

^a Most prior research in this field has been conducted in the Global North. The doctoral research conducted by Eric Adjei suggests that the underlying drivers of behaviour change are similar in Cape Town, even if the more constrained mode alternatives lead to different choice patterns.

be targeted.^{61,64} As mentioned earlier, the observed deliberation periods in Cape Town suggest that this should occur at least two months before.⁶¹

This insight adds considerable complexity to the implementation of TDM strategies, at least in the case of practices that require resourcing to engage directly with individuals (e.g., 'travel planning', 'individualised travel marketing', 'travel blending'^b and 'travel feedback programmes').^{65,66} The obvious problems that arise for TDM practitioners are: how to identify who is likely to experience a stressor; and how to anticipate when the event is likely to occur. Fortunately, there is often a time lag between preceding markers and such events. For instance, there is usually a time lag between acceptance of a job offer and changing job location, between acceptance of an offer of purchase and changing residence, between falling pregnant and childbirth, and between acceptance of a place offer from a school or university and starting studies. Some stressors are also precursors of others (e.g., starting pre-school before starting primary school). Thus, the occurrence of preceding markers or stressors, can be used to target individuals or households with information on alternative sustainable travel choices.

In the case of the behaviour change measures identified in the TDM Strategy:

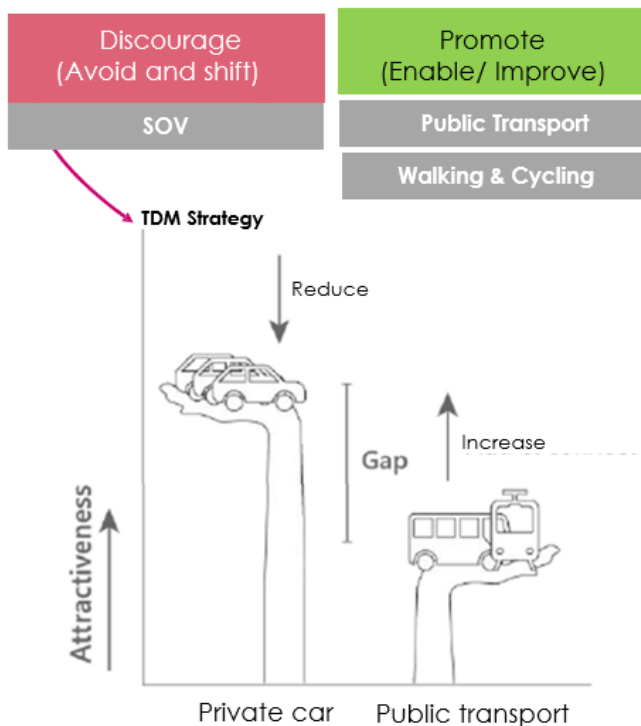
- Information about flexible working, carpooling, and P&R opportunities could be given to individuals as part of their job offer letters or new job induction processes;
- Information about P&R opportunities could be given to new homeowners and renters, when their offer to purchase or lease a new home is accepted; and
- Information about lift clubs, walking buses and the benefits of sustainable scholar travel patterns could be given to parents when their children are accepted into a new school.

^b *Travel blending refers to a voluntary travel behaviour change program which aims to encourage people to voluntarily change their travel behaviour by blending their travel over time to reduce car use and increase more sustainable modes such as walking, cycling and public transport.*

3 GUIDING FRAMEWORK FOR THE TDM STRATEGY

3.1 Broader policy alignment

The overarching policy vision for transport in the City of Cape Town is captured in the Comprehensive Integrated Transport Plan¹ stating that **“All people have efficient access to a range of opportunities in a manner that is sustainable and provides dignity.”** Within that, TDM serves or is acknowledged as an essential response towards achieving a more sustainable transport system, as well as bridging the gap towards improved access. For details refer to Clause 2.3.1.



The broad objectives and approach of the City is to support, invest in, and encourage quality public and active mobility as the primary means of mobility around Cape Town⁶⁷. The City's key transport strategies focus on promoting and improving public transport service and conditions for higher levels of walking and cycling, respectively through the Integrated Public Transport Network (IPTN) Plan² and the Walking and Cycling Strategy³.

Within that context, the role of TDM is to address the attractiveness gap across modes and trigger modal shifts towards sustainable modes. To reverse the attractiveness gap between sustainable modes and private motorised vehicles (specifically emission-intensive SOVs, the City's actions must simultaneously improve services (increase) and reduce space allocated to private vehicles, in favour of sustainable modes. Refer

to Figure 3-1 (Image credit: OECD⁶⁸).

Figure 3-1: The role of the TDM strategy in achieving a sustainable transport system

The City recognises that coordinated action is required across both dimensions of the urban transport attractiveness gap - namely, reducing the relative attractiveness of private vehicle use while enhancing the appeal of sustainable alternatives. This dual approach aligns with the internationally recognised EASI Framework for sustainable urban mobility, which categorises transport interventions under four pillars: **Enable**, **Avoid**, **Shift**, and **Improve**⁶⁹. The City's suite of strategies reflects this framework in the following ways:

- The **Integrated Public Transport Network (IPTN) Plan**² embodies the **Enable** and **Improve** components by facilitating institutional, regulatory, and infrastructural conditions necessary for high-quality public transport, while continuously enhancing service delivery and system performance.
- The **Walking and Cycling Strategy**³ also aligns with the **Enable** and **Improve** pillars, by establishing pedestrian- and cyclist-friendly infrastructure and improving road safety and accessibility.

- The **TDM Strategy** operationalises the **Avoid** and **Shift** levers by promoting behavioural change and disincentivising unnecessary car use, thereby encouraging a modal shift to more sustainable alternatives.
- The **Parking Policy**⁷⁰ further supports the **Avoid** and **Shift** elements by controlling car parking supply and pricing to reduce car dependency and promote a shift to public or active transport.

In addition, cross-sectoral strategies that lie outside the direct purview of Urban Mobility also contribute to the **Avoid** and **Shift** agenda. The **Resilience Strategy**⁷¹ addresses land-use integration and climate adaptability, thereby influencing travel demand patterns and promoting transport equity. The **Climate Change Strategy**⁷² and **Action Plan**⁷³ similarly reinforces the shift away from high-emission modes through carbon mitigation targets and climate-adaptive transport interventions.

In essence, these plans and strategies work towards a shared vision as stipulated in the CIP. However, it must be highlighted that safe and reliable alternative modes must be in place for car restraint measures to be accepted and to be effective.

3.2 Goals and objectives

The City's intention for TDM is clear in that TDM represents a cornerstone towards achieving a sustainable transport system. **People are encouraged to avoid private vehicle travel and shift to public transport, carpooling and sharing, walking and cycling. Where appropriate, trip substitution is encouraged through digital access. The overall aim is to achieve a lasting behavioural change towards sustainable transport alternatives.**

Three goals are defined that describe the desired change as follows:

- a) Goal 1: Reduce unnecessary motorised travel and reduce private vehicle demand in the peak period through 'locked-in congestion relief'. This refers to discouraging unnecessary private vehicle use by increasing the generalised costs of private transport through pricing measures and time delay costs.
- b) Goal 2: Advocate for inter-departmental and inter-agency accountability by improving spatial planning practices resulting in shorter trip distances. The current urban form and land use patterns of Cape Town contribute to the high reliance on private car use or motorised travel. Collaborative approaches between Spatial Planning and Urban Mobility are necessary to integrate transport planning with land use to support mobility that is more equitable, inclusive and resilient (e.g. pursuing land use distribution that reduces travel times through spatial proximity and a shift to more sustainable modes).
- c) Goal 3: Reduce greenhouse gas emissions by the transport sector. The transport sector is a major contributor to carbon emissions in Cape Town. Reducing reliance on private vehicles and promoting low-carbon transport alternatives contributes to the City's climate change mitigation goals. Recognising the significant impact of vehicular emissions on air quality and public health.

The goals are translated into five measurable objectives which enable the City to monitor the overall impact. The objectives describe what success looks like in realising the 'avoid and shift' component of the City's vision for transport as stipulated in the CIP. The linkages to the five objectives are depicted in Figure 3-2.

Note that TDM is inherently systemic in nature, owing to the complex and interrelated responses it seeks to influence across individual, institutional, and spatial dimensions of urban transport systems,

e.g. changes in one domain (e.g., pricing, infrastructure, regulation) often effects other aspects, such as environmental impact, habit forming, etc. The interconnected nature of TDM is evident in that all the objectives respond to more than one goal (see Figure 3-2).

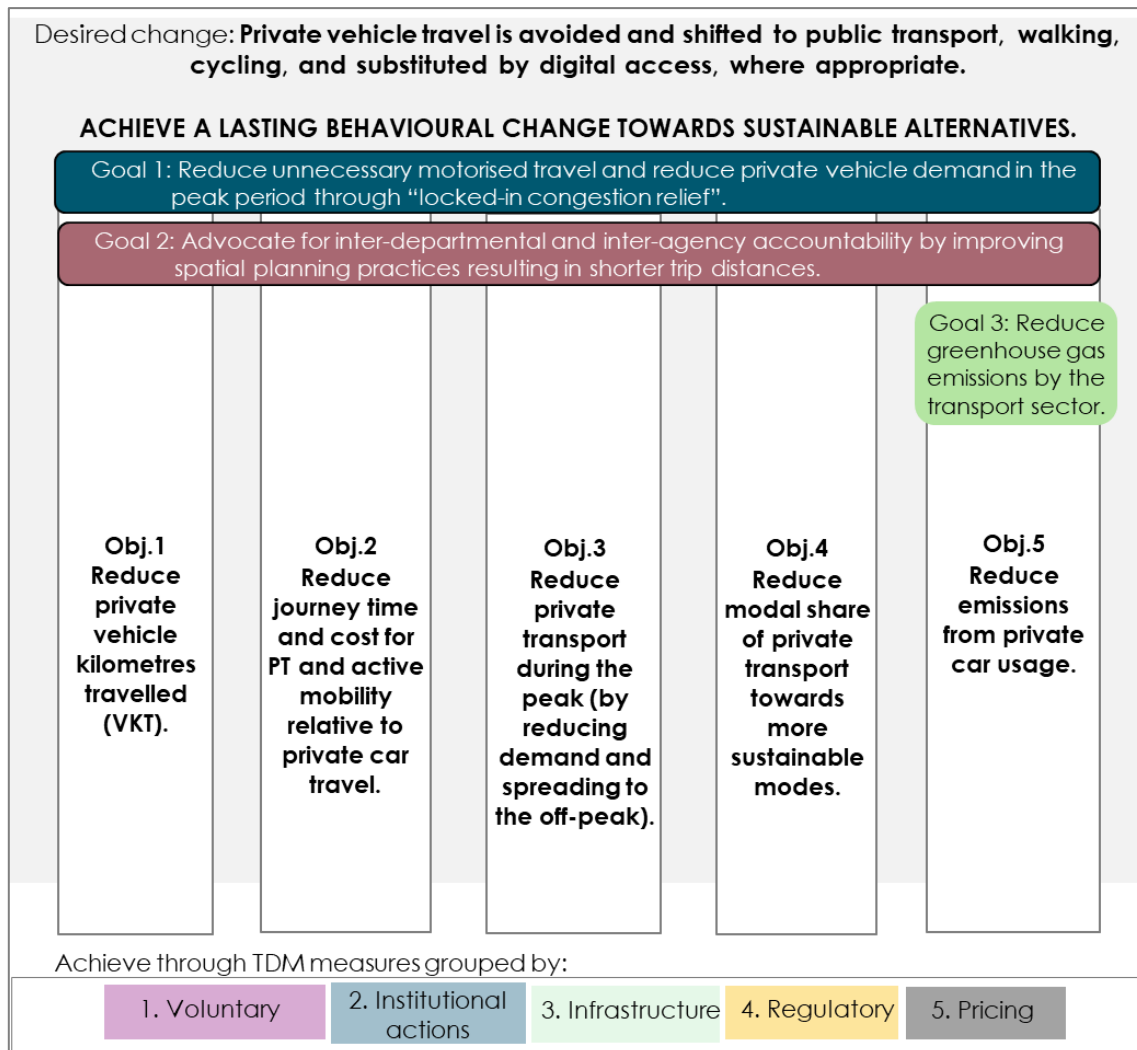


Figure 3-2: Goals and objectives of the TDM Strategy

The TDM programmes that are identified in achieving the five objectives are grouped by the findings of the best practice review (See Clause 2.3):

1. Voluntary
2. Institutional actions
3. Infrastructure
4. Regulatory
5. Pricing

The theory of change for this TDM Strategy is shown in Figure 3-3. The theory of change illustrates the planning approach, which demonstrates how the desired impact is reached, moving from an initial situation (as articulated in the problem statement). This method identifies activities to be undertaken (in this case, under five themes), and the expected outcomes from them. This method is useful in guiding monitoring and evaluation of a strategy. It assists in scrutinising the theories that underlie claims about how and why a set of interventions leads to a set of outcomes.

The TDM measures are depicted in Figure 3-4. Again, the interconnected nature of TDM is evident in that measures across focus areas are required to produce synergies and contribute towards the

objectives. For example, restrictive TDM measures (e.g., pricing measures, parking limitations) are more acceptable when packaged with supportive initiatives (e.g. public transport support services and awareness campaigns). The TDM programmes are described in the following chapter.

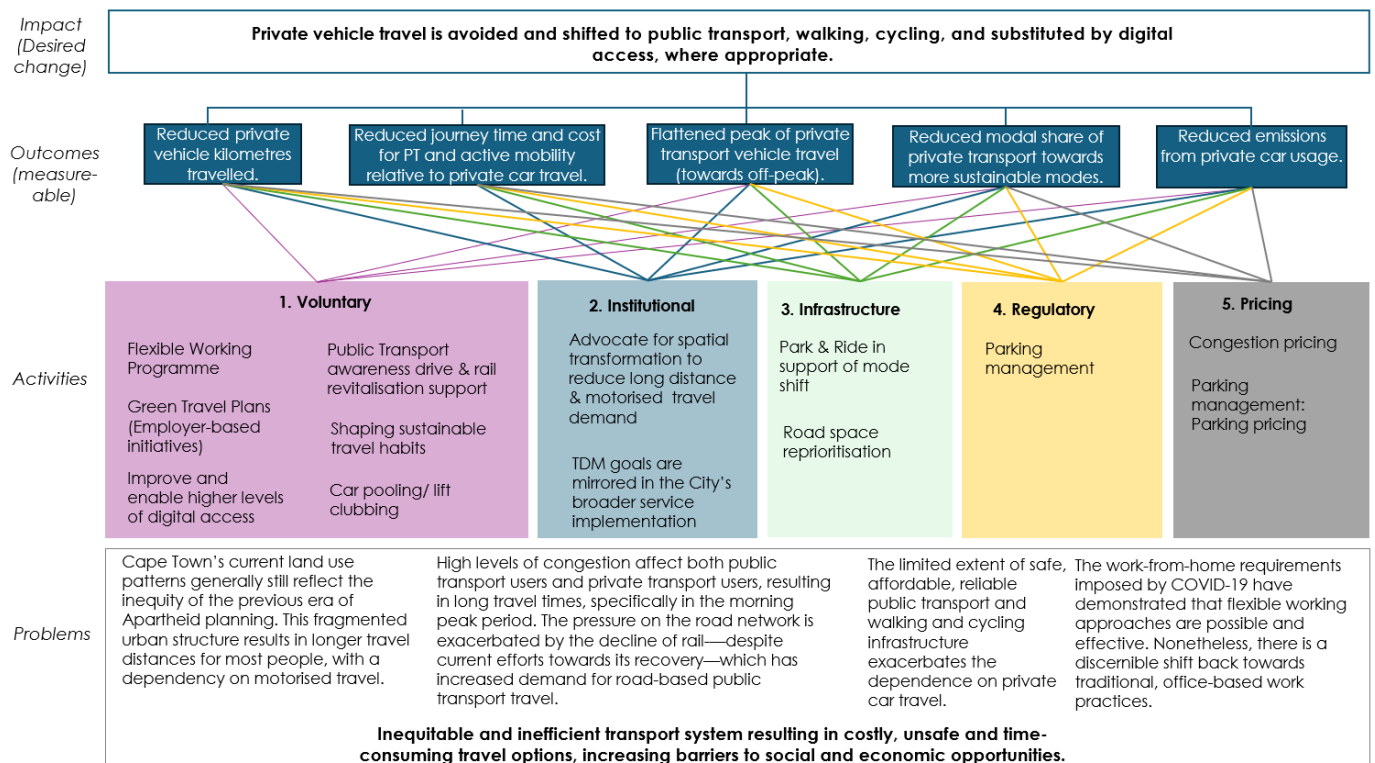


Figure 3-3: Theory of change for TDM

		Obj.1 Reduce private vehicle kilometres travelled (VKT).	Obj.2 Reduce journey time and cost for PT and active mobility relative to private car travel.	Obj.3 Reduce private transport during the peak (by reducing demand and spreading to the off-peak)	Obj.4 Reduce modal share of private transport towards more sustainable modes.	Obj.5 Reduce emissions from private car usage.
1. Voluntary	1.1 Flexible Working Programme	Trip substitution through remote working.		Incentivise flexible work hours to achieve flattening of the peak.	Trip substitution through remote working.	Trip substitution through remote working.
	1.2 Green Travel Plans					
	1.3 Improve and enable digital access					
	1.4 Public Transport awareness drive & rail revitalisation	Awareness campaigns (coupled with improved service provision of PT) can reduce reliance on private car travel.			Encouraging long-term behavioural change (mode shift) through education campaigns.	Reduced reliance on private car, result in reduced emission from private vehicle travel.
	1.5 Shaping sustainable travel habits					
	1.6 Carpooling	Reduced peak period vehicle trips		Reduced peak period vehicle trips		
2. Institutional actions	2.1 Advocate for spatial transformation to reduce motorised travel demand	By optimising land use patterns, reliance on private car travel will decline.	Pursuing land use distribution that reduce travel times specifically for the low income segment (affordable/social housing).	By optimising land use patterns, reliance on private car travel will decline.	Shorter distance make walking and cycling viable and attractive modes.	By reducing the overall distance travelled, emission levels from private vehicle travel are minimised
	2.2 Coordinated service implementation					
3. Infra-structure	3.1 Park & Ride in support of mode shift	Use of P&R will reduce average VKT.	Initiatives that free up road space for public transport and other HOVs.	Added time delays for private car travel.	Park & Ride/ Bike & Ride in support of mode shift.	(together with health benefits through improved air quality).
	3.2 Road space reprioritisation	Road space reallocation that disbenefits SOV use.				
4. Regulatory	4.1 Parking management	An increase in time delay and cost is expected to result in an overall decline in private travel demand (to work).	Programmes that discourage private car usage by making it inconvenient, e.g. congestion charging, parking measures.	Use dynamic pricing to spread demand more evenly throughout the day.	An increase in time delay and cost is expected to result in a shift to public transport, walking and cycling.	Declined demand in private vehicle travel (during the peak) will result in reduced emissions from specifically emission-intensive SOVs.
	5.1 Road Pricing					
5. Pricing	5.2 Parking pricing					

Figure 3-4: Relationship between the TDM programmes and the objectives

4 TDM PROGRAMMES

This chapter outlines the key focus areas of Travel Demand Management (TDM) and examines how each contributes to influencing and shifting travel behaviour. To demonstrate the diversity and applicability of TDM interventions within the Cape Town context, relevant programme examples are provided. The focus areas are organised according to the thematic structure derived from the best practice review, as follows:

1. Voluntary measures;
2. Institutional actions;
3. Infrastructure measures;
4. Regulatory measures; and
5. Pricing measures.

Note that the interconnected nature of TDM is evident in that measures across focus areas are required to produce synergies and contribute towards the objectives. For example, restrictive TDM measures (e.g., pricing measures, parking limitations) are more acceptable when packaged with supportive initiatives (e.g. public transport support services and awareness campaigns). Programmes under awareness and education are themselves more voluntary, i.e. initiatives that encourage or enable non-mandatory change in travel behaviour. This will be unpacked in detail through the development of the implementation plan for the strategy.

4.1 *Voluntary measures*

Voluntary measures refer to programmes that enable non-mandatory change in travel behaviour. These are initiatives that seek to encourage voluntary changes in individual or organisational travel behaviour. Unlike regulatory or punitive measures, voluntary interventions rely on information provision, awareness-raising, and incentives to influence modal choices. These measures aim to make sustainable travel alternatives —such as public transport, walking, cycling, shared mobility, or remote activity —more attractive, convenient, and feasible for users, thereby reducing reliance on SOVs.

Examples of voluntary TDM measures include workplace travel plans, carpooling schemes, public awareness campaigns, and the promotion of flexible work arrangements such as remote and hybrid work models or staggered working hours. These interventions are typically implemented in partnership with employers, educational institutions, and community groups, leveraging local context and stakeholder buy-in.

Voluntary approaches are particularly valuable in contexts where mandatory measures may face resistance or are politically unfeasible. They also serve as important complementary tools to regulatory and infrastructural strategies, helping to foster a culture of sustainable mobility through behavioural change.

While the uptake of voluntary measures is influenced by individual preferences and institutional willingness, their effectiveness can be enhanced by aligning them with broader policy frameworks, providing supportive infrastructure (e.g., safe cycling networks), and integrating them into urban mobility planning processes.

More specifically, the following initiatives are indicative projects under the category of voluntary measures, which will be expanded upon and elaborated in the development of the detailed implementation plan:

- a) Green Travel Plans, (also known as Workplace Travel Plans), are strategic frameworks developed by organisations, institutions, or local authorities to manage and reduce the environmental impact of travel generated by their activities—particularly commuting and business-related trips. They promote sustainable modes of transport such as walking, cycling, public transport, and carpooling while discouraging SOV use.
- b) Often, this includes initiating a Flexible Working Programme (FWP) as a key action to influence the employees' travel behaviour and traditional work practices. It comprises a set of interventions focused on facilitating the continuation of remote working activity participation (and associated trip substitution) that was accelerated by COVID-19 lockdown movement restrictions and growth in digital platforms. The aim is to reduce private SOV travel demand, particularly during the peak. These initiatives focus on employer-led behavioural change, focusing on a change in behaviour by enhancing productivity, staff attraction and retention, and improving work-life balance by offering employees flexible work hours and work-based options.
- c) Expanding digital connectivity to support access and reduce the need for travel is also critical to empower communities to engage in economic and social activities without needing to travel. Travel demand can be reduced by enabling better access to government services online.
- d) A successful shift from private vehicle use to public transport depends not only on service availability, but also on public awareness, perceptions of safety and security (both real and perceived), and user confidence in navigating the system. Public transport awareness & safety campaigns and a well-communicated rail revitalisation programme can play a crucial role. Without clear information, people are unlikely to switch to public transport—especially when it is viewed as inconvenient, unsafe, or unreliable. While safety concerns are valid, ongoing improvements must be actively communicated to rebuild trust. Security during the first and last mile is particularly important, whether walking from home, using a P&R, or arriving at major business CBDs. Strengthening safety and awareness supports not only modal shift, but also the emergence of a broader community of environmentally responsible citizens.
- e) Measures that aim to shape sustainable travel habits are critical in influencing individual and collective travel behaviour. Shifting travel choices through awareness, education, incentives, and social norm changes, rather than infrastructural or pricing interventions alone is important. Research shows that habitual car use can be interrupted through targeted information, positive reinforcement, and changes in social norms.
- f) In the absence of reliable public transport, supporting lift clubs or carpooling arrangements can be supported. A lift club is an arrangement where commuters with similar travel routes are matched to share a ride in a single vehicle. This can be facilitated through an electronic platform, such as a website or mobile app, or simply organised among the commuters themselves.

4.2 Institutional actions

Institutional actions encompass measures that strengthen governance structures, inter-agency collaboration, and internal capacity to enable more effective implementation of projects that prioritise sustainable travel outcomes.

At their core, institutional actions promote the development of structures and processes that foster concerted effort among City departments, WCG, SANRAL, private sector and other stakeholders. Further, institutional efforts are critical not only for the initiation of demand management programmes but also for their long-term success and scalability. TDM is most effective when it is not treated as a

standalone effort but reflected in planning, budgeting, and institutional performance targets. Without strong institutional commitment, TDM measures risk being implemented in isolation, leading to fragmented outcomes and limited impact. As such, institutional actions serve as the enabling layer upon which infrastructural, regulatory, and behavioural interventions can be built and sustained.

By improving coordination and facilitating shared goals, these measures create the conditions necessary for sustained behavioural change in travel patterns. Examples of interventions under "Institutional actions" are included below to provide more context (Note that these are indicative only and will be further developed through the development of the implementation plan for the strategy, once the strategy has been approved).

- a) Advocate for spatial transformation to reduce long-distance and motorised travel demand to integrate transport and land-use policies and planning to achieve land-use patterns that support high-frequency public transport services on main corridors and enable shorter distances to make walking and cycling viable and attractive modes. Although land use transformation takes a very long time, this is an effort to encourage land use decisions that bring people closer to jobs, services, and viable transport options. By optimising land use patterns, reliance on private car travel will decline. Within that, pursuing land use distribution that reduce travel times for the low-income segment is particularly important.
- b) Promote structures that support a cross-departmental approach and co-ordinated service implementation within the City to ensure that TDM principles are not isolated within a single unit or treated as an afterthought, but instead form part of a shared, citywide commitment to improving mobility and supporting more efficient land use. This includes integration with corporate processes, so that TDM objectives are systematically reflected in decision-making, supported by clear lines of accountability.
- c) The effective implementation of TDM requires not only municipal leadership but also the active participation and alignment of all spheres of government and associated public entities. TDM cannot be the sole responsibility of local authorities—it must be institutionalised across national and provincial transport planning frameworks, especially in light of the systemic challenge of induced demand.

4.3 Infrastructure measures

Infrastructure measures refer to infrastructure provision or retrofits with the purpose of changing travel behaviour and promoting more sustainable mobility choices. In response to the phenomenon of induced demand (refer to Clause 2.5 Induced demand), infrastructural investment must prioritise public and active mobility as the primary means of mobility around Cape Town. For example, public transport infrastructure should be prioritised over general road widening to ensure speed advantage is given to public transport. Overall, it is about improving the relative total costs of travel — costs measured in time, effort, and safety as well as money.

Infrastructure measures may include the reallocation of road space to prioritise public transport, walking, cycling, the development of P&R facilities, or the installation of end-of-trip amenities such as bicycle parking and showers. By reshaping the built environment to support modal shift, infrastructural interventions help reduce reliance on private vehicles and contribute to broader objectives such as narrowing the travel time disparity between public and private transport modes—a gap that currently places public transport users at a disadvantage. The below interventions are examples to provide more detail on the nature of the measures proposed under "Infrastructure".

- a) The most efficient way to increase road capacity to meet a growing population and economy is to allocate road space appropriately between modes, depending on the functions of the road. Road space reprioritisation is aimed at addressing the legacy of car-centric urban design by actively reallocating road space to favour public transport and active mobility. This is to encourage a shift away from private vehicle use, reduce congestion for road-based public transport, and create safer, more accessible streets for all. This visible change in street design will not only make alternative transport options more attractive and practical but will also demonstrate to the public that a more efficient, people-centred transport system is both possible and desirable (assuming personal security and safety are addressed). In addition, new forms of micro e-mobility (including micro-freight) will need to be accommodated in a supportive manner within existing roadways.
- b) P&R facilities consist of parking facilities at public transport stations or stops, located close to residential areas to support public transport use (mode shift for parts of the journey), particularly to the CBD (longer trip distances). P&R facilities must be planned and provided on the same basis as for example public open spaces as part of the development plans for an area. It is beneficial to include and support cycling as an alternative feeder mode as well and integrate with public transport in the form of Bike & Ride.
- c) An additional example is the implementation of High-Occupancy Toll (HOT) lanes, which allow vehicles with multiple occupants to use dedicated lanes for free or at reduced cost, while SOVs may access the lane by paying a toll. HOT lanes use pricing and occupancy rules to manage congestion, improve travel time reliability, and incentivise carpooling.

4.4 Regulatory measures

Regulatory measures comprise legally or administratively enforced mechanisms to prevent some behaviours or make other behaviours mandatory. These measures operate through restrictions, requirements, or standards that guide both individual travel behaviour and broader development patterns. By establishing rules that shape how, when, and where people travel, regulatory measures serve as powerful tools to discourage unsustainable travel practices such as excessive private vehicle use and to incentivise shifts toward more efficient and equitable alternatives.

Effective regulatory measures require robust enforcement mechanisms and institutional capacity to ensure compliance. When well-designed, these measures can generate significant and lasting impacts on urban mobility patterns, particularly when implemented in conjunction with infrastructural and behavioural strategies. An increase in time delay and cost for the user is expected to result in an overall decline in private travel demand.

A measure that stands out is **regulating parking availability** (parking management) to encourage motorists to choose more sustainable modes of transport and to make use of existing infrastructure rather than building new infrastructure to accommodate private vehicles at a great cost. Parking supply should be limited in the CBD and other high-demand areas in accordance with City policy. The private provision of parking must be reviewed and reformed under the City's Municipal Planning By-Law (2015, as amended). The City should advocate for parking provision to be included within bulk allowances in the MPBL. New on- and off-street parking should be discouraged, except for peripheral park-and-walk or park-and-ride facilities with access from bypass routes.

Implementation of the City's Parking Policy should be supported through mechanisms such as parking maximums and preferential permits. Studies on introducing parking maximums and levies

should be accelerated to replace outdated minimum requirements and establish conditions for their application. Consistent enforcement of parking regulations must be ensured.

TDM should also play a bigger role in managing demand for major events, i.e. require and support proactive travel plans for event organisers which attract car users, to maximise sustainable travel options such as public transport and active mobility.

4.5 Pricing measures

Pricing measures refer to interventions that financially incentivise or penalise some behaviours and represent a critical component of TDM as they leverage economic incentives and disincentives to influence travel behaviour. These measures aim to internalise the external costs of car use such as congestion, air pollution, and greenhouse gas emissions by assigning a monetary value to travel choices. Common pricing strategies include road user charging, congestion pricing, variable parking fees, parking cashout, etc. When effectively designed and implemented, pricing mechanisms can encourage a shift toward more sustainable transport modes, reduce peak-period traffic volumes, and improve the overall efficiency of the transport system. Moreover, revenue generated from pricing measures can be reinvested into public transport improvements and walking and cycling networks, thereby reinforcing broader policy objectives related to equity, environmental sustainability, and urban liveability. Examples of interventions under "Institutional actions" are described below. Note that these are indicative only and will be further developed through the development of the implementation plan for the strategy.

- a) **Congestion pricing** is a measure that imposes fees on vehicles entering high-traffic areas during peak hours, encouraging shifts to public transport, liftclubbing, off-peak travel, and alternative travel destinations. Beyond alleviating congestion, congestion pricing contributes to reduced local emissions, improved air quality, and enhanced urban mobility through public transport, walking and cycling. As public transport services improve, an investigation to understand the best suited mechanism for congestion pricing in Cape Town will be considered.
- b) **Parking tariffs** imposed on municipal-owned (public) parking can be used as a tool to increase turnover of bays, use of alternative means to travel, reserve bays for designated uses, increase availability and implement timing restrictions to support and promote economic activity and viability of an area. Appropriately priced tariffs, accompanied by an effective parking management regime are required.

5 IMPLEMENTATION OF THE TDM STRATEGY

Effective implementation is essential to translating the strategic intent of the TDM Strategy into measurable outcomes and ensuring its impact on travel behaviour, urban mobility, and broader development objectives. An **Implementation Plan** will be prepared which will outline the activities of the proposed TDM programmes, allocate institutional responsibilities, specify timeframes, and identify the capacity requirements necessary for effective execution.

Recognising the complex and cross-cutting nature of travel behaviour and mobility patterns, the TDM Strategy is explicitly framed as a city-wide initiative, rather than the sole responsibility of the Urban Mobility Directorate (UM). While UM will play a central coordinating and driving role, the effective realisation of the Strategy requires active and sustained collaboration with other City directorates—such as Spatial Planning and Environment (SPE), Safety and Security (S&S) as well as engagement with external stakeholders, including non-governmental organisations (NGOs), private sector employers, educational institutions, and civil society actors. The shared ownership of TDM interventions is essential to achieving systemic change in travel demand and modal choice.

To ensure transparency and accountability, a **monitoring and evaluation (M&E) framework** will be prepared as well, which will track progress against performance indicators, facilitate course correction, and enable adaptive management over time. This M&E framework will also contribute to knowledge generation and institutional learning, supporting ongoing refinement of the TDM Strategy in response to empirical evidence and emerging urban mobility trends.

The Implementation Plan will remain a living document, subject to regular review and updates, to ensure its continued relevance and effectiveness in achieving the strategic goals of achieving a more sustainable transport system, as well as bridging the gap towards improved access in Cape Town.

The TDM Strategy spans until 2050. The detailed Implementation Plan will provide responses to the following:

1. **Who** needs to do **what** by **when**?
 - a. What needs to be known by when/ dependencies/ interdependencies/ prerequisites?
 - b. Phasing of programmes:
 - Short term (by 2029)
 - Medium term (by 2031)
 - Long term (by 2050)
2. What **resources** are assigned or required?
3. How does the TDM Strategy help navigate change, **risk**, and uncertainty?
4. How will implementation be **monitored** and **evaluated** for effectiveness?

REFERENCES

- 1 **City of Cape Town Urban Mobility Directorate**, Comprehensive Integrated Transport Plan 2023 – 2028, 25 May 2023
- 2 **City of Cape Town**, Review and Update of the City of Cape Town's Integrated Public Transport Network Plan: Status Quo Assessment (ongoing)
- 3 **City of Cape Town**, Walking and Cycling Strategy for the City of Cape Town, April 2025
- 4 **City of Cape Town**, Influencing Travel Behaviour Towards a Travel Demand Management Strategy, 2006
- 5 **City of Cape Town**, Influencing Travel Behaviour Towards a Travel Demand Management Strategy, Annexure D: P&R Business Plan, 2006
- 6 **City of Cape Town**, Influencing Travel Behaviour Towards a Travel Demand Management Strategy, Annexure C: Promotion of Higher Occupancy Vehicle, P&R Business Plan, 2006
- 7 **City of Cape Town**, Employee Trip Reduction Programme (Travel Smart), 2012
- 8 **City of Cape Town**, Travel Demand Strategy for the City of Cape Town, March 2017
- 9 **City of Cape Town**, Integrated Development Plan July 2022 – June 2027.
- 10 **Partridge A, et al**, After Access 2022-2023: Digital South Africa Post the Pandemic. Policy Paper 1 in the series: 2022-2023 African After Access Survey: Digital Africa Post the Pandemic. Research ICT Africa, Cape Town, 2024
- 11 **City of Cape Town**, EMME Transport Model Update (based on Census data): Project Report, Draft, June 2024
- 12 **Statistics South Africa**. National Household Travel Survey (NHTS). 2013
- 13 **City of Cape Town**, City of Cape Town Commuter Survey, August/September 2024, Annexure A of the Draft Evaluation report for the Review and Update of the TDM Strategy for the City of Cape Town, November 2024
- 14 **Heyns, GJ**, Travel Behaviour and Attitudes of young people in the Johannesburg Metropolitan Area, SATC 2021
- 15 **McGovern, E**. Social Marketing Applications and Transportation Demand Management: An Information Instrument for the 21st Century. Journal of Public Transportation. [Volume 8, Issue 5](#), December 2005
- 16 **Litman, T.**, Victoria Transport Policy Institute. TDM Marketing *Information and Encouragement Programs*. [TDM Encyclopedia](#). 6 September 2019.
- 17 **Li, Y., & Wang, X.**, "Research on the Impact of Flexible Working Hours on Reducing Traffic Delays in the City." Applied Sciences, 12(17), 7941, 2022
- 18 **Carey Curtis et al**, Sustainable urban mobility transitions through working from home (WFH), Travel Behaviour and Society 39 100953, 2025
- 19 **Abrahamse, W., & Keall, M.**, Effectiveness of a web-based intervention to encourage carpooling to work: A case study of Wellington, New Zealand. Transport Policy, 2012
- 20 **Schijns, P.** High occupancy vehicle lanes – worldwide lessons for European practitioners. WIT Transactions on The Built Environment, Vol 89. 2006
- 21 **Metropolitan Transportation Commission**, Bay Area Express Lanes. <https://511.org/express-lanes>
- 22 **Beyer, S**. Latin America: A Transit Success Story. <https://catalyst.independent.org/>. 27 February 2023.

Md Atiqullah Bhuiyan, Mihoko Matsuyuki, Shinji Tanaka. Comparative analysis of various pedestrian-crossing facilities on highways and the selection of a cost-effective facility by maximizing the benefit-cost ratio. *Asian Transport Studies*. [Volume 10](#), 2024, 100123

Virginia Department of Transportation. Park & Ride. Accessed here: <https://www.vdot.virginia.gov/travel-traffic/commuters/park-and-ride/> March 2025.

Institute for Transportation and Development Policy, US Cities, Parking Reform is Gaining Momentum. 1 February 2024.

Institute for Transportation and Development Policy, Capping Parking, Raising Quality of Life. 17 March 2011.

Los Angeles Department of Transport, Parking Permits. <https://ladotparking.org/permits/> Accessed March 2025

Knight, B. More cities worldwide are experimenting with zero-fare public transport. *Phys.org*. <https://phys.org/news/2023-03-cities-worldwide-zero-fare.html> 13 March 2023.

Kian-Keong Chin. Road Pricing – Singapore's 30 Years of Experience. *Cesifo Dice Report* 3/2005

Borjesson, M. Long-Term Effects of the Swedish Congestion Charges Discussion Paper. *International Transport Forum*. 2018

San Francisco Municipal Transportation Agency, SF Park Pilot Program. <https://www.sfmta.com/projects/sfpark-pilot-program> Accessed March 2025.

Auckland Transport, Travelwise for Business. <https://at.govt.nz/about-us/sustainability/travelwise-for-business> Accessed March 2025.

Republic of South Africa: National Land Transport Act, No. 5 of 2009.

City of Cape Town. Municipal Spatial Development Framework (MSDF), January 2023

City of Cape Town. Transit-Oriented Development Strategic Framework. 2016

Republic of South Africa, Taxation Laws Amendment Act (TLAA) 42 of 2024

United Nations. 2025. UN Sustainable Development Goals. Available at: <https://unstats.un.org/sdgs>

City of Cape Town. Policy and Strategy Department. Voluntary Local Review 2021 City of Cape Town. 2021.

United Nations. 2020. *Sustainable Transport, Sustainable Development*

UN Habitat. 2022. *World Cities Report 2022*. Accessed at https://unhabitat.org/sites/default/files/2022/06/wcr_2022.pdf

ITF (International Transport Forum), 2021. *Travel Demand Management: Mitigating Traffic Congestion*. Accessed at: <https://www.itf-oecd.org/travel-demand-management-mitigating-traffic-congestion>

United Nations. 2020. *Sustainable Transport, Sustainable Development United Nations (2020)*. *Sustainable Transport, Sustainable Development* Accessed at: https://sdgs.un.org/sites/default/files/2020-11/SG_High-Level_Advisory_Group_on_Sustainable_Transport_Final_Report.pdf

ITF, 2021. *The Innovative Mobility Landscape The Case of Mobility as a Service*. Accessed here: <https://www.itf-oecd.org/sites/default/files/docs/innovative-mobility-landscape-maas.pdf>

Civitas Elevate Policy Support Group, Topic Guide: Safe use of micromobility devices in urban areas, 2021

Republic of South Africa, National Road Traffic Act, 1996

Republic of South Africa, National Road Traffic Amendment Bill, 2020 (signed into law on 5 December 2024)

Republic of South Africa, Notice 1050 of 2022. White Paper on National Transport Policy. 27 May 2022

-
- City of Cape Town**, Comprehensive Integrated Transport Plan 2023 – 2028: 2024 Annual Update, August 2024
- Verplanken, B., Aarts, H. & Van Knippenberg, A.** (1997). Habit, information acquisition, and the process of making travel mode choices. *European Journal of Social Psychology*, 27, 539-560. [https://doi.org/10.1002/\(SICI\)1099-0992\(199709/10\)27:5<539::AID-EJSP831>3.0.CO;2-A](https://doi.org/10.1002/(SICI)1099-0992(199709/10)27:5<539::AID-EJSP831>3.0.CO;2-A)
- Gärling, T. & Axhausen, K.** (2003). Introduction: Habitual travel choice. *Transportation*, 30, 1-11.
- Bamberg, S., Ajzen, I. & Schmidt, P.** (2003). Choice of travel mode in the theory of planned behaviour: The roles of past behaviour, habit, and reasoned action. *Basic and Applied Social Psychology*, 25(3), 175-187. https://doi.org/10.1207/S15324834BASP2503_01
- Klößner, C. A.** (2004). How single events change travel mode choice: A life span perspective. The 3rd International Conference on Traffic and Transportation Psychology. Nottingham, United Kingdom.
- Clark, B., Chatterjee, K. & Melia, S.** (2016). Changes to commute mode: The role of life events, spatial context and environmental attitude. *Transportation Research Part A: Policy and Practice*, 89, 89-105. <https://doi.org/10.1016/j.tra.2016.05.005>
- Chatterjee, K. & Clark, B.** (2020). Turning points in car ownership over the life course: contributions from biographical interviews and panel data. In: Scheiner, J. & Rau, H. (eds.) *Mobility and travel behaviour across the life course*. Cheltenham: Edward Elgar Publishing.
- Loukopoulos, P., Jakobsson, C., Gärling, T., Schneider, C. M. & Fujii, S.** (2004). Car-user responses to travel demand management measures: Goal setting and choice of adaptation alternatives. *Transportation Research Part D: Transport and Environment*, 9(4), 263-280. <https://doi.org/10.1016/j.trd.2004.02.003>
- Gärling, T., Fujii, S. & Boe, O.** (2001). Empirical tests of a model of determinants of script-based driving choice. *Transportation Research Part F: Traffic Psychology and Behaviour*, 4(2), 89-102. [https://doi.org/10.1016/S1369-8478\(01\)00016-X](https://doi.org/10.1016/S1369-8478(01)00016-X)
- Verplanken, B. & Roy, D.** (2016). Empowering interventions to promote sustainable lifestyles: Testing the habit discontinuity hypothesis in a field experiment. *Journal of Environmental Psychology*, 45, 127-134. <https://doi.org/10.1016/j.jenvp.2015.11.008>
- Van der Waerden, P., Timmermans, H. & Borgers, A.** (2003). The influence of key events and critical incidents on transport mode choice switching behaviour: A descriptive analysis. 10th International Conference on Travel Behaviour Research. Lucerne, Switzerland.
- Scheiner, J. & Holz-Rau, C.** (2013). A comprehensive study of life course, cohort, and period effects on changes in travel mode use. *Transportation Research Part A: Policy and Practice*, 47, 167-181. <https://doi.org/10.1016/j.tra.2012.10.019>
- Lanzendorf, M.** (2006). Key events and their effect on mobility biographies: The case of childbirth. 11th International Conference on Travel Behaviour Research. Kyoto, Japan.
- Adjei, E., & Behrens, R.** (2023). Breaking commuter mode use habits: An exploration of deliberative decision-making windows and their implications for travel demand management, *Journal of Urban Mobility*, 3(100041), 1-11. <https://doi.org/10.1016/j.urbmob.2022.100041>
- Dahlstrand, U. & Biel, A.** (1997). Pro-environmental habits: Propensity levels in behavioural change. *Journal of Applied Social Psychology*, 27(7), 588-601.
- Litman, T.** (2019). Online TDM Encyclopaedia, Victoria Transport Policy Institute [Online]. Victoria, Canada: Victoria Transport Policy Institute. Available: <https://www.vtpi.org/tdm/>
- Schäfer, M., Jaeger-Erben, M. & Bamberg, S.** (2012). Life events as windows of opportunity for changing towards sustainable consumption patterns? *Journal of Consumer Policy*, 35, 65-84. <https://doi.org/10.1007/s10603-011-9181-6>

-
- 65 **Rye, T.** (2002). Travel plans: Do they work? *Transport Policy*, 9, 287-298. [https://doi.org/10.1016/S0967-070X\(02\)00004-5](https://doi.org/10.1016/S0967-070X(02)00004-5)
- 66 **James, B., Burke, M. & Yen, B. T. H.** (2017). A critical appraisal of individualised marketing and travel blending interventions in Queensland and Western Australia from 1986–2011. *Travel Behaviour and Society*, 8, 1-13. <https://doi.org/10.1016/j.tbs.2017.03.002>
- 67 **City of Cape Town.** Comprehensive Integrated Transport Plan 2023 – 2028: 2024 Annual Update, August 2024
- 68 **OECD,** Transforming Catalonia's Mobility System for Net Zero, OECD Publishing, Paris, 2025; available at <https://doi.org/10.1787/1cac3681-en>
- 69 **SSTAP,** 2015-2020 development plan, Working Paper No. 106 entitled "Sustainable Mobility and Accessibility Policies in African Cities". <https://www.ssatp.org/news-events/mobility-and-accessibility-urban-areas-africa>
- 70 **City of Cape Town,** Parking Policy, December 2020
- 71 **City of Cape Town.** Cape Town Resilience Strategy. August 2019
- 72 **City of Cape Town,** Climate Change Strategy. May 2021
- 73 **City of Cape Town,** Climate Change Action Plan, 2021