PROMOTION OF PUBLIC TRANSPORT, WALKING AND CYCLING: LESSONS FROM JOHANNESBURG

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Promotion of public transport, walking and cycling: lessons from Johannesburg

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Abstract
The paper will look at the promotion of public transport, walking and cycling in the City of Joburg. It will:

• Describe the current challenges facing the City including in respect of migration, congestion, ongoing need to address apartheid’s spatial form, high levels of carbon emissions, aging infrastructure, limited resources and responding to climate change

• Set out the key political imperatives and policies that shape city’s transport policy and projects

• Describe the key City transport initiatives including in respect of:
  o Promotion of and enablement of mass transit: Introduction of Bus Rapid Transit, restructuring of other bus and mini bus taxis services,
  o Enablement and promotion of walking and cycling including through engineering interventions and behavioural change
  o Responding to climate change: How we as a developing city are respond to challenges of climate change such as increased rainfall/dryness, need to reduce Green House Gas emissions

• Provide cross cutting observations and evaluative comments in respect of:
  o Systems and planning: How planning and systems development has to happen in an iterative way with delivery especially in face of limited resources
  o Being smart: How Joburg is using new technologies as well as the risks and unintended consequences of new technology
  o Institution building: Issues of intra City and intergovernmental relations and what has been the approach of the City
Behavourial change: The importance of integrating and balancing behavioural change interventions with engineering ones

Partnership: The critical role of partnerships within government and with stakeholders for sustainability.

• Conclude on some of the key imperatives for successful transport delivery in large cities, especially in the developing world.

1. Introduction

Local government elections come every five years in the City of Joburg. The last election took place on 18th May 2011 and shortly thereafter the Executive Mayor of the City, Cllr Parks Tau took to the podium in his first public address and played a very well-known song composed and sung by a South African jazz musician, Hugh Masekele, called Stimela (the coal train). It goes like this…

“There is a train that comes from Namibia and Malawi there is a train that comes from Zambia and Zimbabwe, there is a train that comes from Angola and Mozambique, from Lesotho, from Botswana, from Swaziland, from all the hinterland of Southern and Central Africa.

This train carries young and old, African men who are conscripted to come and work on contract in the golden mineral mines of Johannesburg and its surrounding metropolis, sixteen hours or more a day for almost no pay.

Deep, deep, deep down in the belly of the earth when they are digging and drilling that shiny mighty evasive stone, or when they dish that mish mesh mush food into their iron plates with the iron shank.

Or when they sit in their stinking, funky, filthy, flea-ridden barracks and hostels. they think about the loved ones they may never see again because they might have already been forcibly removed

From where they last left them or wantonly murdered in the dead of night by roving, marauding gangs of no particular origin.

We are told they think about their lands, their herds that were taken away from them with a gun, bomb, teargas and the cannon.

And when they hear that Choo-Choo train They always curse, curse the coal train,

The coal train that brought them to Johannesburg.”

Johannesburg was and is a city of migrants. A city created 125 years ago as a result of the discovery of gold in the hinterland of South Africa. A city created by the people who were both attracted and forced to come here to serve the gold mining industry. And how did they come? In those days, they came on the choo choo train. Today, they come by bus and mini bus taxi. And if they are wealthier, they travel by air and private car.

I wish I could say that today, the train was still a predominant part of Johannesburg’s transport landscape. It isn’t – today the private car vehicle is the mode of choice, the mini bus taxi is by far the most common mode of public transport and the City is trying to claw back a role for public transport,
walking and cycling as a critical ingredient in making Johannesburg a sustainable and attractive place to live in for the next 125 years.

In this paper, I will look at the current challenges facing the City and the key political imperatives and policies that shape city’s transport policy and projects before describing some of the key public transport initiatives and drawing lessons.

2. Current challenges facing the City of Joburg

The City of Joburg has a population of 3.5 million people, concentrated or not so concentrated on a land mass of 1 645 square km. Surrounding Joburg are two other metropolitan areas or cities, namely Pretoria or Tshwane to the north and Ekurhuleni to the east and they together with a few smaller municipalities make up the province of Gauteng with a population of 11.2 million.

Gauteng is regarded as the economic hub of South Africa, making up 33% of the GDP of South Africa and 10% of the GDP of Africa. The City of Joburg contributes 49% of the Gauteng GDP.

In the wake of the global recession, the growth rate declined to 3.3% in 2011 but is forecast to grow to 4.8% by 2015. Unemployment is very high, officially regarded as 23% of economically active people in 2010 but if those who have stopped looking for work are included, the number grows to over 30%. Coupled with high unemployment are high levels of inequality. The Gini coefficient in 2009 in Johannesburg was 0.63, contributing to making South Africa having the highest Gini coefficient in the world.

The City is a product of its apartheid past, powerfully described in the Hugh Masekela song quoted above. In the more geographically attractive and previously ‘whites only’ parts of the City one will find high rise buildings, large arterials, high walls, gated communities and malls – all geared to the private car user. In fact Joburg has two CBDs – one called the ‘inner city’ – the traditional City centre which despite enormous efforts at regeneration is the meeting point and market place of the poor while to the North, surrounded by affluent suburbs, is the Sandton CBD where the stock exchange, finance institutions and advocate chambers have moved.

Almost exclusively on the periphery, in generally poorly located areas along wetlands and on dolomitic land, one finds the so called ‘townships’ and informal settlements, dormitory towns with few amenities and poor quality infrastructure. Here the predominate mode of transport is walking and taxis – from “4 plus 1” or ‘cockroaches’ for internal travel and 15 seaters for commuter travel.

The perpetuation of apartheid’s spatial form means that the majority of people live far from where they work. The average travel time for commuters in Joburg, by public or private transport is 50 minutes one way. For the poorest of the poor in informal settlements on the periphery, travel times are even longer.

Due to the fact that most schools in the townships offer or are seen to offer poor education, there are also significant lengthy daily trips undertaken by learners either on foot or using public transport. For example a lack of confidence in so called ‘township education’, means that as many as 10 000 children from Soweto travel each day to a nearby historically ‘Indian area’, Lenasia to attend school.

The 2002 Household Travel Survey showed that of the over 3.5 million daily trips in Joburg, 47% were public transport trips. Of these, 72% were minibus, 14% were rail and 9% were bus. We are currently doing a further survey but it is unlikely that the trip patterns will have changed significantly.
Recent initiatives to improve public transport have yet to be at the scale to make a difference to these patterns.

Many developing cities have high levels of congestion and Joburg with its 47-43 public-private transport split and it’s dispersed and divided urban form is no different. The poor and inefficient nature of public transport forces members of the growing upwardly mobile professional and middle classes to purchase a private car as soon as they can afford to do. The 2011 TomTom Traffic Survey estimated that 78% of 3.8 million drivers on Johannesburg roads are stuck in a severe traffic jam on a daily basis.

One of the increasingly critical problems created by high vehicle usage and impounded by congestion is the high levels of air pollution and greenhouse gas emissions. Table 1 from the State of the Energy Report, 2008 shows that transport is responsible for 31% of carbon emissions in Joburg thus making the City vulnerable and contributing to our international vulnerability to climate change.

![Figure 1: City of Joburg carbon emissions, 2008](image)

There has been systematic underinvestment in transport in the City of Joburg both by the City itself and by other spheres of government who either have constitutional responsibility for certain functions such as rail or the national road network or benefit from the road or public transport network bearing in mind the central role that Joburg plays in the economy of South Africa.

Recently, as part of the 2010 World Cup preparations, the freeway system in Gauteng was upgraded at a cost of R30 billion with the hope that the funds would be recouped through an e-tolling scheme. Public opposition coupled with indecisive political leadership has seen the scheme postponed and now embroiled in a legal battle initiated by inter alia private fleet providers.

While Joburg’s road infrastructure and resource base may be superior to many other towns and cities in South Africa and Africa, it can hardly be called healthy. 80% of road network in Gauteng has a pavement structure age older than 20 years i.e. at the end of its design life. Figure 2 from the Johannesburg Roads Agency indicates the amount of resources available in relation to the need.
A similar situation exists in respect of public transport infrastructure and fleet. While over 50 public transport ranks exist in the City fewer than 15 are formalised and properly managed. In respect of fleet, the average age of a mini bus taxi is XXX years. A national taxi recapitalisation programme to incentive owners to scrap vehicle and replace them with larger and safer vehicles is far off target due to the affordability issues.

The City’s owned bus fleet, Metrobus, is 450 buses strong but they do not have one bus less than seven years old and the majority are older than 12 years and some as old as 35 years. It’s 80 000 passenger trips a day are all subsidised by the City and its routes focus on the traditional ‘white areas’ since before the end of apartheid it was a ‘whites only’ service and the mini bus taxi industry have opposed them expanding their network. Additional resources are not available to recapitalise and extend its fleet.

The story of commuter rail or Metrorail (operated by the national Passenger Rail Authority of South Africa, PRASA) is not much different – rolling stock is on average XX years old while signalling and ticketing infrastructure has not been upgraded for XX years. The modal share of rail has declined due to poor quality services, lack of reliability and lack of safety especially for women and children.

In Gauteng as a whole, there are 1.3 million rail passenger trips per day. This has decreased by 25% since 2009 due to insufficient train capacity and poor service delivery but has increased 10% over the last year. Only between 76 and 85% of trains are on time and about 31% of coaches (available train fleet of 2296) are out of service at any one time.

Rail is highly subsidised and thus used by the very poor. A recent commuter profile showed that 49% of passengers earn no income and the remainder between R2 500 and R10 000 per month.
If people can’t or don’t like to use public transport, can they walk and cycle? We have already referred to the long average travel distances. In 2010, 28% of non-natural deaths in Gauteng are the result of road crashes with 40% of these being pedestrians and 5% being cyclists. Our roads are not safe for pedestrians and cyclists and generally not constructed to accommodate them.

While over the last ten years the City was embarked upon a very successful programme to tar all roads in the formal townships and these roads have made a dramatic difference to quality of life, are roads are far from “complete” in terms of accommodating all road users.

Sidewalks are narrow and often not properly constructed and pedestrians have to share space with light poles, traffic lights, storm water channels, hawkers, advertising etc. There is very limited dedicated public transport, pedestrian and cycling infrastructure although in recent years the City, particularly in the inner city has invested in turning vehicle road space into sidewalks and rehabilitating sidewalks.

Not a healthy public transport, walking and cycling picture. Why then is Joburg increasingly looked to as an example of how to transform public transport? It lies in the vision and goals that we have set for ourselves and the ambitious and catalytic projects that we have initiated to turn this reality around.

The two key projects in this regard are the Gautrain, a 90km high speed rail linking the international OR Tambo International Airport to the new and old CBDs of Joburg and the administrative capital of South Africa and the Rea Vaya Bus Rapid Transit (BRT) providing a scheduled service on dedicated lanes along the possibly highest transport desire line in the country – between Soweto and the inner city of Joburg.

I will discuss these later together with other initiatives and programmes to turn around public transport. But before turning to these projects, I will look at the key political imperatives and policies that either underpin (or undermine) public transport transformation.

3. Key political imperatives and policies that shape City’s transport policy and projects

The ruling party in South Africa, the African National Congress has been in power since the democratisation of South Africa in 1994. Its successive election platforms have revolved around a better life for all and its policies have focussed on building the economy and creation of job opportunities, provision of basic services such as water, electricity and housing and the provision of improved health care and education.

It has consistently since 1994 increased social security provisions such as pensions and child support grants to some extent due to the inability to speedily and successfully enough in the context of a globalising international economy enable job intensive economic growth.

Unfortunately transport has never featured significantly in ANC election manifestos and ANC policy documents. Transport has never formed the sole subject of an ANC national conference resolution – where policy decisions are made to be implemented by the ruling party in government. To the extent that it is referred to in the political party policy discourse it is predominantly in relation to the role of highways, ports or pipelines as an enabler for growth. The ANC is generally silent in the critical role that high quality urban public transport can play in improving the functionality of cities and reducing
the burden on the urban poor.

Despite the fact that transport does not feature in ANC policy, controversies around the fact that too much money has been spent or too much money is required for a certain project such as the Gautrain, construction of new freeways, the e-tolling scheme, taxi recapitalisation etc. often find their way on to the agenda of their decision making meetings.

One wonders that if there was a stronger political and policy centre for transport in the ruling party, would these controversies still be present? But also would these mega projects – often not initially conceptualised as part of a broader development vision – but retrofitted when the controversy hits – ever have happened.

Because of the highly contested nature of infrastructure provision in developing countries where hard choices need to be made between conflicting priorities, these projects possibly succeeded because they initially were not believed to be able to happen and were kept under the political radar screen until implementation stage.

National government

Within this context, in 2002, the national government introduced a National Land Transport Transition Act to provide a vision and framework for land transport in South Africa. In 2009, this was replaced with a National Land Transport Act.

These laws aimed to provide a framework for the regulation and transformation of public transport, with a focus in the Transition Act on mini bus taxis and subsidised bus services from the far flung areas where black people had been moved to areas where their labour was required and in the latter Act, on the setting up of Integrated Rapid Transit Networks (IRTPN) such as BRT.

Did the passage of the second Act mean the transition was over? That was the hope, but the unfortunate reality is that transport policy and legislation is still forced to respond to the past due to the very strong chains that our apartheid past place on our future capacity to transform transport. This is a constraint on building a successful road map to achieve a future vision and something that at a local level we have tried to address.

The best thing to a long term vision in respect of urban areas was the Public Transport Strategy in 2007 followed by a Public Transport Action Plan drawn up and approved by national Cabinet after the country had won the bid to host the 2010 Fifa Soccer World Cup (SWC).

It was an important intervention to prevent wasteful expenditure on once off projects and to use the SWC to create a public transport legacy. The Action Plan enabled the establishment of a national Public Transport Infrastructure and Systems Grant with significant resources in the form of conditional grants to encourage public transport networks in 12 of the bigger South African cities. This grant made and continues to make BRT happen in the City of Joburg.

Provincial government

South Africa has a federal system where provinces have certain roles and functions including in respect of transport regulation. From a transport policy perspective, there are two interventions of the Gauteng provincial government worth referring to. Firstly in 2000, the provincial government announced 10 flagship projects which would catalyse an economic shift from the mining sector to high
value added manufacture and the services sector.

One of these was the Gautrain. The objective of the Gautrain was to move private car users out of their cars and off the increasingly congested freeway system into public transport. But it was also seen as project to set a new standard for public transport, transform land use and promote regional integration by bringing the three economic centres of activity in Gauteng closer together and create significant jobs and economic opportunities as part of an economic development strategy.

Secondly, in 2007 the provincial leadership introduced the concept of Gauteng as global city region. At the heart of the concept was the notion that one should co-operate internally (in government and between government and the private sector etc.) to more effectively compete externally.

One of the key areas where this was promoted was in respect of transport due to the close proximity of three metros in a relatively small province and the high number of so called ‘cross municipal border’ trips – which may mean something for governments but is irrelevant to residents.

A transversal Gauteng Transport Management Agency was set up for a short time but due to political problems was suspended although there are now moves to revive a transversal transport authority to institutionalise regional transport planning, regulation and contracting.

Metropolitan government

At a city level, the Johannesburg Metropolitan Council with its current geographical jurisdiction’ is only 11 years old. The Transport Department, as a stand-alone Department in the City is only six years old. Previously the transport function was linked to development planning and before that to an ‘engineering department’.

Since the inception of metropolitan council, the City has been guided by strong development imperatives set out in a long term Growth and Development Strategy (GDS) and then given effect to in five yearly Integrated Development Plans (IDP) and one year business plans. The City has recently revised their GDS strategy and has developed a Vision 2040.

The GDS Vision 2040 envisions Johannesburg as a “World Class African City of the future – a vibrant, economically inclusive and multi-cultural African city; a city that provides real quality of life, for all its citizens”. Critical concepts that the GDS expounds on to ensure the realisation of this vision are ‘resilience’, ‘sustainability’ and ‘urban liveability’.

In respect of transport, the GDS embraces the notion of ‘eco-mobility’ and the City has set the goal of making walking, cycling and public transport the mode of choice by 2040. For this to happen the spatial form of the City needs to be changed to become more compact with multi-mixed use nodes while the achievement of eco-mobility will also contribute to a shift towards a low carbon economy.

The GDS also focuses how to achieve job creation, economic growth, social inclusion, poverty alleviation, urban water management transformation and activist developmental local government over the next 30 years.

4. Key City Public Transport Initiatives

The City’s transport family has three members: a Transport Department and two municipal owned entities, namely the Johannesburg Roads Agency which is responsible for the construction and
maintenance of roads and storm water and Metrobus which is responsible for the City owned bus service.

Within the Department, a Rea Vaya BRT ring fenced business unit has been set up and the plan is to expand it over time into a “scheduled services public transport agency” which can contract with a number of different bus or even minibus and rail operating companies.

The transport family’s vision is a “A people centred transport system that is transformed” and its key goals include ‘promoting public transport, walking and cycling as the mode of choice, building co-responsibility and a value based culture to enable behavioural change towards transport issues and ‘building a leading, responsive and activist transportation sector…which works in partnership with stakeholders and residents’.

*Transport planning*

In the early 2000’s, the transport section of the then Transport, Development Planning and Environment Department initiated the drafting of an Integrated Transport Plan. What the plan needed to contain was set out in national legislation including that it needed to be based on a household travel survey and contain a ‘central public transport record’.

Doing such a plan and attempting to record predominantly informal and unscheduled services was a mean feat and in 2003 the plan was complete – including setting out networks and routes for all public transport operators.

The ITP also tried to identify the correct mode for the level of demand and set out a role for rail, bus and mini bus taxi although at the time it was hard to believe in the future of rail when there appeared to be little movement towards rail modernisation from the national rail operator.

A critical Strategic Public Transport Network (SPTN) was developed and while later adapted with the introduction of BRT, continues to be used extensively in the City as the guiding parameters for densification and consolidation of the City as set out in Figure 3 below.

*Figure 3: Linking land use and transport planning*
How far was the ITP implemented? Not very far in respect of trying to get the taxi industry to move from radius based permits to route based operating licenses along a determined public transport network. Neither was the City owned-Metrobus or provincial subsidised bus contracts able to change their routes due to opposition from the taxi industry who since the early 1970s had gained an increasing foothold in public transport and was not interested in loosing revenue even if passengers were dissatisfied with their service. Passengers in Joburg were indeed captive to poor and inefficient public transport.

One of the ITP’s flagship recommendations to promote a shift to rational route based public transport was to introduce curb side priority for public transport, including buses and mini bus taxis, along the SPTN corridors. Designs were developed and construction was imminent in certain areas.

And then there were local government elections, some visitors from overseas bring news of Transmilenio and the Bogota story, the winning of the bid to host the 2010 World Cup and the seed of BRT was planted.

**Rea Vaya BRT**

The BRT was seen as a panacea to the problems of public transport in Johannesburg. Particularly after City and public transport leadership had gone to visit Bogota and other South American cities, they saw it as being quicker and cheaper to implement than rail modernisation or restructuring of existing bus contracts and would also be able to empower the existing mini bus taxi operators who had been holding public transport transformation hostage.

Time does not allow me to tell the whole BRT story in Joburg. Like the Gautrain, it was not set up only to provide safe, reliable and affordable public transport but also to catalyse public transport transformation, enable the spatial restructuring of the City, reduce greenhouse gas emissions, create jobs and economic opportunities and lastly but not least transform of informal mini bus tax operators into prosperous transport businesses.
The long term vision was to develop a system that places over 85 per cent of Johannesburg’s population within 500 metres of a Rea Vaya trunk or feeder corridor. Long term was not defined but a network covering the whole of Joburg was developed as set out in Figure 4. The figure also shows the original SPTN network and nodes.

Figure 4: Proposed Rea Vaya BRT network, 2006

It was given the name Rea Vaya BRT, with Rea Vaya meaning “we are going” and within three years, in August 2009 the first phase encompassing a 25.5 trunk route from Soweto to the inner city was up and running. Today 143 buses transport about 42 000 passenger trips per day.

The BRT model requires the City to build and own the infrastructure (roadways, depots, ITS equipment and stations) and take the patronage risk while having contracts with bus operators who own and manage the buses. Paper tickets are being used while an innovative bank based automatic
fare collection system is being implemented, hopefully in October this year.

In February 2011, an interim bus operating company was taken over by over 300 mini former mini bus taxi operators who owned 585 taxis in a management partnership with an international BRT operator.

This was the culmination of over three years of engagement and negotiation which were characterised on the one hand by high levels of violence and intimidation by elements of the taxi industry who were opposed to the introduction of a new mode of transport and on the other by high levels of innovation. The decisions reached in the negotiations were set down in agreements which were drafted from scratch and intensively negotiated – value chain, participation framework, employment framework, negotiation closure were the names of some of these agreements.

It took a ‘mind shift change’ to get mini bus taxi operators to buy into the BRT model. One of the leaders of the taxi industry, Eric Motshwane, recalls it this way: “When some of our members realised they were not going to own the bus as an individual and it will not park at their houses, and they can’t take their family on holiday in it, they said: “Eric, you can’t tell us to do this thing if it doesn’t come sleep in my yard.” It took a lot of convincing”.

The City purchased the buses for the bus operator as well as raised the funding for the buses from a Brazilian Export Credit Agency. Euro IV buses were purchased and ceded to the bus operating company, now called Piotrans. This was the first time that a South African municipality had sought funding from an export credit agency and it was an enormous learning curve bearing in mind we were negotiating complex agreements with a country that spoke a different language and had a different

In respect of the role of Rea Vaya in enabling modal shift, in October 2010, a passenger interview survey at six major Rea Vaya stations was carried out to find out what modes of transport would have been used by passengers in the absence of Rea Vaya. The results are set out in Figure 5.

**Figure 5: Modal shift to Rea Vaya BRT, 2010**
The next phase (Phase 1B) of 18km and an additional 17 stations and requiring 134 buses should be operationalised by mid-2013. The longer than anticipated implementation period has been due to the fact that after the local government elections in May 2011, the new City leaders and administrators, especially those responsible for City finances began asking hard questions about the operational sustainability of the system.

When the BRT began a scoping study was done – not a detailed feasibility study with a comprehensive life cycle financial model – and it was assumed that if the costs of constructing the dedicated lanes, stations and depots could be funded from the fiscus, the operations would fund themselves.

This was not to be, not only because a high ‘empowerment premium’ was paid to the first set of affected operators as a result of the sacrifice they made in the face of violence for ‘joining the BRT’, but also because a large number of costs were under-estimated or could not have been estimated in the light of limited experience. These included the actual cost of transition such as scrapping taxis, maintenance of stations, security and larger than anticipated staffing requirements at stations.

At the time of writing this paper, a political decision has not yet been made on whether the City can afford the next phase and if it does get the go ahead, the fee per km to be offered to the second bus operating company will be much more constrained and increased efforts will need to be made in the outer years to improve patronage through travel demand management (TDM) and integration with other transport modes as well as possibly regulating illegal competition.

**BOX:** Some significant milestones and indicators in respect of the Rea Vaya BRT project are:

- Phase 1A carries on average 42 000 passengers per day or a million per month;
- 25,5 km of trunk route and 75.8 of feeder and complementary routes
- Phase 1A infrastructure cost R1.500 million (including land acquisition) and Phase 1B infrastructure is anticipated to cost R1.800 million;
- Phase 1A created about 830 permanent jobs and about 6000 construction or temporary jobs;
- Approximately 7.7% of the Soweto public transport market is carried by Rea Vaya Phase 1A;
- The 585 taxis that have been taken off the competing routes of Phase 1A comprises about 9.5% of all the taxis operating in and from Soweto; and
- Rea Vaya Phase 1A and 1 B will cut carbon emissions in Johannesburg by 40 000 tons of carbon dioxide equivalents a year.

So what else was happening (or not happening) around public transport transformation?

**Metrobus**

Metrobus should be the obvious next target of restructuring and transformation. It has been beset by insufficient funding, labour problems and poor leadership and thus may not be able to ‘hang on’ and be gradually absorbed into the BRT as it is rolled out as was initially envisaged. The timeframes for BRT roll out have also been extended and the timelines for the future roll out not determined.

The Transport Department did conduct a study in 2010/11 on possible future options for Metrobus and on the basis of the experience of Rea Vaya, the Mayoral Committee made a decision to unbundle
Metrobus into an operating model resembling that of the BRT where the City will take the patronage risk and collect fares and the buses will be owned by private service providers who will be paid a fee per km.

This decision however has been slow in being implemented for a number of reasons including a reluctance to ‘move from the known’ by both politicians and company employees and because no large pot of cash exist to push the process as is the case with Rea Vaya BRT.

In the meantime, the company is being run down, buses are breaking down more frequently and passengers are moving to other modes or their own cars. It would not be surprising if Metrobus imploded before it is transformed.

*Mini bus taxi industry*

As with Metrobus when the BRT was initially agreed upon, the idea was that in time the majority of mini bus taxi operators in Johannesburg would be absorbed into bus operating companies. Based on the South American experience, this was regarded as the most desirable way of mini bus taxi industry transformation.

Again, the hope was that this could happen in a relatively short period and thus other initiatives to make mini bus taxis safer such as through a nationally government sponsored taxi recapitalisation programme were given less attention.

However in Rea Vaya Phase 1A about 50% of the taxis using the route were absorbed into the bus operating company based on the capacity of the new fleet. In Phase 1B, about 66% of the taxi fleet on the proposed route will be able to be absorbed.

Further in light of our ongoing sprawling settlement patterns, it is likely that there will always be a role for mini bus taxis, hopefully in partnership with other modes and more formalised. A new Integrated Transport Plan is being developed on the basis of a new household survey and transport record to be able, inter alia, to determine the best mode for the level of demand.

While this happens, the vast majority of taxis remain organised in feudal taxi associations where violence, coercion and other forms of illegal activity is the order of the day. Government as a whole has not yet succeeded in either imposing law and order and/or forming sustainable partnerships to formalise the industry and improve it safety record.

In fact the Rea Vaya Phase 1A bus operating company formation process intensified divisions and tensions within Soweto based taxi associations and significant numbers of operators are estranged from government and have retreated into unco-operative stances.

Is this one step backward for two steps forward or two steps backward for one step forward? After all the Rea Vaya process has transformed some part of the taxi industry while the majority of previous initiatives in South Africa and even further afield to formalise such an industry have been unsuccessful.

The first Rea Vaya Project Manager, Bob Stanway commented, “Depending on who you speak to, people will say it’s a success or not, but it’s a good operating system. It is one of the first things in being able to solve some of the transport problems in the cities in South Africa”
While developments in road based public transport resembles a see saw, what about rail?

Although the City through the ITP identified a critical role for rail, it was not supportive of the Gautrain since it saw it as an investment for the rich and was not confident that Metrorail could turn itself around to be a mode of choice for the poor.

However there are (at last) exciting initiatives at a national level to significantly invest in new rolling stock and a number of ‘modernisation projects’ to the tune of R10 billion over the next three years in Gauteng. These projects include introduction of new rolling stock, signalling, electrical rehabilitation and station upgrading as well as the development a new rail strategy which will focus on better utilisation of rolling stock and other operational efficiencies.

The rolling stock investment plan is geared at incentivising the construction of a local rolling stock factory which can also contribute to national goals of job creation and creation of local manufacturing capacity.

Passenger rail is a national competency but Cities in terms of legislation are required to be involved in the rail planning and there is a strong push from national government for the rail subsidy to be devolved to metros with the intention of making rail services more accountable at a local level.

This is questionable especially as the present rail subsidy is not adequate to manage rail at is present standard, never mind fund improvements. The initial response of local politicians has been that dissatisfied rail commuters will now come knocking at their door and it will be an ‘unfunded mandate’.

Possibly cities should focus more on making sure that the amount or sequencing of investment in rolling stock, signalling, stations and people (drivers, security etc.) will lead to a sustainable turn around able to attract passengers from mini bus taxis and their cars, than fighting about who should hold the purse strings.

The success of rail will also depend on whether land use patterns along rail corridors will shift including as a result of the successful implementation of City land use policies and how passengers travel safely on the so called ‘last mile’ (from the station to their home/work place or school). This is an issue which the City has focused on in respect of Gautrain.

Gautrain began operating between the OR Tambo International Airport and the Sandton CBD days before the SWC started in June 2010 and in August 2011 extended its operations to the Pretoria or Tshwane CBD. In May 2012 the final link to the Joburg inner city was opened. It’s high speed rail service – at a max speed of 160km per hour - is complemented by 125 buses which transport passengers to and from the nine stations.

The train transports about 39 000 passengers daily and buses 12 000 passengers. The Gautrain fare is set higher than mini bus taxi fares and lower than the equivalent cost for using a private car. Each station includes a very large park and ride for vehicles and a very small park and ride for bicycles. Both types of park and ride have been more successful than anticipated, while the buses are generally
poorly patronised.

Gautrain was developed as a public private partnership, where risk was meant to be shared between government and a private operator. Nevertheless it has cost the fiscus over R35 billion and could cost more if the patronage numbers do not live up to expectations since patronage risk rests with government.

Is Gautrain a success in terms of the objectives it set itself? It is still early days and there is still a novelty value attached to using the Gautrain. Yes, it attracts passengers but it not yet clear whether it is sufficient in terms of covering the patronage guarantee. The fact that e-tolling has not been implemented on a much more improved Gauteng freeways system operating to similar destinations is a big blow to its potential patronage.

Yes, it has successfully been able to attract investment around some of its stations. Once Sandton developers saw there was no turning back on the implementation of the Gautrain, they have invested in new developments to the tune of R22 billion. However other stations nodes have not been so fortunate, possibly because the stations came on stream at the same time as the global recession.

Its promise to set a new standard for public transport and catalyse public transport transformation is still to be realized. This will possibly happen when their focus is able to shift from the massive construction that was involved and as operations stabilizes.

The City has been working with the Gautrain to make the ‘last mile easier’ through introducing safe and well lit commuter shelters, improving accessibility around stations and working with metered taxis - all with no additional resources from the Gautrain bosses. We have also been involved with the Gautrain Management Agency in still small travel demand management initiatives to increase the number of park and rides, engage employers to introduce employee trip reduction programmes, etc.

Very disappointing is the fact that the Sandton Station which was planned as a flagship intermodal station with space for BRT and mini bus taxis has not come on stream. Due to a dispute over land ownership and lack of additional resources which is expected to come from the City, the area remains boarded off and unused. Round the corner, mini bus taxis continue to rank and serve their commuters in overcrowded and poorly maintained conditions.

Public transport infrastructure

The discussion above has focused essentially on the provision of fleets. However, the City increasingly has recognized that to make public transport, walking and cycling as the mode of choice, requires a new approach to and focus on public transport infrastructure – from proper sidewalks, street lighting, clearly identified stops, way finding signage, safe shelters to stations, ranks and holding facilities for public transport.

This is premised on the view that as long as our facilities for walking, cycling and using public transport – which is essentially the street - are unsafe, inaccessible and unattractive, it is difficult to encourage or even force a modal shift away from private car use. High quality public transport infrastructure also can attract increased private investment in surrounding areas and create the conditions for urban regeneration.

For example, a couple of years ago PRASA introduced a ‘business express service’ from one part of Soweto to the CBD. The coaches were more luxurious and free newspapers were of offer as well as
parking or park and rides – but the potholes at the entrance to the parking areas at one station in Soweto were so bad that even those who arrived in 4 X4s turned away!

The City has embraced the “Complete Street” and “Open Street” concepts from South and North America – to complete our streets so that they can be used by all road users and not only private car vehicles and to open our streets on certain days for walkers, cyclists, skate boarders to reclaim streets as public spaces.

We have been developing our own brand called “Streets Alive” where we seek to integrate engineering interventions with education, awareness, recreational activities and enforcement measures to make our streets safer and to promote walking and cycling.

Below I set out some of the initiatives that we have or intend to take in respect of making public transport infrastructure a critical component of a successful public transport offering.

Firstly, over the last 15 years the City has pioneered innovative designs of ranking and holding for minibus taxis especially in CBDS where large numbers of vehicles need to be accommodated in the off peak. However inner city or CBD destination ranks are a bit like freeways – the more you build the more you need to build and they also require high levels of maintenance as a result of the heavy traffic flow of people and vehicles.

The City has thus now developed and is currently piloting a lower maintenance, affordable, safer and more sustainable facility which can accommodate all forms of public transport, as well as traders and provide a public space for people to meet, as can be seen in Figure 6.

Figure 6: New model public transport facility
Secondly, we are similarly rolling out a standard commuter shelter as part of an outdoor advertising tender – with a common look and feel. All shelters will have seating, passenger information, tactile surfaces, a place for a person with disability to wait and most will have lighting some of which will be solar.

Thirdly, the role of sidewalks in public transport promotion and road safety should not be underestimated. In some areas, our sidewalks have been used as storm water channels and the Johannesburg Roads Agency has had to embark upon a programme of closing these storm water channels.

Good sidewalks can include dedicated pedestrian and cycle ways, lay byes or bulbs for public transport, landscaping, street furniture, way finding signage, organised trading and public art. This is what we mean by a ‘complete street’, referred to earlier.

While cycling is not a major mode in Johannesburg, introducing dedicated infrastructure has been shown in other parts of the world to lead to an increase in cycling while the dedicated paths if constructed in a particular way can also calm traffic and change the face of the street.

Finally, we are increasing looking at dedicated paths or roads for particular modes. The City has recently approved a managed lane policy which makes provision for depending on need, the Transport Department to implement counter flow lanes, dedicated public transport of cycle lanes, dedicated freight lanes etc.

The City has some dedicated public transport lanes but it is hoped to introduce more including using ITS at intersections to give public transport right of way. Also under consideration are public transport by pass lanes at intersections and ‘mini-bus taxi focus’ streets with significant provision for on-street ranking while limiting private car and freight vehicles.

**Behavioural change**

If fleet and infrastructure are the bricks required to build our public transport house, then behavioural change is the cement required for a sustainable and long lasting home.

**Figure 7: Value symbol erected at Ivory Park as part of a complete street project.**

“Improving our transport system cannot just be about infrastructure upgrades, it must focus on how we relate to each other as fellow human beings. Working together we can start a mass movement for transport values which can lead to safer, happier communities – Are you up to the challenge?”

MMC Rehana Moosajee, MMC for Transport, City of Joburg, Press Release 13 March 2009
During the previous term of office, the Member of the Mayoral Committee for Transport, Cllr Rehana Moosajee introduced an innovative transport values programme to enable behavioral and attitudinal change amongst transport users. The idea was to internalize values amongst road users to respect one another and the city’s infrastructure, be honest to one self, taking accountability for one’s own actions which must be desirable and acceptable, cooperate with other road users, and displaying the values of Ubuntu at all times.

This initiative recognised the importance of building ‘co-responsibility’ in ensuring road safety, the sustainability of transport infrastructure and public transport usage by focusing, for example, on the prevention of vandalism and theft of road infrastructure such as man hole covers, littering on storm water drainage system, painting of graffiti on road signage and driver behavior including of public transport operators.

These values are promoted through education and awareness campaigns, including using a Pedestrian Angel for young children and through building partnerships with civil society organisations. The Department has also erected the value’s symbols as public art in areas where they have rehabilitated the sidewalks as can be seen in Figure 7.

Travel demand management (TDM) is also about effecting behavioural change in private car use. We have not been very successful at this to date mostly because there is not sufficient alternative reliable public transport. However this is changing with the introduction of Gautrain and Rea Vaya and amongst our plans are making amendments to the City’s zoning policies to set parking maximum’s (and no longer minimum’s) in areas well served by public transport.

Other TDM initiatives being worked on include the introduction of park and rides in partnership with shopping malls on public transport routes that have excess parking capacity during week, encouraging ride sharing, closing certain streets to vehicular traffic at certain times of the day and employee trip reduction programmes in partnership with large employers or city improvement districts.

5. Learning the lessons: A tale of two cities or two tales about one city

From the above, it is clear that our public transport transformation is still early days in the City of Joburg. Performance is easier to measure in the short term – number of passengers on a road, but sustainability and social and economic impact such as on climate change, welfare of citizens, change in the urban form is not easily associated with a single variable and often requires time.

Let’s fast forward to CODATU in 50 years’ time. Which of the following two tales would the Executive Director of Transport tell about the City of Joburg?

Tale one

The first tale could go like this: “In 2010, South Africa hosted the Fifa Soccer World Cup. Significant amounts of funding were made available to ensure the games were a success and to leave a lasting legacy. Over R2 billion was ploughed into a new form of public transport, the Rea Vaya Bus Rapid Transit and even more into a soccer stadium.

Today this infrastructure lies in tatters. The stadium has recently been cordoned off to prevent further vandalism and the risk of squatters taking over the place. The BRT infrastructure has also been seriously degraded and is now no longer used only for BRT buses.
The first bus operating contract was for 12 years and even in those early days, the cracks began to show. The City could not afford the operational subsidy required to ensure an efficient operation and thus fares went up and patronage went down. Then the taxi owned company was beset with internal infighting and poor corporate governance and they ran the buses into the ground. It seems once a taxi owner, always a taxi owner.

The promise of densification around the BRT which would improve patronage as well as transit orientated development failed to materialise due to lower than anticipated levels of in migration and economic growth. This was partly as a result of increased stability in the countries to the North of South Africa and partly due to the hostile, almost xenophobic attitude of many South Africans to their northern compatriots.

The revitalisation of rail – due to a significant inward industrialisation move by the South African government and subsequent setting up of a state subsidised rolling stock company – helped when oil prices peaked and vehicle users were forced to move to public transport. However while the rolling stock was great but the signalling upgrading was a disaster and so many times passengers were stuck in their fancy coaches. It was subsequently alleged that there was tender rigging in the award of the signalling tender.

However when fuel from shale became commercially viable in 2025, the private vehicle industry was given a new lease of life and congestion increased.

So while the City leaders at the turn of the century had significant foresight, what they did was too little, too late and unsustainable and our generation has inherited white elephants, a poorly connected public transport system, on-going congestion and poor road infrastructure.”

Tale two

And the second tale, could read like this: “In 2010, South Africa hosted the Fifa Soccer World Cup. Significant amounts of funding were made available to ensure the games were a success and to leave a lasting legacy. Over R2 billion was ploughed into a new form of public transport, the Rea Vaya Bus Rapid Transit and even more into a soccer stadium.

And what an amazing legacy that was to leave to the present generation. Today, the Rea Vaya BRT spreads across the whole of Joburg, with a stop virtually 500 metres from all our residents.

The Rea Vaya BRT, under the banner of safe, affordable and reliable – became such a catalyst for public transport transformation. The City realised that legacy projects can’t survive on their own but need to be integrated into and supportive of other aspects of public transport transformation.

Their critical steps were two fold. Firstly an Integrated Transport Plan was developed in consultation with key stakeholders to identify what mode is appropriate on what route with due regard to the current level of demand and future land use vision. This enabled government to target investment appropriately to rail, BRT, mini bus taxi recapitalisation, walking and cycling.

Secondly, our City fathers realised that Joburg is very inter-connected with the neighbouring municipalities which formed part of a Gauteng Global City Region and thus a cross-municipality Transport Authority was set up to institutionalise regional planning and contracting.

Together the three municipalities, the national and provincial government and the rail operator implemented a rail revitalisation plan which returned passenger rail to be the backbone of public transport.
transport and freight rail to be the main mover of inter-city goods.

The local rail service was rebranded to Rea Vaya Rail and the BRT was rolled out in areas of high density which complemented rail or where rail was not able to be present. Further within the first ten years of operation, the City’s own bus service was restructured to provide feeder routes to BRT along the same successful contracting basis – where a fee per km is paid and the patronage risk is taken by the local authority.

Mini bus taxis continued to provide a service in areas with low density – Joburg will always retain some aspects of its apartheid spatial form - but increasingly taxi owners were also shareholders in bus, BRT or rail – and their services became scheduled. A project in 2025 also incentivised taxi owners to switch to more environmentally fuel sources including fuel from waste (bio-waste from sewer plants and bio-gas from landfill sites).

The transformation and catalytic impact of the Rea Vaya BRT was also evident in respect of infrastructure provision. The unique Rea Vaya station design was reproduced in different ways for taxi ranks, bus shelters etc. and enormous efforts were made to attract more people to public transport through way finding signage, attractive and safe pedestrian access and bike pathways and storage.

This obviously required significant resources which came from a number of sources. Firstly, the City realised that public transport provision, reduction of congestion from private cars and freight and reduced air pollution is critical to the quality of life of residents and economic competitiveness of the City. They thus increasingly allocated a percentage of spend from their rates base.

Secondly, the City developed a Greenhouse Gas Emissions Register and could measure the impact of reduced greenhouse gases. This enabled them to source international green funding and engage in the carbon market.

Thirdly, a parking levy was imposed on all non-residential parking bays. This created a disincentive for developers to build more parking bays – and while raising money for transport also served as a TDM measures – similar to congestion charging that had been introduced in other Cities at the time.

Pity, the Soccer City Stadium could not produce such a powerful legacy. It still remains relatively unused, but one of its annual highlights is when the City’s Transport Museum rolls out all its vintage cars for an exhibition and encourages school children to cycle to the venue for a free helmet!

*Learning the lessons*

Which tale will come to pass? For me the verdict is still out. What are the lessons to be learnt and things that should be done to ensure a catalytic outcome from the path that the City of Joburg has taken?

My critical observations or hypotheses are that for a catalyst project to have a sustainable and transformative outcome it can’t be a standalone catalyst for too long. A catalyst is only a spur or a start and if such high levels of investment are not followed by commensurate investment and energy in integration of nodes, behavioural change and public transport infrastructure, these big projects may end up as ‘white elephants’ and the majority of residents will remain ‘stranded’ in their private car on a congested highway or in poor quality unreliable public transport.
Further, the investment and energy must be appropriate to the local circumstances, appropriately sequenced, supported by the appropriate institutional arrangements and underpinned by sound yet dynamic and iterative transport and land use planning processes and a long term funding strategy.

Finally, the normal bureaucratic approaches of government – legislation, regulation and formal consultation processes – are not sufficient to change intransigent patterns of public transport. Also required are high levels of political will and championship and a commitment to co-responsibility and partnership.

6. Conclusion

I will conclude by looking at these concepts in more detail.

Achieving a sustainable and transformative outcome: Hopefully my message that sustainable transformation in public transport is about appropriately balancing and integrating the following three elements has come through:

Providing, modernising or transforming the ownership of buses, rail or other fleets;

Making the public transport infrastructure such as nodes, transfer points, bus stops and sidewalks accessible, safe and attractive; and

Enabling behavioural change – getting commuters to switch to public transport by both making it more attractive and accessible and making private car use more difficult.

Commensurate investment: Earlier I described how Gautrain managed to raise billions of rand for the construction of the network and yet struggles to find cents to introduce TDM measures to improve patronage. Similarly, Rea Vaya has been assisted and blessed with millions of rand to purchase Euro IV buses but Metrobus struggles to find funding to replace gear boxes. And worse of all, hardly any money is provided for in government coffers for taxi ranks, taxi lay byes, stops never mind recapitalisation of the fleet.

While there are good reasons for investing in flagship projects, there are also high reputational or perception risks especially if the project is seen only to serve a particular constituency or area and not integrated with other public transport and government programmes. In the worst case scenario buses or train sets can be violently attacked or vandalised but more likely that without investment in other modes and integration, the overall public transport transformation project will fail.

Appropriately sequenced: To avoid the above scenario, a medium to long term plan identifying an appropriate role for each mode and a road map (excuse the pun) to get there which has political, policy, stakeholder and public transport operator support is required.

Neither the Rea Vaya BRT, nor the Gautrain (or the freeway tolls scheme for that matter) were conceptualised and implemented as part of an integrated transport plan supported by the ruling party and all levels of government. However before the Gautrain was given the final go ahead by the national Cabinet it had to develop or rather retrofit a detailed document on why and how it would support public transport integration and become a ‘mass mover’ over time.

It is possible that in the long term, a complementary role for these different modes can be found and a positive synergy between the e-tolling scheme (which pushes people out of their private cars) into the
Gautrain (which pulls people towards public transport), but the verdict is still out – and it is risky to leave it to the ‘rainbow nation’ magic potent which we were blessed with during out transition to democracy.

It is thus better to have an appropriately sequenced plan setting out how different parts of the plan will be funded – the commensurate investment.

Dynamic and iterative transport and land use planning processes: How should such a plan be developed? It is possible to plan or collect data forever. It is very hard to collect reliable information when public transport is informal (and often illegal) and where operators perceive that information they provide will be used against them in a formalisation process. Planning is also expensive in resource constraint environments.

For me, having a good understanding of origins and destinations is critical for public transport planning so that one can determine the best mode for the current and future projected level of demand, the networks for what modes and how roll out should be sequenced. To determine current and projected level of demand, transport planning must be influenced by land use information and future plans.

This can be followed by separate operational plans with financial models and risk assessments for a particular route or area when funding is imminent. For example, on the basis of our 2003/2008 Integrated Transport Plan with updated traffic figures and stakeholder inputs we have developed a specific detailed plans for areas like the inner city and other small CBDS. These plans can set out in more detail proposals for dedicated public transport lanes and pedestrian prioritisation as well as travel demand measures such as employee trip reduction programmes.

One of the difficult issues to overcome in transport planning is to plan for the future with the past in mind and not just plan to overcome the past. The settlement patterns of our apartheid past is one of the biggest constraints facing sustainability in transport but if we keep focusing on that, we neglect to focus on the imperatives of the future – congestion, oil peak, carbon emissions etc.

Appropriate to the local circumstances: Both the Rea Vaya and Gautrain originators travelled extensively to learn from the international experience, the Rea Vaya had international advisors and the Gautrain has an international private partner. Learning from the international experience has been enormously inspiring and useful, but congruence with the local circumstances and conditions can’t be lost.

Both Gautrain and Rea Vaya have invested heavily in so call smart technologies or Intelligent Transport Systems. The Rea Vaya has a more or less fully imported Advanced Public Transport Management System - complete with variable message signs, a control centre, cameras, remote bus monitoring, ability to influence traffic signal times etc. It’s method of communication is fibre optic cable. Its source of energy is one phase electricity, backed up by solar. And every week it is down because of electricity problems, cable theft (or mistaken cable theft – when thieves believe optic fibre has the same value as copper fibre) or because of ongoing work in the road reserve by water, power, telecom suppliers who damage the cables.

Did we really need this ITS to meet a promise to commuters for a fast, reliable and convenient service? Could this investment rather not have gone to other modes? Or is it part of setting a new standard for public transport?
Related to this, the Institute for Transportation and Development Policy (ITDP) has introduced a BRT standard and then has evaluated different BRT standards. Highest scorers – with high quality full BRT systems - receive a ‘gold standard’, followed by silver and then bronze. The City of Joburg was awarded a silver standard last year. The question is however, should we not rather be striving for an appropriate bronze as opposed to an internationally benchmarked gold?

And what would be an ‘international bronze” or a “South African gold”? I would argue that the criteria should be developed based on the City’s GDS strategies concepts of concepts of resilience, sustainability and urban liveability I referred to earlier. If we took the example (also discussed earlier) of our new public transport model facility:

It is resilient because it can be easily maintained and managed – through the choice of materials and design (and not through the use of high tech security equipment or lots of paid security);

It is sustainable because it is affordable (not a very expensive structure) and green (harvesting of rain water, separation at source bins etc.); and

It meets urban liveability because it acknowledges the imperatives of safety and appropriately balances the needs of commuters, hawkers and public transport operators.

Finally, being appropriate for local circumstances can also foster local innovation and entrepreneurship.

Appropriate institutional arrangements: This is probably one of the hardest nuts to crack in transport implementation due to a number of reasons including that governments’ govern with borders and transport crosses border. Further, almost all cities have inherited anarchical allocation of powers and functions when it comes to transport – and why – because very often a high profile transport investment is the brain child of a politician wanting to leave an indelible mark on the face of the City.

Even before the Gautrain and Rea Vaya, in Joburg we have a ‘double decker highway’. It was a brain child of a major in the 1960’s and while now connected to a national freeway system is still owned by the City. The Gautrain was nicknamed the “Shilowa Express” after the Premier of Gauteng who was championed this project during his term of office.

Again we have been called upon to follow the international experience of transport authorities to address the ‘border problem’ I described earlier. And they have been successful. My two pennies worth however is that “a cake is a cake; however which way you cut it”. It is more important to build relationships across municipalities, across spheres of government and across the public and private transport sector with the end in mind, than spend resources and energies on which structures should be allocated which functions.

Both Rea Vaya and Gautrain began as projects and slowly on the basis of experience, built and are still building appropriate institutions. That said, the recognition of Gauteng as global city region is an important opportunity to utilise, and slowly without a lot of grandeur build an appropriate institution around.

Further the ‘soft side’ of institution building – valuing and capacitating staff, and in South Africa’s case local, black and previously disadvantaged staff has to be a priority for sustainability.

Long term funding strategy: Provision of public transport is costly. It probably cost more public funds to provide public transport to one passenger than water, electricity or even housing. Further for every
one rand spent on infrastructure, provision needs to be made for maintenance and operational expenditure. In respect of Phase 1A Rea Vaya, BRT for every R1 we spend on CAPEX, we calculated that R2.87 is needed for operations and maintenance.

In the case of Rea Vaya BRT, due to the time pressures we were before the Soccer World Cup, detailed cost benefit analyses and whole life cycle costing was not done or a funding strategy developed and agreed to by the relevant government authorities. As referred to earlier there was an under estimation of operational costs which has now put the future sustainability of the project and its future in question.

In an ideal world, the starting point would have been to get political and policy support to the notion that funding for urban public transport is critical for the quality of life of all residents. If compact and large cities like London are still subsidising public transport, what is the chance that a city like Joburg with an apartheid legacy, urban sprawl and high levels of unemployment and poverty will not require support from the fiscus for public transport?

Funding for public transport is a way of providing a social wage to poor and unemployed people. Fast and reliable public transport can improve productivity and if it leads to a reduction in congestion, can contribute to economic growth and competitiveness of cities and we know that cities are the heartbeat of national economies.

This provides a strong argument, in my view that the primary source of funding of public transport should be the national fiscus, followed by the rates base. Fare revenue is a further source of funding and the most critical way to improve this as a source of revenue is not by increasing the fares, or integrated ticketing etc. It is by being able to over time influence land use planning, development and employee working time patterns so that public transport can be well patronised in both directions in the peak.

We have also explored so called “alternative sources of funding” such as congestion charging, parking levies on non-residential parking, fuel levies and from motor vehicle licenses. These sources of funding have a number of administrative and public acceptability challenges but are useful to look at because they also have the advantage of disproportionately impacting on private car users and can also serve as travel demand measures. They however should only be seen as complementary sources of funding and in our experience will not generate sufficient revenue to replace the role of the fiscus.

Public participation, co responsibility and partnership: Transformation can’t happen from above or below only. It has to happen from above and below and in partnership.

We have really valued the following quote from the past mayor of Curitiba, Jaime Lerner: “There are three main issues that are becoming important not only for your city but for the whole of mankind. These relate…mobility, sustainability and tolerance or social diversity. Every time we try to create a solution, we have to have a good equation of co-responsibility with the public. That means it is not a question of money and it’s not a question of skill, it’s how do we organise the equation of co-responsibility”.

I would not say that we have succeeded to organise this equation yet but some of the components that we have put in place include enormous attempts to build a partnership with the taxi industry in particular in the implementation of BRT, active promotion of transport values and more recently building community partnerships to address problems of community road safety such as speeding cars.
and lack of sidewalks.

We are also looking at ways which go beyond traditional forms of public awareness and participation such as where notices are placed in newspapers calling for public comments. In our annual Transport Month we arrange things like a “public transport adventure” where profile members of the community are challenged to find and travel to places of interest using public transport.

Political will and political champions: Both the Gauteng Province and the City have been blessed with far sighted, passionate and visionary political leadership who have consistently profiled and defended where necessary the decisions on Gautrain and Rea Vaya. Both projects have also had active political oversight.

The challenge going forward is for this visionary individual leadership to be able to push for sustainable policy in the ruling party. Otherwise, once this political leadership is no longer there, the sustainability of their projects can likewise disappear.

Finally, energy: The last word I want to deal with is ‘energy’. Public transport vehicles need energy – and hopefully it should be clean and green energy. But people are the real energy that drives delivery and transformation – from the station marshal to the bus driver to the committed professional and political champion.

For the City of Joburg to transform the “curse of the choo choo train” of the Stimela song into the charm of “Rea Vaya - we are going” and to make walking, cycling and public transport the mode of choice, the energy ingredient is critical.

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