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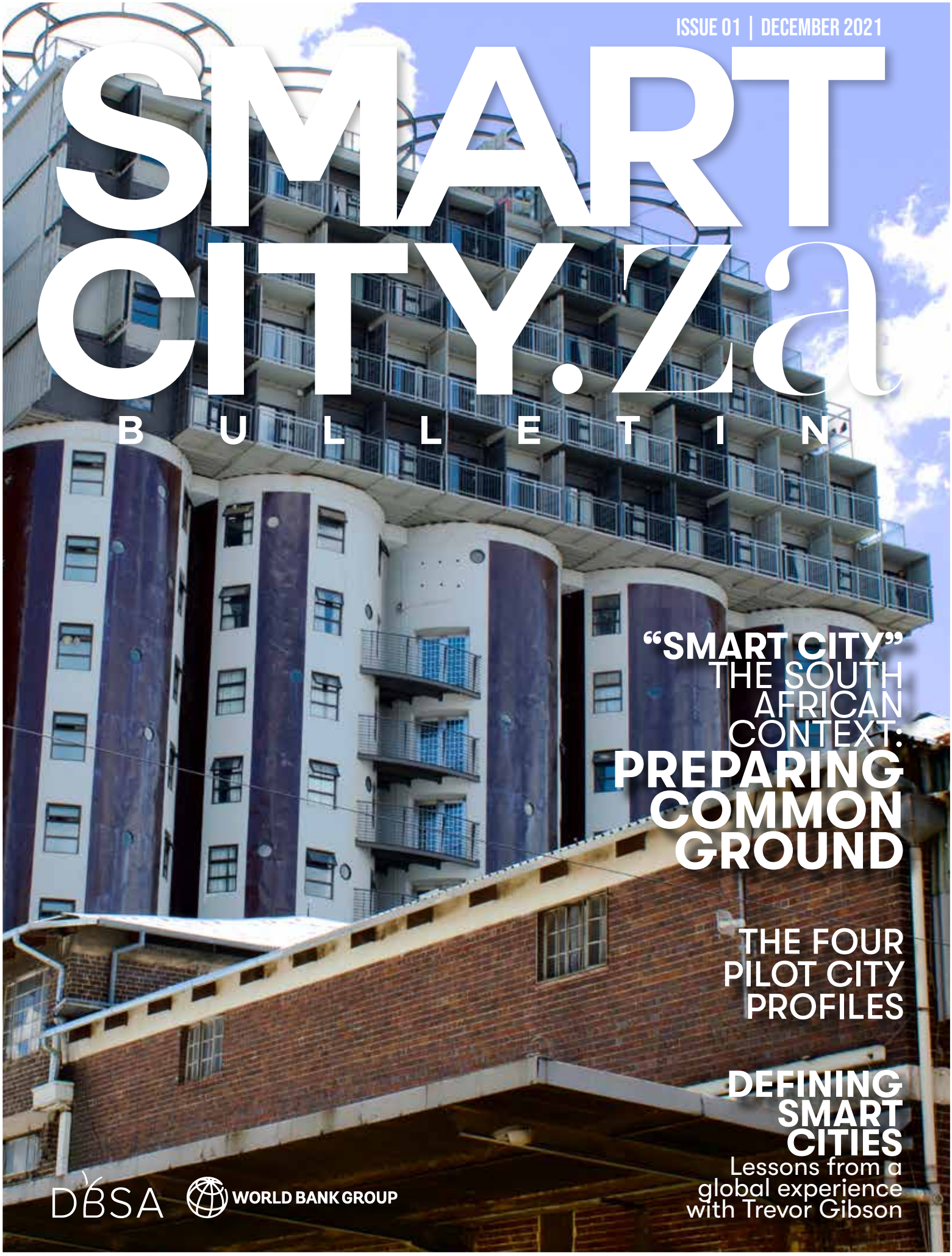
SMART CITY.Za

BULLETIN



"SMART CITY" THE SOUTH AFRICAN CONTEXT: PREPARING COMMON GROUND

THE FOUR PILOT CITY PROFILES

DEFINING SMART CITIES

Lessons from a global experience with Trevor Gibson

DBSA
WORLD BANK GROUP

FOREWORD
by **DARSHANA PAREKH**

South Africa, like most developing nations is plagued with systemic issues of poverty, unemployment and inequality. Structural challenges induced by apartheid spatial planning, have resulted in distorted infrastructure patterns and lack of access to the masses. With a huge dependency on natural resources, South Africa, much like the rest of the continent has been slow to migrate to newer industries and harness the potential brought on by the Fourth Industrial Revolution (4IR).

The adverse effects of Climate Change impact poor and low-income communities disproportionately around the world. Impacts of climate change are forcing people to move into cities in search of jobs, better health care, social security, shelter, education services and most importantly to some extent equitable access. South Africa is no exception, with sustained urban migration of those seeking opportunities to better their lives.

The Development Bank of Southern Africa (DBSA) is cognizant of these national challenges, which are playing out at a municipal level. South African cities are struggling to keep up with the demands on service delivery and cannot respond to their constituencies' needs.. Smart Cities are a mechanism to address these challenges, through the potential it brings in creating sustainable, resilient and technologically driven solutions to municipal challenges.
The concept of Smart Cities is not a new one, with the definition having evolved from that of a broader nuclear city due to urban development, to a city that is technologically driven, efficient and sustainable. In alignment with the Sustainable Development Goals (SDGs), more especially the Climate Action agenda and the Sustainable Cities and Communities goals, the DBSA supports the adoption and aspiration of the Smart City agenda in South Africa. Smart Cities can be seen as a mechanism which will enable effectiveness and sustainability of municipalities, from securing its revenue base, to enabling sustainable infrastructure, to ensuring evidence-based planning and municipal governance and accountability.

We at the DBSA, are excited to embark on this journey of achieving Smart Cities, through the enactment of our value chain in preparing, financing and implementing Sustainable Infrastructure. We define a Smart City as: " a city that leverages information, communication and other forms of technology platforms to:

- **Engage citizens**
- **Manage the city's resources**
- **Inform evidence-based integrated urban planning**
- **Influence sustainable smart infrastructure decisions for the delivery of effective, efficient, reliable municipal services**

The overall strategic objective of which, is to support South Africa achieve inclusive, livable, resilient, competitive, and sustainable Smart Cities that are globally competitive.


Photo © Mirko Vitali

PREFACE FROM THE EDITORS
by **GECI KARURI-SEBINA** with **LETHU MASANGO**

As we begin the two year journey with four South African metros on the Smart Cities South Africa (SCSA) Pilot Programme, we want to centre a key 21st century capability: learning. We believe that building collective intelligence and mutual learning are core to how we will practice and succeed with this programme because there is no possibility of developing "smart cities" if we do not have smart people behind them. And because we are pursuing complex goals with new technologies and in changing conditions, we need to innovate, which is fundamentally based on knowledge and learning. But as an old African proverb tells us, "Knowledge is like a garden; If it is not cultivated, it cannot be harvested." This is why SCSA's design includes a strong knowledge and capacity building component which is envisaged to engage the cities in a range of structured and emergent learning opportunities. These will include peer-based knowledge exchanges, capacity diagnostics, formal training, research support and knowledge sharing.

The SCSA Bulletins are envisaged as a series of short newsletters which will both inform and be informed by the programme and its community of practitioners. It will combine thematic research summaries with various forms and sources of information that can help to enable the SCSA agenda and practice. Importantly, the Bulletin's learning audience will extend beyond the programme's direct actors to their city peers and stakeholders. To this extent, it is also a communication and advocacy tool to help disseminate key programme messages and updates. Our target audience is therefore specific but also diverse, and the Bulletin is authored with this diversity in mind. We envisage these as brief and punchy reference points that deliver quick insight and value. We look forward to your feedback and suggestions to ensure that we are achieving this goal. If this is not useful or accessible to you, TALK TO US. We are also prepared to learn so as to ensure impact.

For this, our first edition in the Bulletin series, we have chosen to start at the beginning so to speak. Sharing language helps to ensure that we can share meaning and communicate values. This Bulletin is titled "Preparing Common Ground" because we want to begin cultivating the ground for this journey. An online glossary suggests that cultivating "is often an essential method for maintaining soil health, preventing weed development, and encouraging crop growth". Yes, we want to begin with a healthy foundation for our Smart City pursuit. The "weeds", we see as the risk of myths and misunderstandings which might distract and delay us from pursuing the positive and shared aspects of our mission. And we want to encourage mutual growth. So we begin with clarifying the working definition of "Smart City" as our common starting point.

> "KNOWLEDGE IS LIKE A GARDEN; IF IT IS NOT CULTIVATED, IT CANNOT BE HARVESTED."

The edition includes:

- **Profiles of the 4 pilot cities as an introduction to the SCSA programme**
- **A research synthesis article on defining "smart cities" in South Africa**
- **An international perspective defining "smart cities" from interview with World Bank global expert Trevor Gibson**
- **And additional information highlights and resources relating to the theme of clarifying the concepts**

We will end each bulletin with asking: So What? This will attempt to suggest what some key take-aways for readers might be from the bulletin.

So What?

1. **A Smart Cities South Africa programme is launching in 4 of our metros which is a wonderful opportunity for local impact, and also for wider learning. Watch this space.**

2. **There is no universal or South African definition for smart cities because they are always context-specific, however there are credible, "good enough" working definitions that Cities can work with.**

3. **However, the "smart city" is not a form or static destination. Most definitions agree on it as a journey, as a way of doing things. So we aspire to do things in a smart way, not to look like a fixed "smart" picture.**

Look out for our next bulletin (Q1 2022) for updates on our programme as our new municipal Administrations come in and launch into the programme, and as we explore who the Smart City actors are and the implications for building smart capabilities and partnerships.

IN THIS ISSUE

SMART CITY.za BULLETIN

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"SMART CITY" THE S.A CONTEXT

BY GECI KARURI-SEBINA & FREDERICK BECKLEY

Smart Cities in Africa

The concept of the "smart city" has been derived from both global and local influences. It has therefore been defined in various ways across time, contexts and purposes. It has been suggested that a simple working definition for South Africa, as synthesised by the UN, could be:

"A smart sustainable city is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social and environmental aspects." (ITU-T, 2014 as cited in Backhouse, Karuri-Sebina & Guya, 2020 and referenced in DCOG 2021)

Other useful definitions refer to the smart city in terms of its livability; people-centrism; and ability to leverage technological innovation to make urban service delivery more efficient and thereby increasing the overall competitiveness of the city (OECD, 2020). These all add important perspective, and there are likely no singular answers. What is important is that the idea of a "smart city" in Africa should not be parachuted in as a pre-packaged product. Each city is unique, and officials should seek to address local challenges and opportunities with context-specific solutions (Balkaran, 2019).

Frameworks for Smart Cities in SA

Contextually relevant approaches for smart cities require a strong value- and rights- based approach to the developmental state of SA in carrying out the smart city agenda. COGTA's Strategic Plan 2020-2025 (2020) and Smart Cities Framework (DCOG 2021) foster the coordination and alignment of smart city objectives. This includes clear linkage to the acceleration of digital transformation which is at the core of SALGA's Smart Maturity Framework (2017), the White Paper on Science and Technology and Innovation (2019), and the National Infrastructure Plan 2050, necessitating digital competencies at all levels of government and civil society.

There are various local frameworks that begin offering some perspective on what this might mean. These include:

- **The South African smart city as one that should be is embedded in value-driven and locally embedded smart city principles (Backhouse et al., 2020).**
- **The smart city development maturity framework highlights values associated with transparency, interconnectivity, citizen-centred approach and increasing municipal capacity towards achieving Africa's Smart City goals (SALGA, 2017).**
- **The significance of interoperability, standardisation and combined approach to city management systems is highlighted as essential for African Smart Cities (DTPS, 2017) .**
- **The CSIR (Council for Science and Innovation Research) proposes a smart readiness decision making framework which proposes these common attributes to smart city development in SA: innovation and technology as enablers; affordability; and increased accessibility to infrastructure in order to improve the quality of life within cities.(Kruger and Petzer, 2020).**
- **The SACN identifies the need for a national integrated smart city strategy which trickles down from a metropolitan context to small secondary cities (townships) (Rashiq, 2020; Backhouse, Sebina and Guya, 2020).**
- **The Presidential Commission 4IR Strategic Implementation Plan necessitates increased focus on human capital investments, collaborative frameworks and digitisation of government, in order to ensure innovation and alignment of government policies.**

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Pursuing the Smart City in Africa

The main dimensions of the smart city initiatives are smart economy, governance, people, environment, mobility and living (Balkaran, 2019; Das, 2020; and Ranchod, 2020), (***see figure 1.***)

The conceptual foundation of smart city definition is a city that effectively integrates the spatial, digital and human worlds to deliver a sustainable and inclusive future for its citizens. However, the benefits cannot be solely attributed to or stem only from technological advancement.

There are systemic-level and value-driven principles which need to be aligned with city management and therefore the roles of National, Provincial and Local government must be clearly laid out (Backhouse et al, 2020). Clarifying the distinct roles of local and central government will help ensure that a value-driven approach is adhered to in pursuing the smart city in Africa, and that alignment and networking of South African institutions and governmental actors will contribute to using technology as an enabler of increased capacity (COGTA, 2020).

The systemic approach to capacitating city management enables the kind of innovation required to develop smart cities that provide large scale infrastructure, connectivity, strong partnerships, supportive regulatory environments, and enable a strong system of innovation (Backhouse et al, 2020). There are aspects of smart cities that include capacity building, integration of smart city initiatives into existing plans such as the IDP, and knowledge sharing mechanisms that need to be embedded institutionally for the success of smart cities in Africa. While defining smart cities may seem to raise many complicated dimensions, components and interdependencies, smart cities are ultimately cities that make sense, and that work for their people, place and planet. What is therefore most important, therefore, is that any "smart city" agenda in Africa must be carefully contextualised and collectively pursued.

Figure 1: Dimensions of Smart Cities in Africa (Source: Backhouse et.al 2020)

> "THE IDEA OF A "SMART CITY" IN AFRICA SHOULD NOT BE PARACHUTED IN AS A PRE-PACKAGED PRODUCT."

DEFINING SMART CITIES

LESSONS FROM A GLOBAL EXPERIENCE WITH TREVOR GIBSON

Photo © Dougholder

INTERVIEW
WITH TREVOR GIBSON

South Africa is still in early days insofar as the firm establishment of smart cities in the country goes. One slowing factor has been a lack of clarity on what is actually meant by "smart cities." The perceptions are often linked to high-end technology and innovations, which may seem impractical for a developing country like South Africa that has more basic priorities to address. Defining what "smart city" means for South Africa could assist in ensuring that the approaches adopted remain relevant for the local environment. In contribution to the journey of framing smart cities in South Africa, Chuma Mbambo and Geci Karuri-Sebina spoke to Trevor Gibson about some of the key lessons about framing that he has gleaned from his work on smart cities around the world.

Trevor is a smart city and sustainability expert that has worked on smart city projects in India and South Africa, sustainable waste management transformation in New Macedonia and Israel and regulatory reform in the Caribbean region. He is currently supporting the diagnostic phase of the DBSA Smart Cities Programme in the selected pilot cities.

Q: South Africa has continuously been debating and grappling with defining "smart cities". Do other places struggle with the definition, or is this unique to South Africa?

Trevor: Yes! This is something that most places grapple with, and that's understandable because a 'smart city' can never be defined through a template that is overlaid in cities of diverse cultures and that are in different stages of development. It is therefore not surprising that the definition is difficult to button down.

The Central point for defining a smart city should always be considering what is right for the citizen and working towards improving their quality of life. So, it is not entirely related to technology, but rather fundamentally focused on local challenges and improving how people feel and interact with where they live.

Q: When we talk about smart cities, are we only talking about the big urban metros? In South Africa there are often concerns about what this means for the rural areas.

Trevor: I can actually relate to that question because, as we speak, I am quite far from the city myself. This is always one of the key challenges whenever we're talking about smart cities because no city should ever be isolated from its locality. When you focus on the urban only you end up creating an even bigger divide between areas that don't have access to technology and efficient services, and those that do. So, there is great value in ensuring that as an urban area develops it maintains and builds those linkages with the rural as well.

Whereas the best efficiencies can be created in densely populated urban areas, that shouldn't put us off from also addressing the challenges faced by rural communities. In fact, there are many ways that rural life can also benefit from smart approaches, especially considering the role of rural areas in the primary sectors.

Q: What are these 'Smart City Standards' you've been involved with in the UK, and what is their role in defining smart cities in context?

Trevor: The Standards are formally referred to as 'Smart and Sustainable Cities and Communities'. They address questions around the definition of smart cities and provide guidelines on how the different components of complex cities and communities can be broken down in order to identify ways of prioritizing, procuring systems for smart cities, and how to share data in a smart city. The standards essentially provide a framework for smart cities by assisting cities to arrive at a city model that places the citizen at the centre and everything is built around their needs and priorities.

INTERVIEW
WITH TREVOR GIBSON

The big challenge with the Smart City Standards is that there is a reluctance from cities to use them. This is due to a misconception that the guidelines are rigid or technical, and cities never want to feel like they have to fit a particular shaped hole. However, the standards merely provide a guideline for cities and are multifunctional in terms of how the city can use them.

Q: How important is it to actually define or frame sustainable smart cities in context?

Trevor: There shouldn't be a single immovable definition of a smart and sustainable city. However, cities should be able to define it for themselves according to their priorities, their geography, cultures and the key needs of their citizens.

Q: Have you picked up any common myths that you think would be important to "myth bust" as we commence on the smart city journey here in South Africa?

Trevor: The first myth is that, to be 'smart' you have to start with technology. You can have all the technology in the world, but unless people are using it collaboratively, the technology won't work. I would rather start with the citizens and the priorities for the city.

The other myth is that there is an endpoint to being smart; no, it should be a journey. Especially with the urban environment and technology changing so rapidly.

Q: What are your thoughts on building new (greenfield) smart cities?

Trevor: It is difficult to design something that is inherently smart. Sure, you can think about good road and transport networks, and energy-efficient buildings, but we must recognize that technology is rapidly changing and there could be new innovations in the next two years. So, a key consideration for a new smart city would be to ensure that it is adaptable, flexible and changeable in order to become even smarter with time.

Q: Is there anything else you wish to emphasize as we set some common ground in thinking about Smart Cities in South Africa?

Trevor: The reason why I get excited about working with cities and communities on becoming smarter is the impact it can have on people's lives. It isn't about the smartphones in our pockets; it has to be something that improves people's lives. That's where the real power of creating smart cities lies.

> "THE FIRST MYTH IS THAT TO BE 'SMART' YOU HAVE TO START WITH TECHNOLOGY."

KEY TAKEAWAYS

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1) A smart city should be defined according to the city's priorities and citizen needs.

2) Smart cities should put citizens, not technology, at the centre. Technology will remain unutilized if it does not resonate with the end-user.

3) There is no end-point to being smart. Therefore, smart cities should have an adaptive capacity to evolve and allow innovations over time.

4) Smart city approaches should also serve the rural areas.

5) There is an ISO definition of Smart and Sustainable Communities (with supporting standards) which is:

"A smart city dramatically improves the pace at which it improves its sustainability and resilience… by fundamentally improving how it engages society, how it applies collaborative leadership methods, how it works across disciplines and city systems and how it uses data and integrated technologies… in order to provide better services and quality of life to those involved with the city."

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About Trevor Gibson

Trevor is a self-employed smart city and sustainability expert. He has worked on Smart City projects in India and South Africa, sustainable waste management transformation in New Macedonia and Israel and regulatory reform in the Caribbean region. Until recently he held the position of Smart City Leadership and Development Manager with Opportunity Peterborough, the city's economic development body, and was part of the Peterborough team which successfully bid to be one of the UK's four Future (Smart) City Demonstrators. He helped to develop and deliver the resultant "Future Peterborough" programme including the "Circular Peterborough" initiative which aims to create a truly circular city by 2050.

Trevor currently chairs the British Standards Institute (BSI) Smart and Sustainable Cities and Communities Committee (SDS/2) which oversees and contributes to the national and international development of smart city focused standards.

Prior to his smart city experience, Trevor spent almost thirty years in the public sector, most recently as Director of Environment and Community Services at Peterborough City Council, where he was responsible for the strategic management of a wide range of front-line services including regulation, development control, transport and leisure.

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SMART CITY.za

THE FOUR PILOT CITY PROFILES

CITY OF TSHWANE IGNITING EXCELLENCE

ETHEKWINI MUNICIPALITY

Joburg

Photo © Dave Southwood

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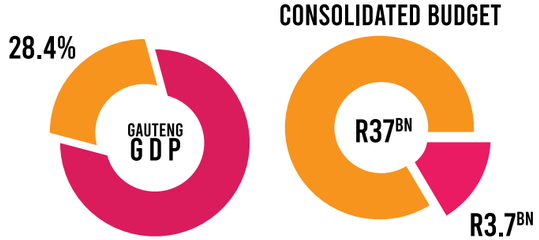
THE CITY OF TSHWANE

pilot city profile

ECONOMY

The GDP of the City of Tshwane is R468.18 Billion and makes up 28.4% of the Gauteng Province's GDP.

The City has a consolidated budget of R37 billion in the 2021/22 financial year. With R3.7 billion allocated to Capital Expenditure.



SOCIO-ECONOMICS

The City of Tshwane is the 3rd largest city in the world with a complete land area of 6 345km². It is the administrative seat of the South African government, and houses various Embassies, research institutions, educational institutions, and various industries

CITY OF TSHWANE
IGNITING EXCELLENCE

SMART CITY INITIATIVES

E-Tshwane Platform – Enables residents to engage with the City electronically from the comfort of their home. The solution enables viewing and payments of accounts, submission of meter readings, lodging of queries, applications for clearance certificates and other services.

Electronic Wayleave Management System – Enables submission of application for Wayleaves, approval of applications, payment of refundable deposits and processing of such refunds once the work has been completed in incompliance with the relevant by-laws.

Account Payments through WhatsApp – An extension of the e-Tshwane platform which enables citizens to get in touch with the City, request and download service request forms, access critical links and the ability to make card payments via WhatsApp.

Electronic Procurement System – Provides potential service providers with a platform to register as a vendor to the City and officials the ability to approve such applications. The portal integrates with the National Treasury and ensures continuous compliance with regulations, including Tax Legislations. This platform can be expanded to include online submission and adjudication of bids electronically, which may improve turnaround time on the adjudication of tenders.

SMART CITY INTENTIONS

- Better and safer life for Citizens
- Improve capability and improve performance
- Improved and consistent decision making
- Higher return on investment

CITY VISION

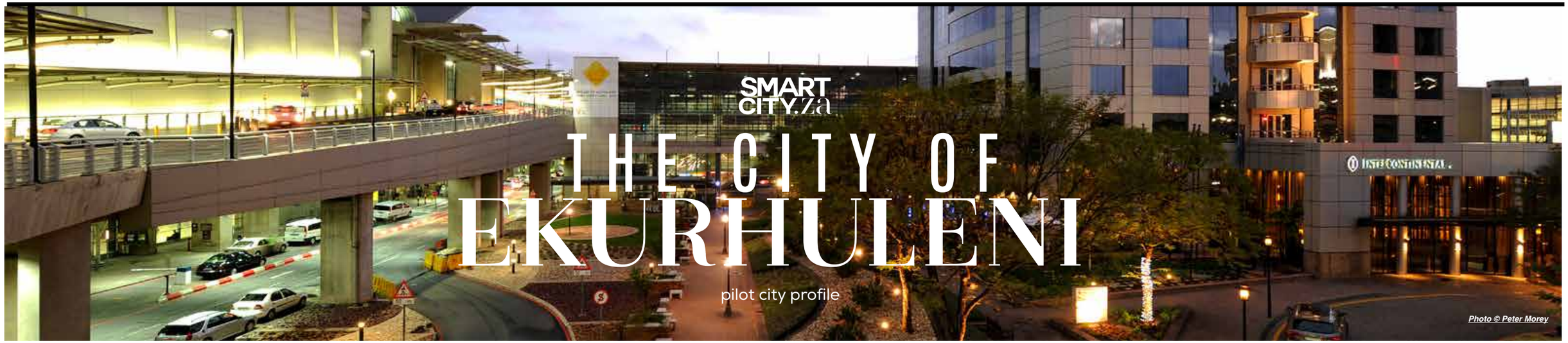
TSHWANE'S 2030 VISION IS TO BE:
"A PROSPEROUS CAPITAL CITY THROUGH FAIRNESS, FREEDOM AND OPPORTUNITY"

KEY STRATEGEIC DOCUMENTS

Integrated Development Plan 2020/21

Built Environment Performance Plan 2020

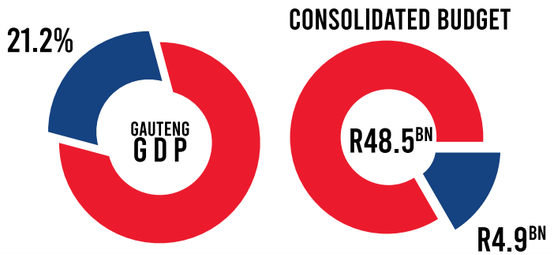
Capital Investment Framework



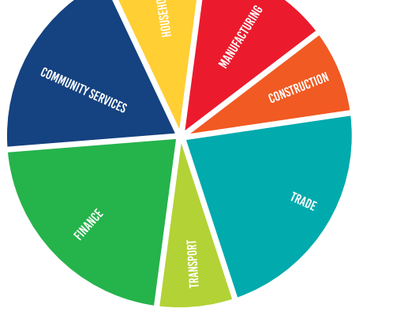
ECONOMY

The GDP of the City of Ekurhuleni is R301 Billion and makes up 21.2% of Gauteng's GDP.z

The City has a consolidated budget of R48,5 billion in the 2020/21 financial year. With R4,9 2 billion allocated to Capital Expenditure.



ECONOMIC DRIVERS



SOCIO-ECONOMICS

The City is home to a vast number of goods and commodities factories and is often referred to as "Africa's Workshop".

This municipality also has a diverse transportation network made up of the OR Tambo International Airport, South Africa's largest railway hub, various freeways, and the Maputo Corridor amongst others.

SMART CITY INTENTIONS

The City of Ekurhuleni aims to be a Digital City that can compete with other cities in South Africa. The City wants to be able to provide broadband infrastructure that will support businesses and its citizens. This will in turn reduce costs of doing business, improve citizen wellbeing, and reduce resource use and consumption.

CITY VISION

"CITY OF EKURHULENI'S VISION IS TO BE A SMART, CREATIVE AND DEVELOPMENTAL CITY."

SMART CITY INITIATIVES

Ensuring that all public buildings have free WiFi for the benefit of residents.

- e-Health - having all patient information on a central database
- Data analytics and connectivity mapping
- Mapping of CCTV deployment
- Specifications for electric poles, sensors etc.
- e-Siyakhokha system - allows residents to use an online platform to manage their municipal account and transactions
- My Ekurhuleni App - allows residents to virtually report service delivery related issues, and to search and apply for jobs.

KEY STRATEGEIC DOCUMENTS

Growth and Development Strategy (GDS) 2055

Integrated Development Plan (IDP) 2020/2021

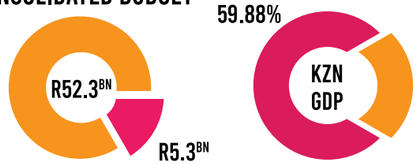
Ekurhuleni 25-year Aerotropolis Master Plan 2040

ECONOMY

The eThekwini Municipality contributes 59.88% (R468 billion) into KZN's provincial GDP, making it the province's growth engine.

The City had a consolidated budget of R52.3 billion in the 2020/21 financial year. With R5.3 billion allocated to Capital Expenditure.

CONSOLIDATED BUDGET



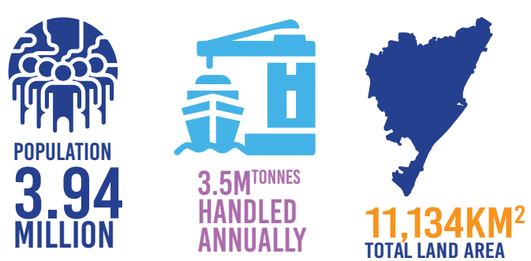
SMART CITY INTENTIONS

The eThekwini Municipality wants to ensure a 24/7/365 availability of services through a range of devices, enabled by high speed broadband. It aims to establish a 'governance as a platform' approach where the municipality is able to collaborate with various city stakeholders for problem solving, innovation, co-creation and the development of business models.

The City wants to eliminate distance by using data and intelligence to analyse insights and communicate efficiently with all citizens.

SOCIO-ECONOMICS

The eThekwini Municipality is located on the east coast of the KwaZulu-Natal Province. It consists of the largest and busiest sea terminal in sub-Saharan Africa where it handles up to 31.4 million tonnes of cargo annually.



SMART CITY INITIATIVES

Smart Meters – smart meters are an initiative that the City has implemented to improve water and electricity meter reading, as well as allow instant and efficient reporting and maintenance of water and electricity infrastructure. This meter system is linked to the cadastral and GIS system.

Smart City Portal - The eThekwini Transport Authority's Smart City Portal is an interactive and spatially enabled GIS portal which is hosted on the ESRI ArcGIS Online platform. The portal allows for efficient communication between the city and its citizens regarding traffic signal faults, car accidents, traffic counts, CCTV cameras, public transport routes and ranks and road closures and maintenance.

SMART BIO – this initiative seeks to connect jobseekers with employers by creating a support desk for community-based entrepreneurship and innovation programmes as well as a training and coaching centre to assist people in finding work.

Durban EDGE Open Data Platform – This platform that presents various types of city level data that can be used to produce key insights on the city. The platform can be used by all City stakeholders to obtain information and make informed decisions for their various needs.

Public Wi-Fi – the City is rolling out public Wi-Fi hotspots around the City's customer service centres and other public facilities.

CITY VISION

"BY 2030, ETHEKWINI WILL ENJOY THE REPUTATION OF BEING AFRICA'S MOST CARING AND LIVEABLE CITY, WHERE ALL CITIZENS LIVE IN HARMONY."

KEY STRATEGEIC DOCUMENTS

2020 Long Term Development Framework (LTDF)

Integrated Development Plan (IDP) 2020/2021

Built Environment Performance Plan (BEPP) 2019/20

Digital Governance Strategy and Road Map

Photo © Jeremy Bishop

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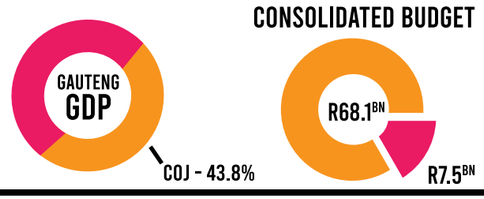
THE CITY OF JOHANNESBURG

pilot city profile

ECONOMY

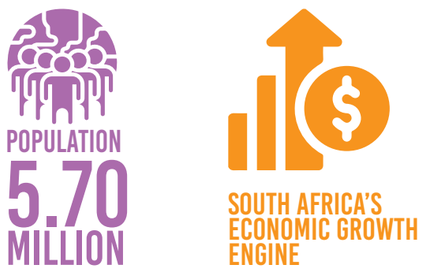
The CoJ is the commercial and economic hub of South Africa and is a key driver of growth in Africa. The City of Joburg's GDP is an estimated R 530 billion in 2023, which is 43.8% of the total GDP of Gauteng Province.This makes the City of Joburg a major contributor in the Gauteng city region.

The City of Joburg's total budget for the financial year 2020/21, is approximately R68.1 billion with R7.5 billion of the budget allocated for Capital Expenditure.



SOCIO-ECONOMICS

The CoJ is recognized as South Africa's economic growth engine. It is the smallest in the country in terms of land area but accommodates the country's largest population of almost 5 million in 2016.



SMART CITY INTENTIONS

"The City of Joburg is digitally transforming to become a citizen-centric, inclusive smart city that makes decisions and governs through technologically enhanced engagement with citizens who have universal access to services and information that enhances socio-economic development and efficient service delivery that makes the City safe, sustainable, liveable and resilient."

SMART CITY INITIATIVES

Smart City Innovation Challenge – the City of Joburg uses this initiative to collaborate with start-up companies that have found and developed digital technology solutions and innovative approaches that can solve the City's challenges while aligning with the smart city vision.

Public Wi-Fi – the City of Joburg is rolling out public Wi-Fi hotspots around the City's customer service centres and other public facilities.

Smart Meters – this initiative includes the rolling out of over 34 000 electricity smart meters that facilitate automated readings that do not require physical visits to households by technicians.

E-Learning Programme – this programme uses Library Information Services to connect with citizens and assist them with various basic skills, such as digital entrepreneurship and skills workshops for SMME's. This programme aims to bridge the digital divide by promoting digital literacy in communities.

CITY VISION

"TO BE A WORLD CLASS AFRICAN CITY OF THE FUTURE – A VIBRANT, EQUITABLE AFRICAN CITY, STRENGTHENED THROUGH ITS DIVERSITY; A CITY THAT PROVIDES REAL QUALITY OF LIFE; A CITY THAT PROVIDES SUSTAINABILITY FOR ALL ITS CITIZENS; A RESILIENT AND ADAPTIVE SOCIETY."

KEY STRATEGEIC DOCUMENTS

Integrated Development Plan 2020/21 (IDP)

Growth and Development Strategy 2040 (GDS)

Built Environment Performance Plan (BEPP) Service Delivery and Budget Implementation

Plan 2021/22 (SDBIP)

Smart City Governance Strategy

SMART CITY SNIPPETS

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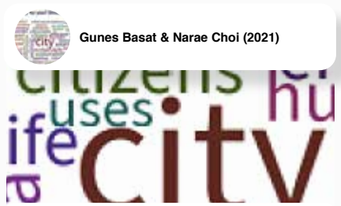

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What Makes a City Smart?

The blog unpacks the definition of smart cities and some context specific implications.

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Towards inclusive smart cities in SA – How should local government respond?

The video unpacks SA's how smart city initiatives should be contextualised.

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Reinventing Smart Cities the African Way

Discusses African approaches to promoting equitable resource access, employment creation and creative expression in our cities.

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Are South African Cities Getting Smarter?

South African Cities Network Unpacks SA's state of coordination during COVID--19.

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The impacts of collaborative action and around addressing complicated "smart city" issues.

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Discussion on a context-based smart city initiative approach by local government.

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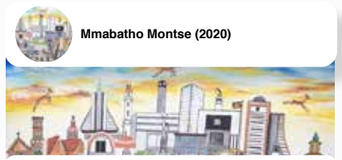

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The opportunities of Digital-Tech.

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How is Seoul, Korea transforming into a smart city?

How "smart" city management transformed Seoul, Korea.

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Reviews possibilities for radical innovation.

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