



# Defining Smart City Governance

**Dr Igor Calzada, MBA**

Senior Research Fellow, Future of Cities & Urban Transformations, University of Oxford

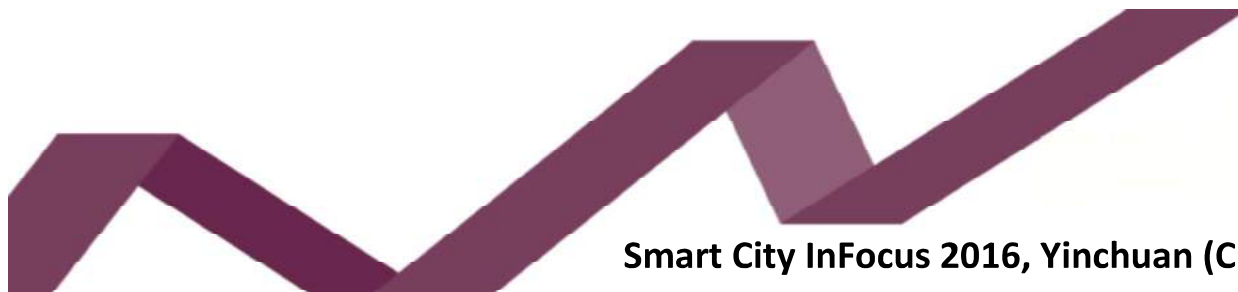
Lecturer, Institute for Future Cities, University of Strathclyde

Research Fellow, Brussels Centre for Urban Studies, Vrije Universiteit

@icalzada

[www.igorcalzada.com/about](http://www.igorcalzada.com/about)

[igor.calzada@compas.ox.ac.uk](mailto:igor.calzada@compas.ox.ac.uk)



**Smart City InFocus 2016, Yinchuan (China)**



# Outline

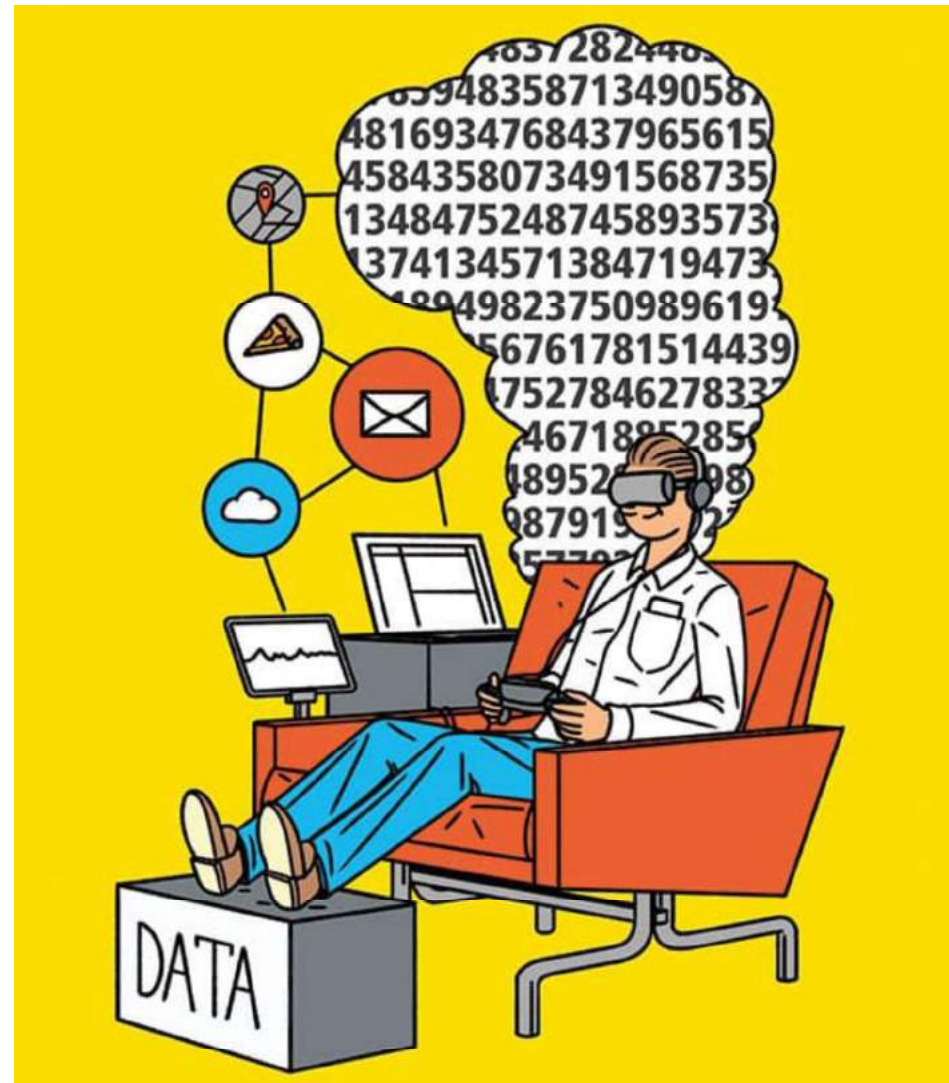
1. Why new modes of governance are needed for smart cities
2. Defining your smart city vision & strategy
3. Developing a dedicated organization – what new roles and skills are required?
4. Integrating processes for smart city projects
5. Creating a Smart City ecosystem through different types of private-public partnership



If you experience  
something  
—record it.

If you record  
something  
—upload it.

If you upload  
something  
—share it.



Via @FT

**#dataism**

## Bio: [www.igorcalzada.com/about](http://www.igorcalzada.com/about)

1. 2015 <
  1. University of Oxford, Urban Transformations (UK)
  2. University of Strathclyde, Institute for Future Cities (UK)
  3. Vrije Universiteit Brussel, Brussels Centre for Urban Studies (Belgium)
2. 2012 < University of Oxford, Future of Cities, (UK)
3. 15 years: Policy Adviser for the European Commission
4. 10 years: Private sector, Director of Innovation at Mondragon Co-operative Corporation (Spain)
5. 4 years: Public sector, Director of Innovation at Basque Regional Government (Spain)
6. Background: M.B.A. & PhD in Business Administration (USA)



# 2012 < Future of Cities Programme

Aim:

How can we prompt methodological advancements that promote  
fruitful learning in and among cities?



# 2012 <

## Future of Cities Programme

### Applied Research:

- 1) City-To-City Learning
- 2) Comparing/Benchmarking Smart Cities



**2015 <**

# **Urban Transformations ESRC**



**[www.urbantransformations.ox.ac.uk](http://www.urbantransformations.ox.ac.uk)**



## **Portfolio**



# 2015 <

## Urban Transformations ESRC

Aims to address a wide range of stakeholders with a professional, public or political interest in cities, including members of the general public wishing to learn more about current academic debates on urban development worldwide:

- UK
- Europe
- International (BRICS)

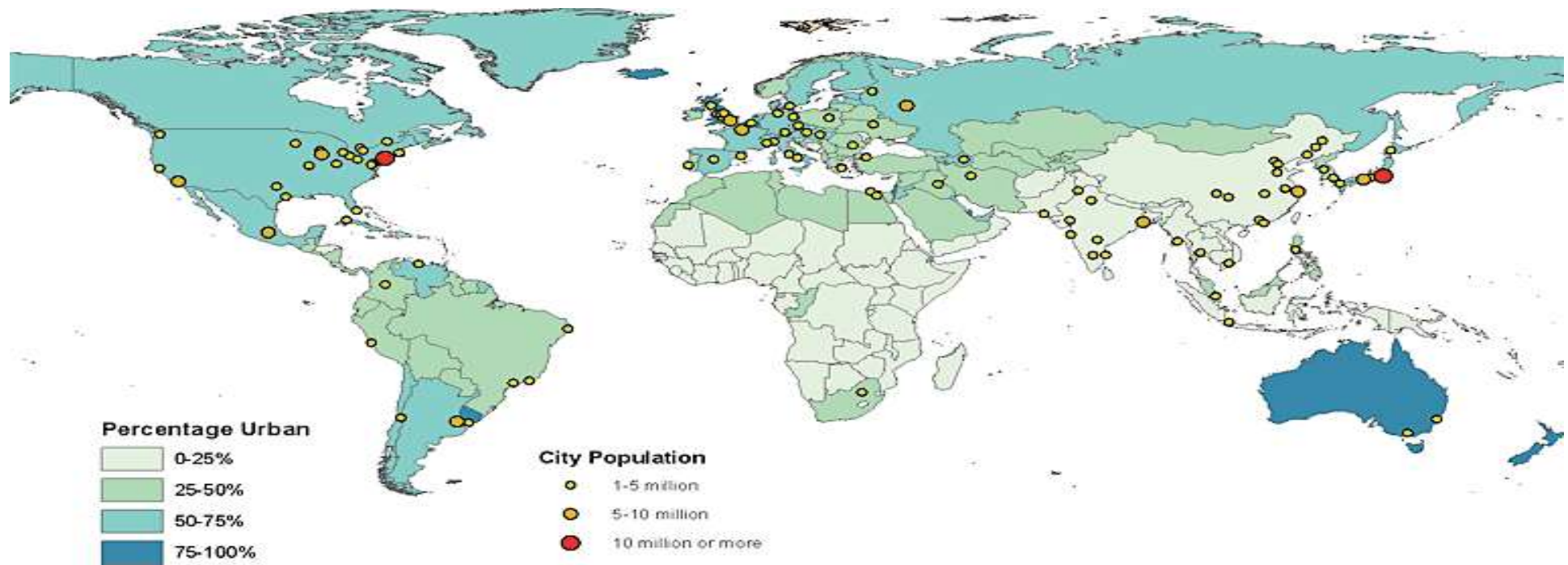






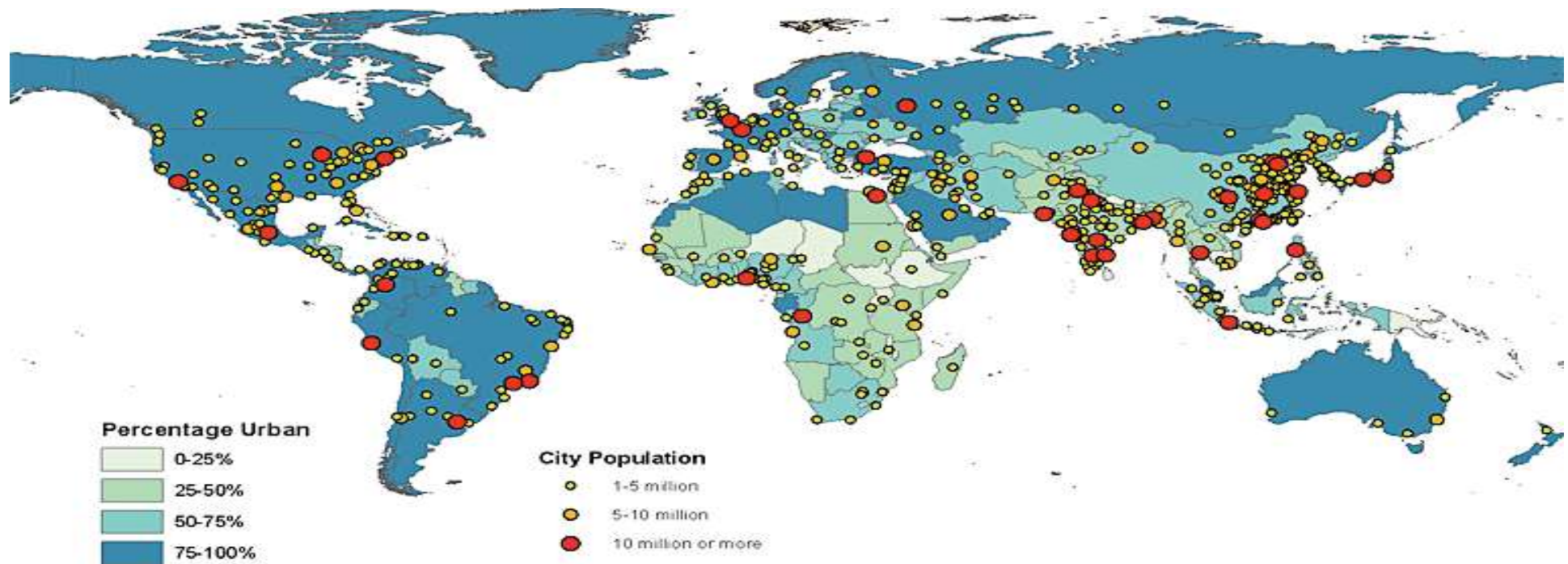
Source: @oxmartinschool

# 1960



Source: @UN

# 2025



Source: @UN





Warlord tax collectors provide service







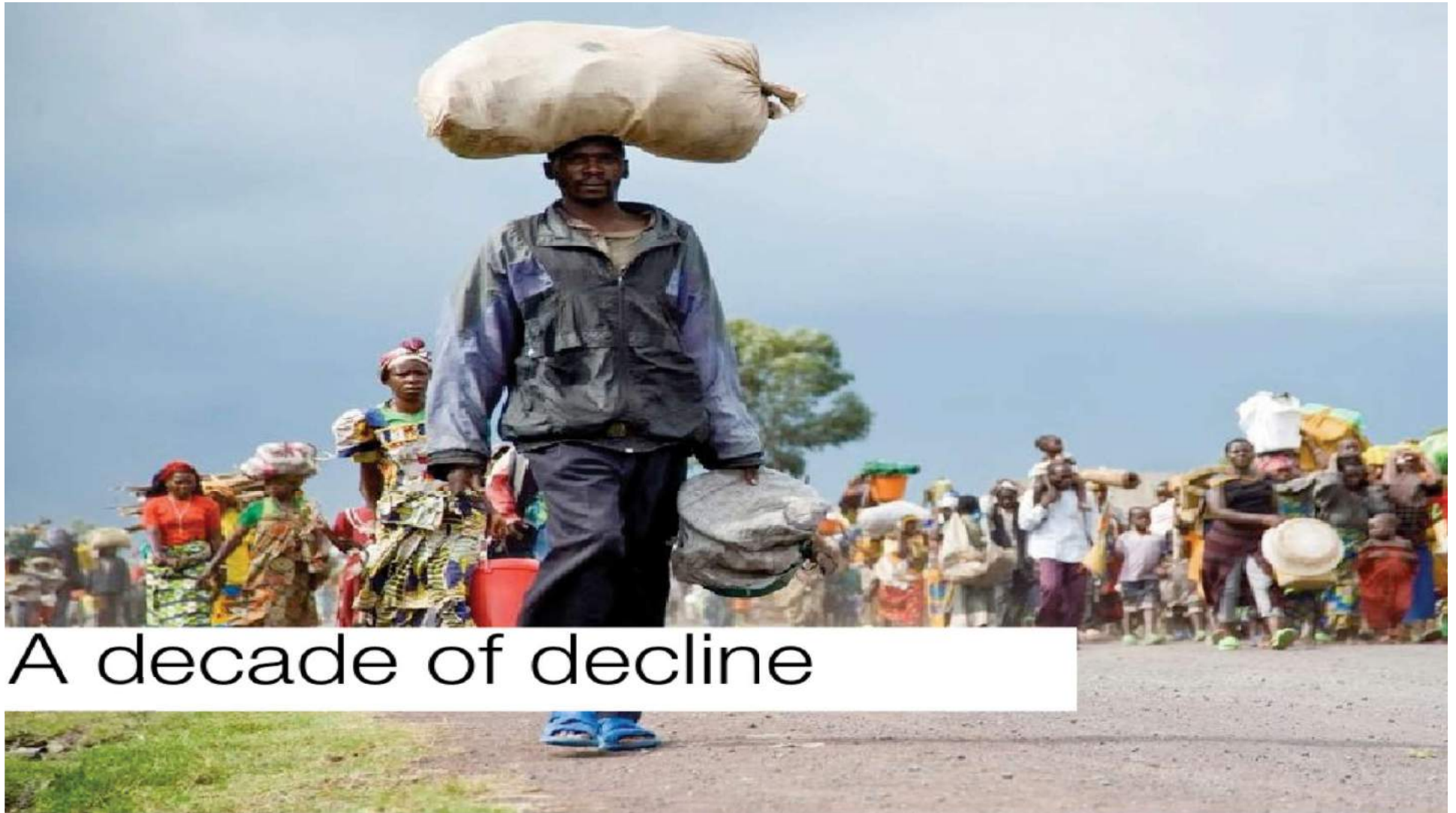
Most in slums





Refugees and newcomers crisis





A decade of decline



Rapid, disruptive climate change





Followed by a devastating blow







Leads a harsh return to self-sufficiency





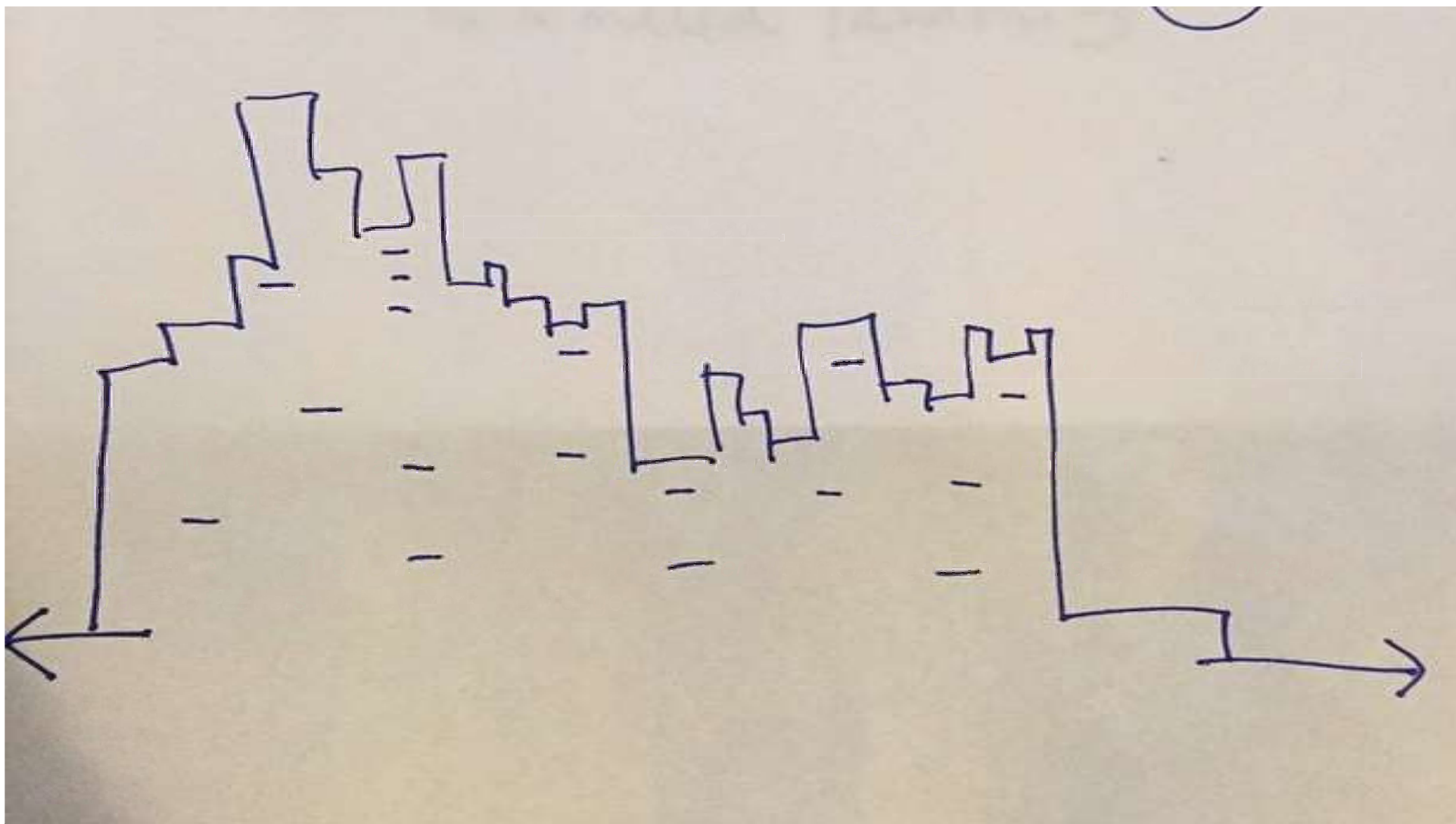


Market failures multiply

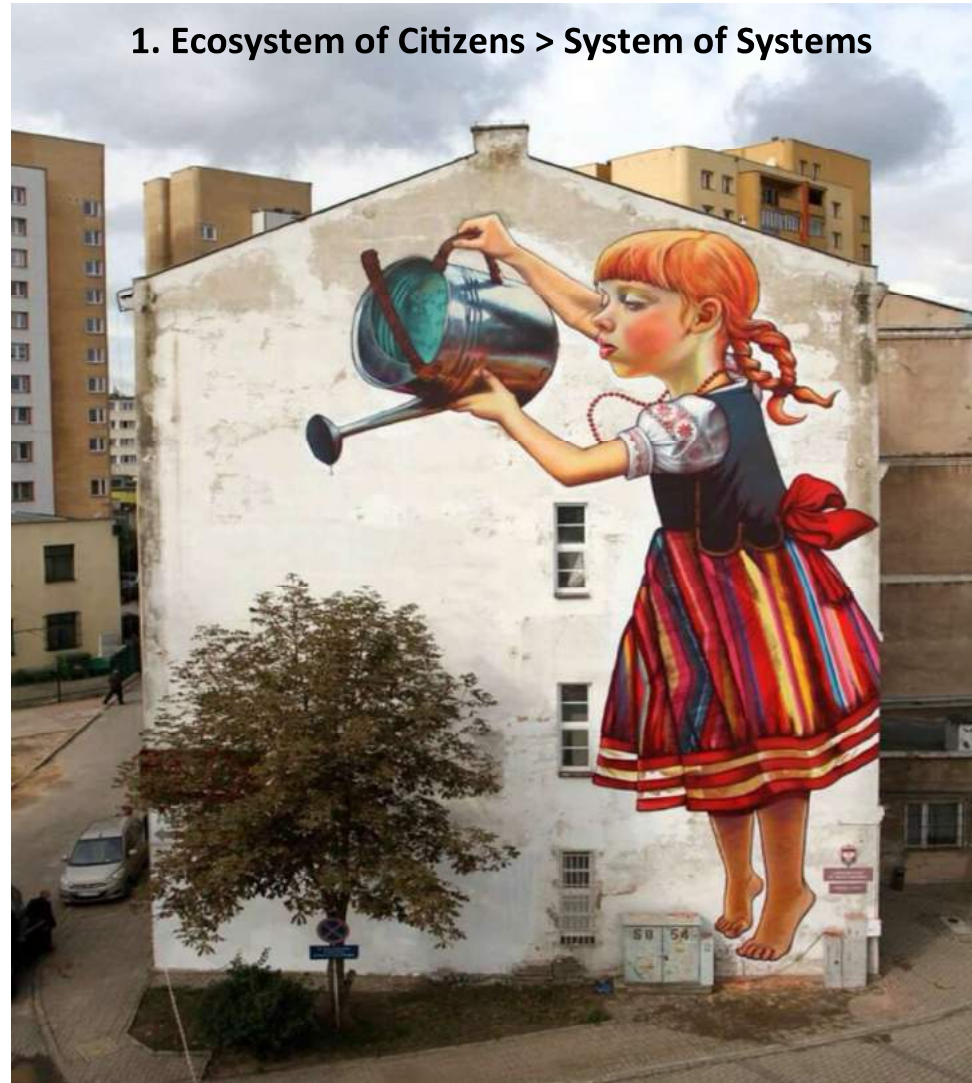








## 1. Ecosystem of Citizens > System of Systems



## 2. The contemporary smart city cannot be JUST reduced...



...to simulation and *datification* of the urban life

### 3. Unplugging Smart Cities







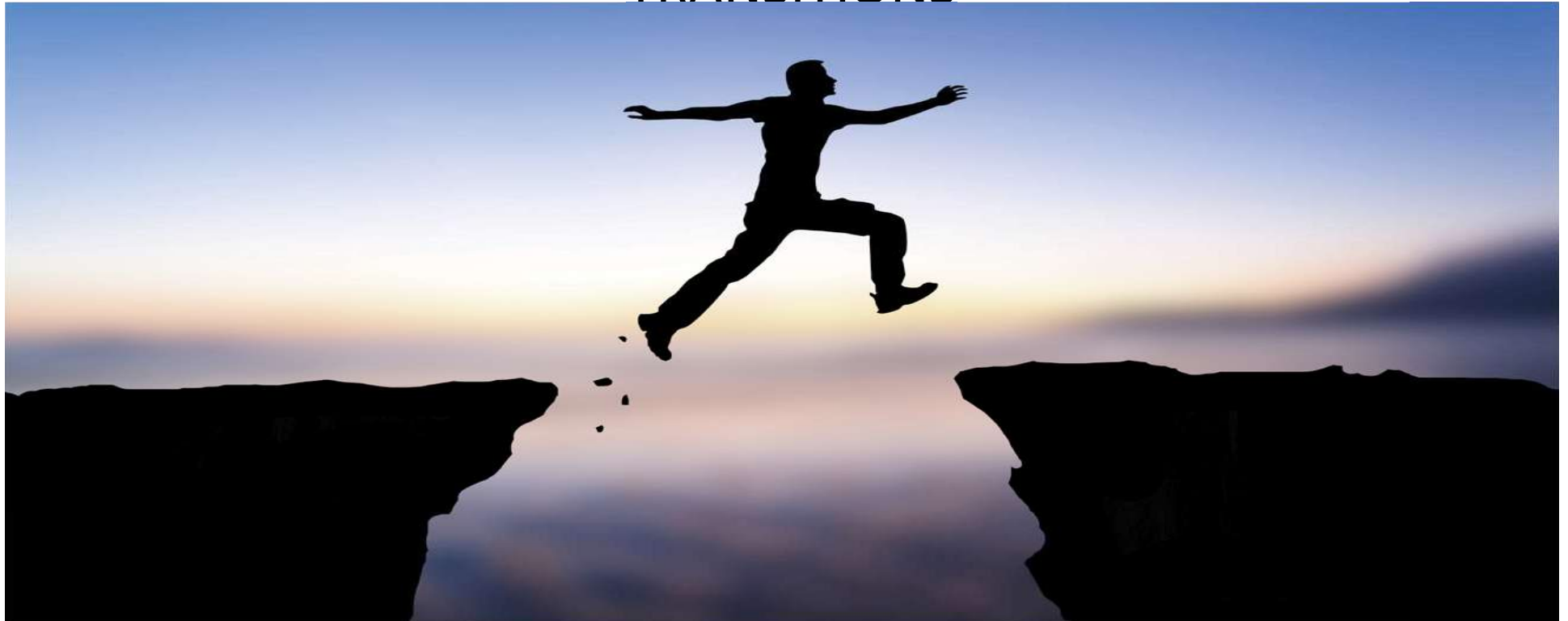


## Beyond **Hyper Connected Societies** >



Need to Deconstruct the **Smart City**

# TRANSITIONS





**To get out from the  
'smart city-in-the-box'  
approach**

## UNPLUGGING 2 notions

- ① Being digitally connected/*plugged in* is no guarantee of being smart (Evans 2002: 34)
- ② Technology is never neutral, and it has the potential and capacity to be used socially and politically for quite different purpose (Williams 1983: 128)





*Journal of Urban Technology*, 2015  
<http://dx.doi.org/10.1080/10630732.2014.971535>

 Routledge  
Taylor & Francis Group

## Unplugging: Deconstructing the Smart City

Igor Calzada and Cristobal Cobo



1788 views

**6th**  
Most  
Read Article

**ABSTRACT** *This paper explores the subtle notion of unplugging to critically analyze the technological determinism of the Smart City. This exploration suggests that being digitally connected should not be perceived as gaining social capital. This article critiques the assumptions of the Smart City and proposes a 10-dimension conceptual framework. The first section of this article explores hyper-connected societies and how unplugging could be beneficial. The main subjects, Digital Natives, are discussed in the second section of this article. The third section is a decalogue on deconstructing the Smart City, and the final section presents key ideas and questions for future analysis.*

**KEYWORDS** *unplugging; social innovation; smart city; hyper-connected societies; digital & social divide*



# **#UNPLUGGING** through **10 TRANSITIONS**





Calzada, I. & Cobo, C. (2015), *Unplugging: Deconstructing the Smart City*,  
Journal of Urban Technology. DOI: 10.1080/10630732.2014.971535

<http://www.tandfonline.com/doi/full/10.1080/10630732.2014.971535#abstract>

**Table 1:** Ten dimensions from the critical social innovation.

	1 WHO	2 HOW	3 SYSTEMS	4 GOVERNANCE	5 INFORMATION	6 WHAT	7 SPACE	8 DESIGN	9 SOCIO-POLITICAL PROCESSES	10 POLITICAL ECONOMY
UNPLUGGING the SMART CITY	Social and Digital Divide	Individualism vs Collectivism	Socio vs Technical Systems	Master Planning vs Emergent Plan and Top Down vs Bottom Up	Overload vs Scarcity	Social Networking vs Social Capital	Context Collapse	Ambient Commons	Control & Normative vs Free & Emergent	Profitable vs Unprofitable
From	High	Individualism vs Collectivism	Artificial	Top Down and Master Planning	Controlled	Interaction	Fragmented	Infrastructure-centered	Control and Normative	Private and Financially
To	Low	Networked Individualism or Neo-communitarianism	Integrated	Bottom Up and Emergent Plan	Open Data	Trust	Contextualized	People-centered	Free and Emergent	Communitarian and Socio-economical



Also in Open Access via @ResearchGate:

[https://www.researchgate.net/publication/289522452\\_AOM\\_Unplugging\\_Deconstructing\\_the\\_Smart\\_City](https://www.researchgate.net/publication/289522452_AOM_Unplugging_Deconstructing_the_Smart_City)

**Defining your smart city  
vision + strategy**

**Integrating processes for  
Smart City Projects**



## EU Projects: Smart City-Regional Comparative International Research

EU Project	Cities involved	Timeframe & Title	Funding Institution
EU-H2020-SCC-1st Lighthouse: <b>REPLICATE</b>	<ul style="list-style-type: none"> <li>Bristol (UK)</li> <li>St Sebastian (ES)</li> <li>Florence (IT)</li> <li>Laussane (CH)</li> <li>Essen (DE)</li> <li>Nilüfer (TR)</li> <li>Bogotá (CO)</li> <li>Guangzhou (CN)</li> </ul>	<p>&lt; 2016-2021 &gt;</p> <p>REinassance of PLaces with Innovative Citizenship And TEchnology</p>	<p><b>EU-H2020-SCC-Lighthouse</b></p> <p><a href="http://www.replicate-project.eu">www.replicate-project.eu</a></p>
EU-Marie Curie Actions-Cofund-Regional Programmes: <b>SMART CITY-REGIONS</b>	<ul style="list-style-type: none"> <li>Bristol (UK)</li> <li>Glasgow (UK)</li> <li>Bilbao (ES)</li> <li>Barcelona (ES)</li> </ul>	<p>&lt; 2015-2016 &gt;</p> <p>Comparing Smart City-Regional Governance Strategies: Bilbao, Barcelona, Bristol &amp; Glasgow</p>	<p><b>EU-FP7</b></p> <p>Marie Curie Actions- Cofund BilbaoMetropoli-30/Bizkaia Province Council</p> <p><a href="http://www.smartcityregions.org">www.smartcityregions.org</a></p>
EU-FP7-314679 <b>STEP UP</b> Smart City Plan	<ul style="list-style-type: none"> <li>Glasgow (UK)</li> <li>Riga (LT)</li> <li>Göteborg (SE)</li> <li>Ghent (BE)</li> </ul>	<p>&lt; 2014-2015 &gt;</p> <p>Energy Planning for Cities</p> <p>*MSc Master in Global Sustainable Cities</p>	<p><b>EU-FP7</b></p> <p><a href="http://www.stepupsmartcities.eu">www.stepupsmartcities.eu</a></p>
EU-FP7-314277- <b>STEEP</b> Smart City Plan	<ul style="list-style-type: none"> <li>Bristol (UK)</li> <li>St Sebastian (ES)</li> <li>Florence (IT)</li> </ul>	<p>&lt; 2014-2015 &gt;</p> <p>Systems Thinking for comprehensive city Efficient Energy Planning</p>	<p><b>EU-FP7</b></p> <p><a href="http://www.smartsteep.eu/">http://www.smartsteep.eu/</a></p>





**STEEP EU-FP7-314277**

***Systems Thinking for comprehensive city Efficient Energy Planning***

**Smart City Master Plan for three EU Cities:**

**St Sebastian (Spain) + Bristol (UK) + Florence (Italy)**





**STEP UP**  
EU-FP7-314679  
*Energy Planning for Cities*  
Smart City Master Plan for four EU Cities:

Glasgow (UK) + Riga (Latvia) + Gothenburg (Sweden) + Ghent (Belgium)

<http://www.stepupsmartcities.eu/>





[www.replicate-project.eu](http://www.replicate-project.eu)

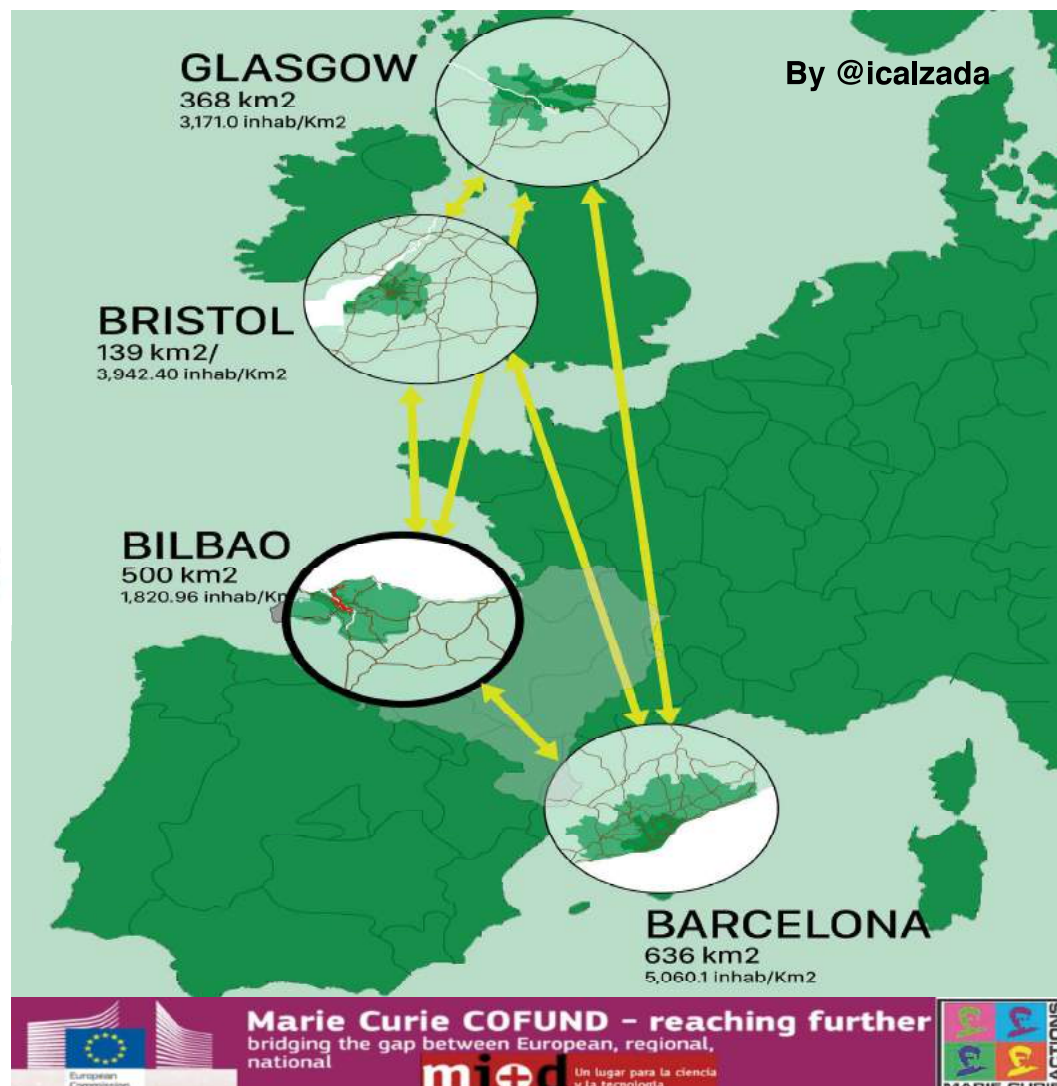
# HORIZON 2020



## REPLICATE

REnaissance of PLaces with Innovative Citizenship And TEchnology

Acronym: REPLICATE  
INNOVATION ACTIONS







**Despite what the glossy websites and videos might suggest...**

**There is less a sense of clear vision around smart:**

**Instead,**

**there is a sense of ‘smart matters’**

**but without any real clarity about**

**why and how, or any certainty about how and why  
to get different groups working together,  
from government departments to civil society groups,  
private companies and ordinary residents**



## DECALOGUE

**Smart City leaders** should:

1. Create a city vision
2. Transform the city's operating model
3. Establish and give priority to a stakeholder engagement programme
4. Take an integrated view of the city's procurement requirements
5. Mapping the city's interoperability needs
6. Empower stakeholder-led service transformation via open platforms
7. Deliver city-led service transformation
8. Embed an approach to privacy management based on citizen-centric trust model
9. Make sure digital and social divide are overcome
10. Establish an economic and social benefit realisation strategy





# **What new roles and skills are required?**



Horizontal authority is considered better than the traditional vertical hierarchy



Interaction of public managers with society is essential

Michelucci *et al.* 2016: 15

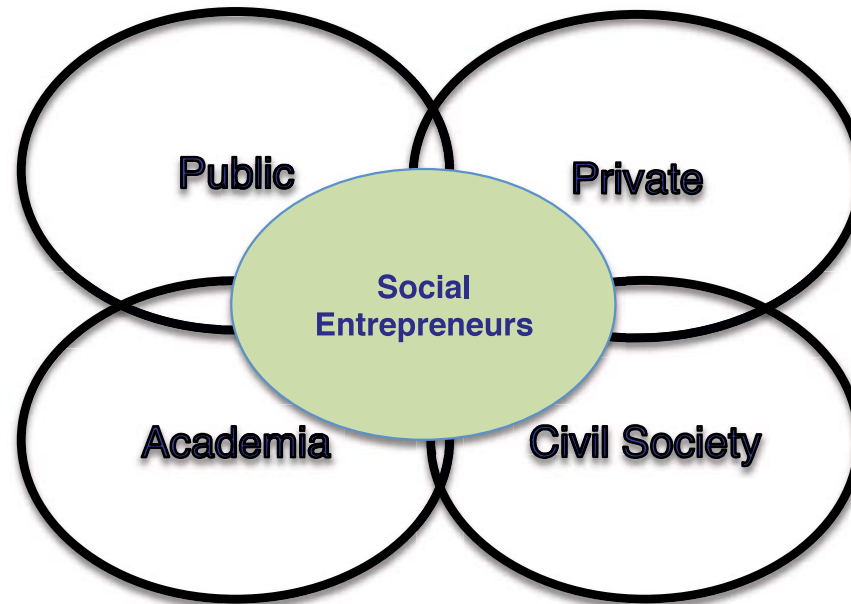
# Creating Smart City Ecosystem through different types of *PPP*?





# 1. PENTA HELIX

By @icalzada



## Multi-Stakeholders



Calzada, I. (2013), Critical Social Innovation in the Smart City era for a City-Regional European Horizon 2020. Journal of Public Policies & Territory P3T. Vol 2, Nº 6 (2013): Social Innovation & Territory. Winter. pp. 1-20.

## 2. URBAN DATA TO DECIDE









# **4. BENCHMARKING: COMPARING SMARTNESS & CITY-TO-CITY CO-CREATION**



# 5. DATA VISUALISATION: RANKINGS & CITY-DASHBOARDS

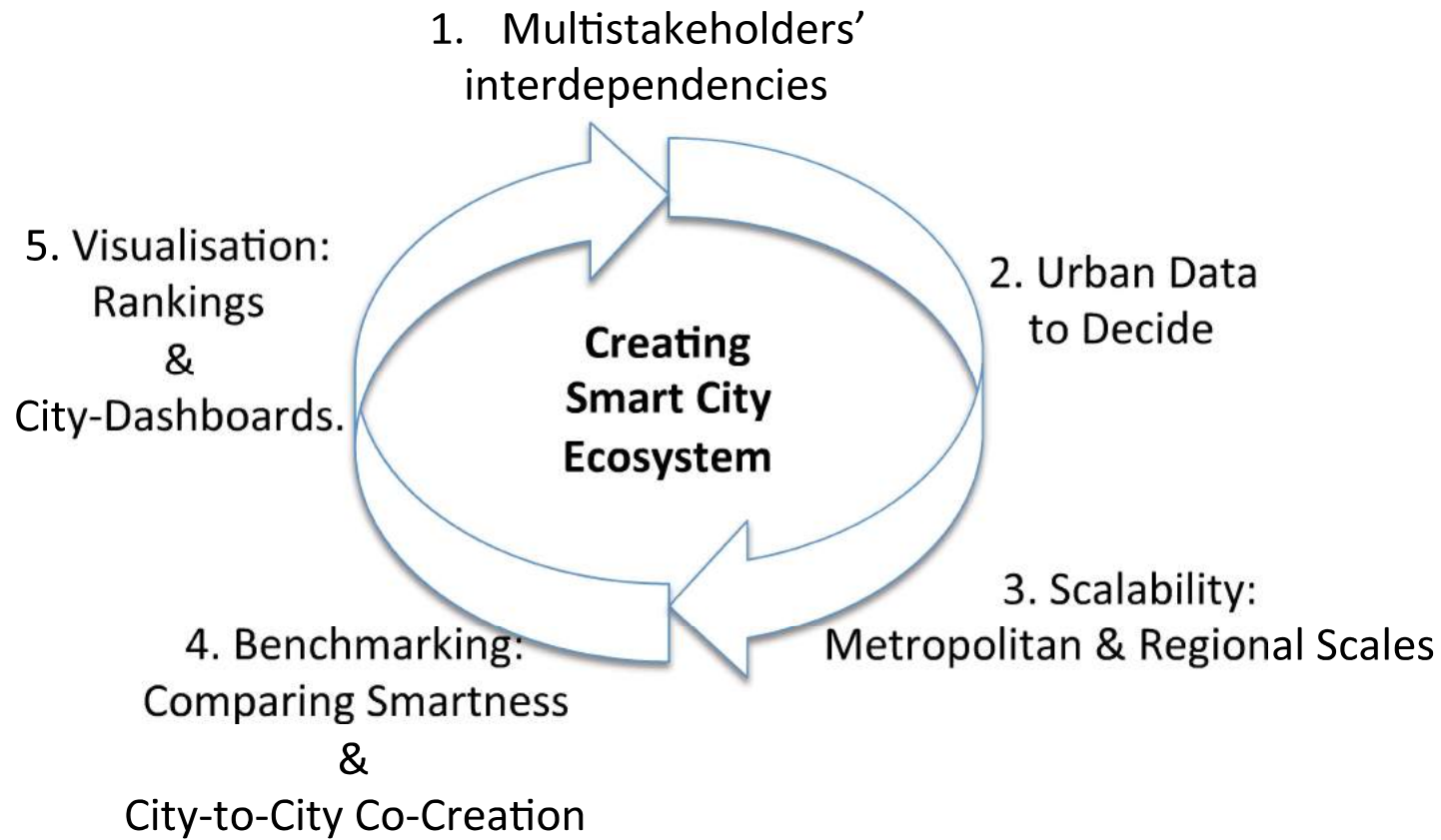
Via @RobKitchin



# Final Remarks

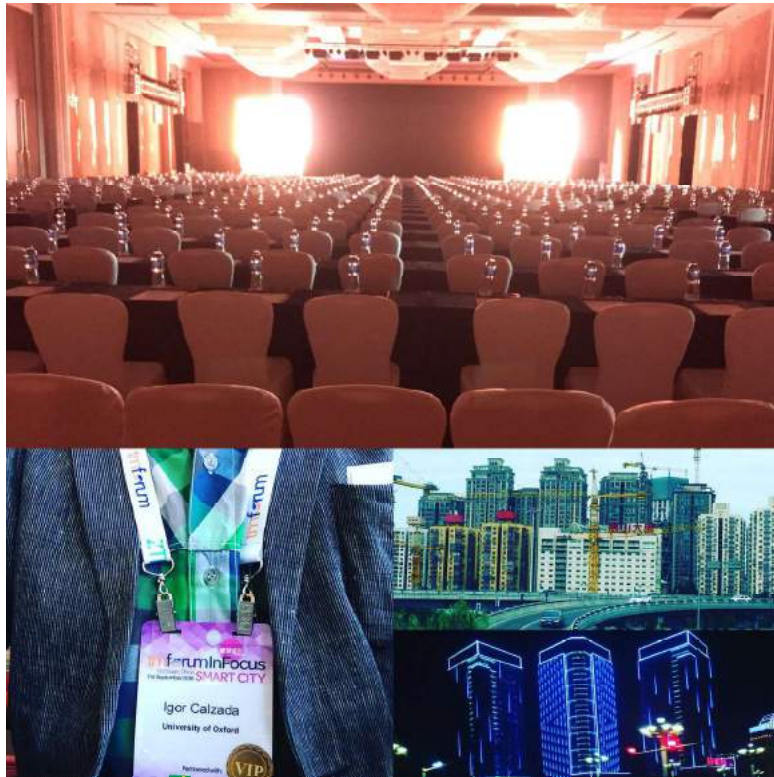
1. Enable interdependencies among stakeholders via Penta Helix
2. The need for democratic mechanisms to manage data
3. The requirement to scale up urban solutions to metropolitan and city-regional levels
4. The intent to provide comparative evidence-based data
5. The tendency to establish not only quantitative but also qualitative rankings and city dashboards that enable adaptation rather than replication





*Glad to discuss on these topics*

1. What prospects are there for alternative funding and business models for smart cities?

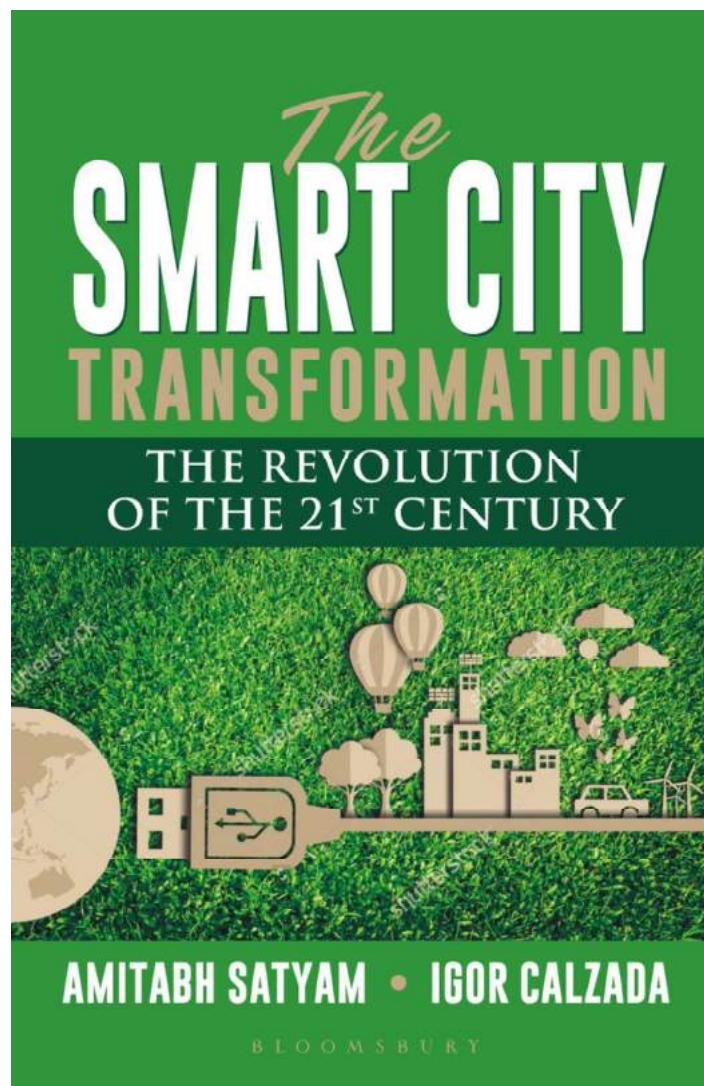


2.  
What  
are  
the  
practical/political  
interventions  
needed  
(within business,  
local government,  
communities,...)?



3. Is another Smart City possible? A *third-way* between State and Market (PPP)?







***Bridging European Urban Transformations***  
**Workshop Series in Brussels 2016-2017**  
**funded by the ESRC**

**(Un)Plugging Data in Smart City-Regions**  
**First Workshop**

Co-organised in partnership by the  
University of Oxford – Urban Transformations  
[www.urbantransformations.ox.ac.uk](http://www.urbantransformations.ox.ac.uk)

&

VUB – Brussels Centre for Urban Studies  
[www.urbanstudies.brussels](http://www.urbanstudies.brussels)

**Date:** 14th November 2016

**Venue:** SMIT ([www.smit.vub.ac.be](http://www.smit.vub.ac.be)) – Vrije Universiteit Brussel, Belgium



谢谢  
Thank you

**Dr Igor Calzada, MBA**

**Urban Transformations & Future of Cities**

**University of Oxford**

@icalzada

[www.igorcalzada.com](http://www.igorcalzada.com)

[igor.calzada@compas.ox.ac.uk](mailto:igor.calzada@compas.ox.ac.uk)

Skype: icalzada

+44 (0) 1865 274687