REPORT TO: CITY MANAGER

TO BE REFERRED BY THE OFFICIAL TO MAYCO VIA THE RELEVANT URBAN MOBILITY SECTION 79 COMMITTEE [AFTER CONSIDERATION BY CITY MANAGER]

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1. ITEM NUMBER

2. SUBJECT

FEEDBACK ON THE INTERNATIONAL TRIP UNDERTAKEN FROM 14 APRIL 2024 TO 19 APRIL 2024 TO ATTEND THE INTERTRAFFIC CONFERENCE IN THE NETHERLANDS

ONDERWERP

TERUGVOERINGSVERSLAG OOR DIE INTERNASIONALE REIS ONDERNEEM VANAF 14 APRIL 2024 TOT 19 APRIL 2024 OM DIE INTERVERKEERSKONFERENSIE IN NEDERLAND BY TE WOON

ISIHLOKO

INGXELO ENGASEMVA KOHAMBO KUMAZWE APHESHEYA/NGAPHANDLE KWEMIDA YASEMZANTSI AFRIKA EQHUTYWE UKUSUSELA NGOWE14 UKUYA KOWE19 KUTSHAZIIMPUZI 2024 INKOMFA YEHLABATHI ENGOLAWULO LOKUHAMBA KWEZITHUTHI, ESENETHERLANDS

Q3617

3. EVENT SUMMARY

EVENT DETAILS	
CONFERENCE/SEMINAR	Intertraffic Amsterdam 2024
OTHER	N/A
DATE	16 April 2024 to 19 April 2024
VENUE	RAI Centre Amsterdam
TOTAL COST TO THE CITY	R144 884.56
CITY	Amsterdam
COUNTRY	NETHERLANDS

Making progress possible. Together.

ATTENDEE DETAILS	
NAME AND SURNAME	**DESIGNATION**
Neil Slingers	DIRECTOR: TRANSPORT PLANNING & NETWORK MANAGEMENT
Bernard Oosthuizen	HEAD: TRANSPORT NETWORK TECHNOLOGY

PROVIDE SUMMARY OF HOST ORGANISATION / CITY
Intertraffic is the world's leading trade event on mobility and traffic technology. Intertraffic was established and commenced in 1972 and has since become a global event, attracting professionals from all over the world. The 2024 Intertraffic had over 900 exhibitors from more than 45 countries, showcasing the latest mobility trends, products and services as well as more than 120 experts speaking as part of the summit programme. The main themes of the conference were infrastructure, traffic management, road safety, parking and smart mobility.

4. OBJECTIVE

Attending the event provided the opportunity for the City of Cape Town to gain exposure to and get up to speed with the latest advancements and innovations regarding traffic technology developments worldwide. Many innovations introduced at Intertraffic in the past have already been implemented in the City of Cape Town. Examples of locally implemented initiatives that would have debuted at Intertraffic include the Automated Congestion Information Display, New IRT Bus Signals, Thermal Pedestrian Detectors, Smart Speed Signs and many more. By attending the conference, the City of Cape Town benefitted more from firsthand exposure to some of the innovations and potential solutions to the unique challenges we faced, like the management of minibus taxis, traffic calming, NMT lane protection, traffic signal vandalism, etc.

Intertraffic 2024 provided the City of Cape Town's officials with an opportunity to consider a number of innovative technological advancements and products that would be beneficial to the City and also the Western Cape Freeway Management System (FMS). The attendees also benefited from connecting with mobility officials from the City of Amsterdam and shared some valuable experience. The conference and exhibit was attended by officials and industry leaders from all over the world.

5. OUTCOMES

Intertraffic is the world's largest exhibition focusing on traffic management, infrastructure, parking, safety, and smart mobility solutions where officials can explore the latest technologies, products, and services in these areas, which could be beneficial for improving transportation systems in Cape Town. Some of the highlights of the exhibit, and identified as being appropriate for its application in the City of Cape Town are listed below.

Data Collection and Utilization

There were a number of technologies available which demonstrated different methods of data collection (vehicle counting, pedestrian counting, parking utilization, etc). The City already has a significant CCTV network which covers a large portion of our road network. Video analytic software demonstrated how data could be extracted from existing CCTV footage. The application of this type of technology has serious potential to enhance the City's Transport Planners.

Connected and Autonomous Vehicle Communication

As the availability and usage of connected vehicles are increasing, including here in South Africa, the exhibition demonstrated the manner in which data could be "sourced" from these vehicles to the benefit of improved traffic operations on our road network. While the City has very few connected vehicles as part of the overall fleet, a vehicle could also be connected via other existing technologies such as a tracker device or mobile phone. Probe data from these vehicles can then be used to establish travel times, travel patterns, public transport patronage, road quality, etc. By installing equipment at our intersections (already being trialed in Cape Town), we may be in a position to extract enhanced data from connected vehicles.

Intelligent Traffic Signals

There were various types of traffic signal lanterns on exhibit. These included lanterns with countdown timers indicating how much time remained for a specific green or red signal phase. This application is especially helpful at pedestrian crossings. While the City has already trialed this technology locally, there are limitations with our ability to effectively communicate the variable timing with the example we have in Cape Town. Intertraffic 2024 presented the City of Cape Town with technologies that will assist the City to develop such an extendable countdown pedestrian signal phase.

Light Emitting Diodes (LED) Road Studs

The advancement in the technologies of LED road studs at the exhibit was significantly better than what the City of Cape Town had considered and implemented in the past. The City is currently considering the widespread application of this technology at specific locations in order to improve the safety to motorists and pedestrians alike.

Access Control via Retractable Bollards

In areas and locations where vehicular access needs to be restricted and managed, an appropriate technology would be the application of retractable bollards. These bollards would be installed in conjunction with Automatic Number Plate Recognition (ANPR) cameras, thereby limiting access to specific areas and precincts to authorised vehicles. Typical applications would be at Public Transport Interchanges as well as pedestrian precincts.

Speed Calming Measures

Modular Traffic Calming Mats (speed humps) were demonstrated. These speed humps are much easier to install and costs a fraction of the conventional speed humps we build here in Cape Town. Given the demand and backlog of approved traffic calming installations, it is prudent that the City of Cape Town explores viable alternatives that are possibly more cost and time effective.

Traffic Controller Technology

Manufacturers of traffic signal controllers are now starting to supply artificial intelligence (AI) enabled Traffic Signal Controllers. While this type of technology is in its infancy, the application within the context of Cape Town would be its ability to prioritise flow during a major event, an emergency evacuation or by giving priority to emergency vehicles. This is therefore an exercise worthwhile considering.

6.   ACTIONS REQUIRED

While the City's existing traffic signal technology has substantial capacity and capability for remote operations, further functionality may be beneficial to both operations and data sharing. In the short-term, the line department will immediately commence with the viability of the application of various technologies related to traffic management, infrastructure, parking, safety, and smart mobility solutions here in the City of Cape Town.

In the medium term, an evaluation should be undertaken of the appropriateness of the current remote management system and real-time adaptive control software for future use. This evaluation should consider a new Universal Traffic Control (UTC) system that uses traffic data from a greater variety of sources to display real time network performance and allow simplified priority adjustments to signal plans. When the time comes to introduce major upgrades to signal hardware, the introduction of low-voltage systems should be considered because of the reduced power consumption and reduction in copper cabling required.

Any improvements to equipment, infrastructure or software should be made in an incremental manner and sensitive to the unique requirements of our transport system, hence further research will be required to be able to specify any technological solutions. Once a decision to improve has been taken and a suitable specification drawn up, an initial corridor/area can be selected to pilot new equipment and software to prove the business case before any major capital investments are made

If the advantages of the technology can be proven, it would be necessary to identify financial, staff, policy or other implications and strategize on how to achieve the required results within the constraints identified. Stakeholders to be consulted: Public Transport, Transport Finance, Transport Planning and Network Management (sister Branches) and Transport Business Planning.

7. IMPLICATIONS

7.1	**Constitutional and Policy Implications**	No ☒	Yes ☐
7.2	**Environmental implications**	No ☒	Yes ☐
7.3	**Financial Implications**	No ☒	Yes ☐
7.4	**Legal Implications**	No ☒	Yes ☐
7.5	**Staff Implications**	No ☒	Yes ☐
7.6	**Risk Implications**	No ☒	Yes ☐

7.7 <u>POPIA Compliance</u>

☒ It is confirmed that this report has been checked and considered for POPIA Compliance.

NOTE: POPIA Section <u>MUST</u> be completed otherwise the report will be returned to the author for revision.

Contact your Directorate POPIA Stewards should you require assistance.

The City has a contract in place with XL Embassy Travel for the safe-keeping of Traveller's personal information as required by the POPI Act.

8. RECOMMENDATIONS

It is recommended that the feedback report on the trip, Intertraffic 2024, undertaken by Neil Slingers and Bernard Oosthuizen on 14 April 2024 **be considered and noted.**

AANBEVELINGS

Daar word aanbeveel dat die terugvoeringsverslag oor die oor die reis, Intertraffic 2024, deur Neil Slingers en Bernard Oosthuizen op 14 April 2024 onderneem, **oorweeg word en daarvan kennis geneem word**.

IZINDULULO

Kundululwe ukuba **makuthathelwe ingqalelo kwaye kuqwalaselwe** ingxelo engasemva kohambo kumazwe angaphandle emalunga neNkomfa yeHlabathui engoLawulo lokuhamba kweZithuthi yango2024, eqhutywe nguNeil Slingers noBernard Oosthuizen ngowe14 kuTshaziimpuzi 2024.

9. GENERAL DISCUSSION

Discussions with Rijkswaterstaat (Amsterdam Municipality)

Intertraffic 2024 presented the opportunity for the City's officials to engage with their Dutch counterparts on a number of issues. The issues discussed included the following matters, which are also under consideration here in the City of Cape Town.

Electric Vehicle Strategy:

Amsterdams current fleet of public transport vehicles will transition from hybrid vehicles to electric vehicles (EV) by 2028. The incentive to transition to EV's for private vehicles includes preferential parking as well as the availability of on-street parking provision being limited to the exclusive use of EV's. The benefits of a strategy like this is well known and self-evident to visitors to the City.

Non-Motorised Transport:

Amsterdam's modal split of travel is 25% Bicycle, 25% Walking, 25% Public Transport and 25% Private Vehicle. While this is a truly impressive and idealistic spit, the Municipality is still implementing strategies to improve thereon. This includes the progression of their Travel Demand Management (TDM) strategy, the implementation of road diets, etc. Amsterdam is busy rolling out a number of NMT routes and will be expanding it further.

Talking Traffic:

Amsterdam Municipality has a programme called "Talking Traffic" which aims to make traffic safer, cleaner and smarter using traffic data. This is achieved by connecting road users, vehicles, variable message signs, traffic control rooms and traffic signals. Road users receive tailor-made, real-time route recommendations and assistance sent to their vehicles on their smartphone, on the dashboard or navigation system.

Types of data that are becoming available to road users:

- In-vehicle signage and speed advice
- Individual real-time data on potentially dangerous situations and warnings of road works ahead
- Prioritising (conditioned and general) of groups of road users at traffic signals
- Providing road users with real-time data from traffic signals Optimising traffic flows through traffic lights

  This can be achieved when the City collect as much real time Traffic Data as possible and process this data to then send recommendations to Road Users regarding their trip planning.

Other initiatives that could be readily applied in Cape Town

Vehicle Prioritisation:

Proven technologies were demonstrated where traffic signal progression and advantage could be given to certain vehicles that could benefit from this. For example, emergency vehicles, public transport, etc.

Parking Management:

The exhibition featured several products and presentations by service providers in the parking management industry. This included the latest on-street parking meters and payment solutions as well as software applications for the user and the controlling authority. These applications make it possible for the public to be guided to available parking areas and pay for on-street parking on their phones. This reduces the amount of congestion and emissions caused by vehicles driving around to find parking. The software also provides a live and historical parking occupancy or utilization dashboard to the authority. Number plate recognition through video detection and smart sensors provide the ability to automatically identify transgressions and enforce parking restrictions (residential, delivery or disabled zones). These advancements provide many opportunities for the City of Cape Town to improve planning, traffic management, safety and assist in achieving environmental goals. It also provides the opportunity to collect useful data and in turn provide an improved user experience to the public.

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10. ANNEXURES

FOR FURTHER DETAILS, CONTACT:

DATE	8 May 2024		
NAME	Neil Slingers/Bernard Oosthuizen	CONTACT NUMBER	021 400 4735/021 812 4407
E-MAIL ADDRESS	Neil.slingers@capetown.gov.za	Bernard.oosthuizen@capetown.gov.za	
DIRECTORATE	Urban Mobility	FILE REF NO	
SIGNATURE :			

EXECUTIVE DIRECTOR

DALENE CAMPBELL

The ED's signature represents support for report content and confirms POPIA compliance.

COMMENT:

SIGNATURE:

NAME

DATE

MANAGER: INTERNATIONAL RELATIONS

DR. DENVER VAN SCHALKWYK

SIGNATURE:

DATE

COMMENT:

Actions noted

	☐ REPORT COMPLIANT WITH THE PROVISIONS OF COUNCIL'S DELEGATIONS, POLICIES, BY-LAWS AND ALL LEGISLATION RELATING TO THE MATTER UNDER CONSIDERATION.

LEGAL COMPLIANCE

☐ NON-COMPLIANT

COMMENT:

NAME _____

TEL _____

DATE _____

Certified as legally compliant based on the contents of the report.

CITY MANAGER

☒ NOTED

☒ REFER TO THE MAYORAL COMMITTEE VIA THE RELEVANT SECTION 79 COMMITTEE

DATE _____

COMMENT:

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THE CITY MANAGER WILL RECOMMEND THAT THE REPORT IS REFERRED TO MAYCO VIA THE RELEVANT SECTION 79 PORTFOLIO COMMITTEE BY THE OFFICIAL. IN SUCH INSTANCES, THE CITY MANAGER'S SIGNED REPORT SHOULD BE ATTACHED AS AN ANNEXURE TO THE REPORT TO THE SECTION 79 PORTFOLIO COMMITTEE AND MAYCO.