SPEECH BY MEC FOR ROADS AND TRANSPORT, DR ISMAIL VADI, AT WORKSHOP/COLLOQUIUM ON ITS TOOLS TO BETTER ENABLE SMART LOGISTICS, AECOM, CENTURION, 24 MAY 2017

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Board Members of the Intelligent Transport Society (South Africa)
Representatives from Government Agencies and Companies
Industry Stakeholders
Colleagues from the media

Given the critical role of logistics as a vital aspect of our overall transport networks in Gauteng, I welcome this opportunity to share some thoughts on this topic with you. As the heartland of the South Africa economy, we experience many of the country’s challenges first-hand. This means that we have to be innovative in developing solutions to overcome these challenges, and share it with our colleagues in other parts of the country and in the region.

Economic Landscape
Geographically, Gauteng is the smallest province in South Africa, accounting for only 1.5 percent of the land area. In spite of its limited land mass it is responsible for a third of South Africa's gross domestic product (GDP), about 10 percent of the total GDP of sub-Saharan Africa and about 7 percent of total African GDP. It has a population of 13.5 million; is highly urbanized, and contains the metropolitan areas of Johannesburg, Tshwane, Ekurhuleni, and two district municipalities. Increasingly, the provincial government describes the province as the Gauteng City-Region to reflect the inter-dependence across metropolitan and district boundaries.

Gauteng contributes heavily in the financial, mining, manufacturing, transport, technology and telecommunications sectors, and there is a small but important agricultural sector. It also plays host to a large number of international companies requiring a commercial base on our
continent, and our province serves as a gateway to other African countries.

As a vibrant economic hub we also generate a significant volume of road traffic across all modes. Inevitably, we have notable congestion on our major municipal and provincial roads, including our freeways. Making a concerted effort to make transport work better for all is an absolute priority. This includes maintaining and expanding our road infrastructure; providing much improved public transport and supporting systems; reducing the transport sector’s carbon footprint, and improving our logistics network to distribute goods to and from Gauteng.

The Gauteng Provincial Government is a leading player in making investments to transform, modernise and re-industrialise the Gauteng economy and place the province onto a growth trajectory. We see technological innovation as a key and integral part of the process. The Department of e-Government is primarily focused on introducing new IT platforms to strengthen public governance, make government services more accessible to citizens, and introducing greater efficiencies in the way the provincial government renders its services to the public.

The current budget of the Department of Roads and Transport is R7.3 billion for capital projects and operational expenses. This includes R2.5 billion for Transport Infrastructure, R2.3 billion for Transport Operations and R1.8 billion for Gautrain. Aimed at creating an “entrepreneurial economy”, public investments should not only kick-start the economy, but also, and possibly more importantly, do things that were not envisioned before. These are part of the building blocks to make Gauteng a “Connected Province”, noting that Smart Transport solutions are key drivers to make transport work better for all.

Specifically, with regard to the freight and logistics sector, the Gauteng Department of Roads and Transport has signed a Joint Declaration of Intent with the Federal Ministry for the Environment, Nature
Conservation, Building and Nuclear Safety of the Federal Republic of Germany. The Joint Declaration stresses the importance of environmentally-friendly solutions and sustainable development, particularly in the field of freight logistics. Together with our German partners, we have developed the Green Logistics Indicator (GLI-X) system in our province.

The GLI-X Project speaks to the context of the Gauteng City-Region. It has the potential of making a great impact on our province and achieving the international standards of Smart Cities. The five key goals that the Project has identified for smart logistics are well integrated and aligned to our overall policy objectives. Specifically, the five goals - greener, faster, more cost-effective, safer and more equitable freight logistics - address the transformation, modernisation and re-industrialisation objectives of the Gauteng Provincial Government.

The inter-relatedness of these goals highlight that freight logistics is a networked, interwoven process. The aim is to bring the immediate goals of freight logistics, namely, cost-effectiveness, speed and competitiveness, in line with broader development goals such as environmental protection, socio-economic development and a safe and secure urban environment. In this way, the freight logistics sector can contribute to an improved quality of life in the Gauteng City-Region.

The strategies to achieve this require on-going cooperation across boundaries; escaping from the self-imposed institutional silos and data fragmentation, and insufficient knowledge sharing. We, therefore, applaud the co-operation between the public and the private sector through forums such as this one, provided for by the Intelligent Transport Society of South Africa, and I look forward to hear the presentation on the Ekurhuleni Aerotropolis aimed at creating an integrated transport and logistics development node.

The Transport and Logistics Challenge
Against the preceding background of our economic landscape and the importance of moving people and goods in a sustainable and environmentally sensitive manner, let me emphasise that congestion with all its associated negative side-effects is one of the key challenges which we have to mitigate. The very real need to focus much of our attention on promoting public transport must in no way detract from the equally important task of promoting the most efficient and smart movement of goods. This is directly linked with growth in the economy and the creation of jobs and reducing poverty.

Logistics is of great importance for the Gauteng City-Region with significant freight volumes destined for our Province that originate from our ports and from other provinces. There is also a similar volume of goods flowing outward bound from Gauteng to our export harbours and for consumption in other provinces and neighbouring countries. To this we have to add freight coming in, or moving out to our neighbouring countries, and we look forward to the presentations on these topics from colleagues from the Cross-Border Roads Transport Agency, SANRAL, TomTom and the North-West University. As a nexus where multiple transport corridors intersect, we - and here I include both public and private sector stakeholders - must expand our efforts to facilitate smarter solutions. This includes partnerships between the public and the private sector, specifically in data sharing.

Gauteng’s 25-year Integrated Transport Master Plan (ITMP25), which has been formally approved by the Provincial Government, puts the focus on transport hubs such as the existing City Deep Terminal and the proposed Tambo-Springs hub just off the N3 freeway. It requires, inter alia, high level mobility routes to and from these hubs; local accessibility, and traveler information. It also requires that we plan, implement and manage such routes as integrated corridors for all modes – freight movement, public transport and private transport. It must be managed as an inter-related system, and it specifically requires institutional co-operation.
Let me make some comments on the difficult work our transport operators have to deliver on, observing that more and more transport operators start thinking of the financial sustainability of their operations in the sense of cost-benefit of services; value engineering, and optimisation through elimination of duplication and wastage. We know from our own and other international experiences that the necessary tools to assist with the optimisation of the services to assist freight companies to better plan their trips between terminals are available. We need to make a conscious effort to apply such tools to help make logistics work smarter. Let me give you just one example from an infrastructure perspective. The establishment of the new Tambo-Springs Inland Port will assist in getting full optimisation of services and better utilisation of the road infrastructure such as the N3 and the proposed PWV15.

Moving away from mixing freight traffic with general transport services produced some good results in a country such as China. There, deliveries are performed after hours with trucks not seen during peak time. We also know that China is investing US$550 million per year on Intelligent Transport Systems, which contribute to the integration of the new free-flow tolling on the highways in Shanghai and other larger cities. But, let me stress that the answer is not banning trucks from operating on certain routes on certain times, but on looking at all the inter-related variables that affect the overall movement of people, services and goods in the smartest possible way, and to the benefit of society as a whole. In this regard, the integration of Transport Management Centres becomes very important, and the monitoring and the management of private, public and freight traffic plays a major role in the optimisation of road infrastructure. The presentation on overload control will raise this as an important issue for discussion.

Big Data
Previously we worked with only limited data because our tools to collect, organise, store and analyse it were relatively poor and sampling was the order of the day. In the recent past, technology breakthroughs,
combined with a paradigm shift in our approach towards using data, has thrust us into the brave new world of Big Data.

Data has become a raw material of business – a vital economic input – used to create a new form of economic value. Data can be cleverly reused to become a fountain of innovation and new services. With the advent of Big Data, we can solve problems that previously defied solutions. Big Data is all about seeing and understanding the relations within and among pieces of information that previously we struggled to fully grasp.

As transport professionals we stand in the centre of Big Data and it requires that we face new challenges and pursue the new solutions it offers to us.

- It has become a truism that data has become the fuel that will drive transport;
- Information is critical for planning and for operations;
- It enables us to differentiate between types of vehicles – e.g. freight, public transport, private vehicles and thus have a more comprehensive and accurate picture of what is happening on our roads, more often than not in real-time; and
- Extensive data and powerful algorithms move us towards better predictability and the ability to pre-empt problems.

In Conclusion
Programme Director, working in thus pervasive Big Data environment poses new questions to us:

- How do we manage Big Data noting aspects such as cyber security and privacy of the individual?
- Do we have skills and mechanisms to properly collect, store, analyse, extract meaning from Big Data and disseminate useful information?
• What is National, Provincial and Local Government’s role and function? Is it to provide enabling infrastructure and facilities or is it to co-ordinate?

• Given the speed-of-light changes in the technology environment, should we aim to establish a Provincial Transport Data Warehouse as a public sector facility, or should this be a “virtual” data warehouse with the focus on establishing linkages and be an open-access facility?

• How do we link with the Institute of Intelligent Transport that the University of Johannesburg has established recently?

• What will be the private sector involvement to use data/develop applications?

These and many more are the issues that today’s meeting will explore. We look forward to the presentations and especially to your deliberations towards developing a Big Data Strategy for Transport. I thank you and wish you well with this difficult, but very important task.

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