CRUNCH IDSS' are Digital Twins

CRUNCH
The Food-Water-Energy Nexus

http://www.fwe-nexus.eu

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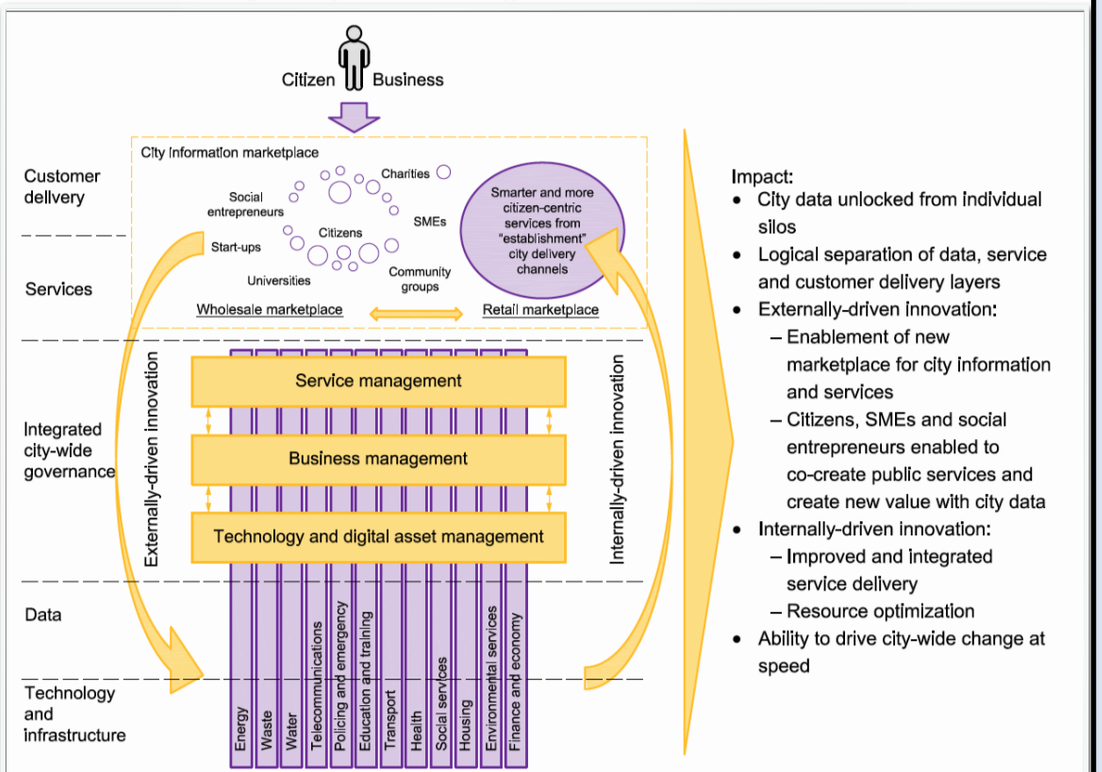
CRUNCH - IDSS

- 6 Urban Living Labs
  - Eindhoven, NL
  - Southend-on-Sea, UK
  - Taipei, Taiwan
  - Uppsala, Sweden
  - Gdansk, Poland
  - Miami, USA

  https://crunch.research.it.uu.se

Smart City Operating Model



Impact:

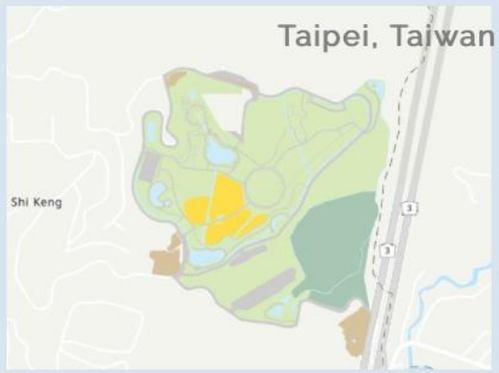
- City data unlocked from individual silos
- Logical separation of data, service and customer delivery layers
- Externally-driven innovation:
  - Enablement of new marketplace for city information and services
  - Citizens, SMEs and social entrepreneurs enabled to co-create public services and create new value with city data
- Internally-driven innovation:
  - Improved and integrated service delivery
  - Resource optimization
- Ability to drive city-wide change at speed

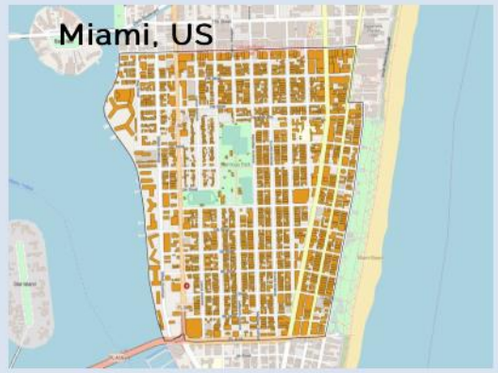
Taken from ISO 37106 - Smart City Operating Model - copyright BSI
https://www.iso.org/obp/ui/#iso:std:iso:37106:ed-1:v1:en

IDSS for CRUNCH – Climate Resilient Urban Nexus Choices

http://crunch.fiu.edu

This integrated decision support system (IDSS) is developed as part of the EU CRUNCH project, aiming to assist policy makers and other stakeholders to make climate resilient urban nexus choices. First, you can select an urban living lab (ULL) below. Based on this decision, the baseline scenario and input parameters will be initialized. You can add innovations to see the effect of various choices on the food, water and energy balance in your ULL.





Disclaimer: The calculations made using this tool should only be used for informational and educational purposes. The results are based on scenario and climate models, which carry inherent uncertainty. Uppsala University is not responsible for the consequences of any actions taken based on the information provided by this tool.

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CRUNCH

The Gemini Principles

Centre for Digital Built Britain

Purpose:
Must have clear purpose

Public good
Must be used to deliver genuine public benefit in perpetuity

Value creation
Must enable value creation and performance improvement

Insight
Must provide determinable insight into the built environment

Trust:
Must be trustworthy

Security
Must enable security and be secure itself

Openness
Must be as open as possible

Quality
Must be built on data of an appropriate quality

Function:
Must function effectively

Federation
Must be based on a standard connected environment

Curation
Must have clear ownership, governance and regulation

Evolution
Must be able to adapt as technology and society evolve