

Building Cities that Work: City spatial data strategies

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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**

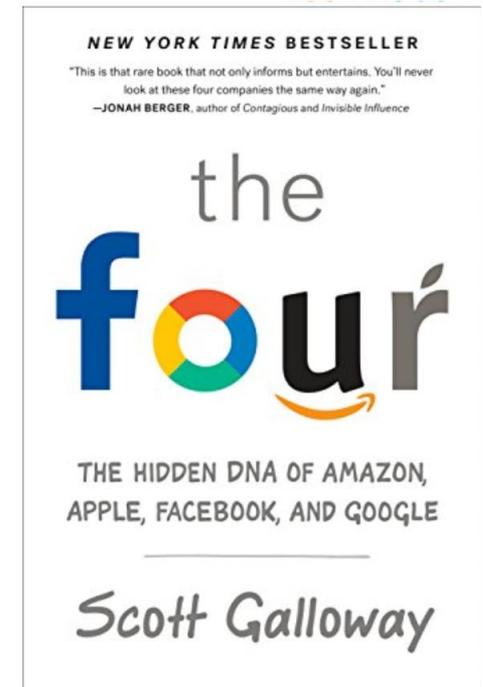
Recognising the value of data.

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

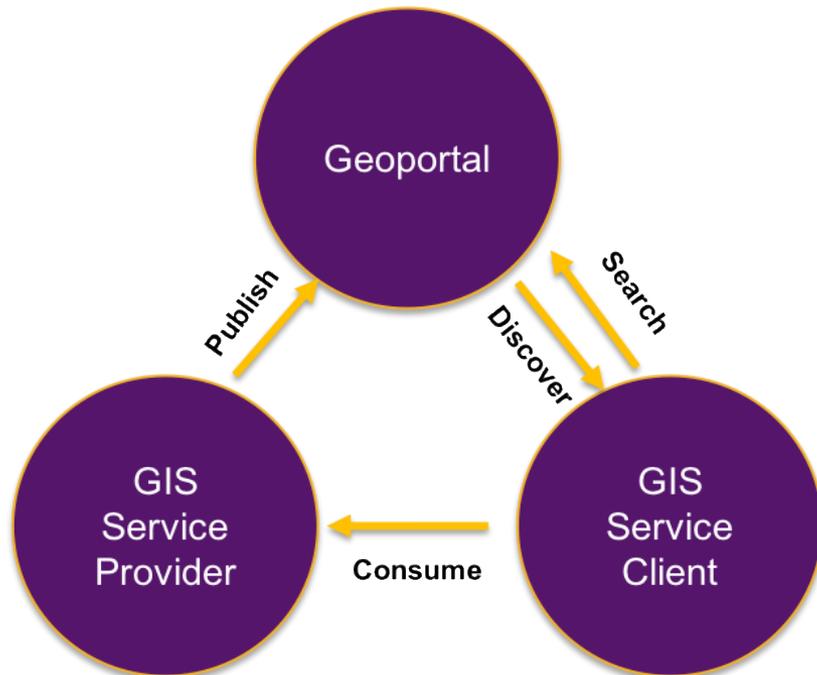


Identify your city's unique approach

- *“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”*

Establishing a city data system

How does a geoportal work?



How do you get there?

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

Building a culture of data sharing

Break barriers within government

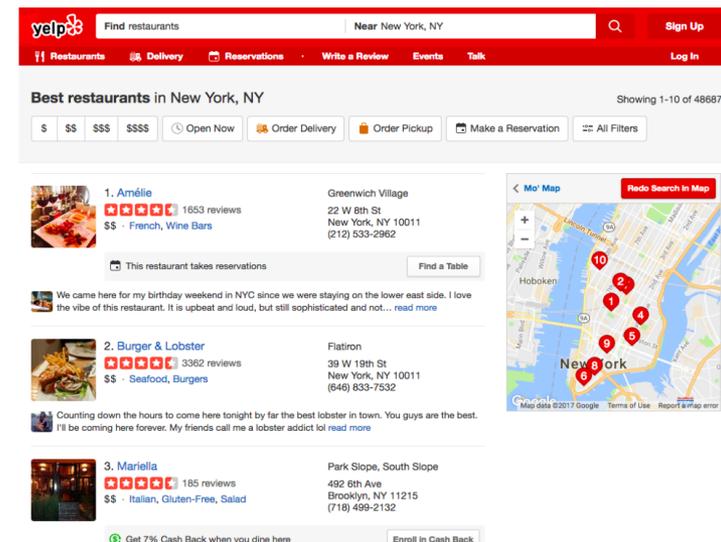
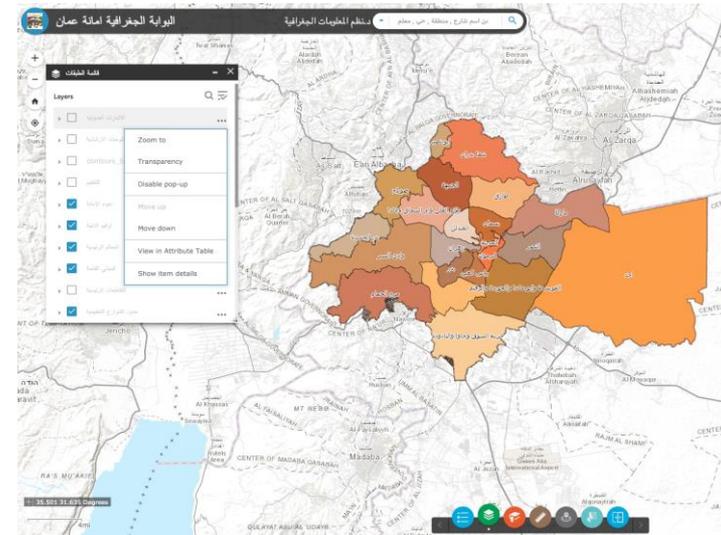
- ICT is not sufficient
- Define roles and responsibilities
- Protocols for data sharing

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

2013



2018



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.



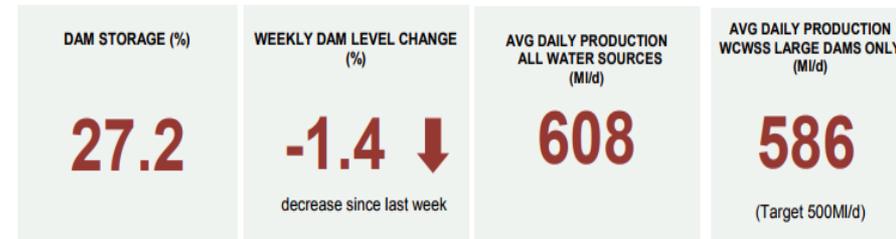
... an institutional, data, people, and systems based approach

- **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*.



City of Cape Town: Water Dashboard

22 January 2018



Consumption dropped by half from 1.2billion 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.

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