Technology changes cities.
Technology changes.
The Rise of Smart Urban Masterplanning
Why?
Better services and places.

More jobs.

Stronger representation.
Better services and places.
“From 2011 to 2021 London’s population will grow by a million... We will have another 641,000 jobs, another 800,000 homes, and more than 600,000 extra passengers will need to travel by public transport at peak times by 2031… We need to harness London’s technical prowess to help the capital work even better as a city, support its growth and help our infrastructure and services to be more responsive to Londoners and business needs.”

Mayor Boris Johnson from the Greater London Authority (2013) Smart London Plan
More jobs.
“New technologies are altering the nature of society… What are the jobs that are disappearing? What are the jobs that are going to appear? What are the skills and capabilities that my people need to have to get these new jobs and opportunities?…. In practice, that means making available the tools needed to work in a new digital economy”

Dr. Vivian Balakrishnan, Singapore's Minister for Foreign Affairs and Lead of the Smart Nation project
Stronger representation
“In Rio and in many other cities, we have decided to turn the threat of the digital revolution into an opportunity – one that can help us understand the future of representative democracy. Through Polisdigitocracy – the use of open data, social media and digital technology to drive citizen engagement – we must listen, renew legitimacy and turn formal consultation into constant collaboration.”

Common Motivation

Look across
Apply technology across traditional planning silos.

Look ahead
Harness the latest digital innovations.
Outstanding issues

Redundant tech.
The underlying technology infrastructure does not evolve over time and is closed to outside innovation. Systems quickly become obsolete.

Underused tech.
Investments are made in data centres / sensor networks before clear problems or opportunities have been defined. Tech is unthinkingly deployed to do everything.

Disruptive tech
New digital companies disrupt an industry before government has put in place appropriate regulation or measures to help manage the displacement of jobs.

Rejected tech.
The technology was not designed with the user experience at the centre. It does not respect individual privacy nor is it not intuitive to use.

Pilot tech.
The technology is not financially attractive to long term investors as its value accrues to multiple stakeholders. As a result initiatives do not scale beyond the pilot stage.

Unplanned tech.
The impact of technology is not considered in the design of space or buildings. Requirements are identified too late in the site’s development.
Engagement.
Partnering.

ARUP
Information marketplace.
Spatial impact.
Funding.

Source: Arup & UCL (2014) *Delivering the Smart City: Governance in the Digital Age*
The Smart City is not this.
It needs some of this.
ARUP
Vision & Strategy:
What can smart help achieve?

Governance:
How can government help implement the vision?

Implementation:
How to get initiatives off the ground?

Evaluation:
How to reflect on projects?
Vinge, Denmark
Vision

Goals

Digital Programmes

Digital Projects

Digital Design Principles
Arthur C. Clarke said “Any sufficiently advanced technology is indistinguishable from magic”

This is the sensation we experience when contemporary technology is at its best.

Where people and place are in the foreground and technology plays a humbler supporting role, concentrating on doing what only it can do.