

КЛУБ КОНТЕКСТ

# DELIVERING THE SMART CITY ...SOME LESSONS LEARNED

ЭЛЕАНОР КОСГРЕЙВ. УНИВЕРСИТЕТСКИЙ КОЛЛЕДЖ ЛОНДОНА



"Radical re-engineering of cities for low carbon living, resource security and human wellbeing"

# Liveable Cities<sup>TM</sup>

Systems Thinking Experts

Geographers

Economists

Planners

Engineers

Designers

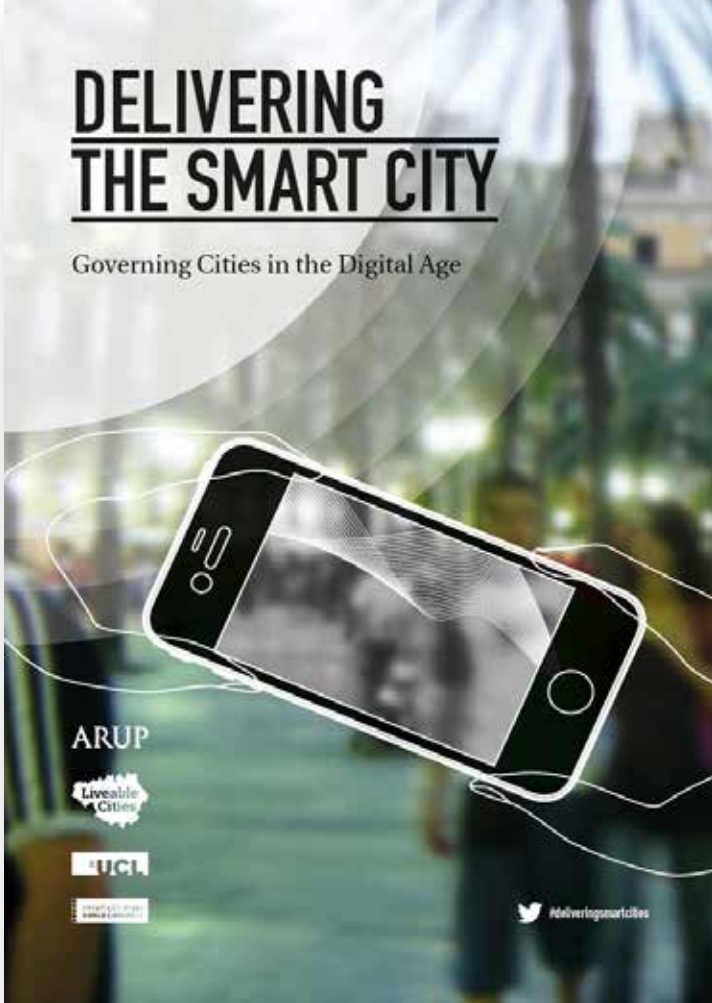
Architects

Psychologists

Sociologists

# DELIVERING THE SMART CITY

Governing Cities in the Digital Age

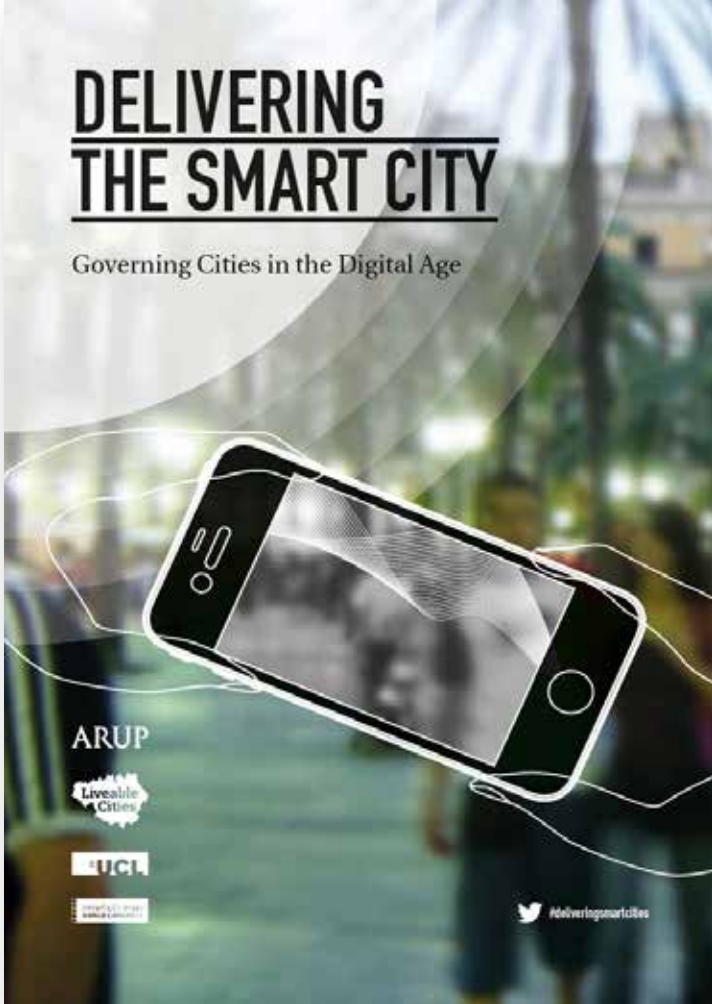


- § Drivers of change
- § Existing expenditure
- § Lessons from cities globally
- § Smart City ecosystems

[www.arup.com/smart](http://www.arup.com/smart)

# DELIVERING THE SMART CITY

Governing Cities in the Digital Age



ARUP



UCL

UCL

#deliveringsmartcities

§ Drivers of change

# EXTERNAL DRIVERS

# DIGITAL DISRUPTIONS



# CHANGING CITIZEN EXPECTATIONS



# TRANSPARENCY

W. BERGMAN





# ACTIVISM



**'OPPORTUNITY' DRIVERS**


# MODERNISATION OF INFRASTRUCTURE



# ECONOMIC DEVELOPMENT







GREATER LONDON AUTHORITY      MAYOR OF LONDON      LONDON ASSEMBLY

« Back to LONDON.GOV.UK

**LONDON DATASTORE**      Register an Account      Login 

Blog    Data    Topics    Developers ▾    Boroughs ▾    GLA Analysis ▾    More ▾

---


          

**SIGN UP FOR UPDATES**

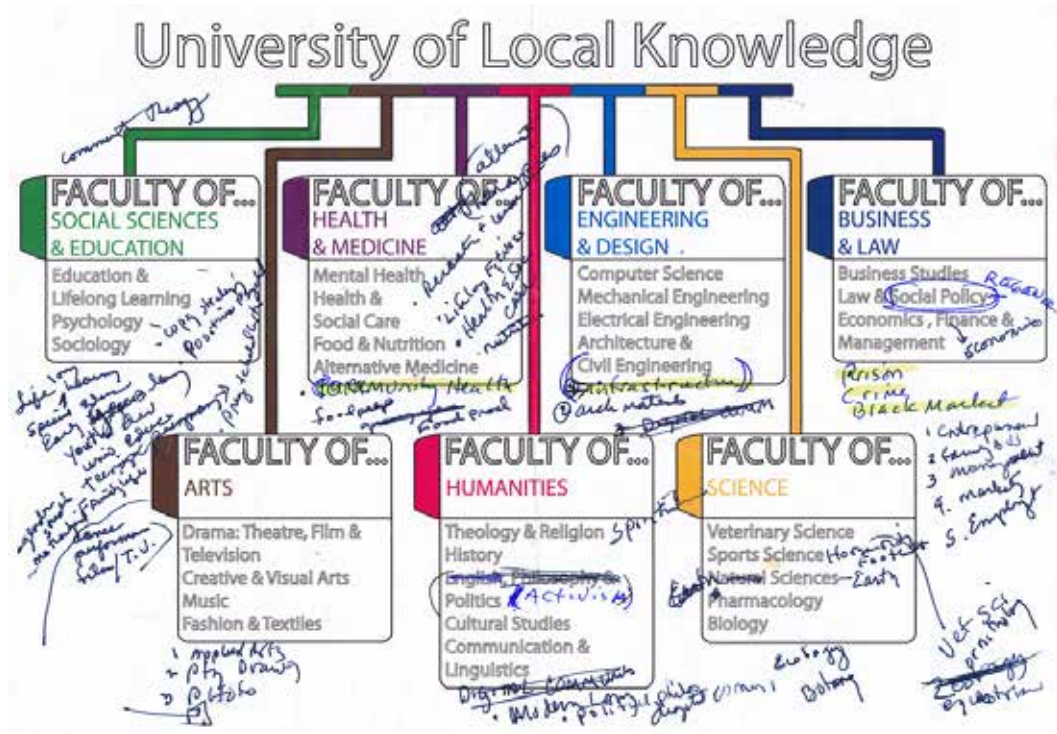
---

**Work together to solve New York's challenges.**

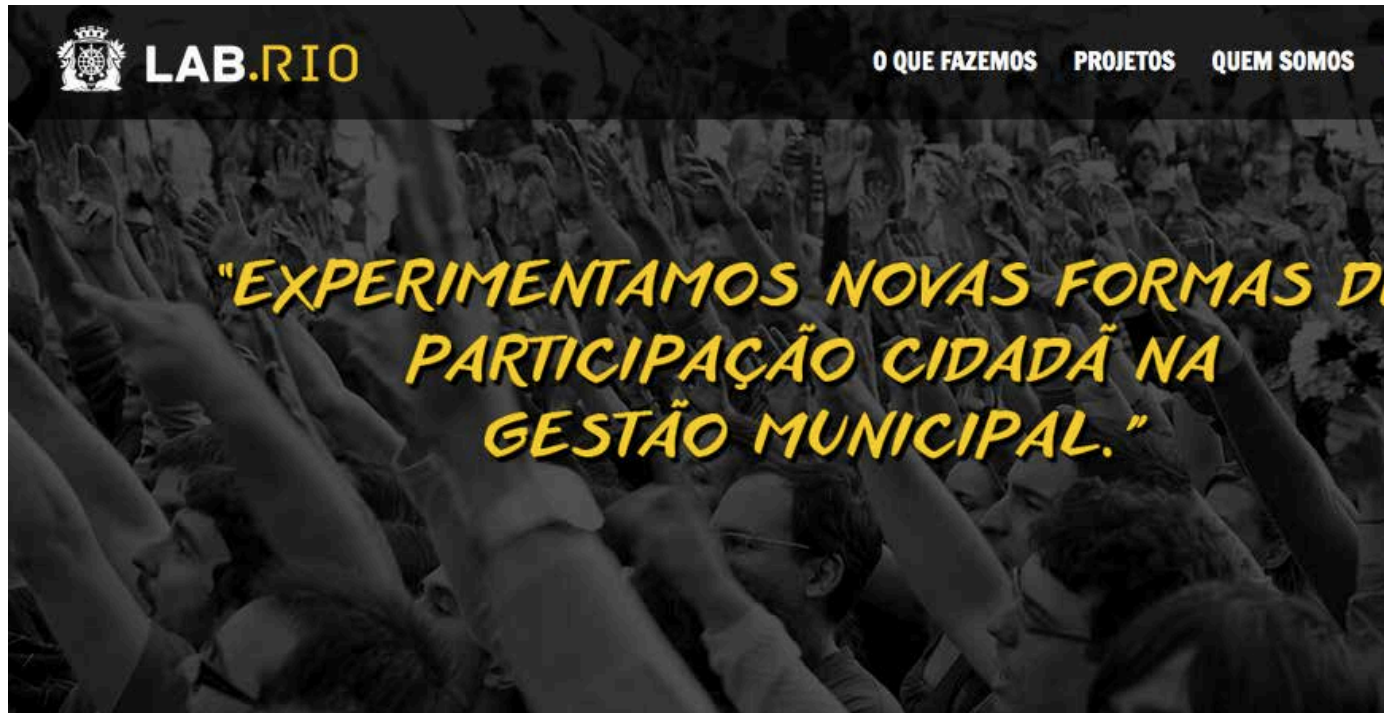
TAKE A CLOSER LOOK AT THE CHALLENGES OF NEW YORK CITY



# ENGAGEMENT & EMPOWERMENT



# POLISDIGITOCRACY



external

opportunity

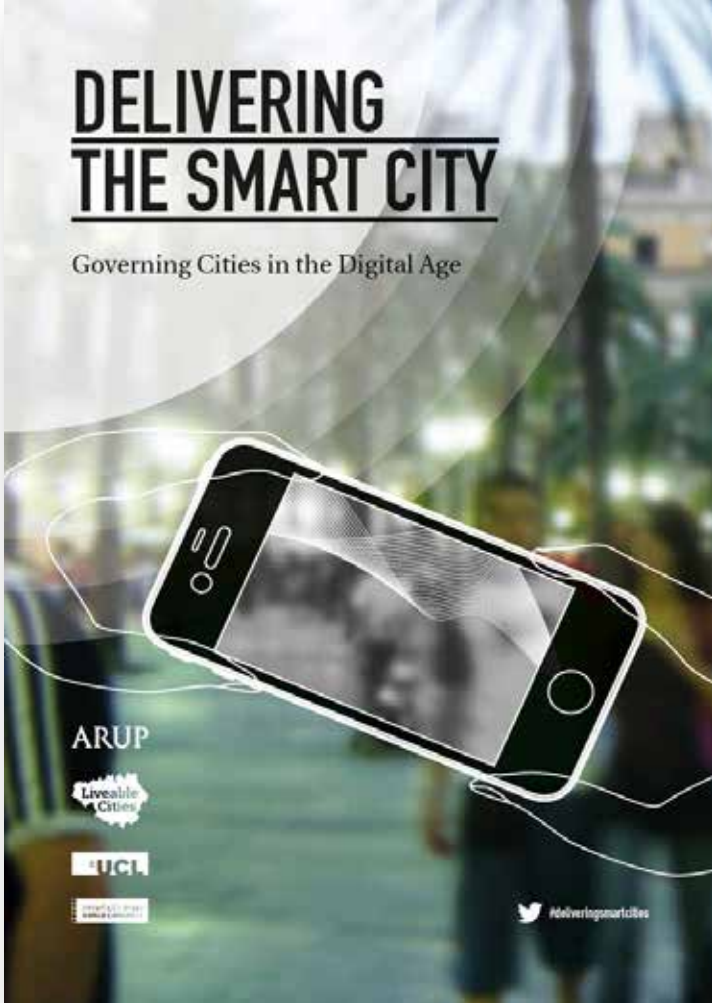
INFORMATION RICH

So, what's  
a smart  
city?

INTERCONNECTED

# DELIVERING THE SMART CITY

Governing Cities in the Digital Age



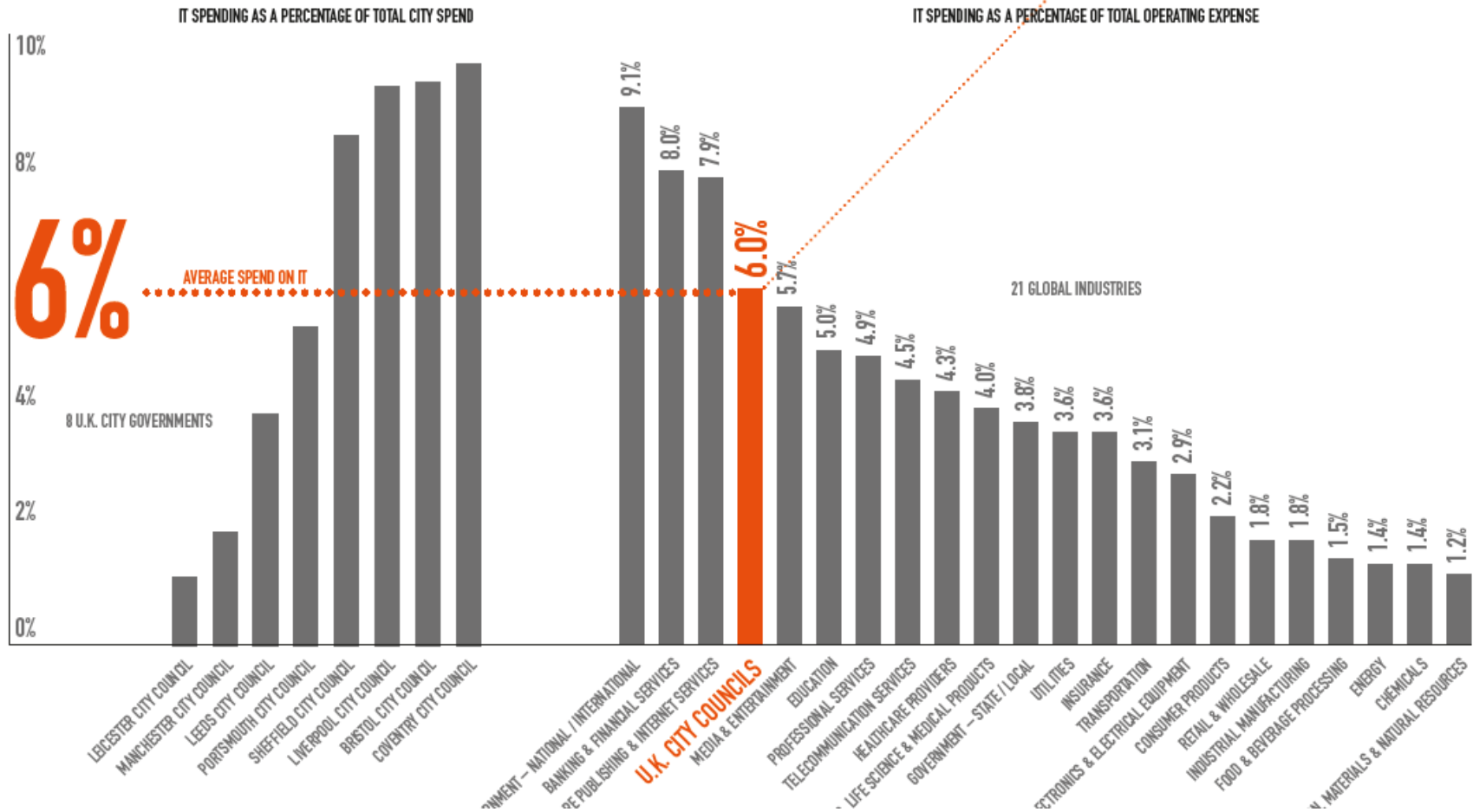
§ Lessons from cities globally

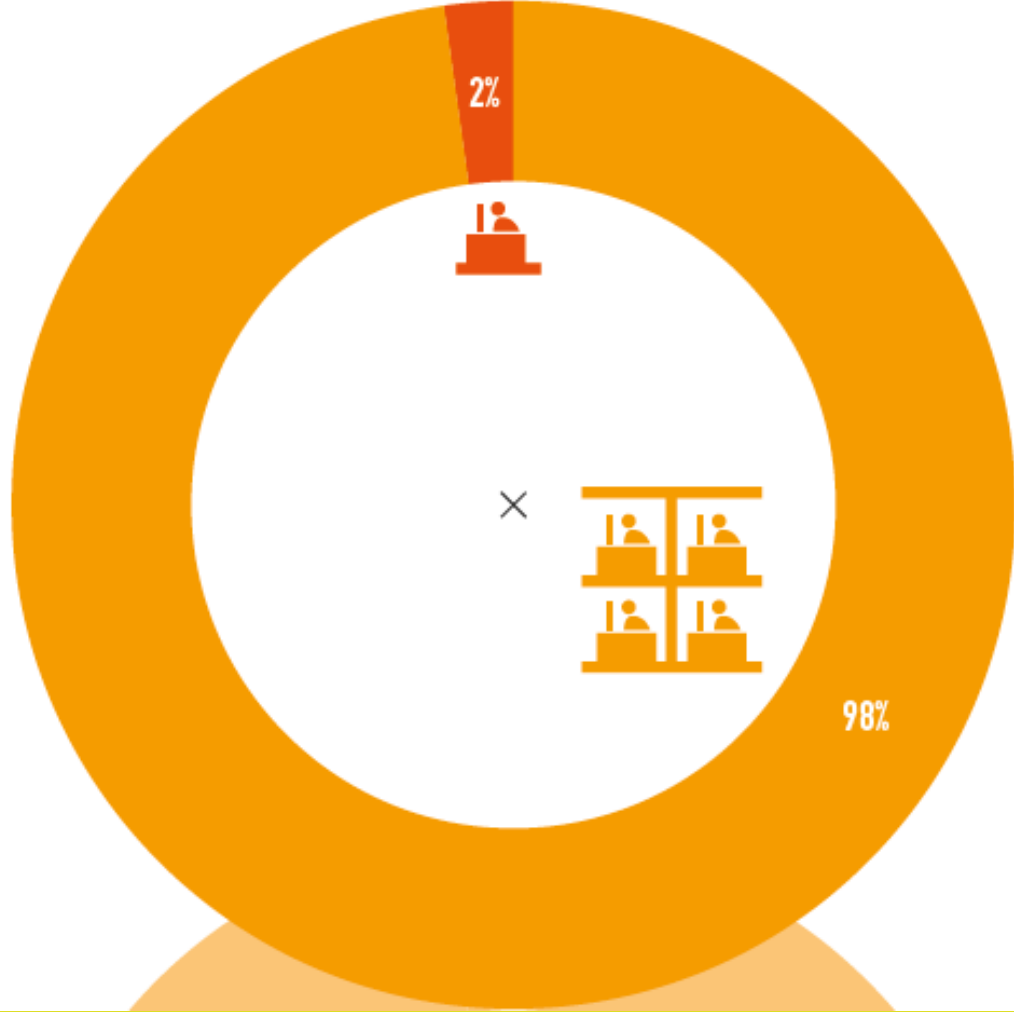
[www.arup.com/smart](http://www.arup.com/smart)



# CITY AUTHORITY IT SPEND







# 7 PRINCIPLES

## RIGHT TO THE SMART CITY

Governing Cities to the Digital Age

### TAKE OWNERSHIP

#### ACTIONS

##### GOVERNANCE

- Establish a vision of strategy around how smart city technologies and programmes will deliver key city objectives. This should be created in partnership across the council as well as with the local or urban authorities.

##### LEGAL/POLITICAL IMBUEMENT

- If there is an aspiration for the institutional change, ensure political buy-in, and assessment and a lead city.

##### LEADERSHIP & GOVERNANCE STRATEGIC

- Identify and implement appropriate key institutional change that may be able to provide a public service. This might include a 'digital change in', a cluster of services, digital innovation or Technology Office, a new department, or a more embedded approach.

### CLARIFY THE OPPORTUNITY

#### ACTIONS

##### UNDERSTAND A RANGE OF CHALLENGES

- Identify a range of strategic, economic, opportunities and threats for your city.
- Highlight current activity and projects.
- Highlight digital activities – government, academia, SMEs, civic organisations at a level that is 'smart city' activity.

##### UNDERSTAND THE VALUE PROPOSITION

- Understand what a smart city can bring from value (and costs) to value to both citizens and political stakeholders.

### ENGAGE

#### ACTIONS

##### ENGAGE WITH CITY STAKEHOLDERS

- Create a network of stakeholders to engage collaboratively with council departments. This might be through providing funding opportunities, co-funding activities, providing advice and support, or creating workshops to explore ideas, aspirations and capabilities together.

##### ENGAGE WITH CITY STAKEHOLDERS

- Understand the capabilities and roles of the wider ecosystem of city stakeholders.
- Develop a network of people to support the activities. This might be through a smart city board, partnerships, cross bodies or committees.

### PREPARE

#### ACTIONS

##### ENGAGEMENT

- Understand how procurement processes affect the city's ability to procure and then a diverse range of suppliers.
- Develop appropriate procurement approaches that enable accessible and competitive commercial models or through early engagement with the core supply of suppliers.

##### FINANCING

- Develop a range of financing options that reflect the wider strategy and investment case objectives of the council. This may include in-house, partnerships, public-private, internal investment, grant, external funding, or direct or indirect investments.

##### HUMAN CAPITAL

- Invest in and train council employees to understand the tactical and strategic implications of ICT and smart technology programme investment for the city.

### CHECK & REFLECT

#### ACTIONS

##### MEASUREMENT

- Develop measures and processes to embed reflection into the operational and strategic planning of the city.
- Embed an approach into role of governance and qualitative measures that reflect other desired insights.

##### PARTNERSHIPS

- Create partnerships with institutions that specialise in understanding a social and economic impact of complex programmes (such as universities).

### ACT

#### ACTIONS

##### INVEST IN PROJECTS & PROGRAMMES

- Collaborate with local citizens to deliver sustainable and appropriate projects and programmes.
- Understand the viable scale and scope of project potential projects and where they sit in the sub-city.

##### INVEST IN A LONG TERM POLICY & GOVERNANCE CAPABILITIES

- Develop strategies and organisational change programmes to support the performance of city to direct smart city investment.

### REPEAT & SHARE LEARNING

#### ACTIONS

##### CONTINUOUS PROCESS

- Create learning objectives within the council in order to feed into future strategy processes and programmes of work.

##### SHARE LEARNING

- Work with other stakeholders through reporting. This helps to build accountability and the exposure of requirements as well as enabling stakeholders to respond by enabling capabilities accordingly.
- Work with other cities through networks of cities such as the C4i or through partners like the P4iM4.

# GOVERNANCE STRUCTURE

# ARMS-LENGTH FUNCTION



“The Smart Chicago Collaborative has been vital; it really helps us to be a lot more nimble than we could otherwise be. They give grants on our behalf and they really are the engine behind what is a pretty broad community of interested developers.

# ARMS-LENGTH FUNCTION



**“We didn’t have any particular oversight and we didn’t have any budget holder to answer to, so it did give us that flexibility and opportunity to be a bit more creative about the way we did things. But there was also the requirement to produce significant results in order to cement our status with the main council body.”**

# EMBEDDED STRUCTURE



“That was a way for us at the executive office to make it happen across the organisation without doing everything ourselves. We set up a framework and we put the money into it to make it happen.”



# EMBEDDED STRUCTURE



“This is more than just the screens in the situation room; it’s a significant organisational shift and a degree of professionalism for us. It’s actually a whole change of mindset in terms of how you plan and how you deal with public management in general.”

"Running cities effectively is a complex enough task already. Why make it even harder by talking about smart cities? In Bristol the answer is simple, there is no choice. We need the capacity to respond to, and in some instances to lead, technological, environmental and societal changes that are happening right now so that we can shape a sustainable, healthy and prosperous future for Bristol and for cities in general. If city authorities are not championing inclusive smart cities, then who else will?"