



The Metropolitan Governance in Africa

JOHANNESBURG CASE STUDIES:

**Sustainability, resilience and urban intelligence at the
metropolitan scale**

Johannesburg



Population: 5.87 million

Youth (18-35): 37%

Projection: by 2026 extra 1 million in CoJ

Stats SA (2020) Mid-year Estimates 2020



Number of households: 1.93 million

Stats SA (2020) GHS Metros 2019

City of opportunity | City of contrasts

- Young (135 years old) and sprawling.
- Sprang up with the discovery of gold and economic opportunities attracts people today.
- Country's economic centre; financial & technological hub and poverty, inequality and unemployment



a world class African city



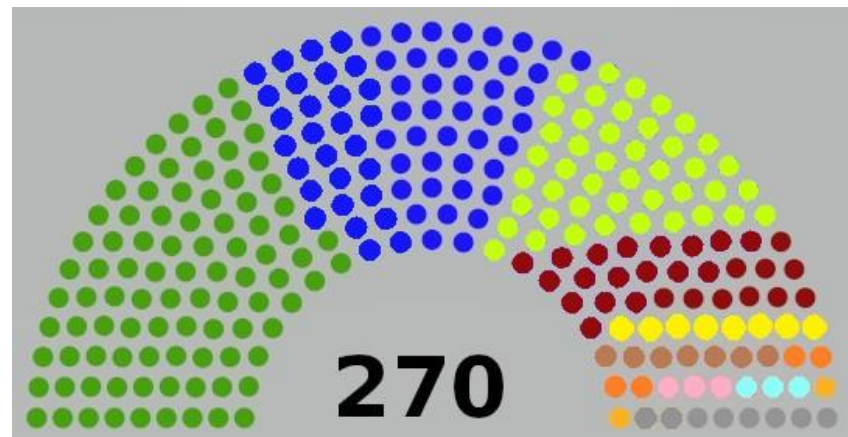
Governance

Recent elections, November 2021
18 parties represented in City council

Coalition arrangements

Opportunity: deliberation, negotiation,
democratic representation

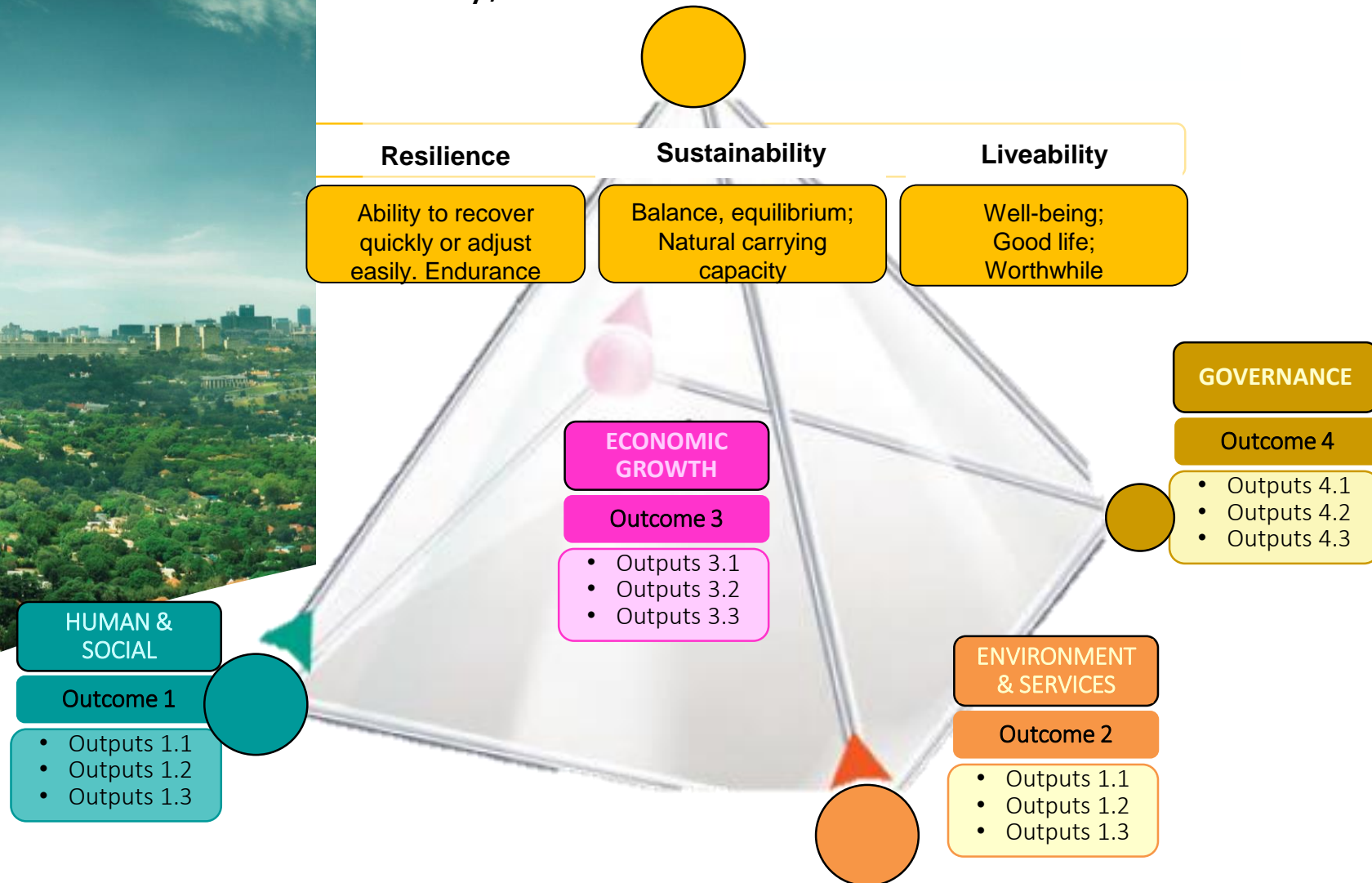
Challenges: Instability, change, time
consuming



a world class African city

Resilience, Sustainability & Liveability

CoJ development paradigm identifies four key, inter-related drivers





Urban intelligence

Developing Smart City Strategy
Partnerships Tech hubs

Catalytic projects

1. Joburg Connected: Broadband
2. 4IR skills development programme: access to social services and support packages
3. Smart citizen: online platforms, cultural content
4. Safe Joburg: Sensors, cameras, IOT, cyber security
5. Innovation pipeline: testing pilot projects
6. Unified data & information portal
7. Green, resilient & sustainable Joburg: Infrastructure and climate change
8. Digital Joburg & smart governance: 24/7 digital city government
9. Smart nodes & economies
10. Smart mobility: info, payment, GHG emissions

Digital divide, high cost of data

Data organisation, storage and management

Outdated systems (internal)



a world class African city



Practices and Policies

Save Time. Register on e-Joburg

The time is now, for you to take control of your municipal account. Receive and pay your bill electronically, lodge queries and do so much more on e-Joburg.

Zenzele. Now you can.

- e-Joburg - is simple
- e-Joburg - is fast
- e-Joburg - is available 24/7

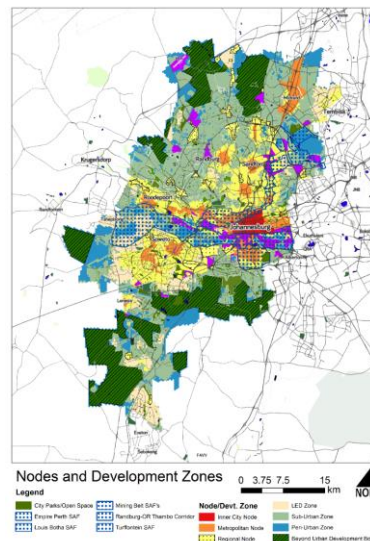


Jobsurg **eJoburg**

www.e-joburg.org.za

Zenzele, e-Joburg's digital billing and accounts platform

Rea Vaya, Bus Rapid Transit



Digitised spatial planning, nodal development and modeling



a world class African city

Practices and Policies



IIOC, Integrated Intelligence Operations Centre

Sustainable Energy Strategy “New Energy Mix”

- Solar PV
- Embedded storage
- Waste-to-energy projects



Stormwater Management

- WUDS SUDS
- Reduce flooding
- Updated Stormwater Guidelines



a world class African city

Opinions on stumbling blocks

“More work still needs to be done but this will depend on the availability of resources to implement”

“Some projects were initiated over a decade ago, there is limited reporting on scaled-up performance though”

“Systems ... are basic and rudimentary and are mainly reactive” / “System is manual and paper based”

“Unfortunately it is not working as it should be ... we are not the data owners but merely serve a facilitator function”





A Critical perspective

Flagship projects,
Many first of their kind in the country

Challenges:

Moving to full scale functionality and implementation

- **Rollout – lag in projects operating at the scale of the city**
- **Output limited – 20% MW still dependent on Eskom**
- **Long timelines**

Governance obstacles

- Inertia of government bureaucracy
- Manual administration & internal processes Siloed data organization and management
- Political will and /or political change
- Political misalignment at different levels of government
- Legal system lagging behind
- Financial challenges, budgeting, prioritization



a world class African city



What is the right functional scale?

Smart City

Scale: Institution

Scale: Metropolitan area access

Parity, Prioritising and (un)intended Impact

Sustainable services

Scale: City / Metropolitan level,

Output v cost; Cross-subsidization, Revenue

Scale: City v National level

Resilience

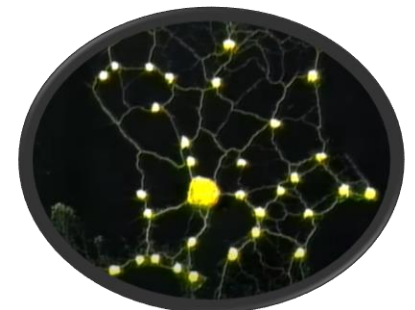
Scale: Communities, Institution

Geographic / socio-economic targeting,

Prioritising

Scale: Broader than City. GCR

Cross-boundary, Redundancy



a world class African city



Closing thoughts

- Prioritising**
- Balancing**
- Multi-scalar**
- Partnerships & Technical expertise**
- Enabling environment**
- Government needs to adapt**

Renewable energy: Figure 3: Factors affecting SSEG customer impact on municipal revenue

REDUCTION IN REVENUE

- Reduction in sales volume
- Compensation for PV feed-in

DECREASE IN COSTS

- Reduction in bulk power purchases
- Reduction in technical losses
- Cheaper electricity to on-sell



Source: SEA, 2019



a world class African city

Kate Joseph

**Deputy Director: Strategy and Research
Group Strategy Policy Coordination and Relations**

2nd Floor, SAPPI Building West Wing

Email: KateJ@Joburg.org.za

Tel: 011 587 4203

Cell: 060 966 4494

www.joburg.org.za

@CityofJoburgZA 

CityofJohannesburg 