

2014 – 2015

ANNUAL COMPENDIUM

South African Conversations on
INFRASTRUCTURE



infrastructureDialogues

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The Infrastructure Dialogues is a high-level platform for stakeholders in the infrastructure sector to discuss and share their views. The value of the Dialogues is enhanced when senior leaders and managers from government, the private sector and civil society continue the conversation once the event itself is over.

Each Dialogue is recorded so that interested people who have not been able to attend in person are able to read a report of the proceedings and join in the conversation. This Compendium of the Infrastructure Dialogues 2014 – 2015 is a distillation of those conversations, presenting the key themes and identifying issues that preoccupy those who are constructively involved in improving South Africa's infrastructure.

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List of Acronyms

BEE	Black Economic Empowerment
B-BBEE	Broad-Based Black Economic Empowerment
CIDB	Construction Industry Development Board
DBSA	Development Bank of Southern Africa
DPME	Department of Performance Monitoring and Evaluation in the Presidency
EDD	Economic Development Department
IUDF	Integrated Urban Development Framework
NBI	National Business Initiative
NDP	National Development Plan
NIP	National Infrastructure Plan
PICC	Presidential Infrastructure Coordinating Commission
RPMS	Regulatory Performance Measurement System
SACN	South African Cities Network
SALGA	South African Local Government Association
SIP	Strategic Integrated Project



Foreword

from the Steering Committee

The Infrastructure Dialogues is a high-level platform for various constituencies within the infrastructure sector to discuss issues in common. The Dialogues have been in existence long enough to show that conversations are more productive than talking alone. As a Steering Committee, we are proud of the diverse partnership represented by this forum. We are united in a common vision of a prosperous South Africa and an infrastructure sector that performs better, to finding solutions to obvious problems, and to closing the gap between what was planned and what is transpiring. We are motivated to work harder, through dialogue, to fulfil the country's developmental plans.

This Compendium of the Infrastructure Dialogues held between May 2014 and March 2015 starts by taking a step back to review the conversations that have taken place since 2012 and highlights the recurring issues that are still begging resolution. The infrastructure sector deals with long lived assets that require a preservation mindset to ensure that money spent continues to return services back to the community. Infrastructure development is driven by the economics of scale and efficiency and, critically, governmental performance determines the health of the sector. Infrastructure choices have a life span far longer than the political-electoral cycle so it is essential to think long-term about solutions selected.

Each event brings together interested sector analysts, managers and leaders and aims to produce something positive. In discussing the challenges and industry issues, the Dialogues

strive to identify what is working and how it could work better. This has contributed to the building of momentum around finding and activating solutions. Value comes from the flow and sharing of information, which is important because of the need to transfer and generate knowledge in a situation where issues are becoming more complex and with the dynamics of change at many levels over the past twenty years of building up a democratic nation.

True to the generous spirit of dialogue, we will continue to talk about and listen to different viewpoints, and encourage the exchange of ideas and knowledge. We will continue to ask the difficult questions about issues such as the fulfillment of developmental objectives, whether alignment or integration is being achieved, and what is helping and/or hindering the sector. In gathering around the Dialogues table, we will continue to give expression to pragmatic solutions that will contribute to achieving the vision of a sustainable and growing economy.



Introduction

In 2009, the Development Bank of Southern Africa (DBSA) teamed up with the Presidency to host Infrastructure Dialogues for the purpose of building awareness of the problems and opportunities presented by widening access to public infrastructure. The forum has provided senior government, private sector and civil society stakeholders with a regular high-level platform for the sharing of views and perspectives on the infrastructure sector.

The desired outcome of the Dialogues is an improved climate for policy and decision-making, and strengthened cooperation within this critical sector.

Six Dialogues held between May 2014 and March 2015 were jointly hosted by the Development Bank of Southern Africa (DBSA), South African Cities Network (SACN), National Business Initiative (NBI), the national Economic Development Department (EDD), and The Department of Planning Monitoring and Evaluation (DPME) in the Presidency.

The Value of Dialogue in Development

The importance of learning from past experience featured prominently in the Infrastructure Dialogues covered in this Compendium. The first Dialogue set the tone by stating:

In order to ensure appropriate solutions and effective implementation and rollout of future infrastructure development, it is pertinent that we look at past achievements and learn from our

mistakes and failures. It is also critical that we highlight challenges that remain and recur on a continuous basis and ensure that we find ways to solve problems and issues in order to move forward.

Dialogue is one of the triggers for identifying, enabling and mobilising solutions to the various infrastructure challenges. The need for improved communication is critical for better cohesion. The Infrastructure Dialogues respond to this need, focusing on infrastructure development issues that are important for the country's pursuit of social and economic goals.

In order to be an inclusive platform that facilitates collective action, each Dialogue is recorded and a report of the discussions is published. As a result, both those who attended and those who did not attend the session have access to a report of the proceedings and can join in the conversation. This Compendium of the Infrastructure Dialogues distils the conversations, presenting the key themes and identifying pertinent issues related to funding, building and maintaining South African infrastructure.

The Infrastructure Dialogues may focus on the sharing of knowledge, perceptions, ideas and potential solutions, but stakeholders also need to commit to a practical way forward. Therefore, this publication strives to add value for decision-makers by disseminating the valuable and practical outcome of each Dialogue, with the objective of supporting them to take appropriate action.

Dialogues OVER THE YEARS

Over the past three years of Dialogues, role players and stakeholders have faced many hurdles in the race to develop South Africa's infrastructure. Some have cleared these hurdles and others have not. Going forward, achieving a better performance requires teamwork because, although 'personal best'

times must be pursued, what will count is the collective result upon crossing the finish line.

Figure 1 summarises the recurring themes that emerged from the Infrastructure Dialogues between 2012 and 2015.

Continued Communication and Engagement – involving all stakeholders, ensuring an integrated approach.

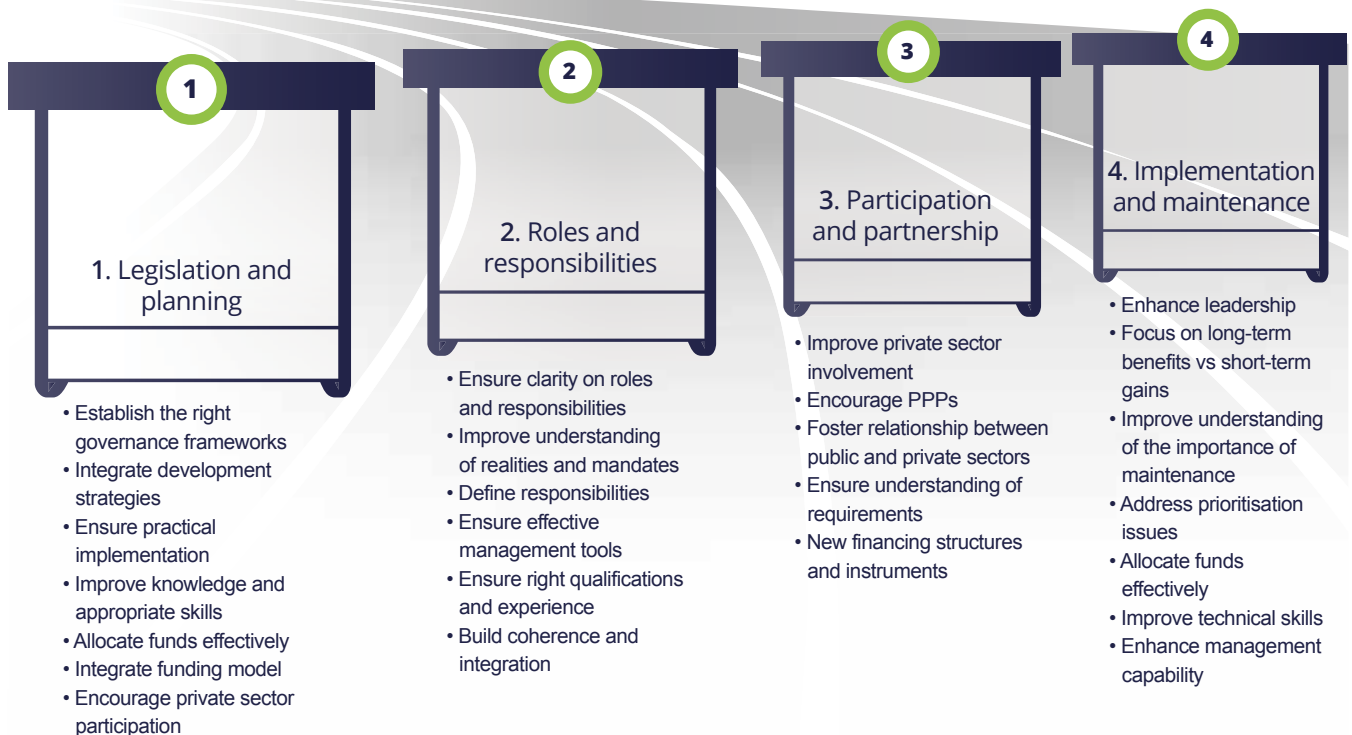


Figure 1: Summary of the Key Themes (2012–2015)

South Africa's Infrastructural Framework

The Infrastructure Development Act no. 23 of 2014 provides a framework and codifies into law the Presidential Infrastructure Coordinating Commission (PICC) while it aims at speeding up the planning and implementation of Strategic Integrated Projects (SIPs). There is a need that the Act will also address various aspects that were highlighted in a number of Dialogues:

- Intergovernmental relations are underperforming because the institutional structures are inappropriate and allow limited integrated planning and infrastructure development. These structural obstacles need to be identified and removed. Alternatively, bridging solutions need to be developed to ensure project planning, implementation and completion are integrated across departments.
- New entities within the institutional sphere continue to be established and, without the directive to integrate, a duplication of operations has emerged. The civil service needs to identify unproductive and unnecessary entities, and eliminate costly duplication.
- The PICC provides a platform for unified governmental leadership. Moreover it provides a formal interface for private sector involvement in the planning and preparation required on large scale projects with many different parties involved. Opportunities for continued and increased participation and partnership across infrastructure development programmes should constantly be identified and promoted.

Over the past three years, certain themes have come to the fore time and again. The essence of these themes is captured below.

Unique South African Solutions

In a number of cases, the South African context is somewhat unique and there is no "one size fits all" solution. Local governments and municipalities deal with different environments and, to an extent, have different requirements that necessitate customised solutions. Past paradigms are inappropriate, and South Africa cannot merely follow similar paths to that of European countries or the United States. Therefore, the country requires unique and innovative solutions that are based on new thinking and new ways of doing things.

Leadership

Leadership is a critically important element in ensuring effective solutions and sustainability. Strong leadership brings appropriate knowledge, technical and management capability as well as long-term vision. Management capabilities should be improved through capacity building, leadership training and skills development programmes that include the sharing of case study material and lessons learnt. Municipal managers also need to participate in regular information sessions and forums to create and ensure awareness, obtain feedback, determine misconceptions and ensure understanding of the problems and the seriousness thereof. This requires political will and commitment.

Implementation Gap

Although the necessary policy framework is in place, South Africa falls short on its implementation capacity. Despite ample strategies and plans, producing infrastructure-related results remains a stubborn challenge for the country. This is due to political pressures and a lack of coordination, collaboration and alignment. This inherent implementation gap should be addressed by leaders at managerial level with the cooperation of those who have the right technical skills.

Transparency and Communication

An ongoing issue is the need for transparency and improved communication to stakeholders and the public. Municipalities need to engage with communities on a regular basis, to inform and educate them on service delivery in their environment. For example, sharing practical information about sanitation and waterborne or non-waterborne systems, explaining why certain systems are chosen (based on environmental and economic viability). Once people understand the practical considerations of decisions their buy-in will be far greater.

Urbanisation

With South Africa's rapid and aggressive urbanisation, spatial planning and urban development feature prominently in the Dialogues. A paradigm shift in city development and restructuring is needed, starting with a change in thinking around city planning and

management. However, the country lacks the regulatory framework, and accompanying funding, to support such city restructuring. Integrative planning is needed while and municipal planning and budgeting processes should be holistic. There needs to be a balance between new infrastructure development and maintenance, which also includes assessing potential new technology implementations that are environmentally and cost efficient. Planning should also make provision for assessments and performance measurements.

Capacity Building

The issue of capacity building is a frequent topic of discussion, though no coherent framework or systematic approach to capacity building appears to be in place. Capacity building that does happen is conducted in an uncoordinated and disconnected way. Although a plethora of programmes to implement service delivery has been initiated, the support for those programmes is not always evident, especially at province level. Indeed, capacity-building interventions do not appear to have made any significant impact. Municipalities lack the right qualifications and experience in specific positions. The municipal environment has little or no capability to effectively implement and manage capacity-building programmes. Furthermore, developing capable people is a very resource-intensive process with a relatively high rate of attrition.

Government needs to recognise the dire need for appropriate skills and experience in order to achieve effective service delivery. Support should

begin with identifying potential candidates at high school level, placing them in special support programmes that continue throughout tertiary education, professional registration and post-registration career development. Municipalities should also join the National Benchmarking Initiative, which is managed by the South African Local Government Association (SALGA) and a selection of other partners. By participating, municipalities will have access to engineers, through which knowledge transfer can be enabled. Problem sheets can then be shared and lessons learnt.

Municipal Revenue and Funding

The subject of municipal revenue and funding is a recurring one. Budget guidelines exist but there is little by way of a framework or standards across municipalities for developing pricing and consumer payment strategies. Such a framework would assist municipalities in standardising and improving pricing strategies, as well as enhancing payment systems (and enforcing payment in cases of non-payment), thereby ensuring improved revenue generation.

Municipal managers and financial managers should be informed about and trained in allocating and managing grants and funds. The right financing instruments that dictate spending could also help direct financial behaviour. According to the Back-to-Basics approach, 7% of the municipal budget should be dedicated to operations and maintenance, and this should be monitored and assessed. A Dialogue dedicated to the challenges surrounding water pricing highlighted financial instruments that are available to counteract challenges. It was emphasised that innovative and simple but effective financial solutions are needed.

Service Delivery

The challenges related to service and infrastructure delivery identified over the past three years remain. Although some municipalities improved capacity to overcome these challenges, there are a number that remain constrained and are even regressing. Municipalities need to understand the complexity of infrastructure requirements for effective service delivery in their specific environments. Municipal managers need to become proactive, recognise and prioritise short-term needs to ensure long-term sustainability. Furthermore, the right accountability mechanisms need to be established, with performance measured within a framework of specific norms and standards. These mechanisms should motivate the implementation of plans according to regulatory standards AND help to render municipalities and municipal managers responsible for service delivery more accountable.



SECTOR SPOTLIGHT: Energy and Climate Change

Although solving the climate problem would cost about 2% of global GDP (to shift to clean renewable energy and adopting carbon capture and sequestration (CSS) for coal-fired utilities), people prefer to have the extra money to spend now than invest in the future. They do not want to pay higher electricity or petrol prices over a short period of time in order to ensure long-term gain. This short-term thinking, influenced by characteristic financial behaviour and budget constraints, again came to the fore in the 2014 Dialogue sessions.

With South Africa facing a serious energy crisis, government should investigate measures to help accelerate the adoption of cost-effective alternative technologies. Financial instruments should be developed that allow people to acquire and implement new technologies, and write off the purchase over time. Education and training can create a better understanding of alternative technologies, while energy initiatives should be linked to job creation, ensuring that local labour used in the construction of plants. Long-term thinking that allows for innovation is needed to capitalise on opportunities.

SECTOR SPOTLIGHT: Export, Trade and Localisation on the back of infrastructure investments

At 30%, South Africa's exports constitute a significant proportion of the economy and earnings. Economies of scale are needed if the country is to grow its export trade. If competitive and sustainable manufacturing industries are to be revived, a significant export market is needed for such locally manufactured goods. Localisation needs to be a strategic decision, to be pursued where it is viable and adds economic value, ensuring that the income is reinvested

in South Africa. Localisation should be balanced with existing multinational manufacturing in South Africa that provides job opportunities.

Entrepreneurship is a very important element for job creation and should be nurtured through localisation. Simple yet effective financial instruments need to be developed that will help entrepreneurs kick-start a manufacturing business.

Infrastructure Dialogues 2014/15



Figure 2: 2014 – 2015 Infrastructure Dialogue Learnings

Infrastructure Development and Service Delivery – A 20-Year Review

In 1994, the democratic government of South Africa inherited infrastructure that could not support a fast-growing and increasingly diverse economy. Furthermore, the historical imbalance in infrastructure expenditure and past racial bias across various sectors had resulted in housing and service delivery challenges. The country continues to face such challenges and, after 20 years

of democracy, widespread poverty and inequality are still a reality.

After 1994, the government embarked on a reconstruction and development programme with the objective of addressing both distributional and growth issues. The focus was on reducing infrastructure backlogs, reversing the declining social infrastructure, and correcting the infrastructural imbalances. From 2005, the focus was increasingly on economic infrastructure development led by investments by State Owned Companies.

Significant milestones on the road to improved infrastructure planning and delivery

- The Public Finance Management Act (1999).
- Three-year rolling Medium-Term Framework budgeting, enabling multi-year project planning.
- The introduction of large new infrastructure grants to provincial and local governments.
- The introduction of the National Development Plan (NDP) to provide direction to all infrastructure sectors.
- The establishment of the PICC to bring together all spheres of government.
- The provision, by the Construction Industry Development Board (CIDB) of frameworks for development.

Despite the significant achievements and successes of the past two decades, many infrastructure challenges remain unresolved. The Dialogue covered current shortcomings, as well as challenges and opportunities moving forward.

Integration and alignment

Local government must follow an integrated approach to planning and service delivery across all sectors. Spatial planning, housing and human settlement integration is a challenge. New houses need to be built, but informal

settlement housing also requires upgrading. Funding allocation need to be balanced and integrated with overall city planning and infrastructure implementation strategies. The spatial planning process should anticipate and take into account future developments and requirements. With an emphasis on the 18 SIPs, objectives need to be aligned to create jobs, unlock opportunities for widespread participation and transformation of the economic landscape, strengthen the delivery of basic services and support further integration of African economies.

Infrastructure maintenance

While government focused on upgrading infrastructure backlogs and developing new infrastructure, maintenance and refurbishments were neglected. A short-term focus is the root of the problem. Although finding the balance between developing new infrastructure and maintaining existing infrastructure will always be a challenge, it is critical that maintenance is prioritised. Furthermore, stakeholders need to ensure integrative planning and proper allocation of funds while investing in the right skills for effective implementation.

Infrastructure funding

Integrated infrastructure planning and implementation not only saves costs but is also pertinent for providing equal access to services, transport, technology and similar types of infrastructure. However, the challenge is to fund infrastructure, especially maintenance. The equitable share (which is

the share of nationally collected revenues allocated to municipalities) is intended for subsidising the cost of free basic services to indigent consumers and for social infrastructure. However, 90% of the equitable share funding is spent on salaries, bulk purchases of electricity and water, with limited money being allocated for maintenance. The Dialogue highlighted that maintenance funding should be ring fenced and used only for intended purposes. Operations and maintenance costs should be covered by revenue raised through tariffs, rates and taxes generated by local government.

Relationship between Government and the private sector

After 20 years of democracy, a lack of trust and understanding between the private sector and Government remains, with misconceptions and misinterpretations abounding. This can be addressed through closer, transparent relationships. Government needs to understand private sector requirements: the private sector seeks a return on investment and is reluctant to invest in unproductive and risky projects where the returns might be compromised or where it has no control over how an asset is managed. The private sector also wants to see that investment is employed responsibly and managed sustainably. Government should make sure that a proper legal framework is in place, and that all private sector service providers are fairly treated and properly contracted. Appropriate and simple financial instruments should be developed, ensuring that investments are bankable. The private sector, in turn, should improve its competitiveness and help drive local sourcing and procurement.



The Integrated Urban Development Framework

INTEGRATED URBAN DEVELOPMENT IN SOUTH AFRICA

Future Projections



Within less than a generation, the percentage of the South African population living in urban areas will rise from **63% to 80%**

Dynamics

1 Prioritisation in Urban Development

- Spend where most needed
- Understand long-term impact
- Focus on policy implementation
- Provide support and follow through
- Manage Growth Management Strategies effectively
- Equip appropriate leadership capacity

2 Urban Dividend

- Drive integration in real terms
- Invest in human capital development
- Facilitate entrepreneurial participation
- Grow the middle-class

3 Sustainable Growth Demands Long-term Thinking

- Anticipate the future
- Build in scope for experimentation
- Ensure infrastructure asset productivity
- Adapt and change thinking

4 Local Government & Inter-dependencies

- Leverage the IUDF for coherence and direction
- Engage with parallel development initiatives
- Tighten government and municipal financial controls
- Empower municipalities to deal directly with problems
- Eradicate corruption

Dialogue Take-outs

Figure 3: Integrated Urban Development in South Africa summarised

Inclusive, thriving cities play a critical role in South Africa's economic and socio-economic transformation. The NDP calls for the development of functionally integrated, balanced and vibrant urban settlements, and the purpose of the Integrated Urban Development Framework (IUDF) is to re-orientate our cities to become more economically efficient and more socially inclusive. However, urbanisation is not simply

about people moving to cities and financing the infrastructure that is needed. Urbanisation also incorporates the ability of people to move around, find jobs and work in cities raising their individual productivity in the process. It is about the concentration and the enablement of human potential. Sustainable growth is about creating cities that provide a quality of life and longevity for everyone. The main driver of inclusivity is economic growth,

which means creating entrepreneurship opportunities. This is a complex issue and is not simply about including entrepreneurs in the established economy. It is about breaking down the barriers, allowing changes to take place, and thereby growing inclusivity.

Within this context, Government aims to optimise the urban dividend. This means that investments in the economy complement investments in people, instead of investments being made either in the economy or in people, which is how current investment decisions are made. Economic development and the impact on people converge through synchronised investment and management of living spaces.

Urbanisation is a challenge but also presents interesting opportunities. For example, densification solves some of the biggest problems for water planners. The right kinds of volumes allow for specialised water-reuse systems: grey water systems and urban ecological systems (wetlands inside cities) can become part of waste water treatment.

Short-term vs. long-term priorities

Cities are the most complex sphere of government. Prioritising expenditure is also complex, as city-level funding comes from a pool of resources. Competing economic and political agendas make the situation worse. The challenge is both technical and managerial. City officials may lack the necessary decision-making skills, while elected councillors may take a short-term view,

thinking of the next elections rather than the long-term city objectives. What is important is to understand the long-term implications of investments made. However, ensuring adequate investment for future security and growth will continue to be difficult, while South Africa lacks proper asset registers, and city land and management frameworks.

Taking the long view

Developing infrastructure requires long-term thinking, not five or even 50 years ahead, but into the next century. It is about anticipating future requirements. It is also about ensuring sustainability and efficiency through infrastructure asset productivity and gross-fixed capital formation. A holistic approach is imperative, starting with the planning and conceptualisation of assets, ensuring the most efficient choices are made and being productive in relation to other aspects of the economy.

The long-term view includes looking at population and migration trends, resource security and optimisation, as well as technology. Technology refers not only to technological innovations that result in improved efficiency, but also to the 'softer' aspects, such as better coordination and financial planning, improved use of infrastructure assets and, critically, leadership. Indeed, bold and decisive leadership is fundamental for success.

New thinking

Effective planning and asset management alone will not create thriving urban areas. New

thinking is required. The historical one-size-fits-all approach to city development in South Africa no longer works. Cities have different strengths that need to be harnessed in order to unlock national growth. The need to break away from old thinking and ways of doing

things is even more important in a changing and uncertain world. Municipalities need to be accountable to the people for managing their urban spaces. What makes cities great is precisely that which makes nations great: people build nations and cities.

Financing Public Infrastructure

FINANCING PUBLIC INFRASTRUCTURE

How can South Africa fund and finance its public infrastructure build programme given the state of the economy, unemployment and fiscal capacity?

Case Study: Student Accommodation

A hybridisation issue with a social and economic mandate



Figure 4: Showcasing the Financing of Public Infrastructure Conundrum

Given the state of the economy, unemployment and government finances, the funding of public infrastructure is a matter of concern. Financing student housing was the focus of the Dialogue in order to tackle a real issue in a practical way to understand the various factors that have to be considered when financing public infrastructure in South Africa.

Background

In September 2011, the Department of Higher Education and Training published the Report on the Ministerial Committee for the Review of the Provision of Student Housing at South African Universities. The report highlighted the dire shortage of appropriate and affordable student accommodation, especially at universities.

Current funding instruments and solutions are provided by Government, the DBSA (through on-balance sheet funding) and the Association for Savings and Investment South Africa (ASISA), from pension funds. Internationally, pension funds (typically big pension funds) allocate around 1% to public infrastructure finance. South Africa's pension industry has 2200 pension funds and is highly fragmented. Enabling smaller pension funds to participate in investing public infrastructure, a highly specialised asset class, requires the appropriate expertise. Funding public infrastructure through pension funds is different from investing with balance-sheet funding (using shareholders' money). The return on investments is income for pensioners, not shareholders. Managers of the funds are paid a set fee and do not gain unlimited profits.

ASISA has funded 10 000 beds in partnership with a government initiative, and 8000 beds in partnership with public sector funders, mainly the DBSA in a combination of new and mainly refurbished residencies. The beds were implemented through refurbishment at a unit cost of approximately R125,000, which is roughly half the amount required for a new bed. As refurbishment comes at 50% of the cost comparing to new development, it is important that solutions for initiatives such as student housing will involve a balance of new development and refurbishment.

The Financing Challenge

Looking at student housing, a substantial investment of R147 billion over a long-term period is required to provide the target number of 200 000 beds judged necessary. In addition, funding for maintenance and refurbishment of residences, currently estimated at R2.5 billion and R4.4 billion respectively is required to ensure that residences are fit for purpose. The need is far greater than what can be afforded by Government and Treasury, on-balance sheet funding or other existing structures instruments in place. Universities are struggling to find solutions amidst the various demands they face. Fueling complexity, the Higher Education Act applies limitations on the degree to which universities may borrow funds. They are only allowed to incur long-term liabilities of up to 5% of turnover from their prior two financial years.

The scale and urgency not only require adequate funding, but also an operational function, which comes at a cost, in order to ensure effective implementation. It is here where the private sector needs to play a

significant role. Financing public infrastructure requirements necessitates investment from the private sector, whether owned private facilities through PPPs or other structured private investment schemes.

Affordability should always be the key driver of any solution. From a DBSA perspective, given reasonable certainty within an expenditure framework where budgets are available and allocated appropriately, a certain amount of risk is acceptable. Longer-term financing will bring down the cost, making investment opportunities attractive. However, shorter-term options need to form part of the mix.

From the private sector side, asset-based investment solutions are proposed. Through

extensive research and analysis, investment models and funding channels are being developed with the aim of providing affordable accommodation that meets standards.

To attract private investors, financing solutions should be kept simple. This Dialogue underlined return on investment as the key driver behind investment. Investors require exact volumes and a comprehensive financing structure. Existing structures do not provide adequate solutions and new ways need to be found to attract such investment. What is also required is a shift from focusing on ownership to usage, purely because it is not necessary to own assets in order to utilise and manage them properly.



Localisation, Driving Industrialisation through the National Infrastructure Plan

ENHANCING GLOBAL COMPETITIVENESS

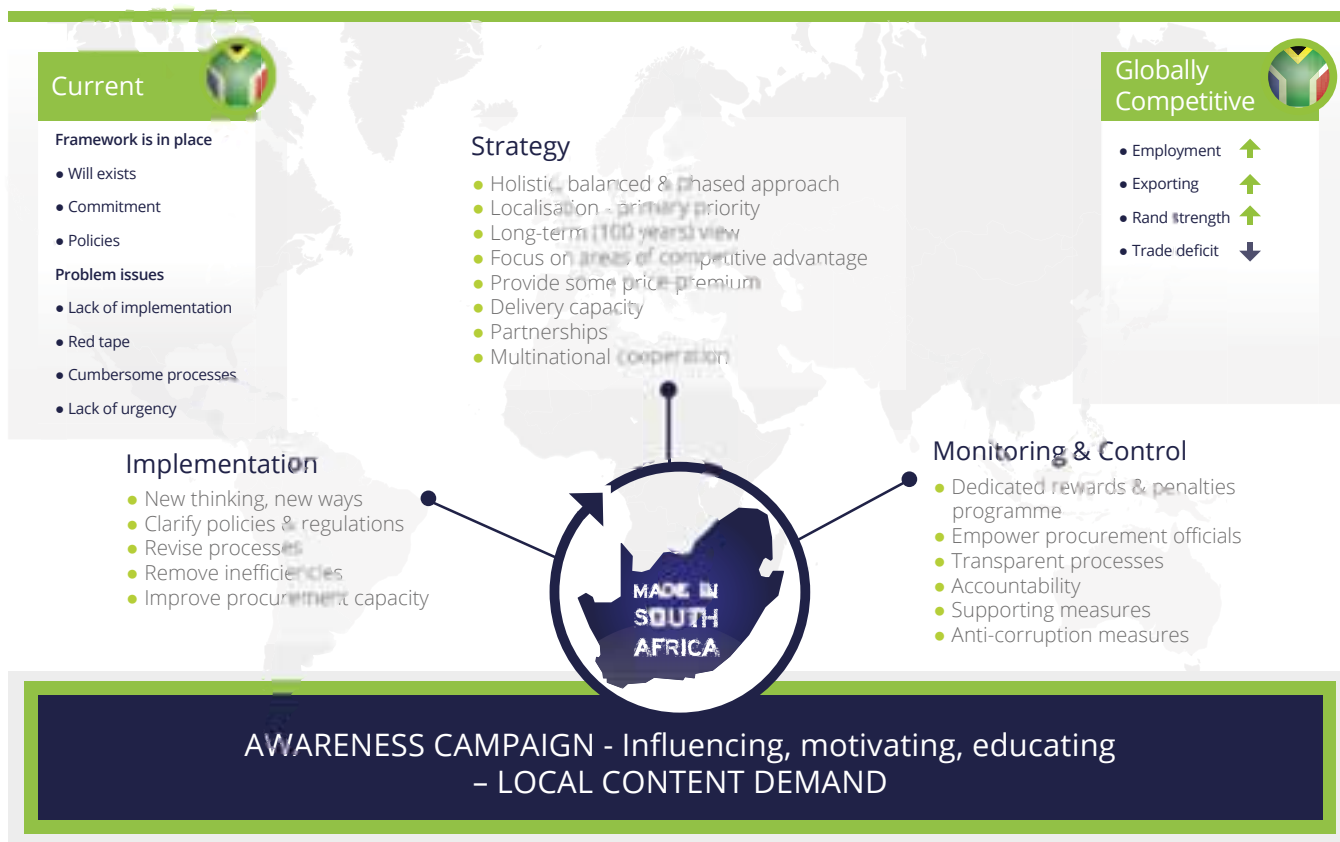


Figure 5: Key points in enhancing global competitiveness through localisation

Localisation is the focal point of many high-level discussions on infrastructure development in South Africa. The South African Government is committed to moving localisation forward. Under the direction of the PICC, the national infrastructure plan seeks to address and reverse the de-industrialisation

trend of the past two decades. This allows for the identification of opportunities to establish new supplier industries and to rejuvenate existing industries.

In practical terms, localisation implies local procurement by Government and the

private sector. This procurement should simultaneously foster the development of Black entrepreneurs, particularly women and youth-owned enterprises. Government has set a target of developing 100 Black industrialists over the next three years, a goal achievable only through industrialisation, which is driven by localisation.

Ultimately, localisation is about strategic choices of what to localise. It is about industrialisation and building a robust and competitive economy that can survive amidst global economic volatility. It is also about increasing employment opportunities and productivity. While the Department of Trade and Industry provides the policy framework, the PICC focuses on implementation and how best to leverage state spend within the SIPs. The PICC's Localisation Unit assists entrepreneurs to set up factories that will be economically viable, ensure employment, skills development and capacity building.

Government has committed to procure 75% of goods and services from local suppliers for the public sector infrastructure programme. This opens a number of economically-viable opportunities for localisation:

- Selected manufacturing industries that offers economy of scale
- Engineering capacity for new developments as well as maintenance after construction
- New industry development such as renewable energies
- Production of consumables, for example waste water treatment chemicals
- Production of materials for the support of refurbishing and maintenance
- Semi-urban and rural area opportunities where production closer to outlying markets will be feasible



Localisation versus B-BBEE

Confusion often exists between procurement benefits under Broad-based Black Economic Empowerment (B-BBEE) and localisation. B-BBEE is specific and rewards procurement from Black companies,

irrespective of local content. However, when a company does not comply with the required B-BBEE status of Black ownership but complies under localisation, it needs to be rewarded for doing so.

Localisation challenges

The long-term benefits of localisation should be clearly defined and the focus should be on establishing cost-effectiveness in the value chain. Changing the structure of the economy is difficult. It has to overcome resistance to change from vested interests, foster adoption by new beneficiaries of the policy while addressing the following challenges:

- The state designates certain goods and products that have to be sourced locally, but the designation process is inefficient, slow and cumbersome.
- The price premium (of up to 30% in some

cases), mainly due to material cost, labour cost and economies of scale is very high, limiting viability.

- There is a lack of appropriate financing instruments – currently the focus is on operating expenditure rather than on capital expenditure.
- Implementation is poor due to a shortage of capacity and a lack of commitment and resistance to new thinking.
- There is a lack of accountability while monitoring and measurement are poor.
- Procurement officials lack first-hand knowledge of regulations.
- There is corruption in the system.



Municipal Water and Sanitation Infrastructure



Figure 6: Water and Sanitation in the South African context depicted

South Africa faces an estimated backlog of adequate water supply to 1.4 million households and basic sanitation to 2.1 million households. Water and sanitation are global challenges. Water scarcity has been rated as one of the top five issues in the world – the

2014 Global Risk Report ranks the imminent water crisis as the foremost global risk. The four enabling factors are described and translated into the South African context in Table 1.

Table 1: Successful water provision enabling factors

Factor	South African context
<p>1. Good infrastructure <i>Infrastructure that is appropriate for the time in which it is used</i></p>	<p>South Africa is dealing with inherited service backlogs, and 80% of municipalities have infrastructure that is inappropriate for current needs. Although work has been done over the past 20 years to rectify the situation, success has been limited due to inappropriate infrastructure solutions.</p>
<p>2. Skills <i>An appropriate, available skills pool deployed to solve implementation problems</i></p>	<p>South Africa has a dire shortage of practical engineering and technical skills.</p>
<p>3. Science and technology <i>Continuous implementation of newly developed and acquired know-how that translates into fruitful interventions</i></p>	<p>The country is ranked 18th in the world for the production of knowledge and the publishing of technical and white papers, but practical implementation of knowledge is ineffective. Support for the commercialisation of innovative water and sanitation technologies is required.</p>
<p>4. Water behaviours <i>Includes, but is not limited to, aspects such as optimum water usage, limited water leakage and water loss, and generation of revenue for water use</i></p>	<p>Although water usage by South Africans is reasonable, the country does not perform well in terms of other contributing behavioural factors. A survey by the Department of Water and Sanitation found that 37% of the country's municipal water is non-revenue. An effective revenue generating system that includes a pricing strategy, meter monitoring of water usage, billing and payments is lacking. The country also has a cultural issue related to non-payment.</p>

A broad range of issues affect the effective provision and management of water and sanitation in South Africa. If these issues and related problems are not properly managed, the country will face a serious water and sanitation crisis in the near future. These issues include:

Inappropriate infrastructure

South Africa has a mix of obsolete, old and new – but in many cases over-designed – water and sanitation infrastructure that require high skill levels to operate, which is not fit-for-purpose. This could be ascribed to a limited knowledge of appropriate technological solutions as was reported by the majority (80%) of municipal managers in the 1990s. Luckily, this appears to be improving, as a recent survey found that at least 90% of municipal managers believe they have a meaningful understanding of the required technology.

Accountability

Since 1994, the country has made progress in improving water accessibility, but the challenge remains massive. Communities are increasingly upset about a lack of service delivery, and only 10% of municipalities have successfully met the Regulatory Performance Measurement System¹ (RPMS) requirements since its establishment. Municipal and implementation managers must be held accountable for failures and under-achievement. A formal top-to-bottom and bottom-to-top system is required to engender a culture of accountability.

1 - The RPMS is a simple water services assessment tool that measures various aspects

of water supply, accessibility and standards. The RPMS enables the Regulator to measure water performance of Local governments and municipalities against key performance indicators and to determine performance trends with the intention of promoting best practice in the water sector.

Operation and maintenance

Although 96% of the South African population has access to infrastructure, only 85% of this infrastructure is operational. At national level, only 65% of this infrastructure is considered to provide a reliable service. In rural areas, this figure is much lower: 40% in Limpopo, 39% in Mpumalanga, and as low as 20% in other provinces. Reasons for the collapse of 70% of infrastructure are due to no maintenance and vandalism.

The underlying problem is the imbalance between developing new infrastructure and maintaining existing infrastructure. Part of the problem is the lack of alignment between political processes and technical requirements in local government. Politicians exhibit little understanding of what is required to operate and maintain infrastructure in a way that provides sustainable services, and to rehabilitate and develop new infrastructure for growth. As a result, operations and maintenance tend to suffer in the allocation of funds, especially when budgets are tight.

Skills Shortage

At local government and within municipalities, there is a significant shortage of engineering, planning, management and social skills. On the whole, South African engineers choose

not to work in these environments. The reasons for this need to be investigated, and municipalities must ensure that they create the right environment and align remuneration with market-related salaries.

Planning and budgeting

Inefficient planning and budgeting is at the heart of the many issues pertaining to the infrastructure challenge. This is an awareness and skills shortage problem. Strategic plans should also make provision for appropriate staff recruitment, training and upskilling as well as performance management. Planning needs to incorporate total life cycle asset management and should be accompanied by financial implications to show cost savings over the long-term.

Revenue flow

Local Government and municipalities face a serious problem of non-payment for water. Local government, for example, is allocated 10% of the national fiscus because it should fund its operations from service charges and

rates. Non-payment therefore undermines the financing foundations of local government. People relocate to cities and towns looking for suitable economic opportunities that, in many cases, are not available. Although these people continue to reside in areas that demand services, the majority of them are unable to pay for service delivery.



The water pricing debate

Is water too cheap in South Africa? Consumer and usage behaviour suggest that water is perceived to be too cheap: South Africans use it extravagantly. Increasing the price of water may influence consumer behaviour and result in improved water demand management and water savings. It is however necessary to define this statement. For example, for whom is water too cheap?

The current price of water does not necessarily include the full cost of making

water accessible and other related service costs. South African water consumers can be categorised into a wide range of sectors. The user-pay principle can be incorporated, ensuring that everyone pays for water usage, however, large water consumers should pay higher prices. The pricing strategy should take into account the social element of allocating a certain amount of water “free” for all users (currently this amount is at 6 kilolitres) and pricing should be economically viable for households as well as businesses and industries.

Proposed Water Management Solutions

Water demand management includes water regulation, water conservation, water leakage management and more. Water demand management takes place at two levels: At a usage level, to regulate behaviour through incentives, namely instituting block tariffs, and at the point of supply and access. Some of the drivers for water demand management come from other sectors such as Energy, which is the largest user of water in South Africa. Pumping water from its original source to access points consumes substantial energy. If the demand for water can be optimised and effectively managed, less water will be used and it will cost less to deliver.

The Strategic Water Partners Network, comprising companies such as SA Breweries, Eskom, Sasol, Coca-Cola, the Water Research Commission, and the Department of Water and Sanitation, has investigated the water situation in three strategic areas:

1. Effluent management, with a focus on role players in the Mining and Industrial sectors
2. Agriculture, irrigation schemes and agricultural supply chain management
3. Water consumption and the optimisation of water usage, with a focus on water efficiency and leakage reduction.

As a result, the No Drop system, based on the Blue Drop and Green Drop RPMS, was developed to measure and reduce non-revenue water. A scorecard including skills, infrastructure, planning and budgeting was developed for municipalities to assess

performances and identify problems. An ambitious goal to reduce non-revenue water to 18% by 2025, which is equivalent to 600 billion litres of water costing R2.5 billion, was adopted.

Financing Solutions

The DBSA has investigated various financing options since the capital that municipalities need for specific water infrastructure requirements lies beyond the scope of the fiscus. In many cases, feasibility studies are a necessity to create a business case for a project and how it is to be funded. Currently there is no allocation of funds for feasibility studies although the National Treasury is encouraging government departments to start budgeting for feasibility costs.

Prior to funding, planning and deal development must be addressed. Looking at water demand management and water conservation systems, many solutions require major funding. With municipalities not having the reserves or borrowing capacity to fund the whole project, the DBSA has looked at how to fund such projects incrementally. Once development starts and small assets become evident, the balance sheet improves, which allows additional loans to be obtained. These incremental, small wins over a shorter period of time improve the allocation of capital and municipalities have the opportunity to prudently gear up their balance sheets.

Investments in the public services sector require the right financial instruments to match them. "One size fits all" investments are not appropriate.

Pricing and Paying for Municipal Rates and Charges

CHALLENGING LANDSCAPE

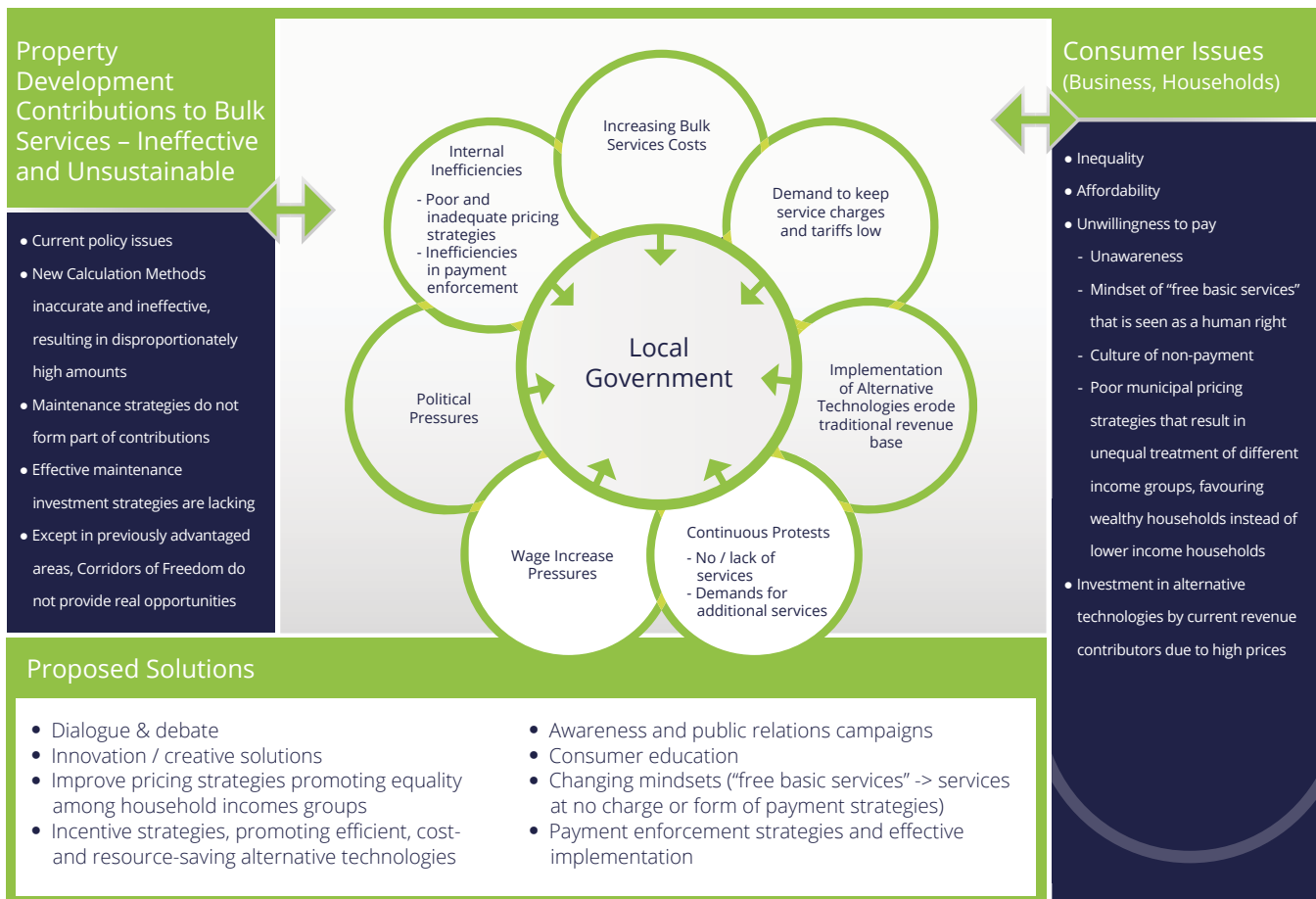


Figure 7: Dialogue key outcomes summarised

The pricing of services and the affordability thereof, the quality of municipal services and the social issue between the wealthy and the poor expose the fault lines in South African society. The increasing levels of consumer debt to municipalities and related strategies

required for revenue generation and effective financial management and credit control further fueled this discussion. The Dialogue also sought to be speculative on future scenarios and considered what will be needed to respond in the best ways possible.

Local Government Service Delivery Predicaments

Local governments face a challenging service delivery future. Between the political agenda, socio-economic viability and long-term sustainability, decision-making will be very difficult.

<p>Cost Increases Low Margins</p>	<p>The cost of bulk services will undoubtedly increase and as a result, these costs will be passed on to consumers. Adding to the consumer burden, certain communities that have enjoyed a period of non-payment will have to start paying for service delivery. In terms of affordability, local governments will have to find a way to keep margins on the resale of bulk services low, which will again limit their spending capability.</p>
<p>Wage Increase Demands Employee Benefit Structures</p>	<p>Labour costs and wage increase demands present a further issue in the municipal environment. Above-inflation increases are being demanded by trade unions and local governments will be under pressure to increase benefit structures for municipal workers. Not only will this aggravate the cost burden, it requires skillful and effective expectation management to prevent disruption.</p>
<p>Free Basic Services Policy</p>	<p>On the demand side, local governments are facing the dilemma of how to implement the Free Basic Services policy. The policy applies to indigent consumers but poor implementation has resulted in an expectation that this applies to all South Africans and it has become opportunistically entrenched as a culture of entitlement. Only in some regions, it is correctly communicated to consumers that the supply of "free basic services" is capped and that after a certain level is exceeded, users will have to pay for what they consume.</p>
<p>Non-payment Issues</p>	<p>The execution of services is a huge challenge. Exacerbating this, in cases of non-payment, consumers are often not forced to settle their outstanding accounts.</p>
<p>Innovation Required</p>	<p>Municipalities are urged to develop and implement innovative solutions. However, the routine functions have to be done properly before innovation can produce substantial improvements.</p>
<p>Public Relations Issue</p>	<p>Local governments also face a public trust problem. The public perception is very low and for the system to work, for consumers to pay for services and get the services they are entitled to, local government and municipalities need to build consumers' confidence. The responsibility of this lies at various levels.</p>

Ability to pay for public services

Discussing the issue of affordability, the Dialogue looked at a study around household incomes and the difference in price increases and payment structures for different income levels and consumption of a package of municipal services. Surveying prices in the larger cities, the study revealed that relative to income, the highest income group in South Africa which consumes higher amounts is charged four times less for municipal services than the lowest income group. These and other major discrepancies in the study findings raise serious questions as to how municipalities determine service rates, charges and price increases. It also undermines the principle of social solidarity in tariff policies that surpluses made on sales to high level consumers subsidises the cost of services provided to low level consumers.

Willingness to pay

After initial comments were raised on the issue of willingness to pay, it was noted that we have to expand our vocabulary around the subject, i.e. affordability, unwillingness to pay and unwillingness to enforce payment. We need to understand that willingness to pay responds to willingness to enforce. Through the sharing of various examples, it became evident that there is a culture of non-payment. However, the debate is also around municipalities' willingness to enforce payment from their customers. If the willingness to enforce changes then the dynamic on the willingness to pay will also change.

Willingness to pay is a long-term commitment and to change the situation, incremental steps should be taken to educate consumers

and develop a willingness to pay. With municipalities being dominated by political agendas and working on five-year cycles, change is difficult to achieve. It will take much longer, but with commitment and consistency, it can be accomplished.

There is also a lack of understanding with regard to what is paid for and why payment is necessary. To this extent, an example of consumer education was cited. In a certain municipality, the municipal manager embarked on an educational campaign whereby each employee was given a section of the township and the responsibility to educate households on rates and service charges and why it is necessary to pay. A significant improvement in payment for services was achieved through this campaign. Yet, when the municipal manager left the municipality, the situation reverted to its previous state. About 18 months ago, the municipality was taken to court on certain issues and the district agreed to write off all debt after the court case ruling. The district then undertook to put in a new meter system, however, to date, the collection rate remains poor. This example illustrates that continued consumer education accompanied by direct monitoring is very impactful.

The issue of traditional land

Traditional land in South Africa is currently exempt from municipal service charges and this is an anomaly in the principle that local government raises its revenue from rates on property values. The Dialogue noted that there are some wealthy households, as well as businesses on traditional lands, which are currently not required to contribute to the cost of running the municipality. However, changing

this situation will be very difficult, given the power that traditional leaders hold within the political space and voting dynamics. Exactly how much revenue was lost on traditional land is not known however previous research done by the SACN on secondary cities with traditional land within their boundaries found that the revenue contribution estimated for properties on such land was relatively small.

Free Services

While legislation clearly extends basic rights to indigents to have basic services at no cost within a system of subsidisation, there is no indication that services should be free. South Africans need to understand is that there is no such thing as a free service. All services have a cost attached to them. Services are supplied from the source to the consumer, and it is only a question of who is paying for it not whether it is being paid for. The concept that services need to be paid for, whether out of consumers'

pockets or from subsidies or fiscal transfers (which need to be transparent) has to become part of our lexicon and replace the notion that services are "free to the poor".

Property Development Contributions

This Dialogue also covered the topic of Property Development Contributions. The conclusion was that the way in which bulk service contributions are currently calculated is making it difficult and unfeasible for new property developers to enter the market. People who have been previously disadvantaged therefore continue to be kept out of the sector. Cities have also not yet indicated whether they would consider any discounts to incentivise development. This topic should be included in further discussions.



Government Communication and Administration Processes

In moving forward, the 2014-2015 Dialogues highlighted that Government needs to catch up with a rapidly changing world in terms of interconnectivity. Administration processes remain slow and Government should make better use of information technology.

It was noted that we have a younger generation entering the market as consumers of services. In terms of communication, which includes receiving invoices and making payments, the younger generation behaves in new ways through digital communication channels. For Government to remain relevant and to ensure that they will be able to communicate with the upcoming consumer base, they need to affect change quickly and efficiently.



Conclusion

“Leadership is the capacity to translate vision into reality.”

– Warren Bennis

The National Development Plan is Government’s long-term strategy for the country. With the buy-in from civil society and endorsement by industry leaders, it can be said to be South Africa’s collective vision for the future. The Infrastructure Dialogues initiative plays an important role in opening up channels of communication and encouraging robust discussion between stakeholders. More than that, the Dialogues are an opportunity to voice solutions to the challenges, old and new, that we face in South Africa. Armed with information and insights from the Dialogues stakeholders can rise to the challenge of making improvements in their sphere of responsibility. The true value of the 2014-2015 Infrastructure Dialogues, therefore, can only be measured if – and when – these learnings are acted upon. As leaders, we have the capacity to translate this vision into reality. Let us not be having the same discussion in the 2015-2016 Infrastructure Dialogues, but rather reporting back on the progress made in solving problems in the light of experience accumulated.

We are all deeply invested in the future of our country; a future in which all South Africans are able to actively participate in the economy and have equal access to quality services and infrastructure. But this can only be achieved if all stakeholders come together – on a national, provincial and regional level – and commit to play our part in the development story. By thinking hard about how to apply the insights that have come out of the 2014-2015

Infrastructure Dialogues to improve infrastructure performance where we can make a difference, we will be that much closer to achieving the future that the leaders of this country have envisaged. This is not just a plan for tomorrow, but a long-term strategy that will help build South Africa into a safe and sustainable home for generations to come.



Infrastructure Dialogue Partners

The Infrastructure Dialogues initiative was launched in 2009 as a partnership between the Business Trust and the Development Bank of Southern Africa (DBSA). The Dialogues are now jointly hosted by the following institutions with Engineering News as a media partner.



Development Bank of Southern Africa (DBSA)

The DBSA is one of several development finance institutions in South and Southern Africa. Its purpose is to accelerate sustainable socio-economic development by funding physical, social and economic infrastructure. The DBSA's goal is to improve the quality of life of the people of the region. For more information see www.dbsa.org.



National Business Initiative (NBI)

The role of business in sustainable development is becoming increasingly important especially to sharpen competitive edge for the future. The NBI strives to create and support a sustainable, equitable and thriving society that makes South Africa one of the best places to live, work and do business. NBI members have remained steadfast in their support for the organisation and the sustainable development agenda. For more information see www.nbi.org.za.



The South African Cities Network (SACN)

In conducting its work, the SACN secretariat is guided by a programme framework that encourages cities to define city development strategies that adopt a long-term view on urban challenges. SACN promotes an inter-governmental approach to urban governance, and a strategic focus on mobilising city partners. The objective of any city development strategy is to ensure an integrated approach to development and economic growth in SA cities. For more information see www.sacities.net.



Department of Planning Monitoring and Evaluation (DPME)

The DPME in the Presidency is mandated to facilitate the development of plans for the cross-cutting priorities or outcomes of government, and to monitor and evaluate the implementation of these plans. This includes implementing interventions to address blockages in delivery, in partnership with delivery institutions. The Dialogues partnership is based on enabling Outcome 6: An Efficient, Competitive and Responsive Infrastructure Network. For more information see www.thepresidency-dpme.gov.za.



Economic Development Department (EDD)

The EDD aims to promote economic development through participatory, coherent and coordinated economic policy and planning for the benefit of all South Africans. It does this by coordinating the economic development contributions of Government departments, state entities and civil society; contributing to ensuring coherence of national economic policies and plans; and promoting government's ability to achieve its goals of advancing economic development with decent work opportunities. For more details see www.economic.gov.za.



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