# GLOBAL FUTURE CITIES PROGRAMME

## UN-HABITAT & UK FCO PROSPERITY FUND

**CITY OF TSHWANE**
SOUTH AFRICA

# COMPLEMENTARY SUMMARY:
## AFFECTING CHANGE IN TSHWANE

Report Date: 16 June, 2020

UK Government

UN@HABITAT
FOR A BETTER URBAN FUTURE

CITY OF TSHWANE

# Foreword

As part of the Global Future Cities Programme (GFCP) under the UK Foreign and Commonwealth Office's (UK FCO's) Prosperity Fund, UN-Habitat, the UK FCO, and City of Tshwane (CoT) have partnered to better prepare guidelines for the improvement of the mobility system in Tshwane / Pretoria, with a particular emphasis on public transport and non-motorised transport (NMT).

The City of Tshwane has engaged in various initiatives to promote smart and sustainable cities, as well as improvement of the transport sector, by exploring opportunities to move towards a sustainable mobility approach including a more efficient and effective public transport system.  However, the City has not been following a coordinated approach between transport and urban planning, urban plans (on different urban scales) and the issuing of building permits.  The lack of coordination hampers economic growth, increases negative health and environmental impacts, and increases urban sprawl.  In this regard, the City of Tshwane is currently exploring modalities to transform the current mobility hierarchy in the city, where the following would be the desirable order of priority:

- NMT (walking, cycling)
- Public Transport systems (various modalities e.g. train, bus, taxi etc.);
- Private vehicles

Beginning in November 2019 and concluding in March 2020, UN-Habitat provided technical assistance for this partnership.

A full report report tracks the activities, outcomes, and recommendations resulting from this project.  This complementary summary and way forward is intended to simplify the report conclusions, present a way of formulating possible future collaboration, and continuing opportunities.

# 1  Background

## General Background

The overall objective of the project was to further build capacity within the City of Tshwane, raise awareness and to promote a coherent approach to promote sustainable urban development, and urban mobility in particular.  The sub-objectives of the project included:

- to identify the main capacity needs, as well as barriers and enablers related to pursuing a more coherent approach to sustainable urban mobility in the City of Tshwane;

- to improve coordination and discuss complementary actions among different stakeholders that have a role to further enhance NMT and public transport provisions in the city from an integrated approach (i.e. linkages and synergies between urban mobility and other urban development sectors); and

- to share international best practices and further identify appropriate actions and potential partnerships to support the City of Tshwane in its efforts to create a more sustainable and connected urban environment.

## Methodology

The basic principle informing the methodology is the activation of a multi-stakeholder participatory process to inform data-gathering, problem finding and problem solving.  The tools selected for this purpose were a mix of interactive, participatory sessions, diversified in terms of both the kind of public addressed and the nature of the interactions, responding to a series of parallel goals, including:

- A **Participatory Charette**, entitled 'Sustainable Mobility Strategies,' involving participants from various government entities, academic institutions, and the private sector;
- An **Open Street & Placemaking Event** including various streets activation and public space activities (ultimately cancelled due to COVID-19);
- **Expert Meetings** with CoT officials and other partners in public transport and NMT improvement, following the Open Street Event (cancelled due to COVID-19);
- A **Conference Call** between CoT officials and UN-Habitat (though planned, this did not take place);
- An **Online Survey**, developed as a substitute means of gaining input from a wider audience;
- **Online Group Interviews,** in small groups, involving technical staff CoT, representatives from academia, development partners, and UN-Habitat experts;
- **Policy Review,** focused on finding gaps between related policies that can be addressed in upcoming revisions;
- **Terms of Reference (ToR) Review** on two ToRs being launched by the City.

### Responding to COVID-19

The COVID-19 outbreak, subsequent social distancing guidelines and eventual full lock-down that ensued resulted in the cancellation of the planned Open Street and Placemaking events at Church Square. However, potential future collaboration may include ways of responding to COVID-19 in alignment with the goals of the UKFCO/UN Habitat – CoT collaboration.

## 2 Reflections, Recommendations, and Ways to Affect Change
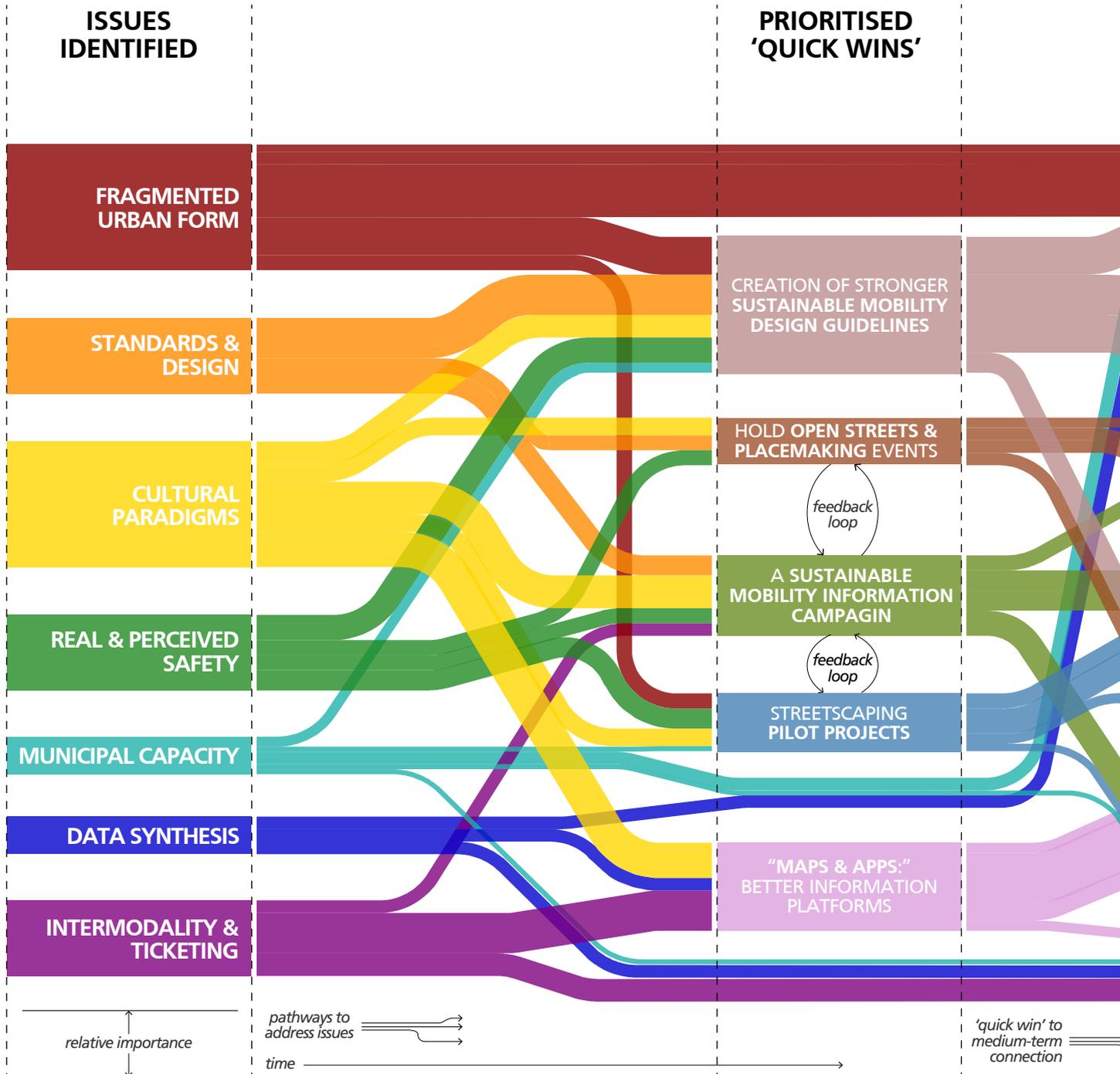
### Charting Out Systemic Change

The recommendations given in the full report, and summarised below, can be seen not only as isolated recommendations, but as interconnected strategies to address the impediments and issues that have been identified. In most cases, more than one strategy is needed to address the issue; they cannot be tackled in isolation.
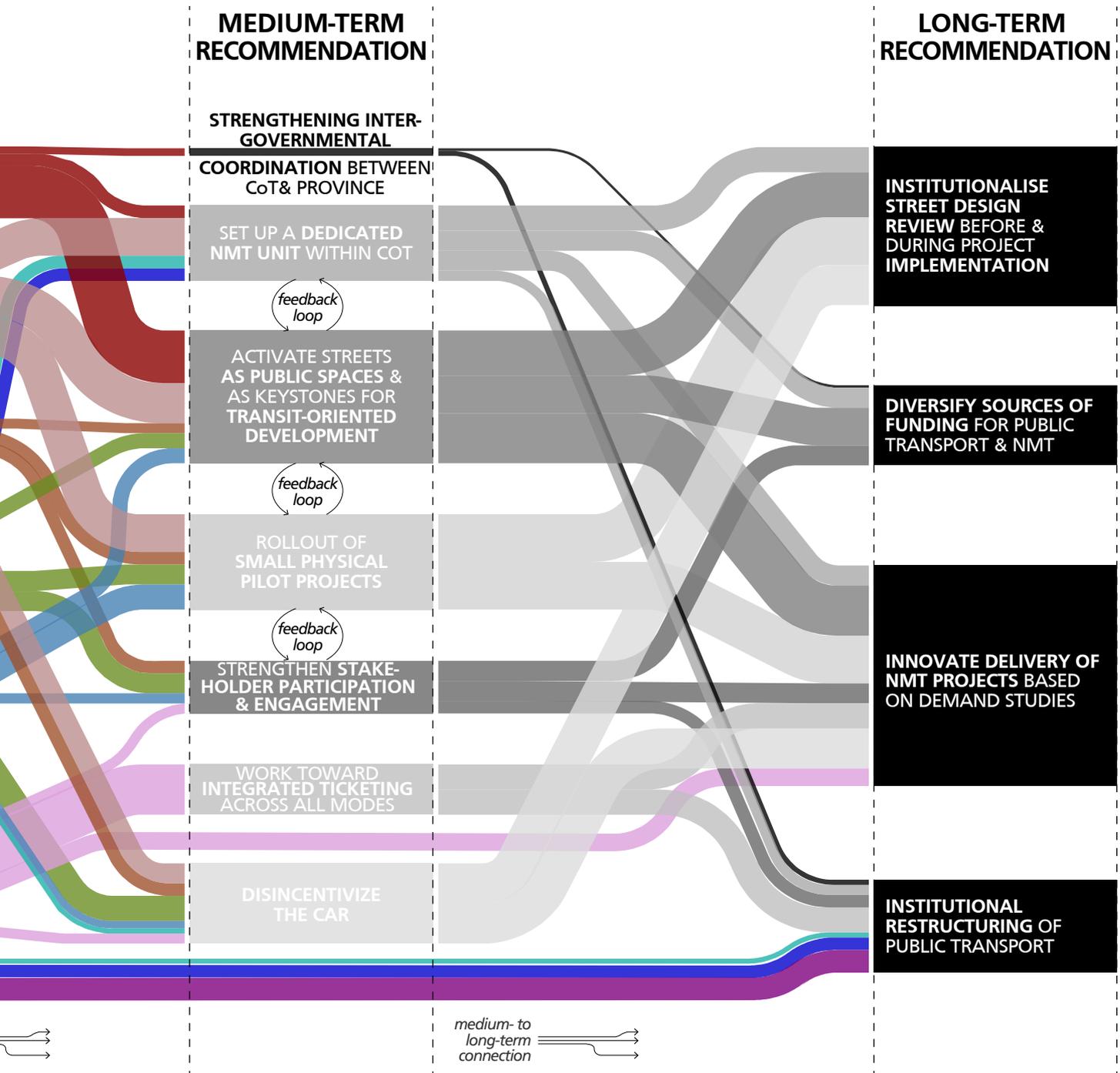
Also in most cases, the recommendations are likely to play out over both short- and long-term timelines. Each issue leads to multiple recommendations which would need to be implemented either in parallel or in sequence. Recommendations which are simpler to carry out, and can be done on a shorter timeline, are given as priorities to be implemented as 'quick wins.' These 'quick wins' set the stage for recommendations that are likely to play out over medium- and long-term timelines.

Recommendations are sometimes mutually reinforcing, creating a feedback loop that allows more than one to be refined for increased effectiveness.

The diagram on the following pages is intended to visualise this process. It begins with the issues identified on the left (these issues are thoroughly described in the full report, and are summarised on the pages following the diagram). Reading from left to right, one follows a timeline, from 'quick wins,' to medium-term recommendations, to long-term recommendations. All the recommendations are also thoroughly described in the full report, and are summarised towards the end of this section.

Not every issue is as big an impediment to systemic change as others. Similarly, not every recommended solution will have as large an impact as others. Though the scale of the issue or impact is inherently unquantifiable, an attempt to give some degree magnitude has been made by altering the vertical size of the issues and recommendations. The taller the box, the greater the magnitude. Refer to the diagram below:

## ISSUES IDENTIFIED

## PRIORITISED 'QUICK WINS'

FRAGMENTED URBAN FORM

STANDARDS & DESIGN

CULTURAL PARADIGMS

REAL & PERCEIVED SAFETY

MUNICIPAL CAPACITY

DATA SYNTHESIS

INTERMODALITY & TICKETING

CREATION OF STRONGER **SUSTAINABLE MOBILITY DESIGN GUIDELINES**

HOLD **OPEN STREETS & PLACEMAKING** EVENTS

*feedback loop*

A **SUSTAINABLE MOBILITY INFORMATION CAMPAGIN**

*feedback loop*

**STREETSCAPING PILOT PROJECTS**

**"MAPS & APPS:"** BETTER INFORMATION PLATFORMS

*relative importance*

*pathways to address issues*

*time*

*'quick win' to medium-term connection*

## MEDIUM-TERM RECOMMENDATION

## LONG-TERM RECOMMENDATION

**STRENGTHENING INTER-GOVERNMENTAL**

**COORDINATION** BETWEEN CoT & PROVINCE

SET UP A **DEDICATED NMT UNIT** WITHIN COT

*feedback loop*

ACTIVATE STREETS **AS PUBLIC SPACES &** AS KEYSTONES FOR **TRANSIT-ORIENTED DEVELOPMENT**

*feedback loop*

ROLLOUT OF **SMALL PHYSICAL PILOT PROJECTS**

*feedback loop*

STRENGTHEN **STAKE-HOLDER PARTICIPATION & ENGAGEMENT**

WORK TOWARD **INTEGRATED TICKETING** ACROSS ALL MODES

**DISINCENTIVIZE THE CAR**

*medium- to long-term connection*

**INSTITUTIONALISE STREET DESIGN REVIEW** BEFORE & DURING PROJECT **IMPLEMENTATION**

**DIVERSIFY SOURCES OF FUNDING** FOR PUBLIC TRANSPORT & NMT

**INNOVATE DELIVERY OF NMT PROJECTS** BASED ON DEMAND STUDIES

**INSTITUTIONAL RESTRUCTURING** OF PUBLIC TRANSPORT

*Note: summaries of the issues and recommendations are on the following pages.*

*Issues Identified*

From the various forms of research and engagement, there is broad consensus around a number of key points related to sustainable mobility strategies.  The major, general issues are fully described in section 7.1 of the full report, and are identified as:

- **Fragmented urban form:** the legacy of apartheid-era, segregationist planning and mono-functional zoning exacerbates the mobility challenges and promotes private vehicle ownership.  This issue tends to be approached as a socio-economic issue only, overlooking some critical environmental considerations which are part of the same problem.

- **Cultural paradigms:** a cultural shift to drive behaviour change.  One can interpret this not just as a movement to reduce the desirability of private vehicular transport, but also as the ease of use for public transportation and non-motorised transport.

- **Standards and design**: the necessity for stronger standards of design and implementation of NMT facilities, systems and exchanges between different modes of transport.

- **Real and perceived safety**: the perceived safety of NMT and public transport remains a significant challenge.  Larger crime-related issues generally become easier to address through the same forms of urban planning and development that promote NMT and public transport.

- **Municipal capacity**. Specifically, the lack of an "NMT champion" appears to be an issue.  More generally, capacity-building is not merely the training of employees, which does not appear to be a major problem in Tshwane, but the creation of some breathing room to launch innovative or experimental solutions without undue repercussions should such experiments fail to achieve the desired outcome.

- **Data synthesis**.  Significant amounts of data related to sustainable mobility are already collected by government and academic entities, but are not always made available beyond the department which conducted the study.  Furthermore, publicly accessible information for transit users is extremely limited, a fact that does little to encourage use of public transport.

- **Intermodality & ticketing**: transportation management is fractured between national, provincial, municipal, and private entities, making integration hugely problematic.  Network integration sometimes happens organically, but duplication of routes between multiple systems is common.  The difficulty in splitting fare revenues between private entities and government, as well as between various levels of government receiving their budgetary allowances from differing authorities, would be a complex undertaking.  However, there is space for exploring innovations that are inclusive of informal transport modes.  If a technological solution to the single-ticketing problem can be developed, it may significantly reduce the political roadblocks.

*A General Note on the Recommendations*

In the full report, overall recommendations are not classified by the timeline to implementation (though the 'quick wins' are explicitly presented as priorities).  In this document, which is intended to be less of a comprehensive presentation and more of a strategic basis for further action, the recommendations are listed according to their assumed timeline to full implementation or completion.

*Prioritised 'Quick Wins'*

A series of short-term, quick-win items which are relatively simple to implement are given here; they may be thought of as means to pave the way for longer-term implementation of the recommendations, and include:

- **Creation of Stronger Sustainable Mobility Design Guidelines**. Although not a goal in and of itself, over the long term a clear, comprehensive, and stringent set of physical design and implementation guidelines which prioritises NMT, intermodality and access to public transportation has the potential to have a transformative influence. On one hand, a better set of guidelines will make implementation and oversight easier, as there is a defined set of rules to benchmark progress against. On the other hand, updating the (sometimes outdated) policies which contribute to the design and implementation of sustainable mobility systems can become a way of facilitating inter-departmental dialogue and unifying towards common goals.

- **Hold Open Street and Placemaking Events**. The Open Street and Placemaking Event (see section 4) may be used as a "launch party" for the above-mentioned sustainable mobility information campaign. Since the concept, planned activities, and base files for much of the advertising have already been produced, much of the movement forward on this is logistical in nature, and well within the reach of the City.

- **A Sustainable Mobility Information Campaign**. Creating a consistent and visible campaign to point out the benefits of NMT and sustainable mobility is the first step in steering the cultural shift. Efforts in this campaign need to be strong and numerous, but budgets need not be large. It is recommended that the City appoint a coordinator of such a campaign and take immediate steps to roll it out.

- **Streetscaping Pilot Projects**. As with the information campaign mentioned above, visibility is key to changing cultural attitudes towards NMT and public transport. This visibility cannot be relegated to information alone; specific and targeted implementation, if successfully implemented according to robust sustainable mobility design guidelines (described above), may become flagship representations of what a transformed mobility system could look like. Target pilot projects should be in locations that are either highly visible, or address very dire needs, or both. They need not be overly complicated; in some cases, a simple 'tactical urbanism' style project on a shoestring budget may suffice, while in others more substantial and more permanent interventions may be needed. As pilot projects, the first iterations of this initiative should be objects of study. Pilot projects which do not have the desired effects can be reverted back to a base condition.

- **"Maps and Apps:" Better Information Platforms**. Accessible information is critical to increasing usership. Currently, informational platforms – and in some cases something as simple as a system map – are either difficult to find, difficult to read, or non-existent. These is relatively simple things to fix with an investment in better communication and information design. But websites are only the beginning; since most users do not have laptops, or do not carry them around with them, most users would be better served through smartphone apps which allow the appropriate functionality across *all modes of transport*.

## Medium-Term Recommendations

The 'quick wins' will likely aid in achieving some goals with a longer timeline, namely:

- **Strengthening Inter-governmental Coordination between CoT and Province**. All projects that are being planned by the Province within CoT boundaries should undergo technical review by CoT staff. In the medium term, Provincial and National government encouraged to also create NMT units to strengthen their in-house capacity to design, plan, maintain and manage NMT projects.

- **Setting Up a Dedicated NMT Unit Within CoT**. This could facilitate inter-departmental and inter-agency coordination, review of policies, strategies and standards for NMT; assess impacts and monitor progress on NMT projects.

- **Activate Streets as Public Spaces and as Keystones for Transit-Oriented Development**. It is recommended to review the building control and planning

regulations, with strong involvement by the staff of the future NMT unit, to promote compactness and NMT access to public transport (500 m walking access), safe NMT crossings, land use policies that encourage equitable transit-oriented development (ToD): active frontages, minimum block sizes for redevelopment projects, and fine-grained street networks. This calls for planning for an urban form with mixed use buildings, small, permeable blocks and dense and interconnected network of a mix of street typologies including boulevards, transit streets, pedestrian-priority streets, pedestrian-only streets, service streets and pedestrian alleys/paths.

- **Rollout of Small Physical Pilot Projects.** Implementing a series of pilot projects related to design for intermodality and NMT could, in the long run, be an effective testing ground for the development of urban design guidelines to be rolled out at a larger, city-wide scale.

- **Strengthen Stakeholder Participation and Engagement.** In order to increase ridership in the public transport and use of NMT facilities, issues of security, reliability, network integration, and affordability need to be investigated. Technical plans and guidelines are in abundance, but with little consultation with potential users, the infrastructure will be underutilized and abused by taxis and private cars. Indaba and open street events bring about a diverse stakeholder groups whose opinion and feedback will result in more targeted and relevant projects as the City shares its plans and receives feedback. The Transport Development Division, along with the City Planning Division, should expand the stakeholder list to include cycling enthusiasts, environmental groups, youth, persons with disabilities (PWDs) to jointly chart out ways of reducing vehicular emissions and have more equitable and sustainable mobility outcomes.

- **Work Towards Integrated Ticketing Across Modes**. There are ongoing attempts to address an integrated ticketing system in Tshwane, and the ITS which will provide a public transport and advanced public management system (APTMS) over 10 years. However, true intermodality will never be achieved unless all modes of public transport are included. Specifically, Metrorail (managed nationally by PRASA) and Gautrain (managed provincially) will likely be difficult to include if efforts for integrated ticketing remain at the municipal level.

- **Disincentivise the Car.** Introduce a mix of strategies, including: raising parking fees; time-based street management; premium parking and reducing the overall supply of on-street parking to progressively incentivise a shift from car-dominance to walking, cycling and using public transport. Additionally, introducing traffic calming measures, such as speed reducing, can demotivate car-use. Car use and parking policies play a fundamental role in achieving successful people-friendly, safe and inviting streets, which double as public spaces, and at a larger scale, form a transit-oriented way of development.

## Long-Term Recommendations

Real systemic change can begin, but is unlikely to be fully realised, over the short- or medium-terms. Thus, some of the recommendations are looking towards a longer-term outlook:

- **Institutionalise Street Design Review Before and During Project Implementation.** The City may explore the possibility of setting up a Design and Review Committee, run by the newly created NMT unit, responsible for ensuring compliance with newly revamped standards and guidelines, evaluating progress, and supporting enforcement.

- **Diversifying Sources of Funding for Public Transport and NMT.** Effective ways of applying the limited financial resources need to be monitored, with more resources applied to similar projects. Success stories should be compiled to inform future Indaba events with stakeholders. The budgeting system needs to provide for ring-fenced funds for NMT implementation, this will stir up progress over time.

- **Innovate Delivery of NMT Projects Based on Demand Studies**. Innovative models yet to be exploited include developing NMT first- and last-mile connectivity to the BRT system, and increased intermodality with cycling. The focus is to get people connected to the system using bicycles alongside pedestrian walkways. Private sector young entrepreneurs could assist with this solution where they run the bikeshare schemes on behalf of the city. The City can develop a framework for this and start in an area where the densities exist and interconnectivity is feasible.

- **Institutional Restructuring of Public Transport**. It is recommended to carry out a feasibility study and due diligence exercise in order to guide the restructuring of the public transport functions is a move in the right direction. One proposal is the establishment of a Public Transport Network Authority; with proposals articulating the functions of transport operations and transport planning divisions.