AFRICA E-MOBILITY FORUM

e-Mobility Program in the City of Durban (Ethekwini)

March 21, 2023

Outline

1. Background:
   - Durban Climate Action Plan
   - City's Integrated Public Transport Network
2. E-Bus Program in Durban:
   - Initial Reluctance to engage
   - Benefitting from being part of TUMI e-Bus Mission
   - Where are we Now?

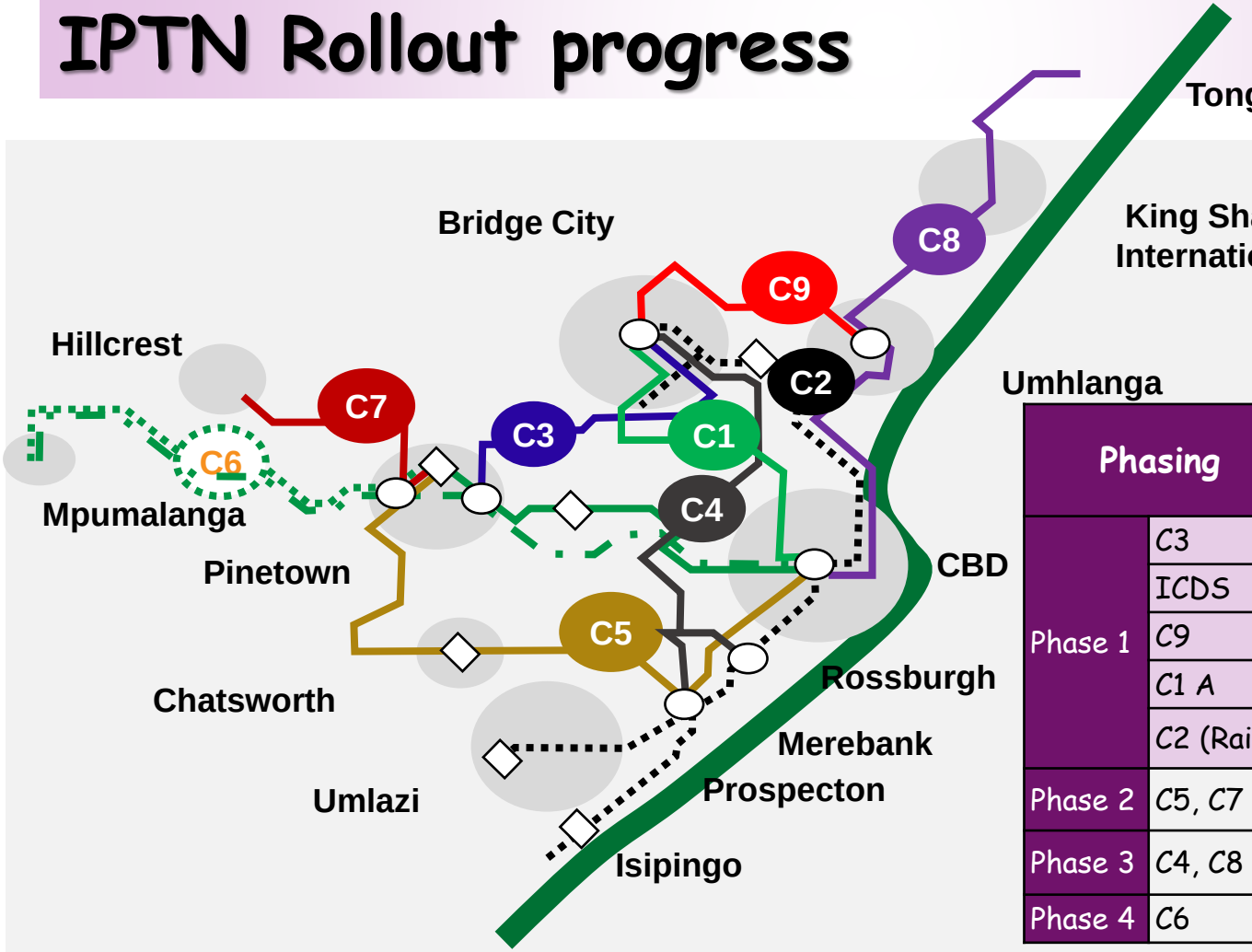
Durban Climate Action Plan

Theme: *Towards Climate Resilience, and Carbon Neutrality*

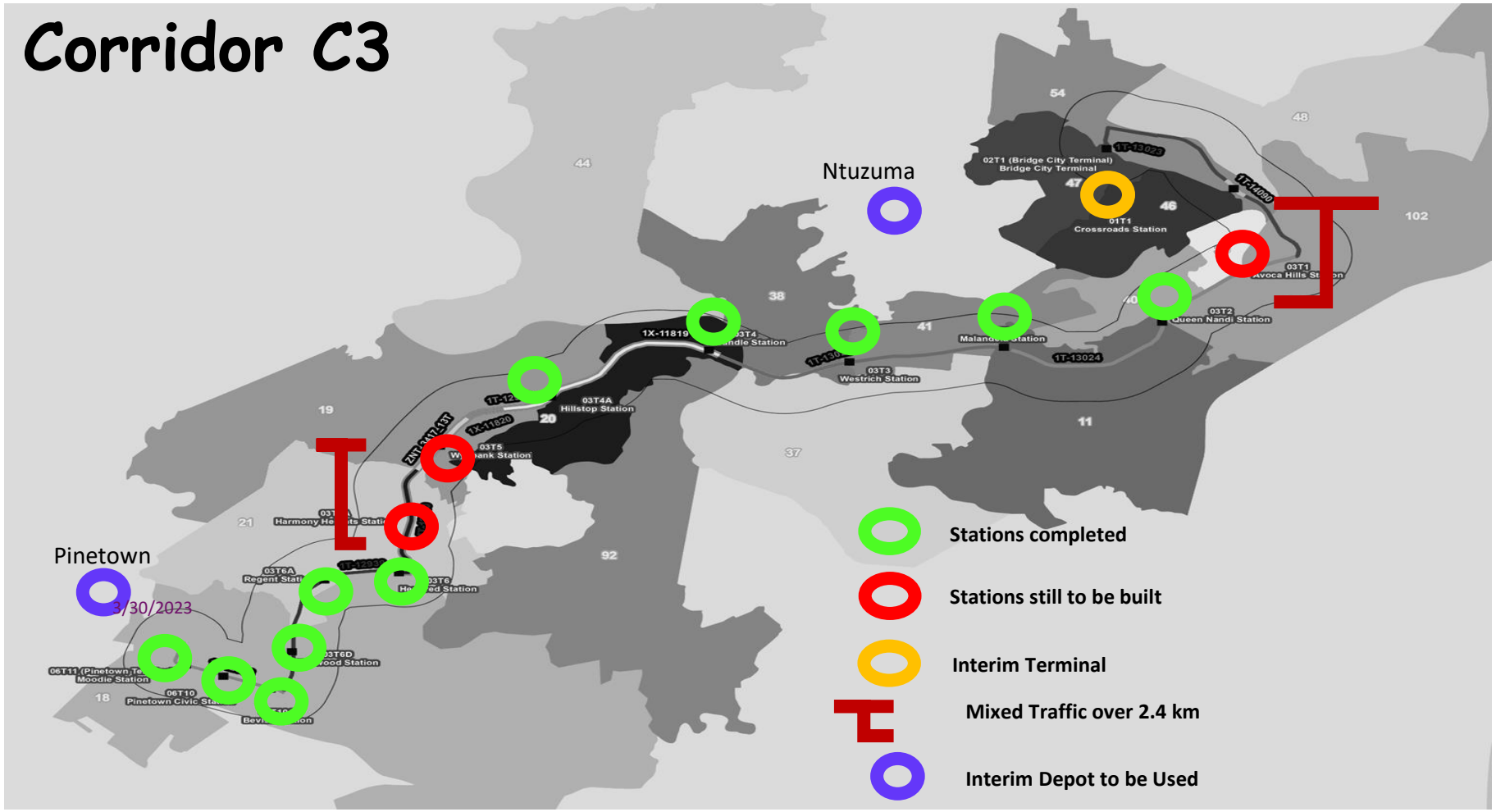
Transport Sector Actions:

1. *Continue to implement and expand the Integrated Public Transport Network (IPTN), with a strong focus on Transit Oriented Development (TOD)*
2. *Implement travel demand measures that will reduce existing private car trips by 50% by 2050*
3. *Provide and maintain high quality active mobility and non-motorized transport (NMT) systems that will increase the use of NMT to 30% by 2050*
4. *Facilitate a switch of all vehicles to low carbon options by 2050*

IPTN Rollout progress



Phasing		Projected Operational Year	Progress
Phase 1	C3	2022	96%
	ICDS	TBC	0%
	C9	2026	13.4%
	C1 A	2024	38.6%
	C2 (Rail)	TBC	100%
Phase 2	C5, C7	2035	
Phase 3	C4, C8	2040	
Phase 4	C6	2045	


Corridor C3
Ntuzuma
Pinetown
3/30/2023
Stations completed
Stations still to be built
Interim Terminal
Mixed Traffic over 2.4 km
Interim Depot to be Used
02T1 (Bridge City Terminal)
Bridge City Terminal
01T1
Crossroads Station
03T1
03T2
Queen Nandi Station
03T3
Westrich Station
03T4A
Hillstop Station
1X-11819
1X-11820
1T-13024
03T6A
Regent Station
06T10
Pinetown Civic Station
06T11 (Pinetown Terminal)
Moodie Station
03T6D
54
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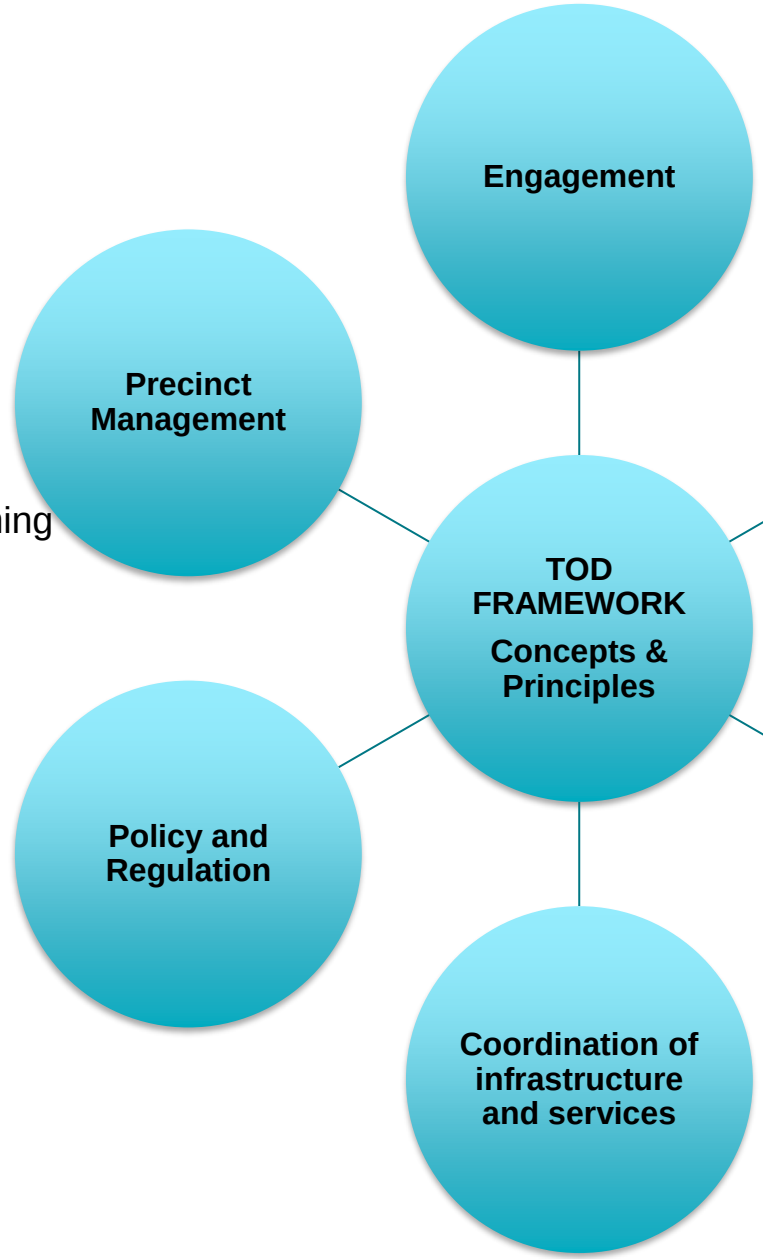
18

Combined TOD Framework elements and activities



- Engagement with developers & investors
- G&SI
- Community involvement
- Engagement with other public entities

- Bylaw enforcement
- Cleansing
- Safety
- Partnerships
- Public space programming

- Financial modelling for viability assessment
- Leverage other funding sources
- Allocate capital budgets to TOD precincts

- Developer incentives
- Parking policies
- Densification policies
- Planning approval

- Incorporate TOD into city-wide planning (SDF)
- Corridor land use planning
- Precinct land use planning
- Precinct urban design
- Transport operational planning
- Bulk infrastructure planning around priority nodes
- Facilities planning in TOD nodes
- Land acquisition and disposal strategy

- Transport operations
- Land purchase / release
- Bulk infrastructure
- Housing

- Community facilities
- Public space

02

E-Bus Program in Durban

Initial Reluctance to Engage

	BARRIER	DETAILS
1.	Financial	1. Upfront capital investment required (vehicles, charging infrastructure, space, batteries, etc.) is prohibitive 2. Lack of knowledge or understanding of operating costs in City conditions 3. Proper business case required
2.	Procurement	1. Lack of knowledge or appreciation in procurement setup 2. Tricky overall procurement process
3.	Structure of Manufacturing Sector in South Africa	1. Lack of innovation in local solutions 2. Foreign ownership – critical parts of the value chain not in the country 3. Risk averse
4.	Infrastructure	1. Lack of charging infrastructure in existing depots
5.	Batteries	1. Battery technology, management and disposal
6.	Electricity	1. Production from a carbon intensive source 2. Cost and stability of supply 3. Distribution infrastructure

Benefitting from being Part of TUMI Mission

1. Durban 1 of 3 cities in South Africa earmarked to receive grant funding, concessional loans and technical support from the Global Environment Facility (GEF) to undertake feasibility study for deployment of e-buses
2. Feasibility Study project divided into 4 broad components:
   - Policy development for integrated and sustainable solution for the City
   - Demonstration and deployment of 20 e-buses over a 5-year period
   - Institutional capacity building of public transport stakeholders to support large scale uptake of e-buses in the future
   - Further scaling up of the e-bus fleet in the City over time
3. Being part of a Community:
   - Take advantage of available support to get skilled up and build capacity
   - Meeting others in the struggle
   - Learning in the process – no perfect answer
   - “Cannot learn to swim without getting in the water”

Where are We Now?

1. Completed the application for funding and technical support under GEF7
2. Project approval granted from the City, and the Working Group to drive the feasibility study established made up of:
   - Transport
   - Electricity
   - Energy Office and Climate Change Mitigation
   - Development Planning and the Environment
   - Finance
   - Supply Chain Management
   - Economic Development and Investment Promotion
3. While awaiting confirmation GEF7 approval, already started with capacity building of Working Group members