



science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA



PROCEEDINGS REPORT

The District Development Model as a Platform for Innovation for Inclusivity as Part of the Innovation for Inclusive Development (IID) Seminar Series



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REPUBLIC OF SOUTH AFRICA



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The Academy of Science of South Africa (ASSAf) was inaugurated in May 1996. It was formed in response to the need for an Academy of Science consonant with the dawn of democracy in South Africa: activist in its mission of using science and scholarship for the benefit of society, with a mandate encompassing all scholarly disciplines that use an open-minded and evidence-based approach to build knowledge. ASSAf thus, adopted in its name the term 'science' in the singular as reflecting a common way of enquiring rather than an aggregation of different disciplines. Its members are elected based on a combination of two principal criteria, academic excellence and significant contributions to society. The Parliament of South Africa passed the Academy of Science of South Africa Act (No 67 of 2001), which came into force on 15 May 2002. This made ASSAf the only academy of science in South Africa officially recognised by government and representing the country in the international community of science academies and elsewhere.

This report reflects the proceedings The District Development Model as a Platform for Innovation for Inclusivity as Part of the Innovation for Inclusive Development (IID) Seminar Series.

Views expressed are those of the individuals and not necessarily those of the Academy nor a consensus view of the Academy based on an in-depth evidence-based study.



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ACKNOWLEDGEMENTS

This proceedings report is a product of the Department of Science and Innovation (DSI) in partnership with the Academy of Science of South Africa (ASSAf) on the Innovation for Inclusive Development (IID) seminar series. The objective of the IID learning interventions is to use "knowledge, evidence and learnings" to inform, influence and demonstrate how innovative technology solutions may be used to achieve inclusive development, improve the capacity of the state to deliver and improve access to basic services, and thereby advance local economic development.

The Academy hosted the **District Development Model as a Platform for Innovation for Inclusivity** seminar on 13 May 2022, virtually, as part of the IID seminar series.

The objectives of the webinar were to showcase the DSI's approach in positioning the model as a platform to drive innovation to solve development challenges and improve service delivery; and to engage and solicit views from participants on this approach. The outcome of these discussions will enable the Department to ascertain focus areas of the Decadal Plan to be implemented in the districts.

ASSAf would like to thank the facilitator, Dr Melusi Thwala from Science Advisory Programme and Strategic Partnerships at ASSAf. Further acknowledgements go to the speakers:

Mr Ashley Losch, the Director of IGR at COGTA, who provided an overview of the DDM's approach. He mentioned that the DDM was a planning model for cooperative governance which sought to foster an integrated district-based delivery approach aimed at fast-tracking service delivery.

Dr Mmboneni Muofhe, the Deputy Director-General (DDG) for Socio-Economic Innovation Partnership at DSI highlighted that the DSI was working with stakeholders to ensure that science and innovation played a crucial role in impacting service delivery, addressing the challenges the country is facing and promoting inclusivity. The DSI appreciates the move towards longer-term planning and strategies for a 25-year instead of 5-year period, as this would improve consistency, continuity and growth.

Mr Tshepang Mosiea, the Director for Science and Technology (S&T) for Sustainable Human Settlements at DSI, who expounded further that the DSI's approach was to engage municipalities on projects with high impact, that are responsive to achieve inclusion and improve service delivery and their scalability in the DMs and Metros. Mr Mosiea mentioned that 108 municipalities have shown interest to participate in the Viability and Validation of Innovations for Service Delivery Programme (VVISDP), which indicates that municipalities are keen to be part of the innovation ecosystem.

Ms Sophie West, a Manager at Knowledge Transfer Network (KTN) provided the participants with the vision of IUK KTN to establish a network of innovators to create positive change across the world. IUK KTN has approximately 46,000 organisations and 230 000 innovators within its network, predominantly focused around small and medium enterprises. The team has a close strategic partnership with the DSI to promote and strengthened innovation ecosystems to increase market access, innovation funding/investment and drive economic development.

Dr Kombi Sausi, Research Specialist and Dr Yul Derek Davids, Research Director, from the HSRC shared findings from a study conducted by the HSRC at the government's DDM pilot municipal sites (Limpopo, Eastern Cape and KZN) between September 2021 and May 2022. The study involved a desktop analysis and empirical study on the practical workings of the DDM within these sites in order to determine how they responded to service delivery and development in a concerted and coherent manner. The study concluded that the implementation of the DDM is facing several challenges which need to be addressed and strengthened for the DDM to be a success.

Mr Isaiah Engelbrecht, Divisional Head for Innovation and Knowledge Management from the City of Tshwane shared the City's vision and position as the innovation capital. The strategy of the Innovation section is to create platforms that allow for the in- and out-flow of knowledge (ideas) between the municipality, employees and citizens to turn the ideas into implementable innovative service delivery solutions in order to improve quality of life. Mr Engelbrecht concluded by highlighting several challenges such as limited financial resources, lean staff complement and legislative limitations in terms of adopting pilot solutions for implementation were still being resolved.

Mr Gerbrand Mans, Research Group Leader for Urban and Regional Planning at CSIR presented on the project concept for the DDM Impact Simulator. This project stems from an engagement by DSI with CSIR to develop an impact simulation model to understand the impact of the DDM in addressing unemployment by developing a geo-spatial platform to simulate the impact of existing and planned DDM projects. Mr Mans indicated that it would be a challenge to capture everything that happens at local municipal space, however, the model will try to incorporate the whole of government processes while focussing on the areas where the DDM could add value.

ASSAf gratefully acknowledges all the partners, speakers and participants in attendance and the contributions by Mr Mosiea and Mr Phalafala from DSI and Dr Mabothe and Dr Thwala from ASSAf to this IID project.



Prof Himla Soodyall
ASSAf Executive Officer

WELCOMING REMARKS

Facilitator: Dr Melusi Thwala, Manager: Science Advisory Programme and Strategic Partnerships, Academy of Science of South Africa, ASSAf

Dr Thwala welcomed the stakeholders and panellists to the seminar, hosted by the Department of Science and Innovation (DSI) in collaboration with the Academy of Science of South Africa (ASSAf). The DSI conducts Innovation for Inclusive Development (IID) learning interventions in various forms including seminars to bring together various sectors and stakeholders to engage on innovations that promoted inclusive development. Through a number of its projects, the DSI demonstrated how innovative technology solutions could be applied to improve the state's capacity to deliver services thereby impacting the lives of citizens. The District Development Model (DDM), a prioritised tool within government, was crafted to break down silos in government and to synchronise the planning of service delivery by all government spheres and entities to focus predominantly on municipal level with the aim of enhancing entrepreneurship and economic development. Furthermore, the DDM facilitated the involvement of citizens, business and civil society in service delivery planning.

OPENING REMARKS

Prof Himla Soodyall, Executive Officer, Academy of Science of South Africa, ASSAf

Prof Soodyall welcomed everyone to the seminar and emphasised the pleasure it was for ASSAf to partner with the DSI in hosting the event.

The DSI had been supportive of interventions linked to the promotion of the DDM as a tool to enhance efficiency at local, provincial and national government levels and to improve the delivery of services to communities. This seminar would provide an update on the implementation of the DDM and some examples of the how it was creating a better environment for current and future generations in this country.

UPDATE ON THE NATIONAL STATUS OF THE DDM

Mr Ashley Losch, Director: Intergovernmental Relations (IGR), Cooperative Governance and Traditional Affairs, COGTA

The presentation provided an overview of the DDM's approach focusing on its main principles and elements, key features of DDM institutionalisation and key achievements in its implementation, as well as some of the lessons learnt in the pilot studies.

The DDM is a new integrated planning model for cooperative governance, which sought to foster an integrated district-based delivery approach aimed at fast-tracking service delivery and ensuring that municipalities were adequately supported and resourced to carry out their mandate. The DDM used the District and Metropolitan geographic spaces in enhancing intergovernmental coordination and cooperation, validating local government geographical space as the epicentre for development and addressing challenges through District plans, called 'One Plans'. The overall strategic objectives of the DDM aimed to address the silos in the planning, budgeting and implementation processes; to maximise impact and alignment of all the development plans across the three spheres of government as well as the relevant resources for these plans by using the 'One District, One Budget and One Plan' approach, and to narrow the distance between the people and government by strengthening coordination and capacities at District level.

The DDM concept document was approved in 2019 and implementation of the model followed a phased approach. Once stakeholders had been mobilised, the DDM was launched at three pilot sites (eThekweni Metropolitan Municipality (KwaZulu-Natal (KZN)), Waterberg District Municipality (Limpopo Province) and O.R. Tambo District Municipality (Eastern Cape)), and the requisite technical capacity was put in place for implementation of the DDM. Some of the key indicators for the institutionalisation of the DDM had been achieved to date and the strategic objectives and focus areas relating to the third phase were currently being reviewed based on the lessons learnt. The final phase would address the sustainability of the DDM particularly in terms of the institutional and financial sustainability of the local government sector.

One of the critical success factors for implementation of the DDM was the internal realignment and focus of COGTA, and by extension all of government, to accommodate the DDM. Other critical success factors included buy-in by the whole of government, leadership and guidance (technical and political), spatially contextualised budgeting, careful reflection and bold ideas, credible data and evidence-based planning, as well as process management and joint planning facilitation. Enablers for the implementation of the DDM included an information management system that linked to other such systems in government, stakeholder management and communications, and risk management.

The DDM was anchored on the One Plan, an intergovernmental plan that set out a long-term development trajectory (25-years) for transformation of District Municipalities (DMs) and Metropolitan Municipalities (Metros). It covered the following transformation areas:

- Demographic and District profiling
- Economic positioning
- Governance and financial management
- Integrated services provisioning
- Spatial restructuring
- Infrastructure engineering

While the One Plan does not cover non-strategic aspects of the existing plans (National Development Plan (NDP), Medium Term Strategic Framework (MTSF) and National Spatial Development Framework (NSDF), it did address a full range of responsibilities in terms of core powers and functions catered for in those plans.

COGTA had been tasked with the overall coordination of the implementation of the DDM and tasked with:

- Enabling integrated planning and delivery in DMs and Metros
- Mobilising all sectors of government and society to participate in DDM and coordinating the implementation of programmes and projects in spaces within the DDM framework
- Producing regular reports of the implementation of DDM in the various DMs and Metros

The Development Bank of Southern Africa (DBSA) was appointed as implementing agent for the roll-out of the DDM at the three pilot sites.

National and provincial sector departments played a key role in the development of the One Plan that would involve participation in the development process and in intergovernmental coordination and planning structures, ensuring the incorporation of DDM related implementation commitments in strategic plans and Annual Performance Plans (APPs) and the inclusion of the DDM in departmental communication strategies and plans.

Another key aspect of the institutionalisation of the DDM related to the national DDM political champions whose role was to work with sector Ministries and Provincial Members of Executive Councils (MECs) and to resolve issues that could hinder progress in the implementation of the DDM. Directors General are required to facilitate DDM processes within the DMs and Metros of their respective political principles.

DDM Technical Support Hubs serve as functional networks comprising various technical skills and expertise and were part of the overall institutional arrangements for the implementation of the DDM. Hubs have been established in each of the three pilot sites. Based on the lessons learnt from the pilot sites, COGTA had re-conceptualised the hubs to be more practical and relevant to the geographic context and environment of respective DMs and Metros. Sectors would play a critical part in availing staff with the required skills to form part of the DDM Hubs.

In terms of coordinating structures, DDM technical committees linked to the current legislated IGR structures, would be established at provincial and DM/Metro levels. The Presidential Steering Committee on DDM and the DDM Implementation Coordination Committee would steer DDM implementation at the national level.

An evaluation study of the DDM implementation in the three pilot sites highlighted the key lessons, namely:

- There was poor participation in the development of the One Plan by national and provincial sector departments
- A joint programmatic approach and adequate internal capacities in the One Plan process were essential for the institutionalisation of the DDM
- Partnerships with traditional leaders, the private sector and non-governmental organisations (NGOs) were critical to the successful implementation of the DDM

Once approved, the evaluation study report would be made publicly available and the key findings and recommendations on the DDM's institutionalisation and implementation would be used to strengthen implementation in all 52 sites.

Progress to date with regard to the implementation of the DDM was as follows:

- The DDM had been launched in three pilot sites and DDM Hubs had been established at these sites
- DDM profiles had been developed for all District and Metro spaces
- A DDM Implementation Framework outlining key aspects for the institutionalisation of the DDM had been developed
- Guidelines for the development of One Plans were in place and One Plans for 46 DMs and Metros had been finalised
- An Intergovernmental One Plan Quality Assurance Panel had been established and was fully functional
- Economic Recovery Plans had been developed for 46 DMs and Metros and had been integrated into the One Plans
- DDM Political Champions had been appointed and guidelines and a report template had been developed
- IGR/DDM structures had been established and strengthened across DM and Metro spaces, and the DDM Implementation Coordinating Committee was being established at national level
- The Draft Section 47(1)(b) of the Intergovernmental Relations Framework Act (IGRFA) Regulations was currently being prepared
- A DDM Integrated Monitoring and Evaluation (M&E) Framework and the DDM Information Management System (IMS) were being developed
- A DDM flagship project, Eastern Seaboard Development, had been launched
- Ongoing support and guidance with regard to mainstreaming the DDM across government was being provided and discussions with strategic partnership for DDM implementations were underway

The following focus areas for DDM implementation had been prioritised:

- Gazetting of section 47(1)(b) of the IGRFA Regulations to frame the institutionalisation of the DDM
- Finalising the DDM evaluation study and quality assurance of the One Plans
- Reviewing and amending the operationalisation and feasibility of the DDM Hubs concept
- Tracking of commitments made by national sector departments and provincial sector departments within the context of the DDM
- Localisation of the MTSF 2019-2024
- Establishment and management of the DDM IMS, including a Digital Single View District Dashboard
- Completion of the M&E Framework for the implementation of the DDM
- Assessment of data on the planning and implementation of infrastructure development projects within districts and the facilitative and hindering factors that framed these projects
- Provision of support to District Champions jointly with The Presidency to provinces and departments

Q&A AND DISCUSSIONS

Mario Marais (CSIR) asked if access to the DDM Information Management System is available and commented that It would be great to share information on a central platform.

Mr Imraan Patel (DSI) commented that it is also important to facilitate alignment between the DDM information management system and the National Policy Data Observatory.

Thomani Manungufala (Parliament of SA) asked if there are any tangible clear cut projects that have been implemented through the DDM in any of the pilot projects.

Mr Ashley Losch (COGTA) said that there are at the moment as the One Plans together with sector commitments are still being quality assessed.

Joyce Khunou (SAASTA) asked if SALGA has any role to play in facilitating DDM at local level. Also, if COGTA can provide a list of key people at both provincial and local government who are responsible for facilitating One Plan planning?

Tahseen Raiman (Laingsburg Local Municipality) asked what the role of the Local Municipality in the District Development Model was.

Tebogo Mathebula (AWARD) agreed that buy in from political leaders in council and administrators is important and asked who the appointed political champions were.

Prof Elize van Eeden (NWU) asked how the involvement of tertiary educational institutions (especially as per the organogram outlined) is seen.

Mr Ashley Losch (COGTA) responded that local government (municipalities) is a critical player in the DDM IGR structures at that level of government by identifying the key needs and challenges they experience and ensuring that the needs and challenges are addressed in the development of the One Plans. Municipalities also need to ensure that the matters raised in the wider development plans are factored into the One Plans. Also, that tertiary institutions are critical information and data providers in the development of the One Plans, specifically in terms of the socio-economic context of the districts.

Thomani Manungufala (Parliament of SA) commented that the pace at which the DDM is unfolding is a concern. It appears the term will come to end while we are still working on development of regulations and other frameworks.

Teboho Monareng (SARAO) asked where the DDM implementation starts? Is it driven by municipalities' service delivery needs and entities (public and private) identifying where they can contribute?

Mario Marais (CSIR) commented that coordination clearly plays a vital role as indicated in the presentation. This has been a vital issue in development at community level for many years. One approach that has been developed by community development champion June Holley, is that of Network Weaving. The diversity of the participants from citizens to govt and the private sector that are involved in making the DDM strategy a success, requires a concomitant diversity in the approaches used, hence this contribution. I hope it elicits other people's contributions as well. **Ref:** *Network Weaving to Foster Resilience and Sustainability in ICT4D*. M. A. Marais and Sara Vannini, in *Proceedings of the 1st Virtual Conference on Implications of Information and Digital Technologies for Development, 2021 IFIPWG9.4 Virtual Conference, 2021 arXiv:2108.09808v1*

Thandokazi Tefi (NACI) asked if there has been any thought of indicators that can be used to monitor and evaluate cooperation and coordination progress on the implementation of this model?

Moses Mnyaka (Stats SA) asked how the DDM fits into the IDP, if it is a replacement or if both are going to run parallel?

Mahlori Mashimbye (DSI) asked if the evaluation of the eThekweni Metro was completed before the recent floods?

Mr Ashley Losch (COGTA) responded that it was completed.

Promise Nyalungu (Struu Artzz Entertainment) asked what role can the One Plan play in reducing or getting rid of wasteful expenditure in municipalities?

Oliver Fuo (NWU) said that he did a policy review in 2020 for South African Local Government Association (SALGA) looking at the Public Procurement Bill. Part of the methodology entailed interviews with supply chain management officials from 29 municipalities. Most of them were sceptical about the usefulness of the DDM model. He asked what COGTA is doing in concrete terms to get

buy-in given that the autonomy of municipalities does not make it possible for any municipality to be forced to be part of the DDM model.

Given Nqoto (Private) asked if COGTA has started the process of spatial (GIS) mapping the infrastructure projects in the districts e.g. OR Tambo?

DDM AS A PLATFORM FOR INNOVATION IN THE CONTEXT OF THE DECADAL PLAN

Dr Mmboneni Muofhe, Deputy Director-General (DDG): Socio-Economic Innovation Partnership, Department of Science and Innovation, DSI

It was important to consider the role of the DDM in the context of the One Government approach that ensures coordination. The DSI was working with stakeholders to ensure that science and innovation played a crucial role in impacting service delivery, addressing the challenges this country faced and promoting inclusivity.

The thinking behind the DDM had been clearly stated but would become better understood through continuing engagement. Communities were directly impacted by the effectiveness of Local Government. It was therefore important to address and resolve problems such as those relating to infrastructure, crime and unemployment at that level of government. The DDM would have to introduce new approaches that addressed sustainability. A Just Transition, greening of the economy and conserving the environment would be unachievable unless taken into consideration at Local Government level.

In the process of developing the DSI White Paper on Science, Technology and Innovation (STI), the blueprint for how science and innovation would play a role in achieving national goals, clarified the importance of considering a decentralised approach, the role of local innovators and the role of tertiary institutions. It became clear that the exclusion of any segment of society and spheres of government would jeopardise the DDM's success.

'A capable State' - one that was able to successfully execute its mandate - was often referred to at the highest level of government and could only be achieved through the development of the necessary capabilities and innovation. Building a capable State had to be approached from developmental and transformative perspectives, which were not mutually exclusive but reinforced each other, together with an element of inclusivity involving the youth as they made up the majority of the population.

The DSI was enthusiastic about the prospect of full implementation of the DDM and was working to ensure coordination of its own activities in order to bring significant impact. The department was appreciative of the move towards longer-term planning and strategies for a 25-year instead of 5-year period, as this would improve consistency, continuity and growth.

Q&A AND DISCUSSIONS

Thato Sekgoele (Seto State Systems) asked when the innovative implementation side of the infrastructure that was supposed to carry the country and represent transformational solutions would be realised with the involvement of young people. He commented that a collaborative effort was needed to build and maintain the sustainable, innovative infrastructure, and cohesion within universities, government, the private sector and civil society needed to be displayed.

Dr Mmboneni Muofhe (DSI) indicated that with regard to the involvement of young people in innovation, a number of innovative projects would be a catalytic aspect of the DDM and focussed on creating spaces for young people to offer innovative solutions to challenges they experienced and supporting those young people at local level.

Mario Marais (CSIR) responded and indicated that Thato's question has to do with inclusivity, alignment and coordination via the approach of Network Weaving developed by Community Development Champion June Holley. At the moment the DDM strategy seems to focus primarily on organisational level and "institutions". This is necessary, but not sufficient, in order to hear "all the voices", to ensure a just transition, via living processes not driven by committees. The comments made by Dr Mmboneni Muofhe are really appreciated as to how we achieve a "society that is resilient"!

Sharon Pollard (AWARD) commented that there have been a range of incubator projects with municipalities which are now moving to a pilot phase for some metropolises.

INNOVATIVE DISTRICTS: INTERNATIONAL PERSPECTIVE

Ms Sophie West, Knowledge Transfer Manager: Knowledge Transfer Network, KTN

Innovate UK KTN (IUK KTN) is the networking partner of the UK's Innovation Agency (Innovate UK) that has a close strategic partnership with the DSI. Innovate UK (IUK) KTN connects innovators with new partners and new opportunities beyond current existing thinking, and accelerated ambitious ideas into real world solutions. The purpose and vision of IUK KTN is to drive diverse connections to create positive change and to establish a network of innovators so powerful that its ideas change the world. IUK KTN has approximately 46,000 unique organisations and about 230 000 innovators within its network, predominantly focused around small and medium enterprises. IUK KTN has a presence in every university within the UK mainly through knowledge transfer partnerships. In terms of key outputs, 66% of network participants introduced by KTN collaborated together, 42% of the collaborations

reached outcomes faster, and the 60% increase in investment in Research and Development (R&D) (or £100 million) in the UK economy resulted in KTN engagements in the UK and internationally. The KTN team has a global presence through a number of initiatives, including the Global Alliance Africa project (<https://ktn-uk.org/programme/africa/>).

The use of innovation to create innovative Districts in both local and international experiences was illustrated in the following initiatives:

- **IUK KTN initiatives in the UK**

- o Smart Specialisation Hub: This term was coined by the European Commission and came out of recommendations at government level to consider how to establish an authoritative advisory capability to advise it on how best to ensure that all the funds available to Local Economic Partners (LEPs) to invest in Innovation and R&D were spent on these areas, and to generate evidence about the importance of District Innovation Models in the UK. The Smart Specialisation methodology was a bottom-up process drawing on inputs from business, higher education, government and civil society to develop collaborative strategies to maximise the potential and innovation strengths of a local areas, utilising Smart Specialisation principles to ensure that local areas prioritised sectors to promote a competitive advantage. The Hub was an innovation observatory and advisory body that assembled a suite of analysis to support local actors as they sought to make informed and impactful investment decisions about creating Innovation Districts. Its remit and activity expanded to deliver against a broader agenda of innovation understanding and support, and it provided robust, impartial evidence to showcase a region's innovation activities, strengths and capabilities across several sectors and industries. The Hub also undertook research, advised on national policy drivers and strategic fit, worked with government and partners, and constantly improved the data and analysis it provided. One of its key objectives was to support the national European Regional Development Fund (ERDF) programme and help ensure that local projects and programmes were aligned to the Smart Specialisation Strategy for the UK. The work completed by the Hub helped put innovation at the forefront of informed policy decision-making across the UK. IUK KTN provided a detailed report to the UK government that made recommendations based on the lessons learnt. Key recommendations concerned the need for a national observatory of local data, which was often a missing part of the innovation and economic growth landscape, and a call for the simplification of the funding landscape to allow local areas to tailor spending to their specific needs. One of the important roles of smart specialisation was to reprioritise 'world leading' and catalyse activity on a different scale in order to be as impactful and respected as possible at local and district levels.

- o Cambridgeshire and Peterborough Local Industrial Strategy: The Local Industrial Strategy (LIS) aimed to harness the full potential of innovation in the region and maximise productivity by establishing a Skills and Apprenticeships Hub to support the local community. The LIS further enhanced the area's global reputation for innovation and enterprise by focusing on its world-leading life sciences, artificial intelligence and advanced manufacturing sectors, delivering highly-skilled jobs and securing a strong local economy for the future.
- ***IUK KTN Global Expert Missions (GEMs) are funded by Innovate UK and delivered by IUK KTN. They focus on driving the sharing of expertise across borders and fostering global collaboration, and they helped to build international strategic partnerships and provide insight into innovation opportunities for the UK and globally.***
 - o Canada's Superclusters GEM. In 2017, the Canadian Government committed to invest in the Innovation Superclusters Initiative (ISI), which invited industry-led consortia to lead and invest in bold and ambitious supercluster proposals that would supercharge their regional innovation ecosystems. One of these superclusters focussed on Advanced Manufacturing. IUK KTN was invited to share lessons learnt for the UK innovation districts/hubs with Canada. Canada was able to maximise both social and economic potential within the innovation district and the innovation brand, 'Made in Canada', became recognised as excellence in innovative manufacturing.
 - o Be'er Sheva-Israeli's Cyber Capital: The inauguration of the Advanced Technology Park in 2013 marked a new chapter in the history of the tech industry and cybersecurity in Israel. IUK KTN hosted a Cybersecurity GEM in 2018 to support UK-Israel cybersecurity connections and share lessons.
 - o IUK KTN's wider network of Innovation Districts, including the 22@ Barcelona Innovation District, the Medellín Innovation District and Melbourne Innovation Districts.

One of IUK KTN's key projects is the Global Alliance Africa (GAA), a six-year initiative. Working in partnership with the UK's Foreign, Commonwealth and Development Office (FCDO) and Innovate UK, Global Alliance Africa drives knowledge transfer and collaboration that foster long-lasting, strategic innovation partnerships between Nigeria, Kenya, South Africa and the UK to promote strengthened innovation ecosystems to increase market access, innovation funding/investment and drive economic development. In South Africa, the DSI and Technical Innovation Agency (TIA) are strategic partners. The Place-Based Innovation (PBI) intervention under the GAA project aims to leverage UK and pan-African expertise, networks and resources in order to build capacity for local innovation ecosystem players to drive forwards stronger, more sustainable and more inclusive local ecosystems. Pilot sites in each of the countries represented very different contexts. Regional

innovation audits were conducted in the three sites to identify where the key sectors were based and extensive stakeholder consultation have been conducted to inform the development of Innovation Action Plans for the three areas. More recently, local advisory groups were formed to support delivery of the Innovation Action Plans and Local Innovation Networks were being established in the three areas.

IUK KTN aspired to be a trusted international partner and maintained a neutral position in all its projects, both within the UK and internationally.

Q&A AND DISCUSSIONS

Meena Lysko (Move Beyond Consulting) asked whether there was data that demonstrated the economic benefit to the countries that IUK KTN worked with.

Ms Sophie West (IUK KTN) indicated that IUK KTN produced a number of GEM reports that provided this information.

Mario Marais (CSIR) asked what the amount of investment used in Canada per job created was.

In responding to a question by **Mr Mario Marais (CSIR)**, Ms West shared the following links:

- <https://ktn-uk.org/programme/global-expert-missions/>
- <https://ised-isde.canada.ca/site/innovation-superclusters-initiative/en/canadas-advanced-manufacturing-supercluster>

Ms Joyce Khunou (SAASTA) asked whether learners and students played a role in the IUK KTN projects.

Ms Sophie West (IUK KTN) indicated that since the projects were at the business and small, micro and medium enterprise (SMME) levels learners and students did not play a direct role in the projects currently. However, the IUK's global portfolio has a huge programme focussed on young innovators and there were some important initiatives supported by the UK government with young innovators. There was also a programme piloted by IUK with TIA and DSI to support young innovators. Ms West shared the following links with regard to programmes for young innovators: <https://ktn-uk.org/programme/young-innovators/>.

Mario Marais (CSIR) said that it would be great to "normalise" the UK context to ours. One factor is the incentive of working together to get more investment and funds for a region/area. He asked if it would work to get data on the "investment per person in a local area" that is being competed for in the UK, versus the "investment per person" in SA, that is normalised by the cost of living or GDP per capita, or a similar approach.

SURVEY BRIEF

Ms Precious Lukhele, Department of Science and Innovation, DSI

Ms Lukhele explained that the DSI was in the process of developing a research paper on the use of the DDM as a platform to drive innovation for inclusivity. The DSI was interested in participants' perspectives of the DDM and innovation for inclusivity as a concept, as well as the accompanying funding and governance arrangements. Participants were requested to complete the short survey that was shared on the link in the invitation to the webinar. **The survey data will be captured in a research paper to be published on an open platform.**



DSI'S APPROACH TO THE DDM

Mr Tshepang Mosiea, Director: Science and Technology (S&T) for Sustainable Human Settlements, Department of Science and Innovation, DSI

The purpose of the presentation was to share the DSI's approach to and rationale behind its approach to the DDM, and its case for positioning the DDM as a Platform for Innovation for Inclusive Development. The Council for Scientific and Industrial Research (CSIR) had been engaged to develop an impact simulation model to understand the impact of the DDM in addressing unemployment.

The DSI did not have representation at Provincial and District levels and needed an appropriate institutional arrangement to engage effectively with municipalities around innovation. The department believed that the DDM created an enabling environment for entrepreneurship and innovation in Districts through its programme for inclusive innovation. In addition, the DDM provided a space for the implementation of the DSI's Decadal Plan to support economic construction and recovery by using innovation to support existing sectors of the economy and new sources of growth, procuring locally developed technologies and commercialising publicly funded intellectual property (IP).

Innovation in the DDM had to be about ensuring better service to citizens and helping communities become part of solving their own challenges. It was also about delivering basic services, enhancing capacity and supporting local systems of production. Municipalities should be enablers of innovation through the DDM.

The DDM, through its One Plan, should ensure innovation for local economic development. The ability to determine the overall impact of all interventions, particularly in terms of reducing poverty, inequality and unemployment was an important principle in the DSI's approach to the DDM. In terms of areas of transformation addressed in the One Plan, the DSI focussed primarily on economic positioning and integrated services provisioning. The department was of the view that the One Plan should emphasise job creation, economic growth and investment, and service delivery in urban and rural settings, and ensure selection of impactful and relevant projects in these areas using a bottom-up approach and a systems thinking approach. Better analytics tools were necessary in order to effectively assess innovation in DMs and Metros, and in the DDM itself.

The DSI adopted a three-pronged approach to the DDM, namely:

- **DDM Process 1:** To identify 125 of the most responsive and high impact projects (from among the DSI's existing portfolio of projects)
- **DDM Process 2:** To engage with DMs and Metros concerning their participation in a DSI programme in partnership with the European Union to raise investment for innovation and technologies to support the delivery of basic services in DMs and Metros
- **DDM Process 3:** To engage with the DDM as a platform for inclusive innovation and the implementation of the DSI Decadal Plan

The selection of projects to support DMs and Metros was based on the following criteria:

- Advancement of economic inclusion of youth through support to youth-owned enterprises and innovations, skills development for employability, entrepreneurship and enhanced engagement of youth as active citizens
- Direct responsiveness to societal challenges such as crime, drugs, health, drought, climate change, including risk and vulnerability profiles
- Response to or promotion of the roll-out of innovative solutions to deliver basic services in municipalities
- Support for local systems of production, circular economy and innovation for local economic development
- Infrastructure
- Direct impact on the community and the inclusion of women, youth and disabled people
- Involvement of local industry and supplier value chains
- Benefit to SMMEs and cooperatives

The selected projects focussed on the following impact areas:

- Life Changing Opportunities
- Economic Competitiveness and Recovery
- Access to Basic Services and Infrastructure and Societal Problems
- Challenges and Decision Support

Examples of the DSI's current, high impact and responsive initiatives to achieve inclusion and improve service delivery that could be scaled-up in the DMs and Metros using the DDM included:

- Wireless Networks, which can easily create income opportunities for co-operatives and unemployed youth in rural areas
- Remotely Piloted Aircraft Systems (or drones), used to conduct spatial monitoring of the impact of disaster in informal settlements, for example, present immense opportunities for job creation and skills development
- Innovation Partnership for Rural Development, which addressed sanitation and community-based schemes to deliver and maintain sanitation in schools, and renewable energy initiatives, would provide employment opportunities
- Grassroots Innovation Programme, focussing on youth entrepreneurs in innovation, had assisted them to commercialise their products
- Innovation Incentive Schemes, such as the Imvelisi Enviropreneur Programme focussing on entrepreneurship opportunities in the area of water and biodiversity, and the Science, Technology and Youth Journalist Programme

A number of municipalities had expressed interest in participating in the DSI's Viability and Validation of innovation for Service Delivery Programme (VVISDP), where municipalities could register their service delivery challenges requiring technology and innovation solutions. This was a clear indication that municipalities were embracing innovation and becoming part of the National System of Innovation (NSI). However, ways still had to be found to bring together all the components of the NSI into the DDM and ensure that municipalities became drivers and enablers of innovation themselves.

Inequality, spatial disparities, stagnant economic growth, high rates of unemployment characterised exclusion in the South African context. The DSI saw the need to position innovation in the DDM to support inclusion as a means to ensure that all people were able to participate meaningfully in the NSI and share in its benefits, either directly or indirectly. Inclusion through innovation should be enabled in every aspect of the STI system in DMs and Metros. The current policy environment was the biggest limitation to achieving inclusivity.

The DSI's perspective was that the DDM should be positioned as an engine for innovation for inclusivity in order to address poverty, unemployment and inequality and should support Districts to become innovative as a means to achieve inclusivity. Positioning the DDM as a platform for innovation for inclusivity would result in the use of knowledge and innovation to address poverty, unemployment and inequality through innovation at a District level. This would require an enabling environment in terms of policy coherence, the use of the NSI's innovation programmes, a space for innovating policies to be responsive to inclusivity, modernisation of existing economic sectors in Districts, new sources of growth in each DM, locally developed technologies, and commercialisation of public funded IP.

Q&A AND DISCUSSIONS

Dr Melusi Thwala (ASSAf) asked about the contribution made by the selected DSI projects in alleviating unemployment in the country.

Mr Tshepang Mosiea (DSI) explained that the selected projects illustrated the point that innovation could help achieve inclusivity and indicated that the figures could be shared with participants. Although the DSI had achieved much through its programmes that supported innovation through seed funding, the programmes needed to be expanded at District level using the DDM platform.

Mr Ashley Losch (COGTA) commented that the presentations and discussions were very enriching and very practical. He is open to have working sessions with individual departments/institutions on the DDM or with groups.

Mario Marais (CSIR) said that he appreciated the focus on inclusivity and the mention of the role of social capital, a resource that has been his research focus for the last 12 years!

Teboho Monareng (SARAO) asked whether there were any projects in the Northern Cape.

Mr Ephraim Phalafala (DSI) said that they can share the projects in the NC, but these may be few. The direction is to have a minimum number of innovation projects per municipality.

Meena Lysko (Move Beyond Consulting) asked if there was an online gauge which shows progress in deliverables.

Tebogo Mathebula (AWARD) enquired regarding the DSI's selection criteria vs the municipality IDP projects prioritisation processes and communities' views in all this processes.

Mr Ephraim Phalafala (DSI) said that, as a start, there should be knowledge why certain projects should be put forward (SARAO) to support municipalities, based on geographical space and impact.

Teboho Monareng (SARAO) asked when the DDM implementation started and if it is driven by municipalities' service delivery needs and entities (public and private).

Mr Ephraim Phalafala (DSI) responded that the implementation started in 2019 in the district and in 2020 across all municipalities and districts. Municipalities are the drivers, and the development of One Plans involves all stakeholders, all spheres of government, communities, traditional leaders, government entities and private sector.

EVALUATING THE DDM: VIEWS FROM THREE PILOT MUNICIPALITIES IN LIMPOPO, EASTERN CAPE AND KWAZULU-NATAL

Dr Kombi Sausi, Research Specialist and Dr Yul Derek Davids, Research Director, Developmental, Capable and Ethical State (DCES), Human Sciences Research Council, HSRC

The DDM was adopted to help build a coherent State to bring about inclusive economic growth, spatial transformation, strategic infrastructure investment and reliable service delivery for all. Its adoption and implementation were vital because numerous reports and studies had highlighted the state of governance and the need for transformation in South Africa, particularly in terms of service delivery. The presentation reflected on government's DDM pilot study undertaken in 2019/20 at three sites (two DMs and one Metro) and presented findings from a study conducted by the HSRC in these sites between September 2021 and May 2022.

The HSRC study involved a desktop analysis and empirical study on the practical workings of the DDM within the three sites to determine how they responded to service delivery and development in a concerted and coherent manner. The study drew on regional and international experiences as case studies to inform the implementation of the DDM. A review of the relevance of the Ethiopian model for South Africa's DDM was also undertaken. A number of publications, including policy briefs and peer reviewed articles, will form part of the project outputs.

Key research questions looked at the integration between the NDP, the Provincial Development Strategy and the DDM; how the interests of residents were reflected in the DDM and long-term infrastructure and service delivery plans; how community involvement in monitoring could be supported (and sustained) in the implementation of long-term projects; how the support of private sector, international aid agencies and non-state actors could be enabled and facilitated in an appropriate and transparent manner; and what data and indicators were being used, or were required, for planning and monitoring the success of the DDM. The literature review focussed on district development planning initiatives in other African countries and India.

The assessment of Service Delivery Improvement Programmes (SDIPs) found an absence of coherence between the relevant legislative and policy frameworks and the interventions to improve service delivery at implementation. Capacity building was necessary to help public officials in the preparation of SDIPs and more emphasis need to be placed on the real outputs, outcomes and impacts of the intended interventions than on the quality standards of the SDIPs. The assessment of the IGR framework found a proliferation of complex plans and frameworks that were uncoordinated and difficult to implement.

The study findings supported the need for a Long-Term Strategic Framework that was spatially targeted and identified a lack of synergy in terms of the implementation of the DDM by different departments at the three pilot sites.

Profiling the three Districts (pilot sites) in preparing for DDM implementation provided a clear understanding of their respective issues and the possible solutions to these. Some examples were:

- **O.R. Tambo DM:** The District had an unemployment rate of 35% with 80% of the unemployed under the age of 34 and uneducated. Given the District's proximity to the ocean and vast agricultural land, institutions of higher learning could offer appropriate programmes and local industries (fisheries, tourism, agriculture and agro-processing) could be established or enhanced. The DDM process revealed misalignments between departments. The DDM created space for the three spheres of government to use spatial profiling as a baseline to inform the One Plan.
- **Waterberg DM:** The return of tourism in the District after the Coronavirus Disease of 2019 (COVID-19) pandemic lockdown restrictions had been lifted was slower than anticipated. Stakeholder consultation revealed that traffic congestion at toll gates on the highway caused delays that negatively affected tourism to the area. The introduction of contactless payments partially resolved the problem and contributed to an increase in tourist numbers. The environment created by the district was conducive to responding to community concerns and this was crucial to building and maintaining stakeholder relations, and opportunities in the district's tourism sector needed to be created for Black entrepreneurs.
- **eThekweni Metro:** The National Economic Reconstruction and Recovery Plan provided for several catalytic projects to be prioritised for immediate implementation. One such project was the Cornubia Development, a joint venture between the eThekweni Metro and Tongaat Hulett Development. DDM principles were applied to bring all local government departments and the private sector together. The DDM provided for priorities and opportunities to address spatial inequality. People's needs should be central in developing the One Plans. The DDM had to bring change and show that the planning process was inclusive and innovative in its response to the marginalised part of society.

The DDM Spatial Integration Plan needed to provide for spatial integration for the urban dividend, expanded investment in core infrastructure and deeper access to private financing to expand resources available for investment.

The One Plan changed planning processes as all spheres needed to have one vision for one space. If well implemented and understood, the One Plan could become the most effective instrument in addressing the triple burden of poverty, unemployment and inequality. In addition, it brought a new way of M&E, introduced community consultation mechanisms driven by the One Plan and a clear accountability framework, and was action-oriented.

The DDM had potential to lead departments towards a spatially mapped budgeting model, which would create a plan that targeted one objective for the three levels of government.

The implementation of the DDM faced several challenges with regard to:

- Developing a single plan from National, Provincial and Local government spheres.
- Party political dynamics in adopting a single plan
- Political contestation between provinces and municipal programmes
- Rationalisation of roles and responsibility
- Consolidation of community engagement structures
- The role of the presidential coordinating council at the district level.

The study proposed that party political dynamics be addressed in developing a single plan for the three spheres of government and that political maturity and healthy contestation between provincial and municipal programmes be encouraged. Roles and responsibilities should be rationalised, community engagement structures consolidated and the role of the presidential co-ordinating council at the level of District be strengthened.

Q&A AND DISCUSSIONS

Mario Marais (CSIR) said that it is great to see community involvement in monitoring. A few years ago, he coined the phrase "community intelligence".

Dr Sharon Pollard (AWARD) said that South Africa has some of the highest densities of so-called 'rural areas' in the world- higher than the NL (at 2000 p/km²)

Phatu Letsoalo (Office of the Premier: Limpopo) asked (1) what the relationship was between the municipal IDPs and the One Plan; (2) if the One Plan is not supposed to be a district wide Integrated Development Plan as enshrined in the 1998 White paper on Local Government; (3) how the DDM is intending on bringing National Planners, Provincial Planners and Municipal Planners in one roof for integrated planning.



INNOVATION IN THE TSHWANE METROPOLITAN MUNICIPALITY: THE DISTRICT DEVELOPMENT MODEL AS A PLATFORM FOR INNOVATION

Mr Isaiah Engelbrecht, Divisional Head: Innovation and Knowledge Management, City of Tshwane

Municipalities ought to pay more attention to people who come up with innovative solutions that could fast-track and improve service delivery. The process of co creation testing and piloting of solutions at local government level is critical for a well-functioning NSI. The task of the City's Innovation and Knowledge Management Division is to drive continuous improvement, knowledge and innovation management. The Innovation section is about creating platforms that allows for the in- and outflow of knowledge (ideas) between the municipality, employees and citizens to turn the ideas into implementable innovative service delivery solutions in order to improve quality of life.

The City has an approved Innovation Strategy that is well aligned to the City's overall strategic Intent. In summary, the Innovation Strategy is based on the following key pillars:

1. Igniting the Tshwane innovation ecosystem: The City is the proud host of many different innovation actors, organisations, institutions and works proactively to co create new solutions through collaborative partnerships and often through an open innovation model. For example, over the last three years, the city has been engaging with various stakeholders to better understand the innovation ecosystem and how to best leverage the wealth of expertise that exists within its borders to achieve its Innovation vision of becoming the Innovation Capital of South Africa and ultimately Africa. In order to extract value through partnerships, the City partnered with the University of South Africa, University of Pretoria, Tshwane University of Technology, the Innovation Hub, Technology Innovation Agency, the French Embassy, Human Science Research Council, Eskom, and Universities South Africa to launch the Inter-university innovation challenge.

The goal of the Tshwane Inter-University Innovation challenge/project was to develop solution-driven, out of the box thinking, future-oriented students and to prepare students for the lifelong journey of entrepreneurship. Secondly, it was to bridge the gap between research and practice, which is bringing innovation to life that can address service delivery challenges and improve the quality of life of the residents of Tshwane. The focus areas for the challenge were electricity, energy, waste management (CleanTech), finance (revenue generation/collection), clean transport, and mobility within the City. This collaborative ground-breaking project was a success and won a CPSI award. It was complex to work with many partners, but together it was possible increase the reach,

contribution and impact. It is therefore very important that City's recognise the 'power' of strong partnership to address service delivery challenges

2. Establishing responsive governance structures for sustainable innovation: At institutional level, the City established an Innovation Steering Committee (ISC) to oversee the innovation programme. Furthermore, to increase reach of innovation people from across the City were invited to participate as innovation champions or patrons as we call them in the City. The ultimate objective is to decentralise innovation and to facilitate innovation in their respective departments whilst being supported through training and otherwise by the central innovation team. In order to unearth innovative solutions and build the idea pipeline, the innovation team regularly hosts 'Pitch Pot sessions' where members of the public can present innovative ideas to the City for possible partnerships (piloting solutions). In support of the said partnerships, an IP (intellectual property) policy was recently approved to assist with defining the rules of engagement and protecting IP between the City and its partners. In addition, the innovation team also host regular internal innovation challenges where the City's employees are invited to co-create and share ideas for specific challenges (problems).

3. Providing platforms for piloting of innovative solutions to emerging entrepreneurs/innovators: Although the City should not be regarded as a source of funding, it is able to assist entrepreneurs and innovators by providing platforms for piloting innovative solutions as a value-add to both citizens and entrepreneurs. Pilot results often assist entrepreneurs to scale their business because of the real data that is collected during pilots. Some examples of successful pilot projects where case studies had also been produced were:

- o Tshwane Safety Application: Citizens could contact the Tshwane Metro Police directly
- o Tshwane E-government App: Facilitated public participation
- o E-bikes: A bike-sharing application
- o Hearscreen: Technology to rapidly test hearing

4. Building a balanced innovation project portfolio that will impact service delivery: The City aims to have a balanced innovation project portfolio, meaning that innovation is supported across all municipal areas.

The City of Tshwane's recent achievement in relation to its Innovation Strategy and alignment with the ISO 56000 Innovation Standards, and the work done in building innovation capability earned it the South African Innovation League Award in 2022. This is a significant milestone, but it is important to note that several challenges such as limited financial resources, lean staff complement and legislative limitations in terms of adopting pilot solutions for implementation had not yet been resolved.

DDM IMPACT SIMULATOR – PROJECT CONCEPT

Mr Gerbrand Mans, Research Group Leader: Urban and Regional Planning, Council for Scientific and Industrial Research, CSIR

Even though billions of Rand were invested in development initiatives every year, poverty, unemployment and inequality largely persisted at local municipal level. In addition, investment was uncoordinated from an interdependency point of view and there was spatial and temporal misalignment in the planning processes.

An element of the DDM was to capture the intervention commitments that addressed investment through projects to stimulate growth and development. The objective of the DDM Impact Simulator project was to develop a geo-spatial platform to simulate the impact of existing and planned DDM projects. The impact simulated would be based on socio-economic circumstances, economic growth and development including job creation and skills development, and basic service delivery such as access to water, energy, sanitation, roads, education and health care. The DDM Impact Simulator would primarily depend on the DSI DDM interventions and the data collected through various surveys in the DSI's DDM impact areas. It would compare the current state of DMs to what they might become if all the DDM initiatives, interventions and investments were realised. The DDM modelling would measure elements within the DSI's four Impact Areas ((1) Life changing opportunities (2) Economic competitiveness and recovery, (3) Access to basic services and infrastructure (4) Societal problems, challenges and decision support).

Profiling each DM from a geographic, economic, environmental and service delivery perspective provided a current view of the DM across the country. The contribution of the DDM needed to be highlighted and a future view of a particular District had to be developed. The One Plan served to help understand the development context of a DM and was positioned in a very complex space involving the facilitating environment for development and related to the other sectors and spheres of government.

Much of the baseline profiling data had already been gathered and would have to be packaged into the platform that would be developed. This data included housing provision and delivery; access to basic services; bulk service provision; basic education and skills development; employment; economic production and critical social infrastructure and services (health, education, social grants). Interventions captured and the impact modelled would relate to skills development, employment creation, economic activity and/or opportunities, access to basic services, access to social infrastructure and societal impact. The latter would be more complex to model due to the interlinkages and influence of different elements on each other.

The simulation process, facilitated through an interface, would capture the DDM interventions and critical variables around these interventions and spatialise them. Prediction modelling, based on implementation of interventions and whether

planned interventions were realised as envisioned, would provide the value-add aspect. The simulation would provide the potential to develop scenarios to not only capture interventions that were already in the pipeline but also to test interventions to identify the most likely impact for the future.

The project would initially be implemented in selected study areas, possibly Zulu-land, Sedibeng and West Rand DMs, by collecting information, identifying current interventions and building the modelling interface. Initially, the focus would be on creating outputs per Local Municipality. The combination of Local Municipalities would provide an aggregate view for the DM.

DMs and Local Municipalities could potentially use the model in their planning and implementation processes, particularly in terms of capturing interventions in a database (spatially), evaluating impact of current interventions and testing these against alternative interventions, providing more insight on trade-offs and feeding into longer-term plans and priorities.

Limitation of the model included the output resolution that would be at Local Municipal level and the focus on a selection of variables predominantly economic development within the municipalities. Modelling would start with specific case study areas.

The project-specific process and deliverables involved the selection of key stakeholders, setting up the model and associated system specifications, establishing a baseline indicator database as well as a live intervention database of DDM current and planned projects and/or initiatives, and then to develop the simulation model.

Q&A AND DISCUSSIONS

Mario Marais (CSIR) asked whether measuring the impact of all the innovation stimulation activities entailed a lot of "cross-cutting" activities that were difficult to evaluate or model.

Mr Gerbrand Mans (CSIR) indicated that it would be a challenge to capture everything that happened in a local municipal space. It would be necessary to be selective. The primary angle would be to look at interventions that impact economic development, basic services and infrastructure. The model will be contained to these, recognising that the DDM was more comprehensive. The model would try to incorporate the whole of government process while focussing on the areas where the DDM could add value.

Rudi Hillermann (Private) commented that the baseline data must include aspects of secure land tenure/land administration.

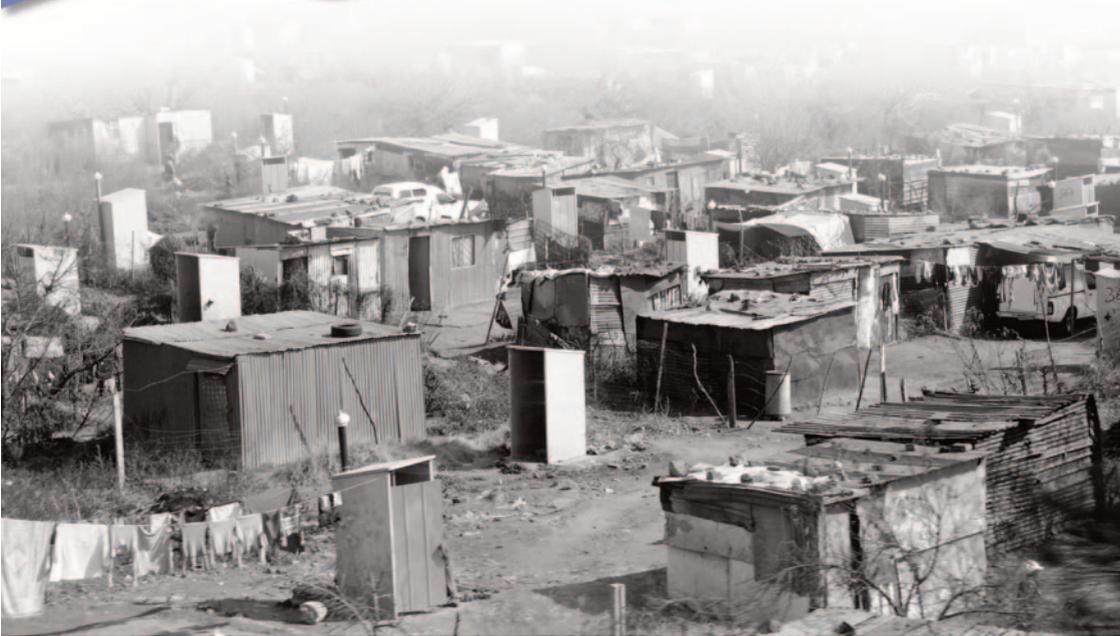
Mdu Mkhonza (Teko Tako Ngwane Institute) agreed that the basis must be the localisation of the sustainable development goals. A good model to build on.

Mario Marais (CSIR) commented that assisting innovators probably has a significant social impact as well.

CLOSING REMARKS

Mr Ephraim Phalafala, Deputy Director: S&T for Sustainable Human Settlements, Department of Science and Innovation, DSI

Mr Phalafala thanked Dr Thwala for his efficient facilitation of the seminar and expressed sincere appreciation to other members of the ASSAf Secretariat for having coordinated the seminar and ensured its success. He acknowledged Dr Muofhe for providing leadership and direction in terms of the strategic context of the DDM as it related to the DSI, and Ms West for providing the international perspective of Districts as centres for innovation. The other speakers were thanked for their insightful and informative presentations, and the participants for their attendance and contributions to the discussions.



ANNEXURE A: LIST OF ACRONYMS

ASSAf	Academy of Science of South Africa
AWARD	Association for Water and Rural Development
COGTA	Cooperative Governance and Traditional Affairs
CSIR	Council for Scientific and Industrial Research
DALRRD	Department of Agriculture, Land Reform and Rural Development
DBSA	Development Bank of Southern Africa
DDM	District Development Model
DM	District Municipality
DPME	Department of Planning, Monitoring and Evaluation
DSI	Department of Science and Innovation
dtic	Department of Trade, Industry and Competition
DWS	Department of Water and Sanitation
GEM	Global Expert Mission
IGR	Intergovernmental Relations
IGRFA	Intergovernmental Relations Framework Act
IID	Innovation for Inclusive Development
IMS	Information Management System
IP	Intellectual Property
IUK	Innovate UK
KTN	Knowledge Transfer Network
KZN	KwaZulu-Natal
LIS	Local Industrial Strategy
M&E	Monitoring and Evaluation
Metro	Metropolitan Municipality
MTSF	Medium Term Strategic Framework
NACI	National Advisory Council on Innovation
NDP	National Development Plan
NRF	National Research Foundation
NSDF	National Spatial Development Framework
NSI	National System of Innovation
R&D	Research and Development
S&T	Science and Technology
SAASTA	South Africa Agency for Science and Technology Advancement
SARAO	South African Radio Astronomy Observatory
SDIP	Service Delivery Improvement Programme
SMME	Small, micro and medium enterprise
Stats SA	Statistics South Africa
STI	Science, Technology and Innovation
TIA	Technical Innovation Agency
UK	United Kingdom
UKZN	University of KwaZulu-Natal
UNISA	University of South Africa

ANNEXURE B: LIST OF PARTICIPANTS

First Name	Last Name	Organisation
Ishaam	Abader	South African Weather Service (SAWS)
Shafraaz	Abdoola	Council for Scientific and Industrial Research (CSIR)
Rhyn	Alberts	Garden Route District Municipality
Nadia	Algera	Academy of Science of South Africa (ASSAf)
Kedi	Aphane	Department of Science and Innovation (DSI)
Kathryn	Arnold	Council for Scientific and Industrial Research (CSIR)
Anton	Binneman	South African Radio Astronomy Observatory (SARAO)
Brigitte	Binneman	Academy of Science of South Africa (ASSAf)
Nana	Boaduo	National Research Foundation (NRF)
Sibulele	Bongoza	University of Fort Hare
Mushoni	Bulagi	Human Sciences Research Council (HSRC)
Janine	Chantson	North-West University (NWU)
Antony	Cooper	Council for Scientific and Industrial Research (CSIR)
Maria	da Silva	City of Johannesburg (CoJ)
Yul Derek (Dr)	Davids	Human Sciences Research Council (HSRC)
Shereen	Dawood	Parliament of the Republic of South Africa
Harsha	Dayal	Department of Planning, Monitoring and Evaluation (DPME)
Coetsee	de Wit	Drakenstein Municipality
Nozibusiso	Dlamini	Development Bank of Southern Africa (DBSA)
Sifiso	Dlamini	Council for Scientific and Industrial Research (CSIR)
Wilna	du Plessis	Department of Science and Innovation (DSI)
Nomfundo	Dube	Development Bank of Southern Africa (DBSA)
Isaiah (Mr)	Engelbrecht	City of Tshwane
Heather	Erasmus	Write Connection
David	Everatt	University of the Witwatersrand (Wits)
Christiaan	Fortuin	Namakwa District Municipality
Oliver	Fuo	North-West University (NWU)
Lindiwe	Gama	Department of Science and Innovation (DSI)
Andre	Gouws	Independent Economist
Musa	Gwebani	European Union
Michelle	Harding	Council for Scientific and Industrial Research (CSIR)
Rudi	Hillermann	Private
Mbongeni	Hlongwa	Gabhiisa Planning
Cikizwa	James	Development Bank of Southern Africa (DBSA)
Nondumiso	Jwatya	Department of Science and Innovation (DSI)
Tlou Broderick	Kgomo	Waterberg District Municipality
Matome	Kgowedi	Department of Trade, Industry and Competition (dtic)
Gugu	Khalala	Council for Scientific and Industrial Research (CSIR)
Retsilisitsoe	Khamali	Walter Sisulu Local Municipality

First Name	Last Name	Organisation
Gilbert	Khathi	Department of Human Settlements (DHS)
Hebron	Khosa	Next Level Exploration Ministries
Rodney	Khumalo	Statistics South Africa (Stats SA)
Tintswalo	Khumalo	Department of Agriculture, Land Reform and Rural Development (DALRRD)
Joyce	Khunou	South Africa Agency for Science and Technology Advancement (SAASTA)
Tinus	Kruger	Council for Scientific and Industrial Research (CSIR)
Siphukuthula	Kumalo	Technical Innovation Agency (TIA)
Lebogang	Kutumela	National Research Foundation (NRF)
Leonard	Lamola	Department of Trade, Industry and Competition (dtic)
Siphiwo	Landzela	Mossel Bay Municipality
Tshidi	Lekala	Department of Science and Innovation (DSI)
Julian	Leshilo	Department of Science and Innovation (DSI)
Phatu	Letsoalo	Office of the Premier: Limpopo
Sithembiso	Lindelihle	University of KwaZulu-Natal (UKZN)
Ashley (Mr)	Losch	Cooperative Governance and Traditional Affairs (COGTA)
Martie (Prof)	Lubbe	North-West University (NWU)
Precious	Lukhele	Department of Science and Innovation (DSI)
Meena	Lysko	Move Beyond Consulting
William	Mabogoane	Department of Science and Innovation (DSI)
Tebogo (Dr)	Mabotha	Academy of Science of South Africa (ASSAf)
Bonelwa	Mabovu	Department of Water and Sanitation (DWS)
Xavier	Mac Master	Development Bank of Southern Africa (DBSA)
Pamella	Madula	Department of Science and Innovation (DSI)
Ariel	Mafejane	Johannesburg Water
Mandisa	Magwaza	Department of Planning, Monitoring and Evaluation (DPME)
Rajeshree	Mahabeer	Academy of Science of South Africa (ASSAf)
Nare	Mahwai	Council for Scientific and Industrial Research (CSIR)
Tumiso	Maitisa	Private
Makgorometje	Makgata	City of Tshwane
Collins	Makgopa	Development Bank of Southern Africa (DBSA)
Nomfundo	Makhubo	South African Radio Astronomy Observatory (SARAO)
Dimpho	Makitla	Human Sciences Research Council (HSRC)
Sylvia	Malatji	Department of Science and Innovation (DSI)
Khethiwe	Malaza	City of Mbombela
Gerbrand (Mr)	Mans	Council for Scientific and Industrial Research (CSIR)
Thomani	Manungufala	Parliament of the Republic of South Africa
Mario	Marcis	Council for Scientific and Industrial Research (CSIR)
Nontombi	Marule	Department of Trade, Industry and Competition (dtic)

First Name	Last Name	Organisation
Mahlori Prince	Mashimbye Mashita	Department of Science and Innovation (DSI) South African Local Government Association (SALGA)
Tebogo	Mathebula	Association for Water and Rural Development (AWARD)
Khomotjo	Mathole	City of Johannesburg (CoJ)
Nangula	Mavhungu	Department of Science and Innovation (DSI)
Setsoheng	Mayeki	Human Sciences Research Council (HSRC)
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