Integrated District-Based Planning and reporting

Mr Kabelo Nkholise & Mr Rudolf de Munnik



THE SOUTHERN AFRICA ESRI USER CONFERENCE 2023



Welcome

Presentation Overview

- Introduction and Session Overview
 - **Audience Survey**
- 2. DCOG DDM Implementation
- 3. DCOG DDM Spatialisation Guidelines
- 4. DPME Geo-Spatial Referencing Guidelines
- 5. Geo-enabling DDM demonstration
- 6. Adam Carnow, Esri Inc. GIS enables the Geographic Approach
- 7. Q&A

Audience Survey Results

Problem Statement

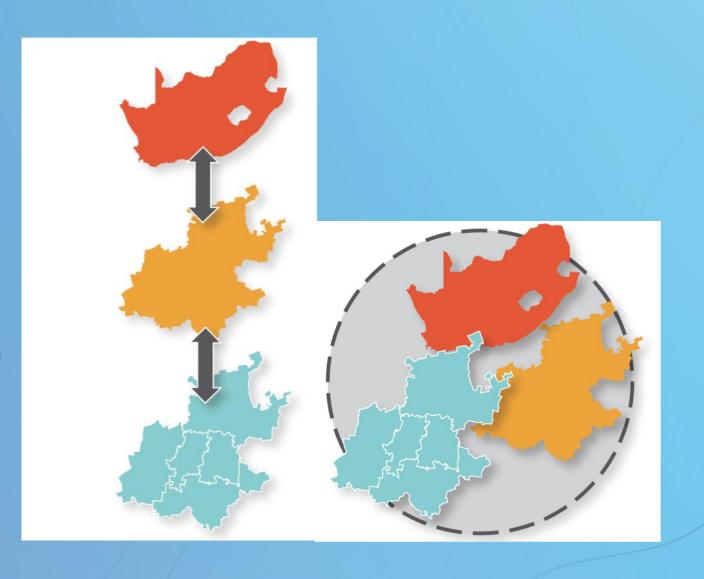


Integrated District-Based Planning and Reporting

The approach shifts focus from alignment of plans to joint planning

Integrated District based approach

National, provincial and local, are no longer operating primarily as unique entities.



Integrated Planning Solution



Audience Questionnaire (5 minutes)





DDM Implementation

Senzi Malaza

Department of Cooperative Governance (DCoG)



THE SOUTHERN AFRICA ESRI USER CONFERENCE 2023











OVERVIEW OF THE DISTRICT DEVELOPMENT MODEL (DDM)

THE SOUTHERN AFRICA ESRI USER CONFERENCE

24-27 October 2023

PURPOSE OF THE PRESENTATION

The purpose of the presentation is to provide an overview on the decentralized planning for effective development through the South African District Development Model (DDM) approach focusing on the following:

- Main principles and elements of the DDM;
- *Key achievements in the implementation of the DDM;
- Focus areas in the institutionalisation of the DDM; and
- Critical success factors for effective implementation.





WHAT IS DISTRICT DEVELOPMENT MODEL (DDM) - THE APPROACH

- The need for a new district-based coordination model was announced in the Presidency budget speech in 2019. The DDM was subsequently endorsed by the Presidential Coordinating Council (PCC) and Cabinet in August 2019 as an operational model for improving Cooperative Governance and Intergovernmental coherence.
- All of Government and Society Approach A method by which all three spheres of government and state entities work in unison in an impact-oriented way, where there is higher performance and accountability for coherent and effective service delivery and development outcomes.
- Influences **Spatialisation and Reprioritisation** of Government Planning, Budgeting, Implementation and Reporting in relation to jointly agreed outcomes and commitments in the 52 District and Metropolitan Spaces.
- Expresses Jointly agreed outcomes and commitments as an Intergovernmental Plan or whole of Government plan ("One Plan") in relation to each district or metro space over short, medium and long-term.

The DDM is a constitutional approach which pragmatically enables section 154 in pursuit of the objects of local government as encapsulated in section 152.

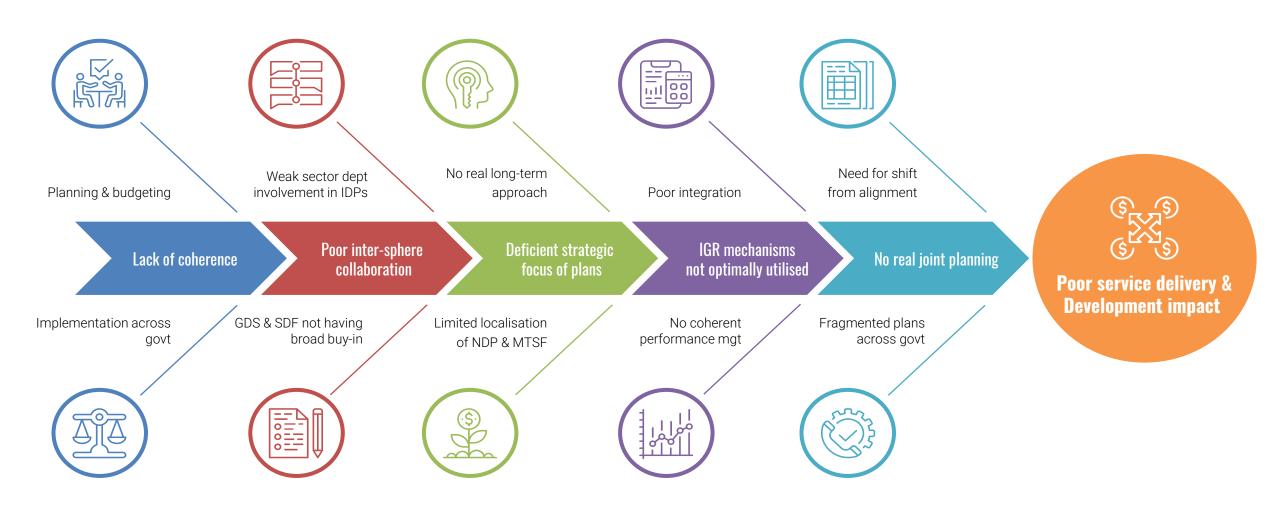
The DDM is giving Effect to the Principles of Cooperative Governance according to the IGRFA







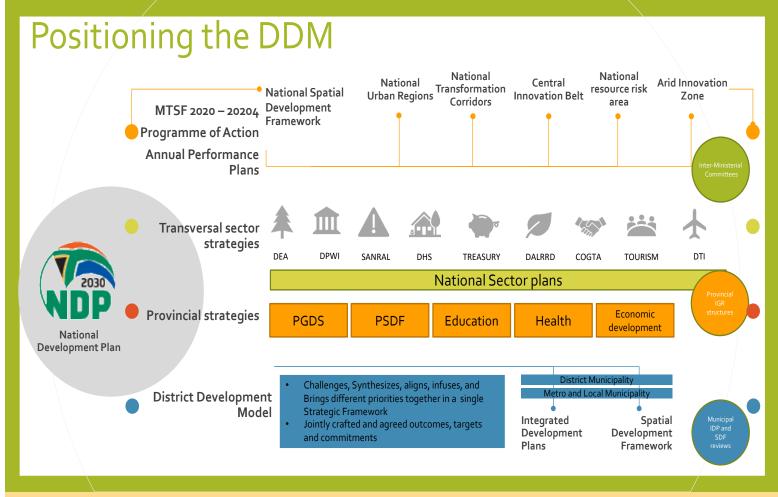
WHAT PROBLEMS IS THE DDM TRYING TO SOLVE?







POSITIONING THE DDM AND ONE PLAN

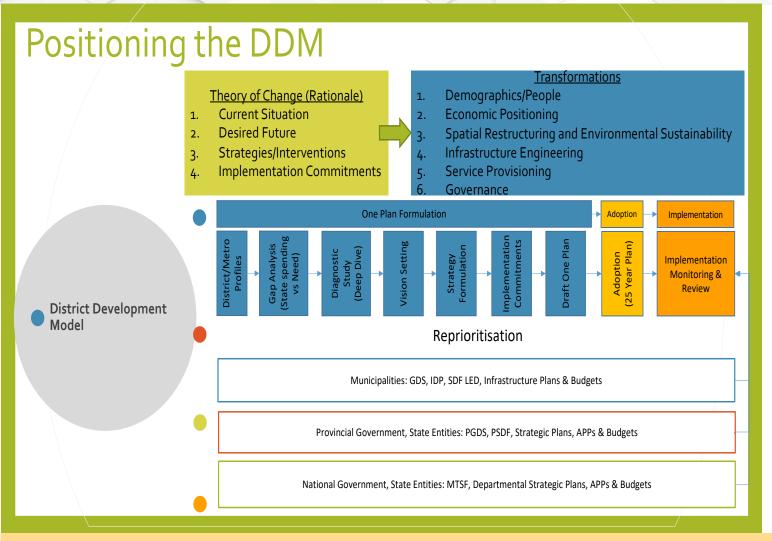


- The DDM is positioned in relation to the NDP, MTSF and NSDF to enhance the overall system by synergizing national, provincial and local priorities in relation to the district and metro spaces.
- The One Plans as contemplated in the DDM does not deal with the non-strategic aspects that each of the existing plans may cover.
- Neither does it cover the full range of responsibilities that existing plans cover in relation to core powers and functions.
- They are intergovernmental strategic frameworks that make strategic sense of the available plans and synthesise or localise these plans in the context of the spatial and place making logic of the district and metropolitan spaces.

The One Plan expresses the alignment across government as an outcome of joint planning and takes the form of an **Intergovernmental and Social Compact** covering the elements of a Protocol outlining:

- Shared understanding of the district/metro space
- Agreement on priorities, joint resourcing and implementation
 - Common vision and measurable outcomes
 - Targets and Commitments

DDM ONE PLAN PROCESS AND CONTENTS



- One Plans are Visionary and Transformative frameworks in relation to each district and metropolitan space. They outline a rationale (ToC) for moving from the current situation to a desired future and a justification for identified interventions and commitments that have a direct correlation to achieving outcomes.
- The development of the One Plan involved a series of collaborative intergovernmental planning sessions by all three spheres of government reflecting on existing plans, profiles, research, evidence and solutions in relation to each of the 52 district and metro spaces.
- Each One Plan is standardized in terms of format but differentiated in terms of content and substance based on the different conditions and different priorities in each space.

Seven stages of the One Plan development process:

1-Diagnostic; 2-Vision setting; 3-Strategy formulation; 4-Implementation commitments; 5-Draft One Plan; 6-

Approval & Adoption of Final One Plan; 7-Implementation, Monitoring & Review

DDM IMPLEMENTATION APPROACH (PHASES)

1. Establishment Phase

Objectives

 To obtain approval for the DDM concept document and mobilise stakeholders

Outputs

- Concept note developed.
- Broad Intergovernmental & private sector consultations held.
- DDM concept approved by Cabinet.
- National and provincial DDM inter-governmental coordinating structures established.
- CoGTA national and provincial DDM teams established
- Political champions appointed.

2. Piloting Phase

Objectives

 To launch the three pilots and establish the requisite technical capacity for the DDM implementation

Delivery packages/work streams

- Launch of three pilots
- Appointment of Implementing Agent (DBSA)
- Development of 52 district/metro profiles
- Establishment of DDM hubs in pilots
- One Plan development for pilots

3. Institutionalisation

Objectives

 To improve Integrated long-term planning, budgeting & implementation and the sustainability of local government.

Delivery packages/work streams

- Budget reprioritisation and spatialisation.
- One Plan development & implementation
- Intergovernmental (IGR) coordination & structures
- Local Government Recovery & Stabilisation.

4. Sustainability

Objectives

 To improve quality of life, transform district/metro economies and further enhance the institutional and financial sustainability of LG.

Delivery work streams

- One Plan implementation & monitoring.
- IGR coordination & structures
- Local Government Stabilisation.

Yr. 1 (Aug. 2019-Mar 2020)

Yr. 1-2 (Aug. 2019-March 2021)

Yr. 2-5 (April. 2020-Mar 2025)

Yr. 5+ (April 2025 - onwards)



111 **3** 1 (1.p.m.2020 5.....ar.as)

Enablers (tools, frameworks & systems): DDM Information Management System; Stakeholder Management & Communications; Risk Management;

KEY ECHIEVEMENTS IN THE IMPLEMENTATION OF THE DDM

DDM launched in 3 pilot sites (OR Tambo, Waterberg and eThekwini)

Eastern Seaboard Development launched

Draft Section 47(1)(b) of the Intergovernmental Relations Framework Act (IGRFA) Regulations published for public comment

DDM profiles developed for all district and metro spaces

DDM One Plans developed for 51 district and metro spaces Presidential DDM oversight Imbizo's in all provinces

DDM Implementation and One Plan Guidelines developed

DDM Political Champions appointed by the President of the Republic





FOCUS AREAS IN THE INSTITUTIONALISATION OF THE DDM

| THEME | FOCUS AREAS |
|----------------------------------|---|
| Institutionalisati on of the DDM | • Gazetting of Section 47(1)(b) of the Intergovernmental Relations Framework Act (IGRFA) Regulations to frame the institutionalisation of the DDM |
| | Continue with providing support to all spheres of government with the institutionalisation of the DDM and strengthening the participation of the Private Se3ctor and Civil Society. |
| | • Providing support jointly with Presidency to DDM Political Champions to strengthen their intergovernmental coordination roles in their respective DDM districts and metros. |
| Implementation of One Plans | • Support the implementation of the One Plans across all district and metro spaces with specific focus on the identified catalytic projects. |
| | • Tracking of commitments made by national sector departments and provincial sector departments within the context of the DDM – joint approach between DCOG and DPME. |
| Monitoring & Evaluation | Localisation of the Medium-Term Strategic Framework (MTSF) 2019-2024 within the context of the DDM- jointly between DCOG and DPME. |
| | • Establishment and implementation of the Monitoring Framework for the implementation of the DDM. |
| | • Joint support towards the establishment and management of the DDM Information Management System. |





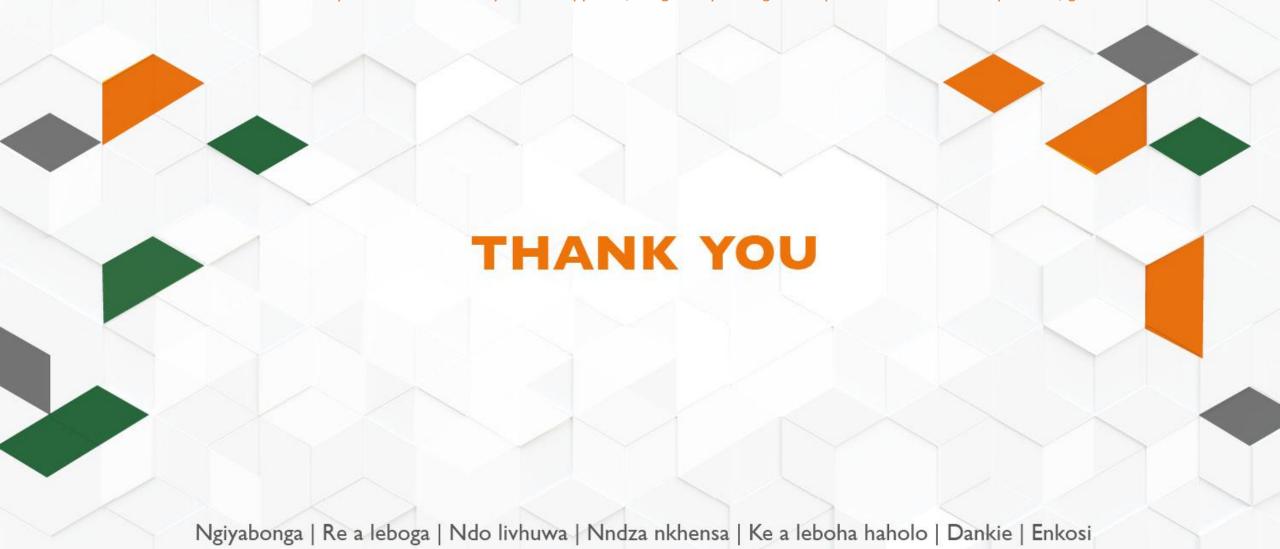
CRITICAL SUCCESS FACTORS

- 1) It is critical that the **DDM** is fully integrated into existing planning systems and not understood as creating an additional layer of planning.
- 2) Whilst DCOG has an overall responsibility for the implementation of the DDM, it is critical that the **transversal departments and departments** with key transversal responsibilities collectively work together and guide the implementation of the DDM as an all-of-government reform imperative.
- 3) Achieving the DDM's policy objectives requires utilising and improving the existing systems of government. DDM implementation should strengthen and promote better coordination and alignment at various levels.
- 4) Strengthening **involvement and participation from beyond government** through a clear strategy for the private sector, civil society, traditional leadership, and other partners.
- 5) Ensuring that **technical capacities and expertise are deployed to district or local level** to address challenges in a particular space that has emerged through the DDM process.
- 6) Strong focus on implementation through **entering protocols across the three spheres of government** in a designated spatial area and use the existing plans and tools, but also looking into partnerships that move beyond government.
- 7) Improvements to capital investment and expenditure frameworks need to be used to ensure longterm funding streams and to strengthen the link between long-term plans and annual budgets while relying on existing inter-governmental relations systems as far as possible.





Our Vision: An efficient & effective cooperative governance system that enables resilient, safe, sustainable, prosperous, cohesive, connected and climate smart communities **Our Mission**: To lead the Cooperative Governance System in support of integrated planning and implementation across all spheres of government









DDM Spatialisation Guidelines

Angeline Ngwenya

Department of Cooperative Governance (DCoG)



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CONTENTS

- 1. Vision, Mission & Values and Objectives & Principles of the DDM
- 2. DDM Spatialization Guide (at a glance)
- 3. Purpose of the Guidance
- 4. Levels of Implementing Spatial Guidelines
- 5. DDM x6 Focus Areas Examples on how to utilise the guide
- 6. Implementation Approach & activities: Where are we? /Progress



1. VISION, MISSION, VALUES AND OBJECTIVES & PRINCIPLES OF THE DDM

What is our Vision, Mission and Values?



Efficient & effective cooperative governance system that enables resilient, safe, sustainable, prosperous, cohesive connected and climate smart communities

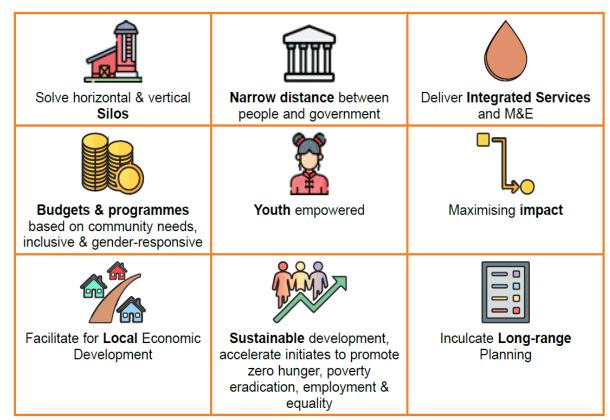


To lead the Cooperative Governance system in support of integrated planning and implementation across all three spheres of government



A commitment to public service that demonstrate Energy, Enthusiasm and Enjoyment Professionalism, Integrity, and accountability Servant leadership and a hands-on approach

What are the objectives and principles of the DDM?





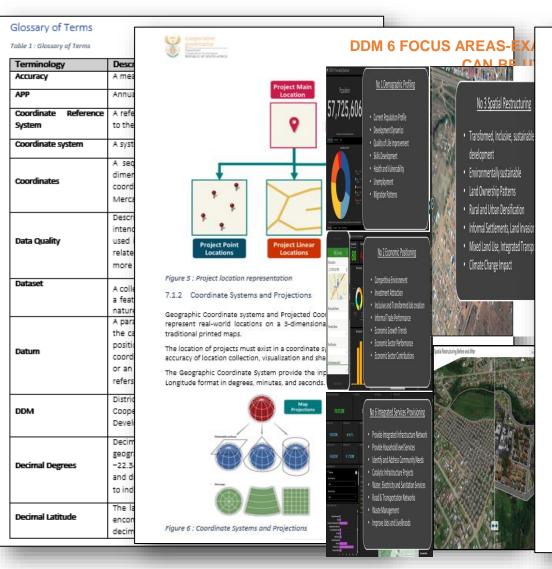
2. DDM SPATIALIZATION GUIDELINE AT A GLANCE





DISTRICT DEVELOPMENT MODEL

March 2023





9 Levels of Implementing Spatial Guidelines

This document identifies the levels of capacity afforded by geospatial information, as well as the supporting technologies and standards that comprise a mature local to global Spatial Data Infrastructure.

Increasing degrees of interoperability can be reached through the adoption of standards, with geographic information becoming more easily accessed, managed, shared, and used for greater situational awareness and decision making. Using the key criteria outlined in the companion paper



Level 1

The spatial data management strategy and standards of an organisation should be established at this level. The strategy should define how the organisation will gather, organise, and manage geospatial data. This includes the adoption of DPME georeferencing guidelines outlined in paragraph 9.1.3 (minimum data fields required).

Mininum Fields

All projects identified and captured in the one plans should be submitted to DCoG with fields aligning to the minimum data requirements as indicated in the Geospatial Referencing Guideline developed by the DPME as follows:

Table 2 : Minimum Fields Required

| Field | Field Type | Attribute Domain |
|---------------------|------------|------------------|
| Project code | string | |
| Project Name | string | |
| Project Description | string | |
| Sector | string | |



3. PURPOSE OF THE GUIDANCE

- The DDM is implemented through interrelated processes to be followed by the whole of government.
- These processes are spatialisation and reprioritisation.
- The concept of "Spatialisation" is not understood.

The DDM Spatialisation Guidelines provides a step-by-step guide on how to spatialise the following:

- Projects?
- Budgets?
- Programmes?

Spatialisation

 Process of translating development priorities and objectives into spatial locations

Spatial logic manifesting in physical and integrated impacts on peoples lives and the places they live in.

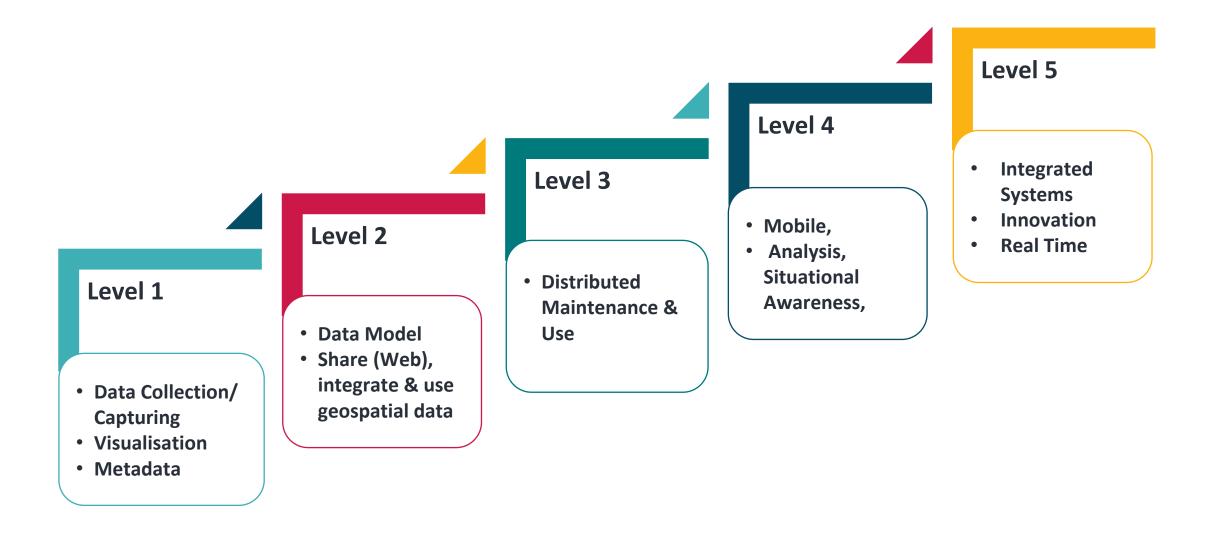
Reprioritisation

 Process of reviewing & changing plans & budgets to realise the desired physical and integrated impacts.





4. LEVELS OF IMPLEMENTATION: AS PER THE GUIDE







Detail Level 2

Mobile Surveys

cooperative governance

REPUBLIC OF SOUTH AFRICA

Township Name:

Ward Number:

Is the business active?

Project Map Coordinates

Project Linear

Locations

Automatically generated

Project Point

Locations

-24.837674 31.069108

Coordinate Accuracy 6 decimals

Local Municipality*

Project Area

Locations

Select "filtered" Local Municipality

- Bushbuckridge (MP325)
 - City of Mbombela (MP326)
 - Nkomazi (MP324)
- Thaba Chweu (MP321)

Minimum Required Fields

| Field | Field Type | Attribute Domain |
|----------------------------|------------|------------------------------|
| Project code | string | |
| Project Name | string | |
| Project Description | string | |
| Sector | string | |
| Province | string | List of Provinces |
| District Municipality | string | List of DMs/ Metros |
| Local Municipality | string | List of Local Municipalities |
| Main place | string | List of Main Places |
| Sub place | string | List of Sub Places |
| Project Phase | string | Planned |
| | | Design & tender |
| | | Implementation |
| | | Completed |
| Budget of government | decimal | |
| Budget of private sector | decimal | |
| Total cost of project | integer | |
| Project start date | date | |
| Project end date | date | |
| Number of job created | integer | |
| Latitude (Y) | decimal | |
| Longitude (X) | decimal | |
| Images of start of project | attachment | |
| Images at end of project | attachment | |

Field types, Domains, Ranges

Metadata

Coordinate crosscheck

LEVEL TWO



Share & Exchange Geospatial data Standard Data Model







1. Sharing Spatial Information

2. Planning Effectively

3. Analysis

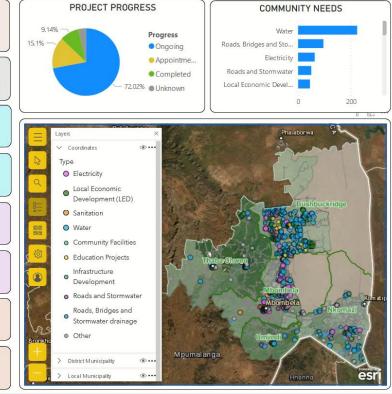


Analysis,
Forecasting,
Decision Making
Decision Support
Applications



Community
Visibility and
Accessibility







LEVEL THREE



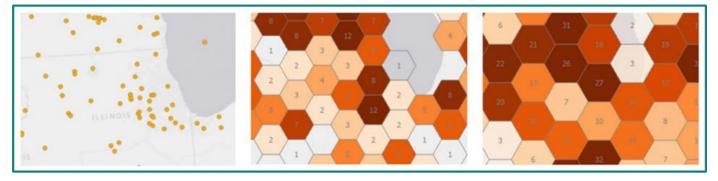
Spatial Aggregation Calculate statistics Area representation



Community Hub
Collaborate and share



Identify gaps Improve data All benefit

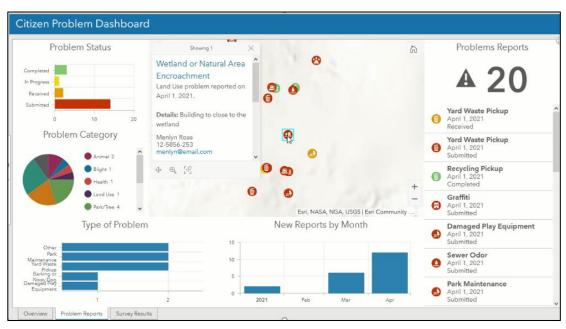


Point locations at local scale (District, Municipal Level)

Aggregation at medium scale (Provincial Level)

Aggregation at large scale (National Level)







LEVEL FOUR



Multi-government domains share spatial information



Evidence-based decision making



Situational awareness



Improve societal outcomes





LEVEL FIVE



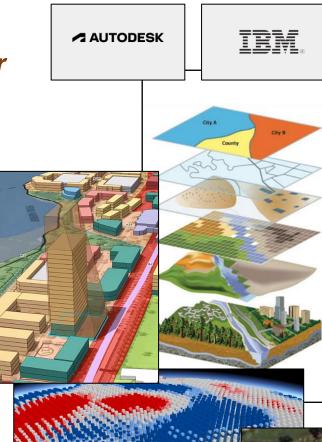
Integrate GIS with other government systems, realize full potential



Innovation, Virtual Reality, Augmented Reality, BIM



IoT, Drones, Real-time data streams, Big Data analysis, AI/ML









Collect source layers Data is first digitized into either polygon or raster layers. This housing suitability data is raster.



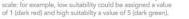












Create suitability layers
Each layer is now classified to use a common suitability

Calculate weighted overlay Suitability layers are overlaid so that each

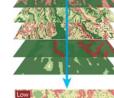
cell gets an overall suitability rating. Weights of relative importance are











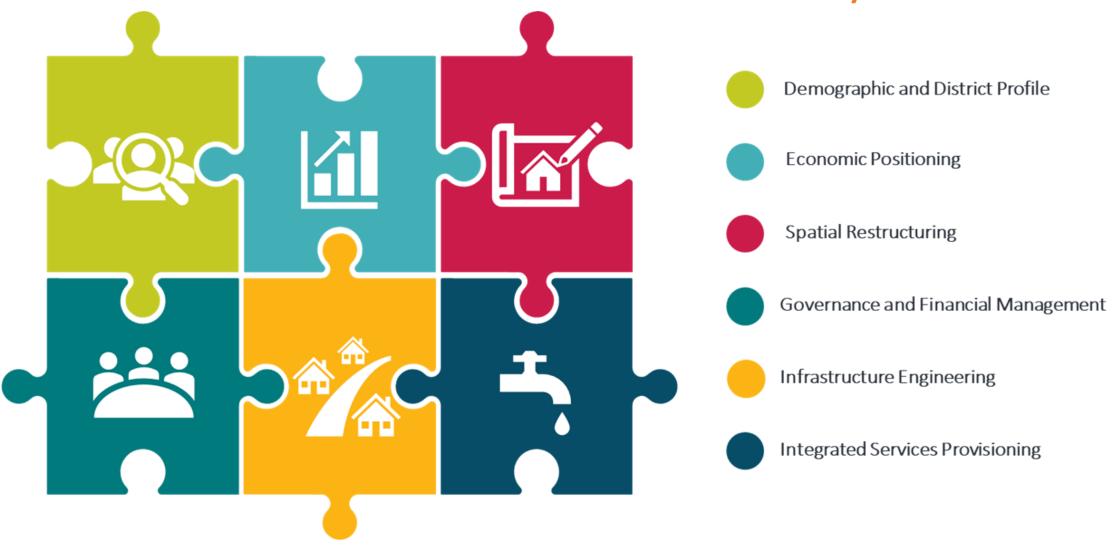






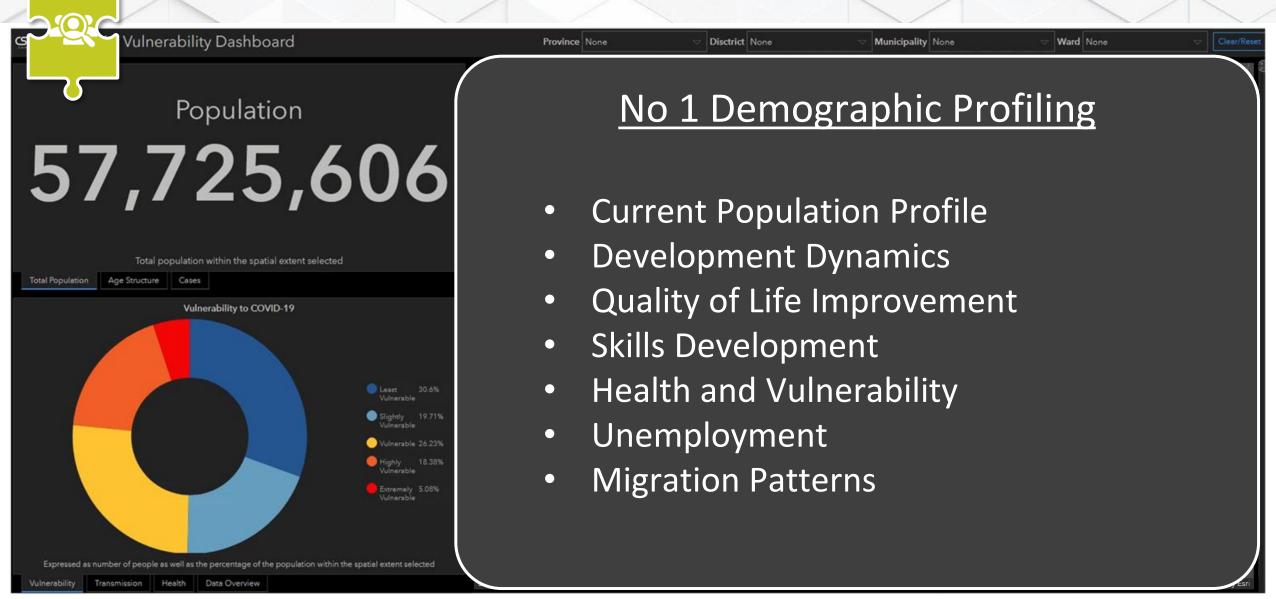


6. DDM SIX FOCUS AREAS (EXAMPLE ON HOW DATA CAN BE UTILIZED TO SPATIALLY ENABLE THE FOCUS AREAS)





DEMOGRAPHICS AND DISTRICT PROFILE





ECONOMIC POSITIONING

Total H



No 2 Economic Positioning

- **Competitive Environment**
- **Investment Attraction**
- Inclusive and Transformed Job creation
- Informal Trade Performance
- **Economic Growth Trends**
- **Economic Sector Performance**
- **Economic Sector Contributions**

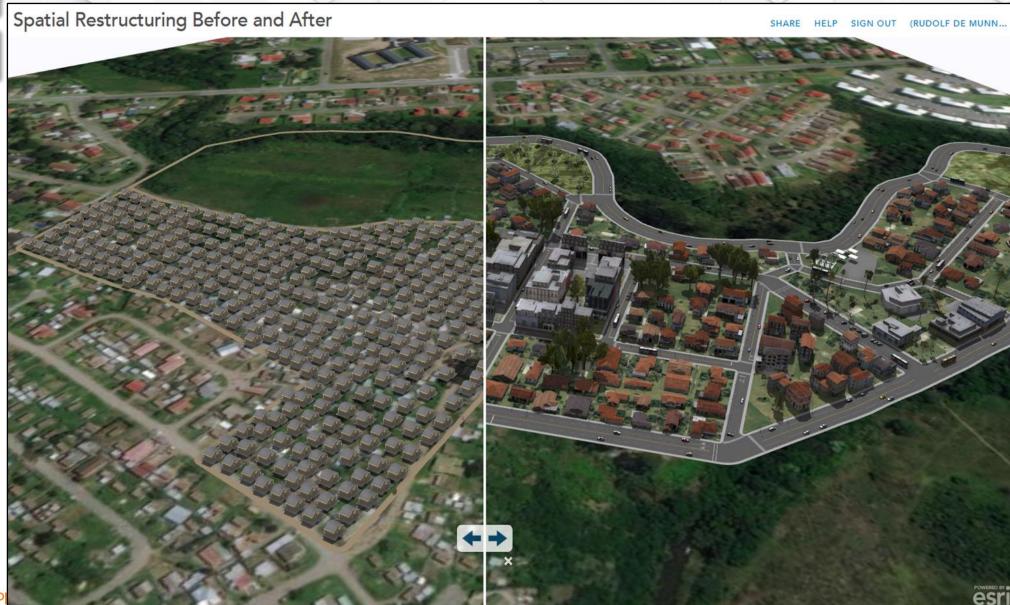




SPATIAL RESTRUCTURING



SPATIAL RESTRUCTURING





GOVERNANCE & FINANCIAL MANAGEMENT





INFRASTRUCTURE ENGINEERING



Adjust the filters or current map extent to refine the results

Type

- Park
- Stormwater Drainage
- Transportation
- Water Distribution

Phase

- ☐ PreDesign
- Design
- Construction
- ☐ Closeout

Fiscal Year

2020 202

75% on-budg

Active Projects



4

Halfway Gardens Park Rehabilitation Parks

Midridge Park Water Main Replacement Water Distribution

Midridge Parking Center

Transportation

New Road Stormwater Improvements Stormwater Drainage

No 5 Infrastructure Engineering

- Identify Infrastructure Gaps
- Infrastructure Planning
- Investment in Bulk Infrastructure
- Monitor Infrastructure Development
- Meet the needs of Local Economy
- Support Transforming Spatial patterns
- Support demand for Housing and Services
- Long-term Sustainability

-31

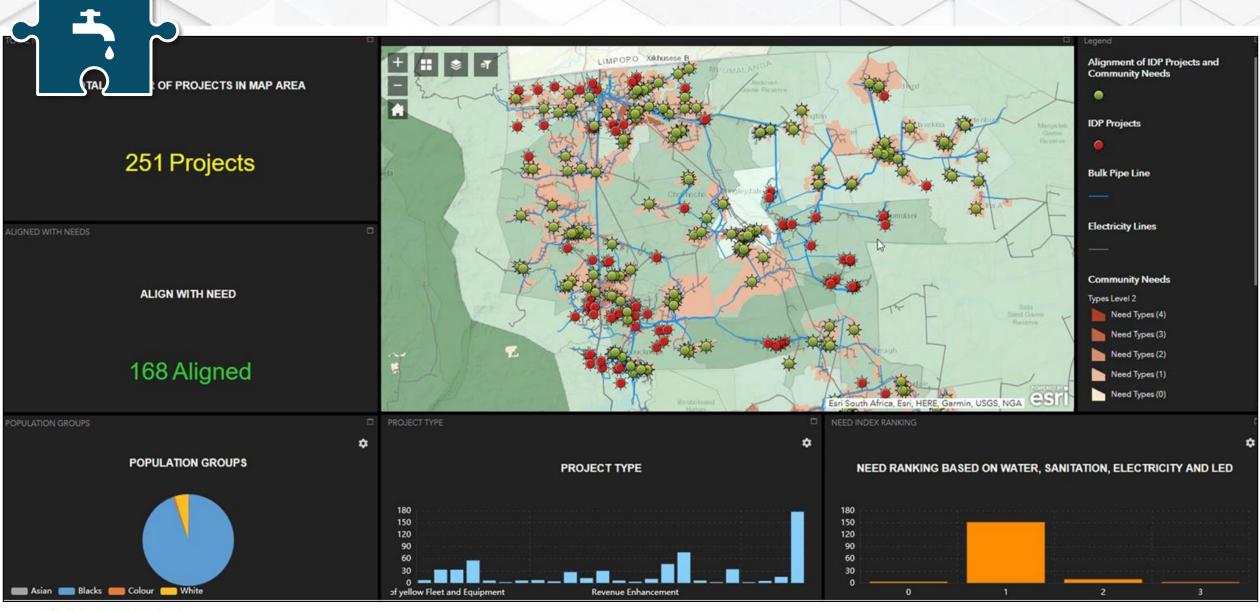


INTEGRATED SERVICES PROVISIONING





INTEGRATED SERVICES PROVISIONING





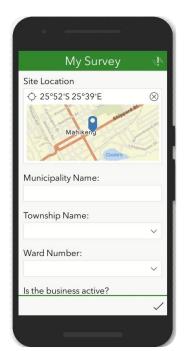
ULTIMATE GOAL / VISION



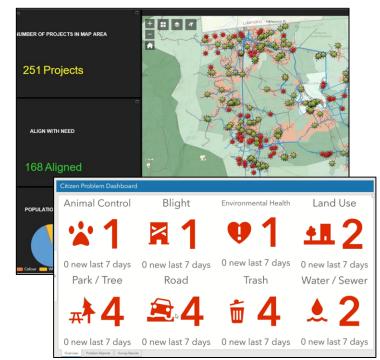


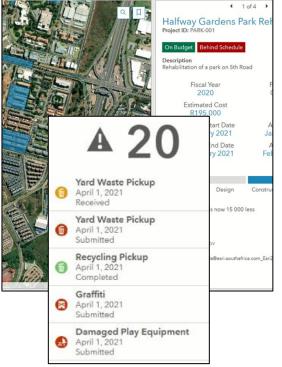




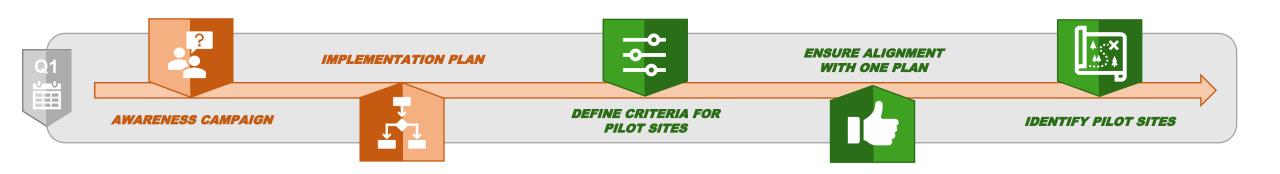


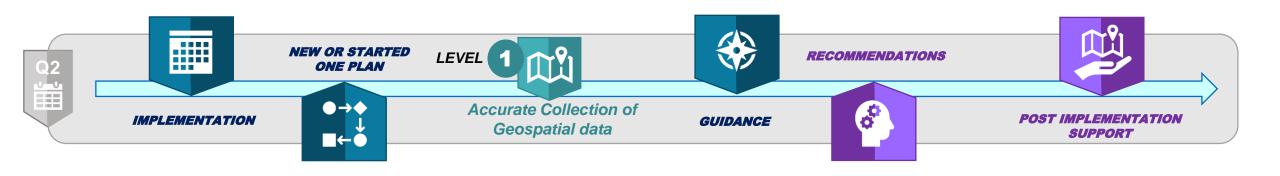






6. IMPLEMENTATION APPROACH & KEY ACTIVITIES: WHERE ARE WE?







...PROGRESS

- □ Awareness campaigns on a provincial level in Progress.
 - ✓ DDM Spatialization Guidelines introduced in the following forums:
 - Eastern Cape: Local Government Geospatial Forum
 - Northern Cape GIS Forum
 - Limpopo Province GIS Forum
 - Gauteng GIS forum
 - Western Cape Spatial Information, North-West GIS & MP forums etc: Planned

PILOTS:

- ☐ Municipal Manager's in the pilot municipalities informed about the project.
- □Implementation in the Pilots in progress.
- □Collaboration with the Province's is critical.
- □Implementation (Project introductory meetings & actual implementation- training etc.) is in progress.











Geo-Spatial Reference Guideline

Gareth Muthumuni

Department of Planning, Monitoring and Evaluation (DPME)



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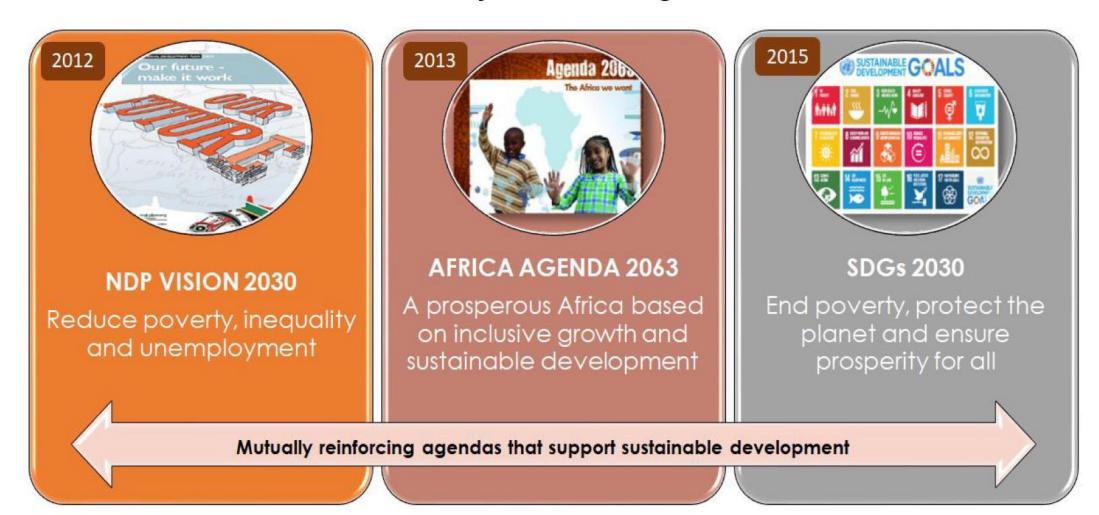


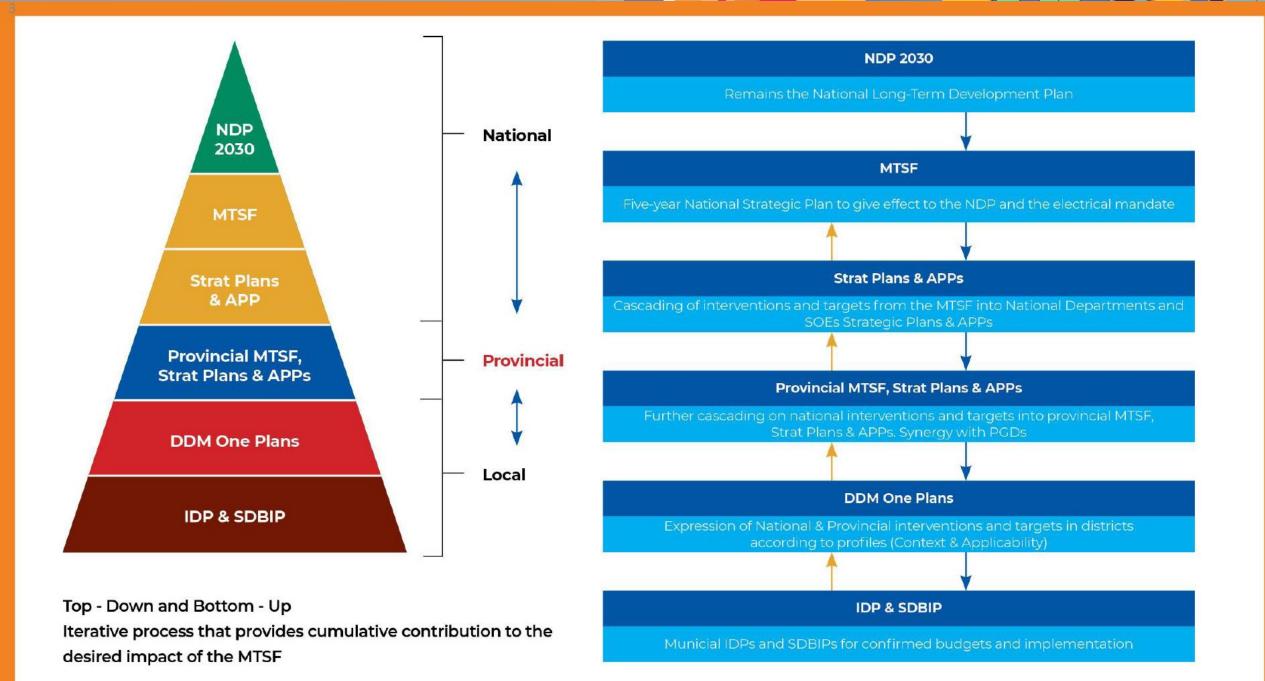


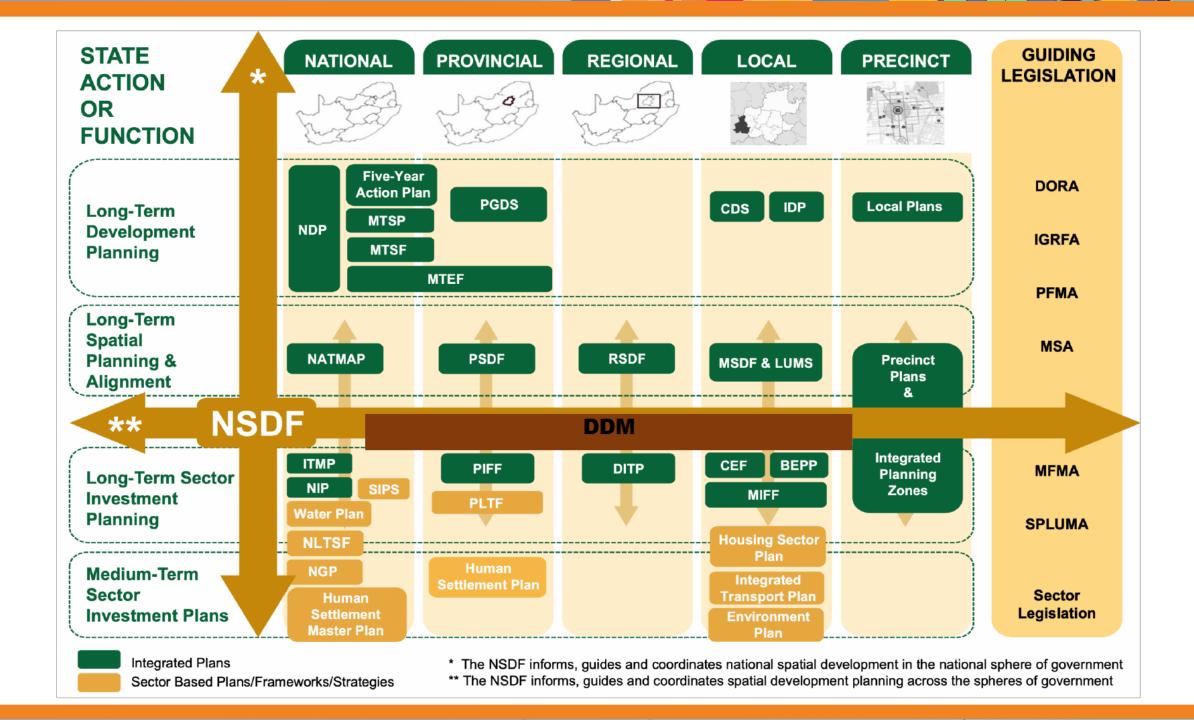


Integrated National Planning System

The NDP 2030 remains our Country Plan and is aligned to our international commitments







Glan integrator * Gives insight into data by adding additional context

- Maximizes use of data
- Promotes opportunities to leverage efforts and minimize duplication of effort



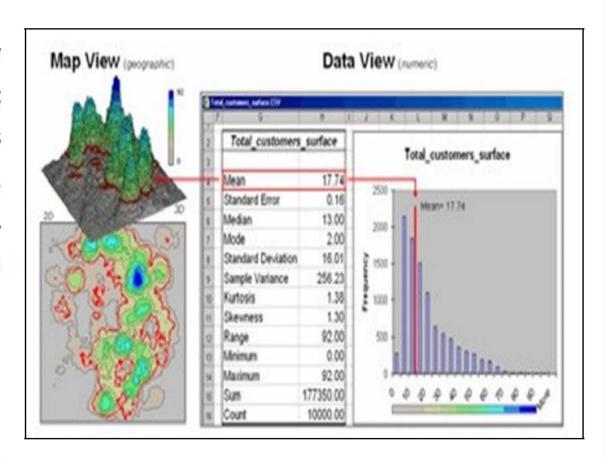


GEOSPATIAL REFERENCING GUIDELINE

THE IMPORTANCE OF GOOD SPATIAL INFORMATION

Everything that happens in a public policy context also happens in a geographic one: transport, water resources and water services management, education, agriculture, environment, crime, health, social security, etc. must all consider questions f where along with the usual ones of why, and how much will it cost.

Geospatial information is a critical factor in the 2019-2024 MTSF (APP). Geospatial information assists us to visualise clearly where projects are planned and to be able to monitor projects on the ground with satellite imagery.



OBJECTIVE

Provide guidance on collection and submission of Geospatial Information to DPME in support of planning and performance reporting.

Key target audience indudes:

Personnel in government

Planners

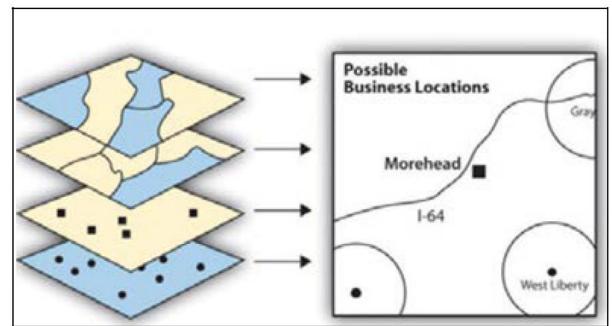
Monitors

Evaluators

Geographic information personnel

Community workers

Engineers



TECHNICAL DATA REQUIREMENTS

Point, Polygon and line data - stick to the rules of the data topology

Datum and projection - Geographic Hartebeeshoek WGS84 Naming

conventions - Descriptive name and data custodian/

source/Year/Quarter

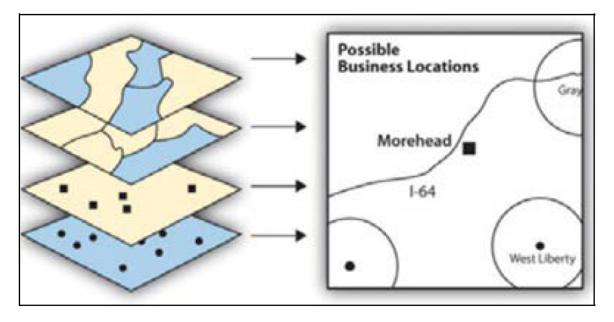
Formats - Opensource. Note all requirements listed in the

document for MS EXCEL sheets

Delivery media - secure data provision

Frequency of data share - how often data is updated

Data and information quality - crucial info on the data





LOCATION, LOCATION

The point data must have co-ordinates in decimal degrees;

Latitude (North/South) is negative (-Y);

Longitude (East/West) is positive (+X);

SPATIAL DATA REQUIREMENTS

This entails how to capture your spatial data for your projects. There are different collection methods, for example a GPS (Global positioning System), or a Cell phone or Google maps.

Minimum data fields are specified, for example:

Project code Project Latitude (Y)

Name Project Longitude (X)

Description Sector Images

Data formats to be used, MS EXCEL, Shapefiles or a Geodatabase Naming conventions - use Official names.

Metadata - in short data about the data thus custodian, description, extent, status, etc.

Everything one needs to know to understand the dataset.

IMPORTANT TO REMEMBER

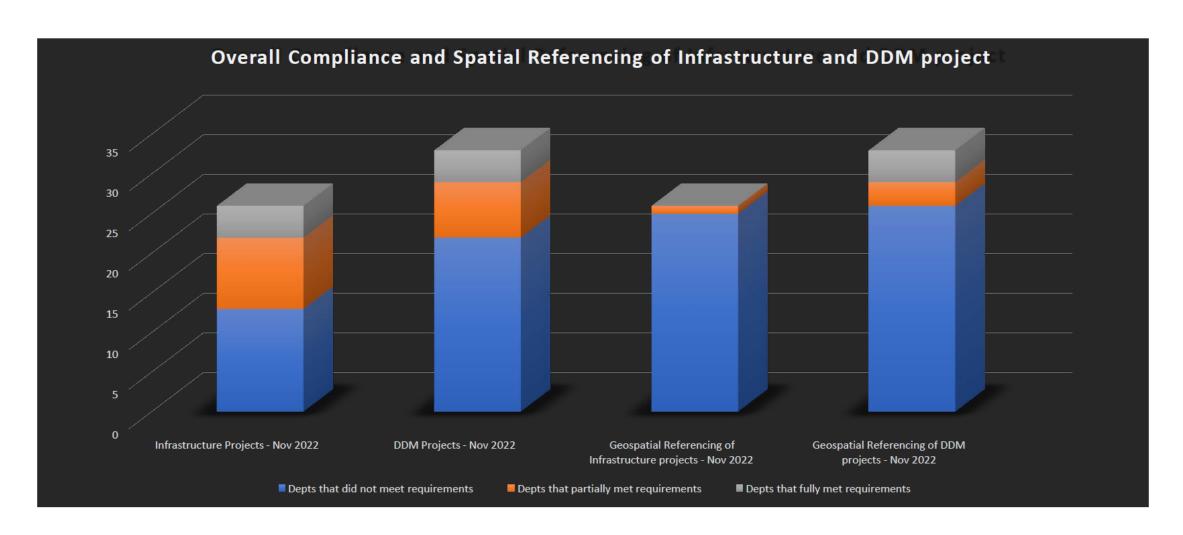
Status of the data - Reporting is quarterly

Data confidentiality - rules in terms of usage of the data

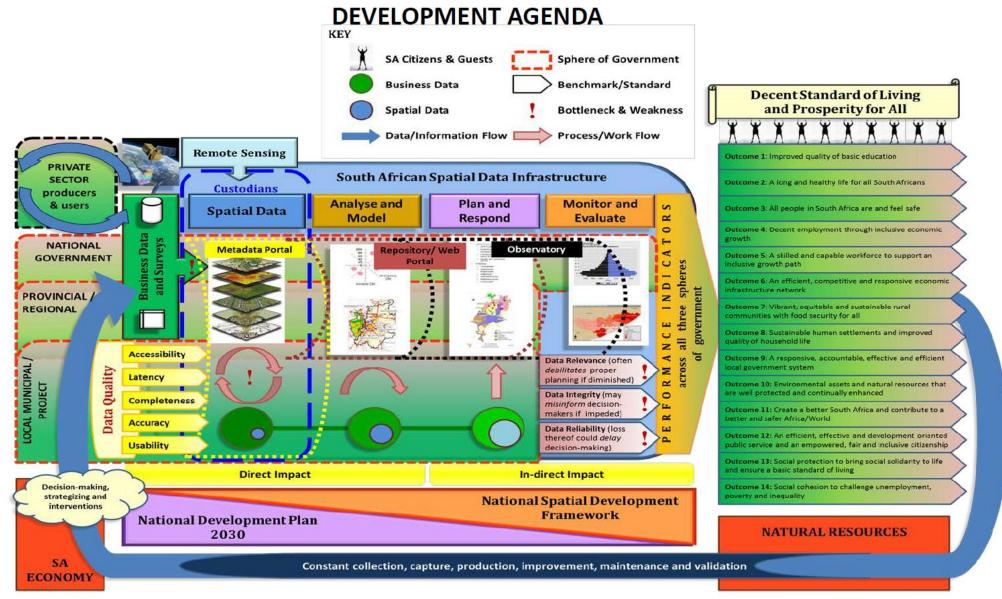
Acknowledgement of the Data Custodian



Analysis of Draft APPs for 2023/24 (Nov 2022)



A SYSTEM TO SUPPORT THE SPATIALISATION OF THE NATIONAL







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Demonstration: Geo-enabling DDM

Rudolf de Munnik

Esri South Africa



THE SOUTHERN AFRICA ESRI USER CONFERENCE 2023



DDM Geo-enabled



Demographic and District Profile

Economic Positioning

DDM

One Plan

Spatial Restructuring

Integrated Services Provisioning

Infrastructure Engineering



Governance and Financial Management

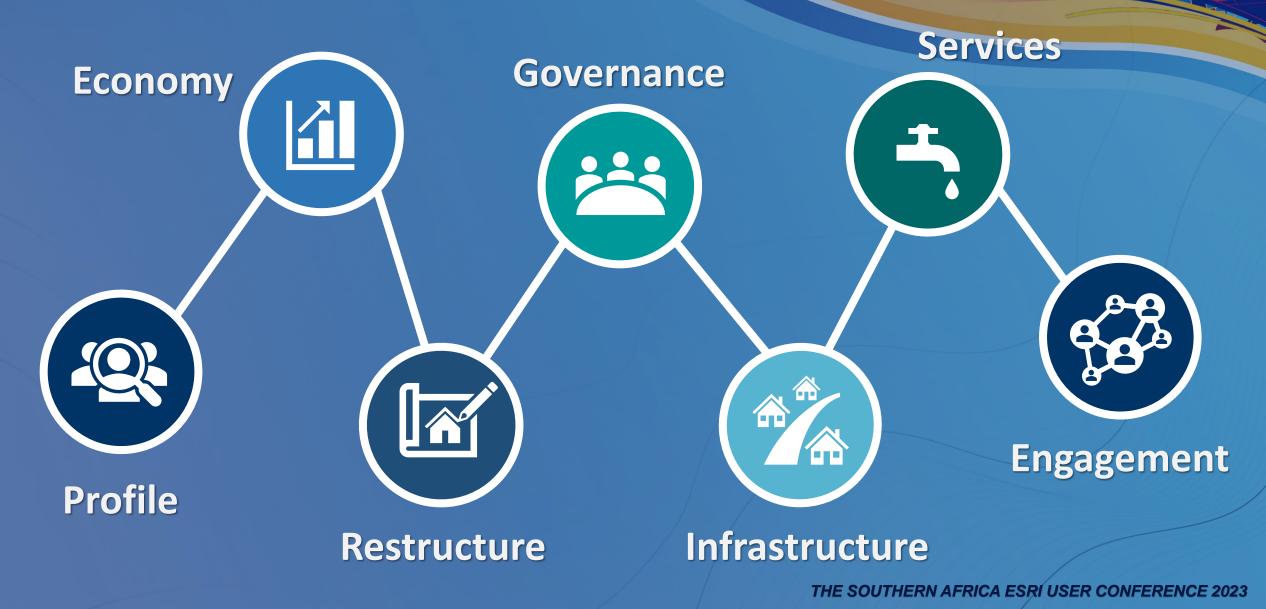


Cohesive & Sustainable Communities



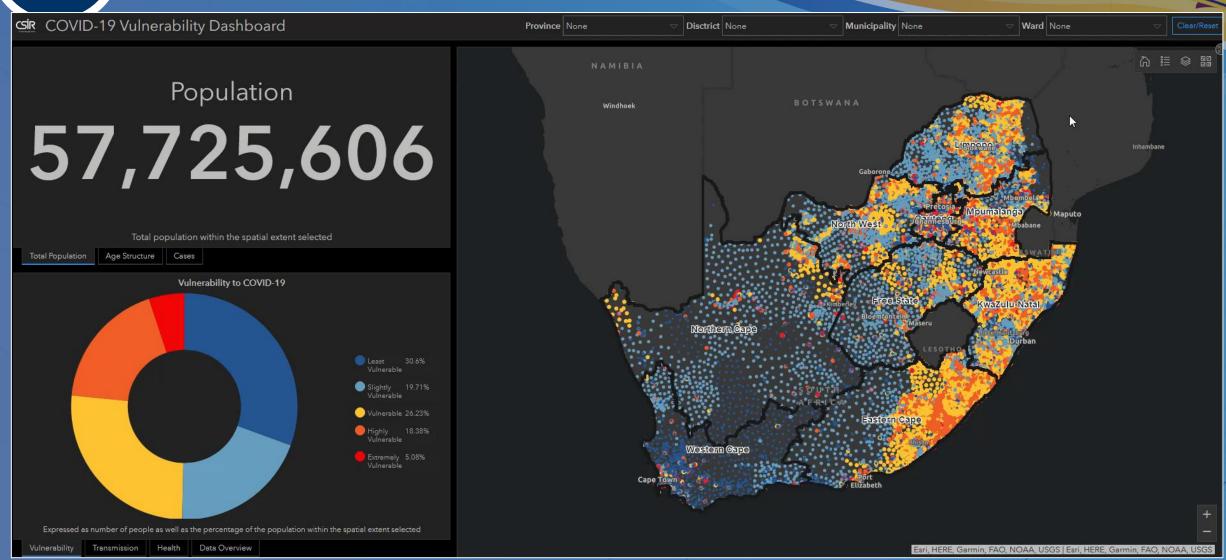
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7 Ways | Geo-enable DDM



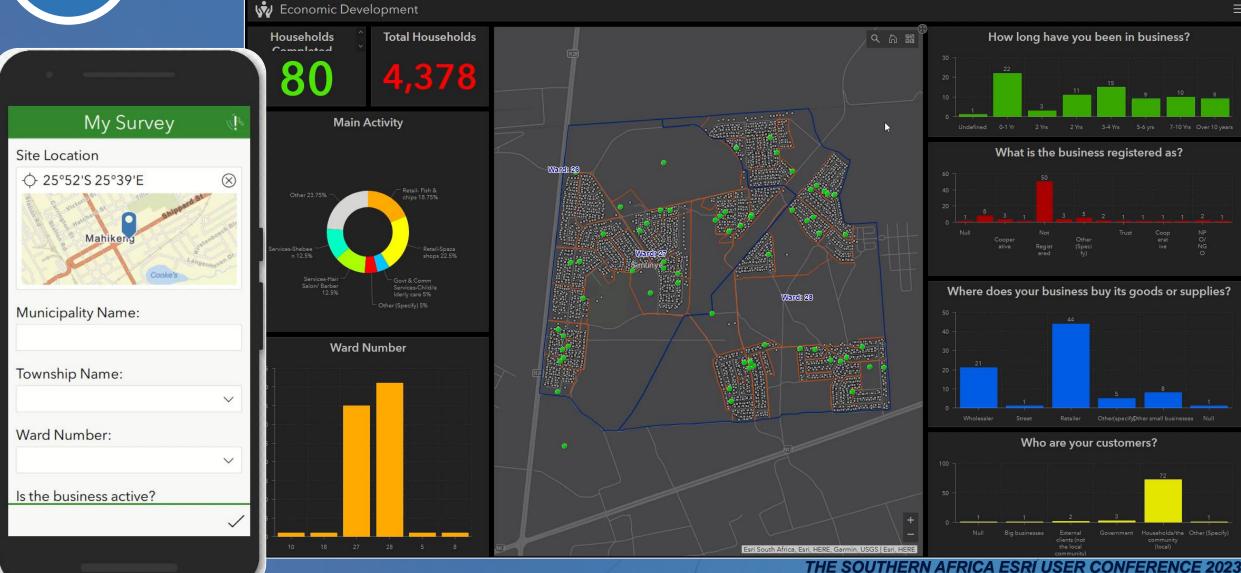


No 1 | Demographic Profiling





No 2 | Economic Positioning

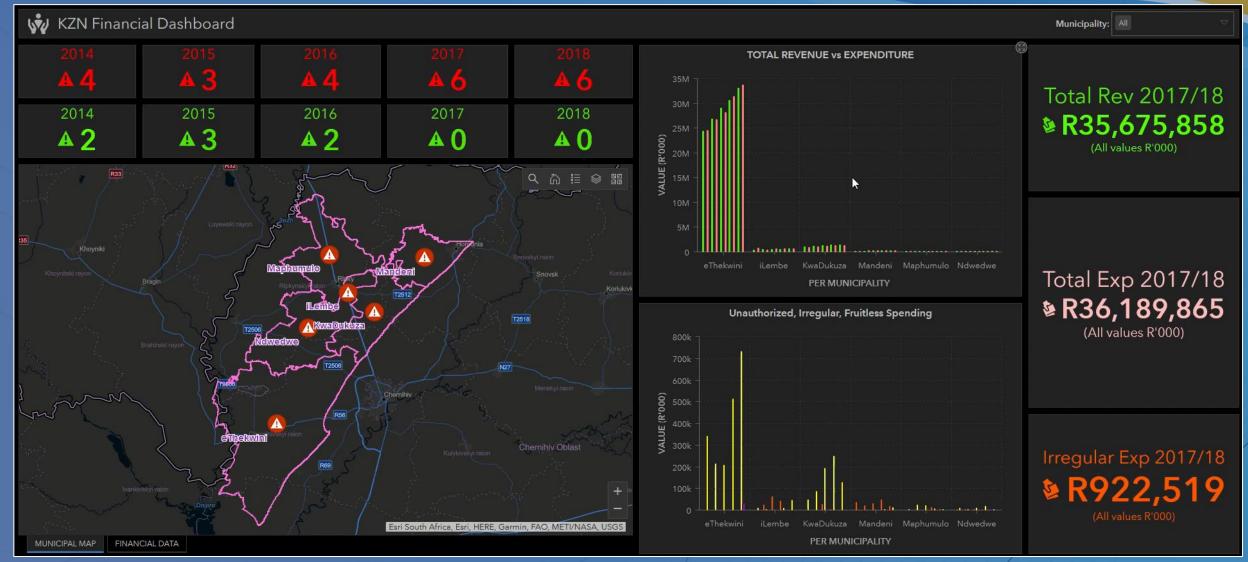


No 3 | Spatial Restructuring





No 4 | Governance & Management





No 5 | Infrastructure Engineering



Capital Project Dashboard

The Capital Project Dashboard can be used by the general public and other interested parties to review the status of capital projects under construction in

Adjust the filters or current map extent to

Type

- Parks
- Stormwater Drainage
- ☐ Transportation
- Water Distribution

Phase

- PreDesign
- Design
- Construction
- Closeout

Fiscal Year

2020 2021

75% on-budget

50% on-schedule

R103.4M

Active Projects



Halfway Gardens Park Rehabilitation

Midridge Park Water Main Replacement Water Distribution

Midridge Parking Center

New Road Stormwater Improvements

Stormwater Drainage



4 1 of 4 ▶

Halfway Gardens Park Rehabilitation Project ID: PARK-001

On Budget Behind Schedule

Description

Rehabilitation of a park on 5th Road

Fiscal Year 2020

Estimated Cost R195.000

Estimated Start Date 14 January 2021

Estimated End Date 14 February 2021 **Funding Source** General Fund

Actual Cost R180.000

Actual Start Date January 25, 2021

Actual End Date February 22, 2021

PreDesign

Closeout

Estimated budget is now 15 000 less

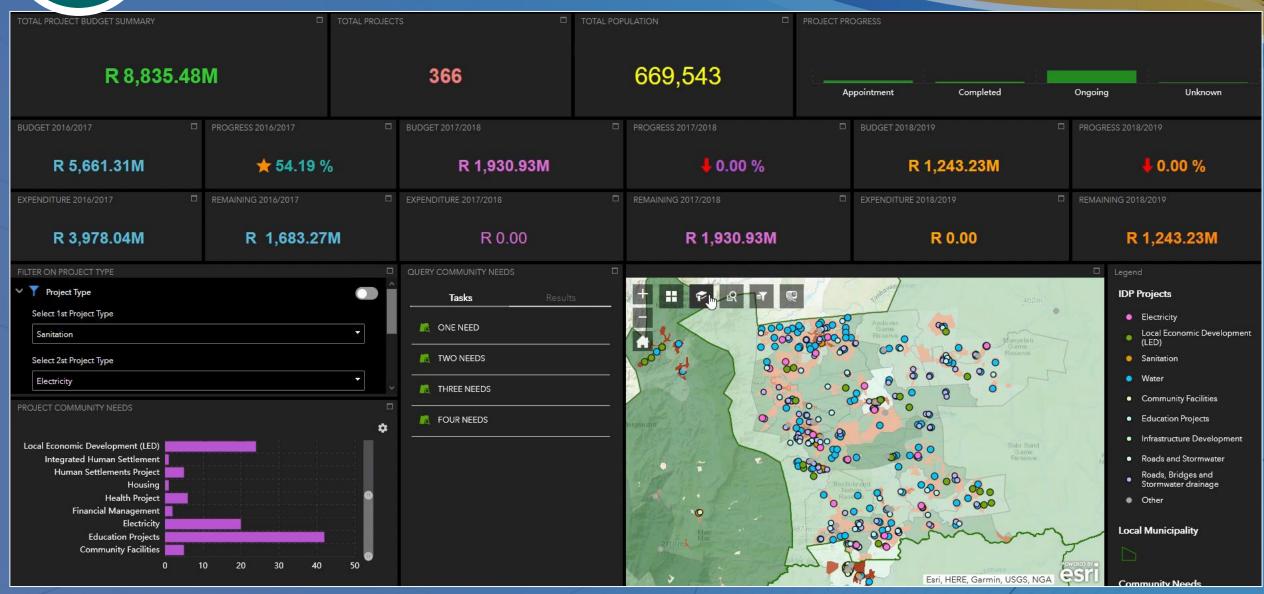
Contact

Rvan Smith 081-856-6896 rsmith@midrand.gov

Last edited by odandala@esri-southafrica.com_EsriZA_TM on 06/05/2021, 16:39.



No 6 | Integrated Service Provision





No 6 | Integrated Service Provision

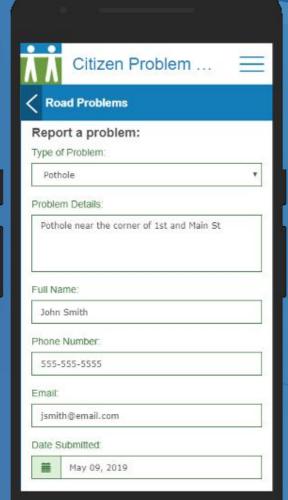


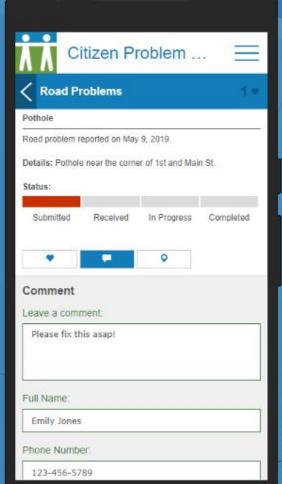


Engagement | Community Hub











Engagement | Community Hub

Citizen Problem Dashboard

Animal Control

Blight

Environmental Health

Land Use









0 new last 7 days Park / Tree 0 new last 7 days Road 0 new last 7 days Trash

0 new last 7 days Water / Sewer









0 new last 7 days

Overview

Problem Reports

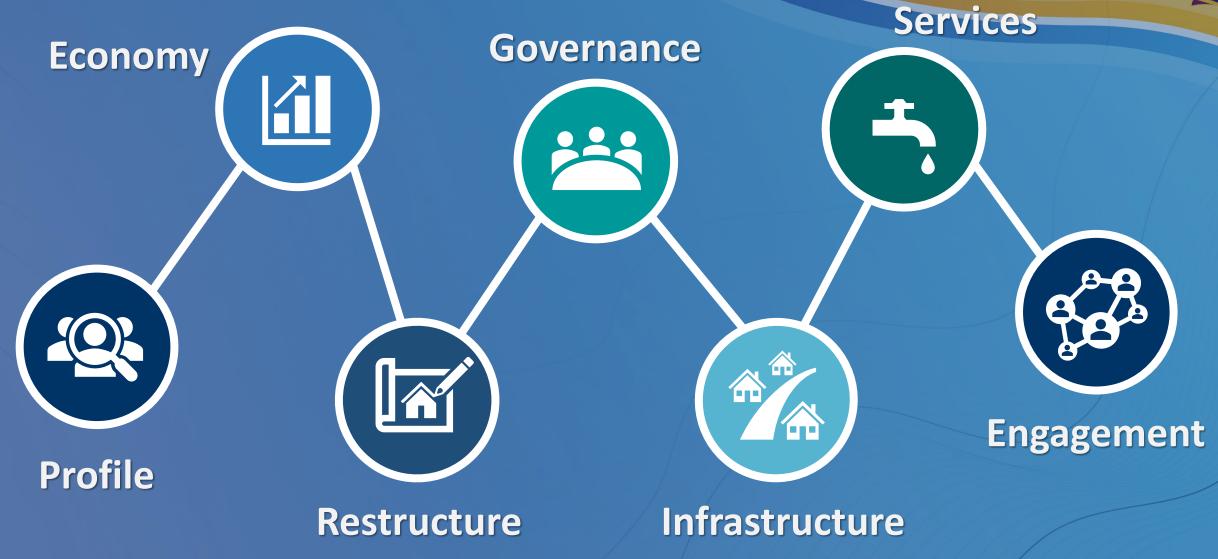
Survey Results



Engagement | Community Hub



Summary 7 Ways | Geo-enable DDM



THE SOUTHERN AFRICA ESRÍ USER CONFERENCE 2023

Esri Inc. Presentation

Adam Carnow

Esri inc.



THE SOUTHERN AFRICA ESRI USER CONFERENCE 2023







Questions & Answers?



CONNECTING COMMUNITIES

Audience Questionnaire Results (5 minutes)

Survey Results



Please share your feedback in the UC2023 app

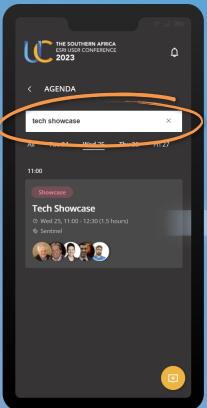
Open uc2023.esri-southafrica.com and browse the agenda

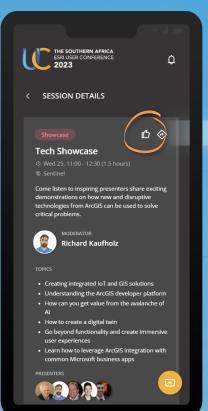
Search and select the session you attended

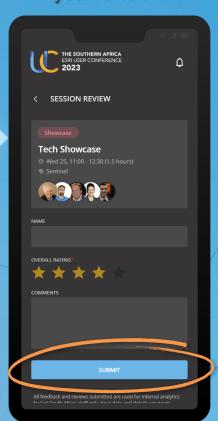
Click the "thumbs up" icon

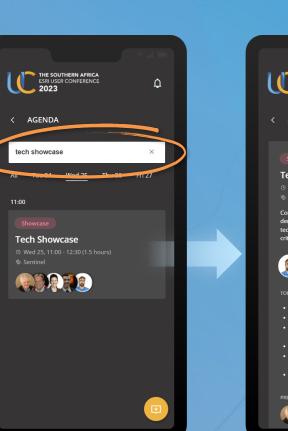
Complete and submit your review













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