

By 2030 eThekwini will be Africa's most caring and liveable city





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eThekwini Municipality Reflections from City Stakeholders on Challenges & Opportunities

Durban



Broader City Data Challenges

1.Capacity

*Inadequate no. of data professionals & resources relative to the volume of data

- *Difficult to attract and retain data professionals
- *Over reliance on vendors/contractors. Issues when contract ends

2.Information Systems & Technology

*Disparate systems - technological platforms that don't "connect"

*Legacy systems - old technologies that are hard or expensive to replace

*Remote Sensing technologies not yet embraced creating an inability to detect changes happening

on the ground quickly enough and the generation of data via deep learning and machine learning technologies.

*Mobile / digital data collection methods and technologies not yet embraced

3.Data Silos - departments not sharing data - poor data sharing culture

4. Organisational culture

*Poor alignment of business and technology makes digital transformation projects difficult to execute

*Inadequate change management initiatives

*Resistance to change

*Not using data assets to its full potential for planning and decision making

5.Data Governance

*No data policies in place to govern inter departmental data sharing *No city-wide protocols for collecting, storing, analysing and sharing data *Lack of accountability for the accuracy and quality of data

6. Data Management

*Lack of a dedicated centralised function to co-ordinate and manage data assets in the City

Informal Settlements data ecosystem

Human Settlements:Wat• Informal Settlement Plan• L• SDBIP• L• Land monitors: boundaries, no of households, residents• L• Professional studies (eg: Geotech)• E	ter and Sanitation: Location of standpipes Location of Communal Ablution Facilities Location of bulks – oipes, pumps reatment plants Professional studies	 Electricity: No of households Location of bulks including power lines Professional studies 	 Development Engineering: Stormwater management system Roads and footpaths Professional studies 	Other municip eg Disaster Management: • No of fires, landslides Health • Location of	floods, ĉlinics	 Community / NGO: Community priorities Qualitative reporting on services Household level information Use of each structure (eg: business / residential)
Data protocols: shared fields; data formats; frequency of data collection / sharing						dized tools for data analysis: graphics hboard dard reports ds / change of over time s showing profile info including f households; service points; ned interventions
 Integrated Project Pipeline development: Current access to services Vulnerability (eg: density; previous experience of disaster Location specific hazards (eg: location under power lines, proximity to landfill Measurement against norms and targets: Distance of household from drinking water Number of households per Communal Ablution Facility Distance to local schools, clinics etc 		Business plans for approval NUSP/ KZNDHS: Proximity to 'integration zor Proximity to catalytic projec Location of settlement / pro relative to public transport of	Business plans for approval by IUSP/ KZNDHS: Land and tenu Proximity to 'integration zones' Identification 'hotspots' Proximity to catalytic projects Location of settlement / project relative to public transport corridors Land and tenu Proximity to 'integration zones' Identification 'hotspots' Proximity to catalytic projects Location of settlement / project relative to public transport corridors Eand and tenu Planned use Zoning / record		of land invasion ship nditions, environmental e of specific land parcels ognition within SDF	

Informal Settlements and Data Challenge

- Data (collection, analysis, integration and application) is a major challenge in the eThekwini Municipality.
- This data challenge is reflected in **Durban's Resilience Strategy**, where it is highlighted as a key constraint in how the city makes strategic decisions within the context of informal settlements.

Existing data challenges within the informal settlements space compromise service delivery and strategic decision making:

- No standards for data management data in various formats, stored in different locations, being shared via flash drive;
- Data are out of date;
- Duplicated or conflicting data systems and data sets;
- Capacity to generate, capture and analyse data (eg: 15 land monitors to observe 581 informal settlements)
- Difficulty in obtaining access to municipal data across departments and then integrating this (no data sharing protocols or systems in place);
- Inadequate incorporation of community-collected data; and
- Poor data management and analysis to inform strategic decision-making.



Improved data in the informal settlements space is critical in order to:

- Inform informal settlement incremental upgrading programmes and National level reporting requirements on informal settlements;
- Building partnerships;
- Improving social and economic interventions in informal settlements; and
- Accommodate (and where necessary, regulate) informal settlements within the urban planning context for Durban

Lessons learned & Opportunities

Lessons learned:

- Working across specialties (IT / informal settlement upgrading) requires a high level of unlearning and relearning
- Valuable insights can come from pilot projects / modular approach to solution development
- Set tolerance levels for risk, imperfect information, limited engagement
- The proposed solutions can only be achieved by establishing a clear approach in addressing the business problem at strategic, management and operational levels.
- The approach of addressing this is threefold: people, process, and technology. It will need to be coordinated and embedded with change management and the potential people it impacts.

Opportunities:

1. Data Policy Research and Policy Advocacy (RAPA) tasked with developing a data policy

2. Data Governance

Data reference governance (DRG) group: multi stakeholder group of users and stakeholders keen to solve data and governance related issues

3. Networking

Existing and new relationships between stakeholders (internal and external) being strengthened

4. Knowledge Transfer and Skills Development



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Thank you