Building Cities that Work: City spatial data strategies

Sebastian Kriticos
sebastian.kriticos@bsg.ox.ac.uk
International Growth Centre (IGC)

April 2019
Amman, Jordan
Why having a city data strategy matters.

• Data-driven planning can help city governments to **understand and address risks to society**.

• Digital intelligence also **encourages targeted use of resources**, allowing governments to do more with less.

• Many governments have national data infrastructure, but this is **not sufficient to address challenges at the municipal level**.

• However, strong **institutions and leadership** are essential for turning data into **meaningful information and insights**
Recognising the value of data.

Apple, Google, Facebook, Amazon: wealthiest companies because they use data effectively.

Why is the public sector lagging behind?

Treat data as infrastructure

- **Technical**: how to build data structures.
- **Human**: how to build resources to manage data.
- **Legal**: how to manage access and use.
- **Systems**: how to integrate with other datasets.
What’s stopping Amman from realising the value of data?

- **Governance**
  - Lack of appropriate data governance frameworks

- **Data**
  - Lack of good quality geospatial data

- **Capacity**
  - Insufficient technical and human resource capacity

- **Systems**
  - Absence of an integrated data platform

*Source: GAM stakeholder interviews*
Identify your city’s unique approach

- “We want to harness and combine city data into a centralized GIS database for use by all”

- “We will identify and prioritize the data needed, and enable common data standards”

Source: GAM Resilience strategy (2018)
Establishing a city data system

How does a geoportal work?

1. Start with people
2. Undertake a data inventory
3. Implementation considerations:
   - Design and interoperability
   - Regulations and governance

How do you get there?

Building a culture of data sharing

Break barriers within government
  • ICT is not sufficient
  • Define roles and responsibilities
  • Protocols for data sharing

Take on a value proposition approach:
  • See data sharing → value through
time saves, synergies, hidden value.

Facilitate partnerships where possible
  • Private sector and academia
Making data actionable:

Using data in a time of crisis – A Case Study of Cape Town
Cape Town gets 88% of its water from rainfall.

3 very dry years (2015-2018)

Between 2016-2018, Cape Town experienced its worst drought on record.

Crisis brought about a dramatic shift in city’s approach to water.
Responding to the crisis...

- Crisis highlighted weaknesses in forecasting and response.

- Needs on the ground dictated making better use of existing data.

- Immediate response was developing Water Resilience Plan through assessment of available data.

- Challenges also required new, longer-lasting changes to data governance and strategic planning.
an institutional, data, people, and systems based approach

- **Institutions**: city built new foundations of data infrastructure
  - This included assessments of water users, types and quantity of usage (virtual ‘Green dot’ map as Open Data source).

- **People**: CT used data to communicate about the crisis and generate awareness on the need to reduce water consumption.

- **Data**: harnessed data to monitor water infrastructure and increase efficiency.

- **Systems**: Data was made visible and accessible to the public to support awareness and communication campaigns #everydropcounts.

Consumption dropped by half from 1.2 billion MLD to 500 MLD.

First city in the world to reduce its water consumption by 50% in just three years.
Key lessons...

Innovation starts with people
- Urban challenges are not all technological, **create things people need**, be committed to community collaboration.
- Identify a specific policy question and target data use around it

Take on a value proposition approach
- Start small, and generate wins with opportunities to built around it. Avoid ideas that will be expensive or time consuming.
- Have people within agency create value proposition so they become agents of change

Work with trusted partners
- Hire a diverse, capable team.
- Facilitate collaboration with partners in academic, private, public and international sectors.