



Smart Oxford Project Board

(Un)Plugging the 'smartness' in our cities?

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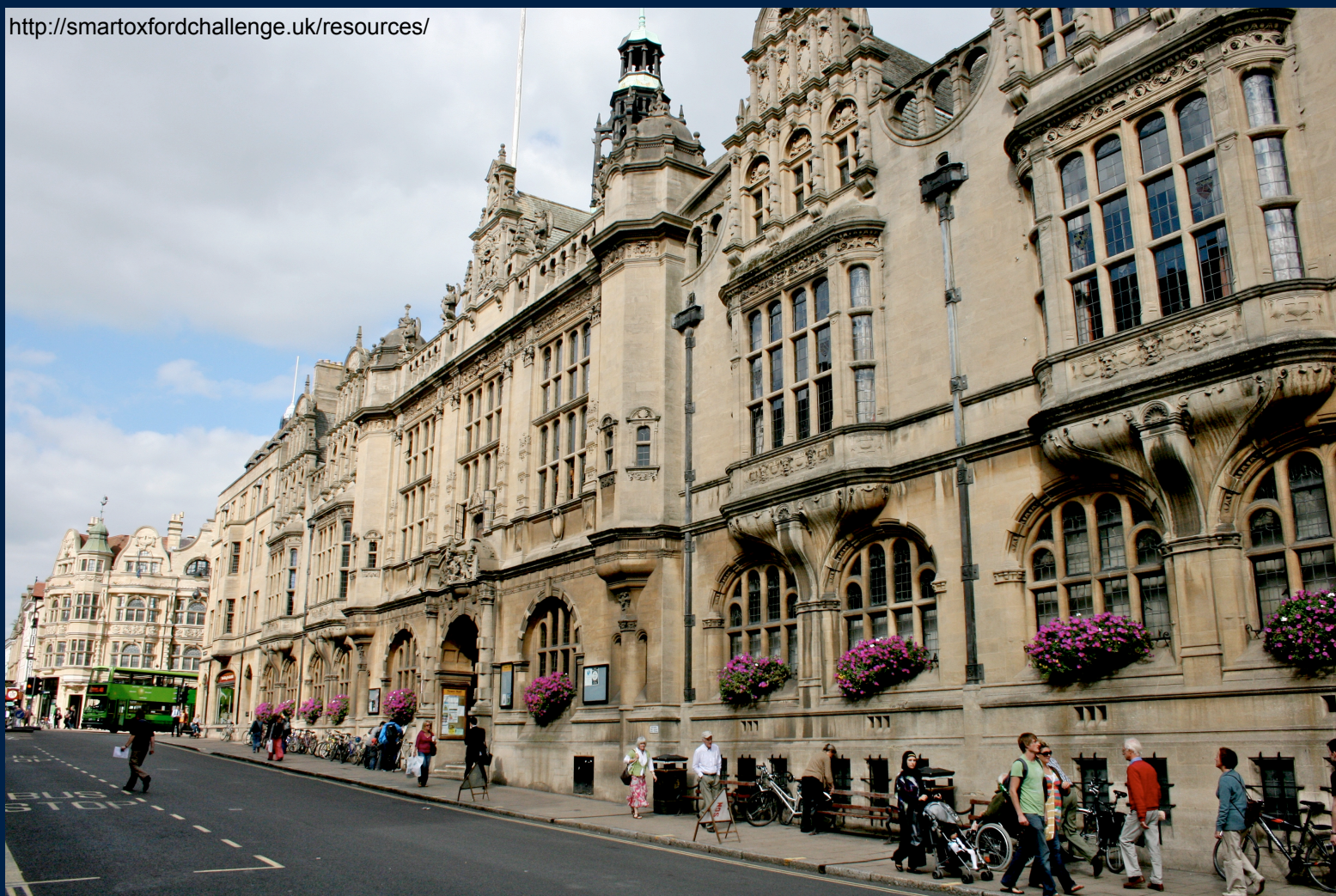
Judges Room, Oxford Town Hall

Oxford (UK) 03/09/2015



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<http://smartoxfordchallenge.uk/resources/>



OUTLINE >

0> Introduction

1> The Challenge:

What does 'smartness' mean for/in 'our' cities?

2> On-going Smart City research

3> On-going Smart City projects

4> Final Conclusions

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0> Introduction: Dr Igor Calzada MBA

[www.igorcalzada.com/about & @icalzada]

1. Since 2012: Future of Cities Programme, University of Oxford (UK)
2. Since 2014: Lecturer in Birmingham & Glasgow (UK).
3. Applied Researcher: Policy Adviser in City-Regional Strategy (EU)
4. Private sector: Project Director at the Mondragon Co-operative Corporation innovation unit and university (6th largest in Spain)
5. Public sector: Worked as Innovation Director in the Basque Regional Government (Spain).
6. PhD in Business: University of Nevada (USA) & Mondragon (Spain).



Our understanding of the urban, whether in theory or practice, stands at a turning point. Cities over the world face complex and rapidly evolving challenges.

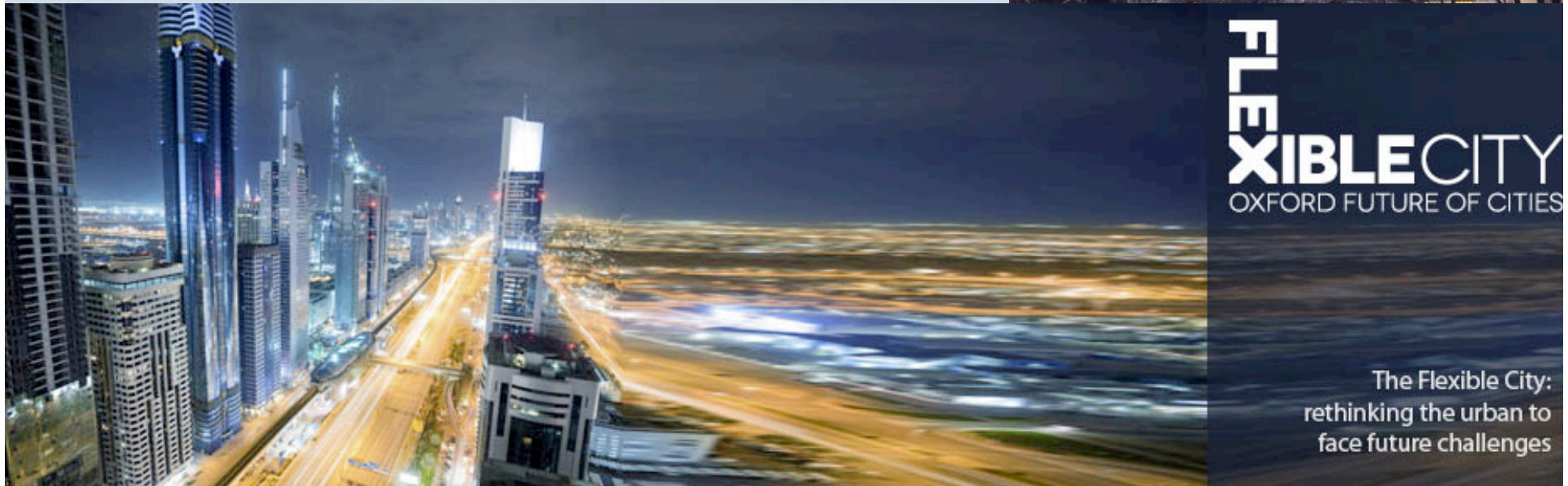
FLEXIBLE CITY
OXFORD FUTURE OF CITIES

0> Introduction: University of Oxford. Future of Cities programme.

2 Research Questions:

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

2> How can these city-networks better respond to not only to their own but also to the global governance and socio-economic challenges?

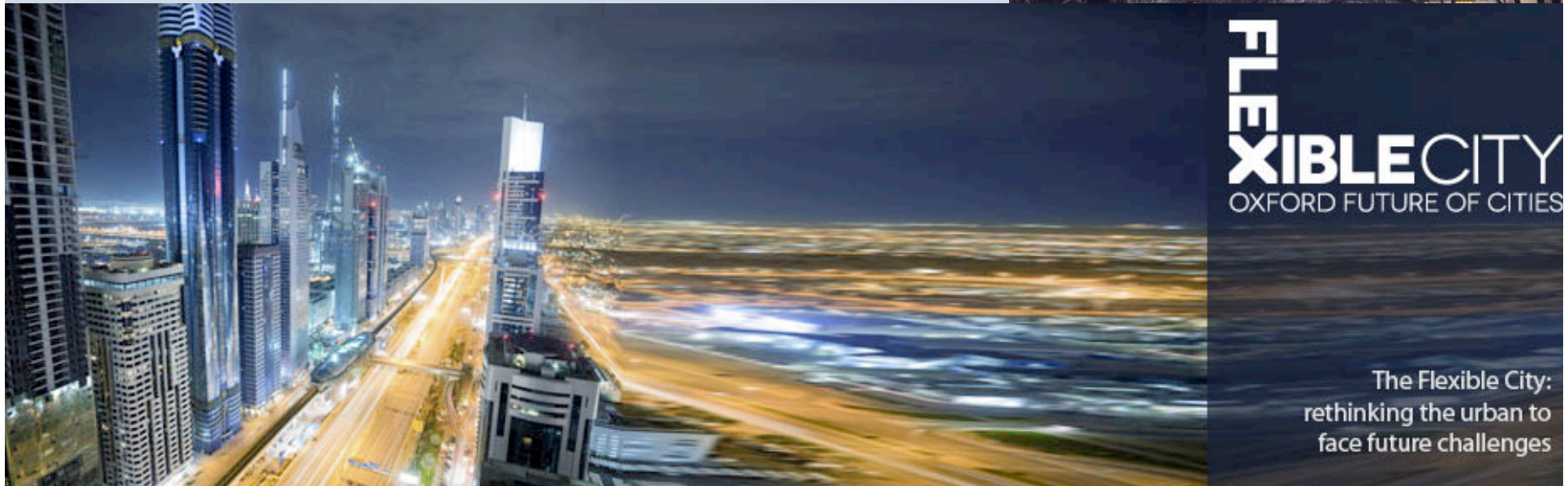


0> Introduction:
University of Oxford. Future of Cities programme.

2 Applied Research Interventions:

1 > City-To-City Learning

2 > Comparing/Benchmarking Smart Cities



FLEXIBLE CITY
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The Flexible City:
rethinking the urban to
face future challenges

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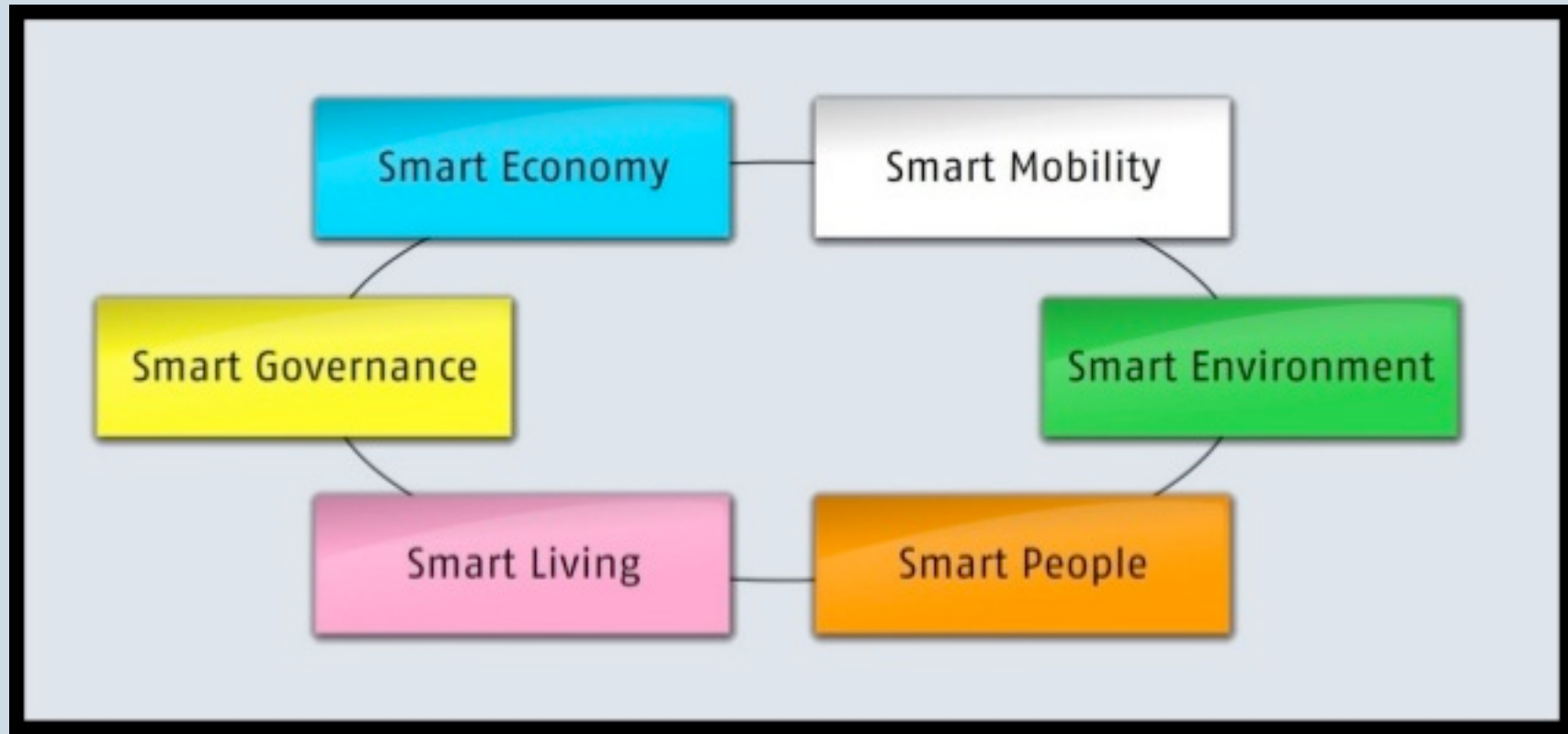
4> Final Conclusions

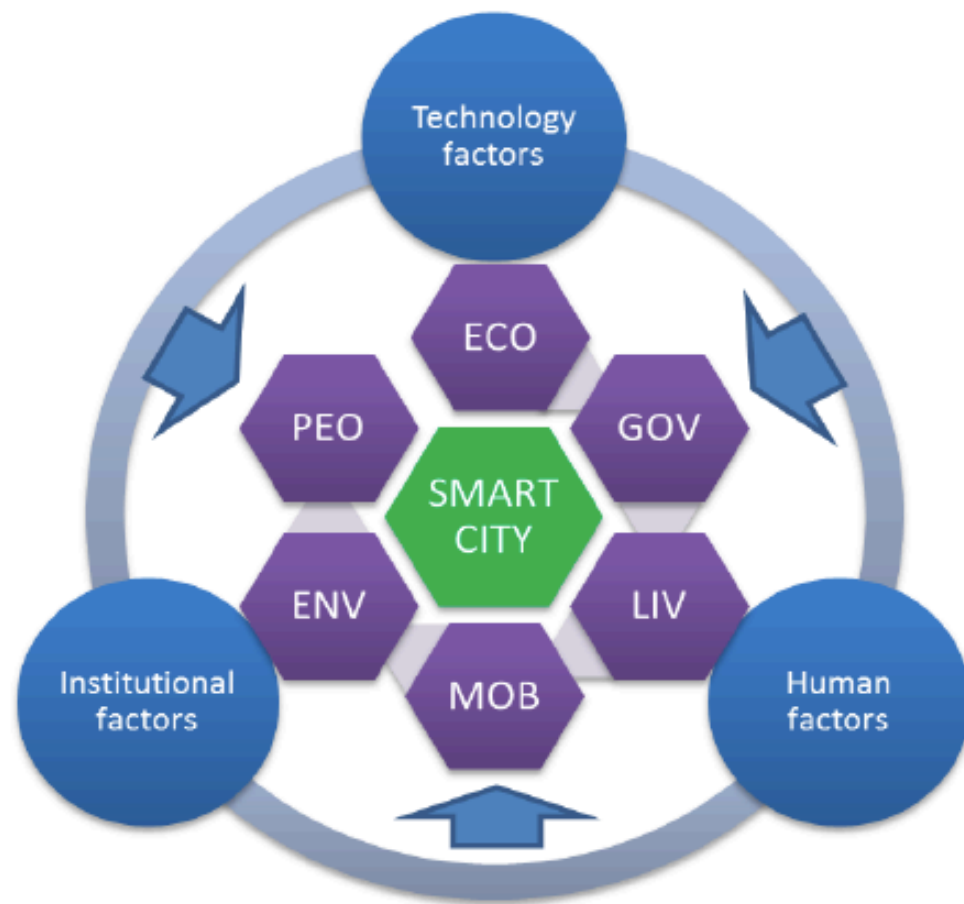
1> The Challenge:

*What does
'smartness' mean
for/in 'our' cities?*

An aerial, isometric view of a city model contained within a transparent, oval-shaped box. The city features a mix of modern skyscrapers, residential buildings, green spaces, and a waterfront with a bridge and wind turbines. The box is set against a light blue background.

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





Smart City Component



Smart City Characteristic



Smart City

ECO – Smart Economy
ENV – Smart Environment
GOV – Smart Government
PEO – Smart People
MOB – Smart Mobility
LIV – Smart Living

An aerial photograph of a city, likely Dubai, showing a mix of modern skyscrapers and older, more densely packed urban areas. The image is split vertically, with the left side showing a more developed urban area and the right side showing a more modern, high-rise area. A large red text overlay is centered across the image.

To unplug the smart city approach

OUTLINE >

0> Introduction

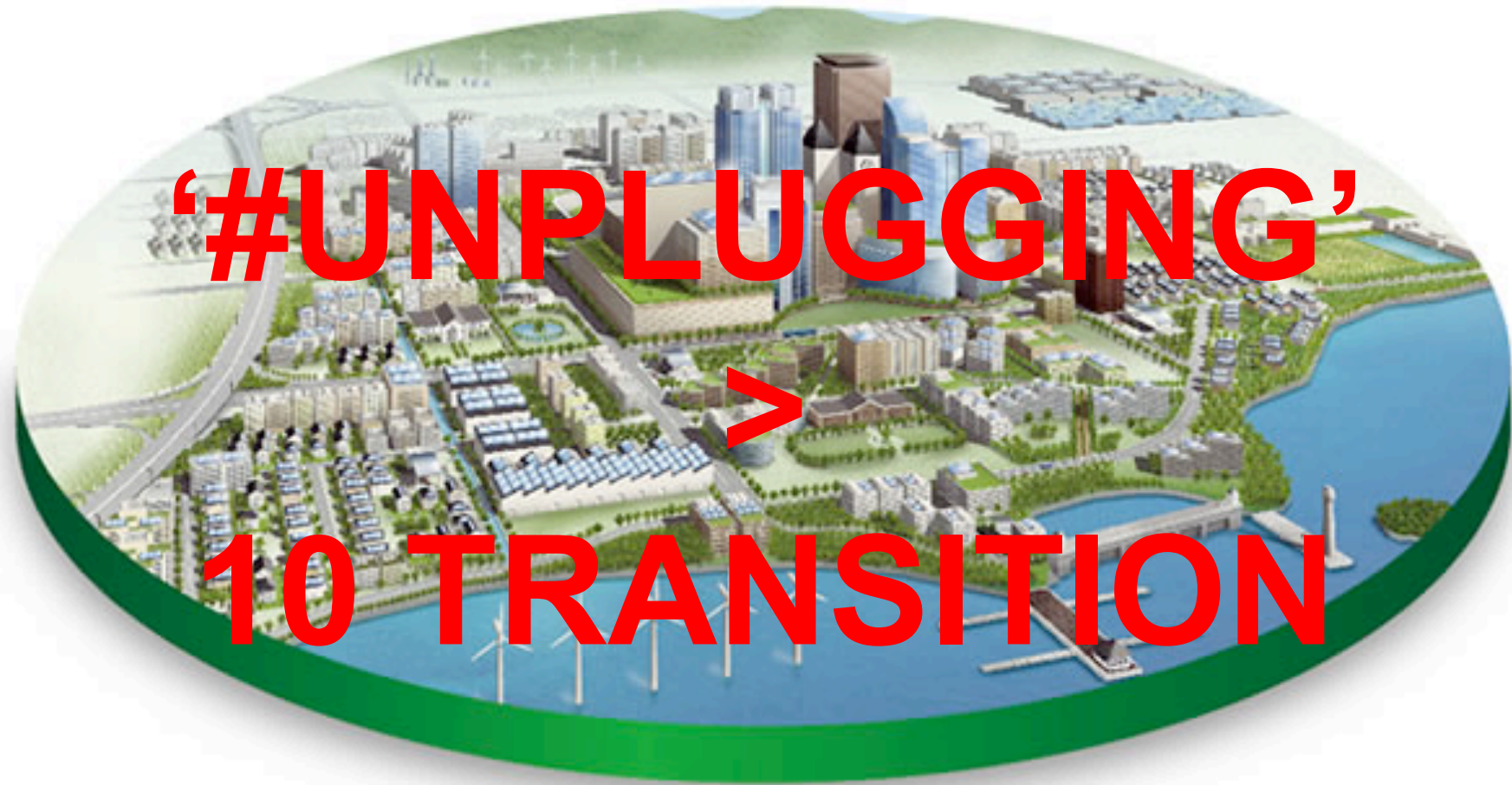
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1. Cities are not isolated 'smart' bubbles, neither merely replicable, pre-programmable & (just) efficient entities.
2. As alive organisms, we should understand their inner technologic, economic and social dynamics, altogether.
3. Thus, we should 'unplug' (to better intervene) them and 'plug' them 'smartly' just after. (Calzada *et. al*, 2015)

UNPLUGGING (preconditions)

- ① Being digitally connected/*#plugged* is no guarantee of being smart (Evans 2002)
- ② Technology is never neutral (Williams 1983)

#UNPLUGGING: Smart City Research

- ① Calzada, I. & Cobo, C. (2014) *Unplugging: Deconstructing the Smart City*, Journal of Urban Technology, <http://dx.doi.org/10.1080/10630732.2014.971535>
- ② The Oxford Research Centre in Humanities Workshop: www.torch.ox.ac.uk/unplugging
- ③ Unplugging Project: www.unplugging.eu
- ④ Re.Work Cities Summit 2014 www.re-work.co/cities
- ⑤ TEDxMontevideo: The Future of Our Cities.
<https://www.youtube.com/watch?v=Z2a6Dmt2MYs>
- ⑥ PechaKucha: Vision of Future Cities. 2015 Sept. Glasgow (UK)
- ⑦ InFocus Smart City Conference 2015 Sept. Yinchuan (China)
- ⑧ Open Innovation Forum 2015 Oct. Moscow (Russia)

1 Who

2 How

3 Systems

4 Governance

5 Information

6 Focus

7 Space

8 Design

9 Socio-Political Processes

10 Political Economy



by Dan Perjovschi

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>

#UNPLUGGING the SMART CITY	1 WHO	2 HOW	3 SYSTEMS	4 GOVERNANCE	5 INFORMATION	6 FOCUS	7 SPACE	8 DESIGN	9 SOCIO- POLITICAL PROCESSES	10 POLITICAL ECONOMY
	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 Non-Profitable
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- communitarianis m	Integrated	Bottom Up and Emergent Plan	Open Data	Trust	Contextualized	People-centered	Free and Emergent	Communitarian and Socio- economical

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

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*



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UNPLUGGING

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#Unplugging > Beyond Hyper-Connected Societies.

Keywords: Unplugging, Digital Humanities, Cross-disciplinary Research, Social Networks, Social Capital, Smart City, Social Innovation, Networked Individualism, Liquid and Networked Society, Public Space and Millennials.

- To congregate scholars from Digital Humanities, OII, FoC, InSIS, COMPAS, Oxford Martin School, Säid Business School, Sustainable Urban Development Programme Oxford, Transport Unit and Environmental Change Institute, among others, generating a dialogue between individual academics and communities interested in critically analyzing the social implications of the hyper-connected society.
- To facilitate networking and face-to-face conversations to stimulate a live exchange between researchers and individuals with an interest in understanding the side effects of the internet and other socio-technical factors in everyday life.

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by [Dan Perjovschi](#)

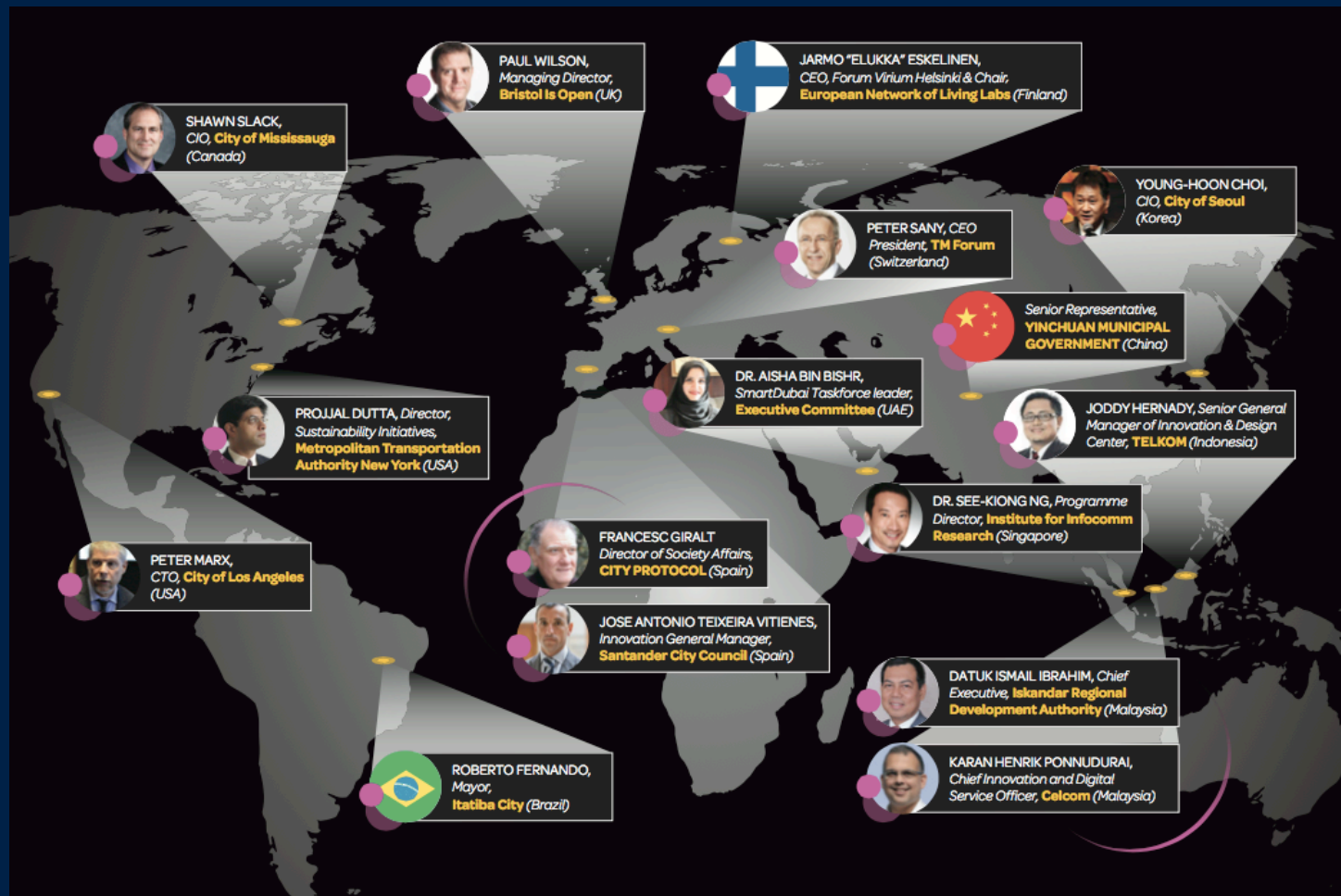
#Unplugging >

中国
智慧城市

tmforumInFocus SMART CITY



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OPEN INNOVATIONS 2015

October 28 – November 1, 2015
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Core Principles of the Research Methodology:

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Lighthouse Cities

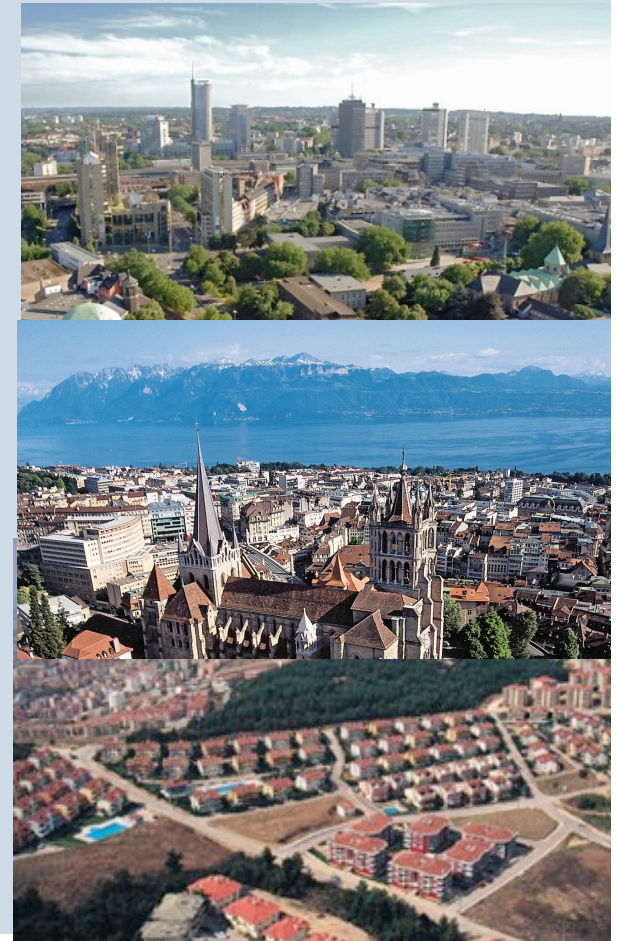


Principles 1:

City-to-City
Replicability
based on:

- 1> Adaptability**
- 2> Scalability**
- &**
- 3> Singularity**

Follower Cities



Core Principles of the Research Methodology:

PRINCIPLE 2:



Qualitative factors as critical as Quantitatives

Core Principles of the Research Methodology: **PRINCIPLE 3:**

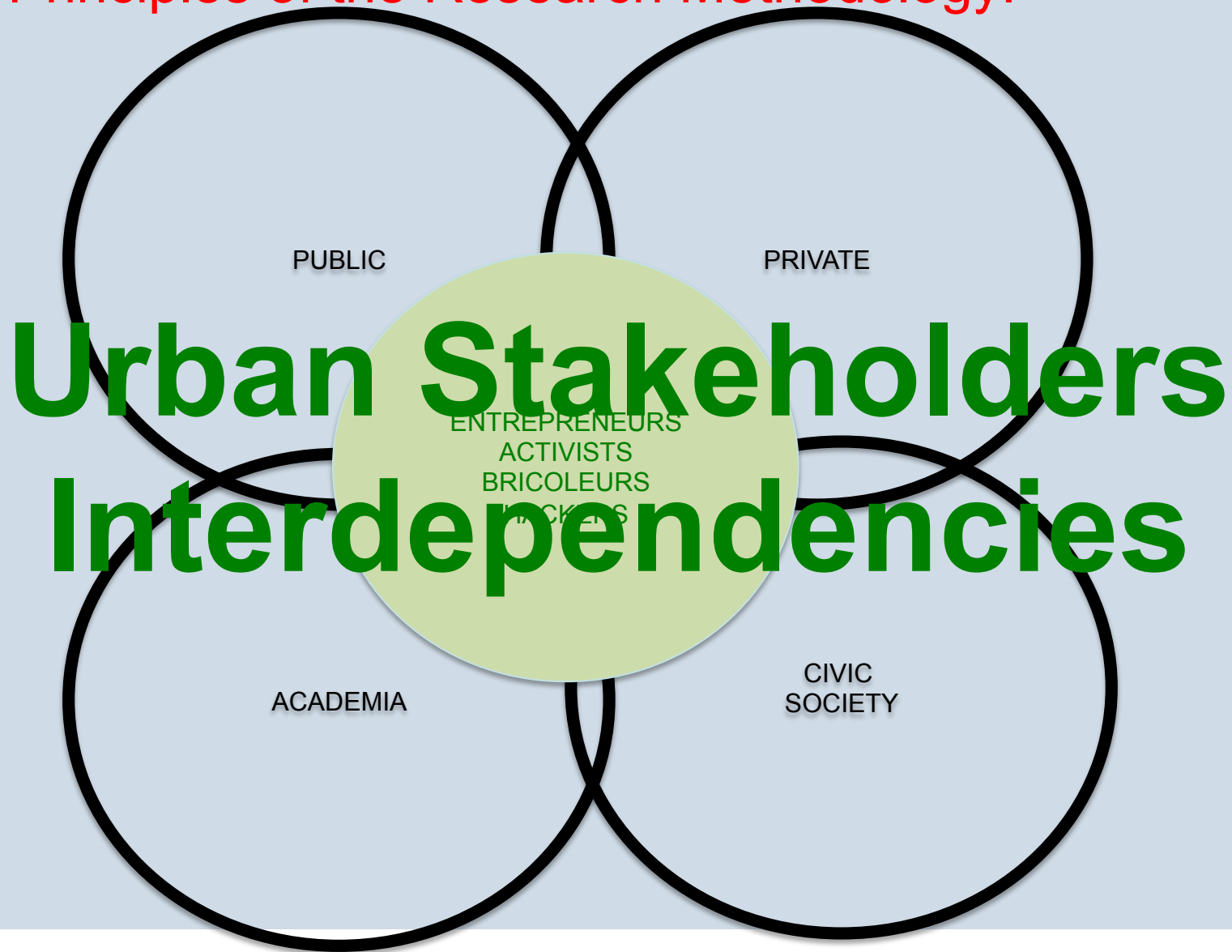
Mapping Smart Cities in the EU

Table 18: Overview of the characteristics and impacts of generic Smart City solutions

Solution category	Smart City solution	Where implemented	Keywords	Impacts	Cost recovery
Transport and Mobility	Smart cycling plans	Copenhagen, Paris, London	Cycle sharing, social sensors, electric bikes, smart cards	CO ₂ emissions reduction, healthy living	Short to medium term
	Integrated multi-modal transport	Copenhagen, London, Helsinki, Glasgow, Hamburg, Tallinn, Milan, Dublin, Ljubljana	Smart tickets, multi-modal travel, travel information and routing, sharing	CO ₂ emissions reduction through congestion reduction, increased public transport, enhanced transport and competitiveness	Short to medium term
	Smart Traffic flow system	Barcelona, Eindhoven	Smart vehicle routing, Smart Mobility, sensors, tracking	CO ₂ reduction by reducing travel and transit times, enhanced traffic flow due to decrease in travel time	Medium term
Building Technologies	Smart building technology and management	Amsterdam, Helsinki, Bremen	Smart and green building technology, demonstrators, Smart plugs, light emitting diode (LED), sensors, room climate	Reduced energy consumption, CO ₂ reduction, awareness	Short to medium term
	Smart city lighting	Barcelona, Milan	Street lighting, sensors, central monitoring, LED	Reduced energy consumption, CO ₂ safety	Short to medium term
Smart Governance	Smart open services platforms	Barcelona, Helsinki, Copenhagen, Malmö, Amsterdam, Dublin	Open services, open data, integrated transport solutions, Smart tickets, mobile apps	Reduced CO ₂ , active services, information reuse with knock-on effects on environment and energy, jobs and economic growth	Short to medium term
	Single access points for government services –	Barcelona, Manchester	eGov, single services window, online government portals	Reduced CO ₂ , reduced travel to municipal offices	Short to medium term
	Local integrated sustainability initiatives	Amsterdam, Barcelona, Cologne	Local, Smart Energy management, monitoring and user feedback, self organisation, local coordination	Reduced CO ₂ through reduced energy consumption, democracy, inclusion	Short to medium term

The same
Urban Solution with
the same impact,
everywhere?

Core Principles of the Research Methodology: **PRINCIPLE 4:**



Core Principles of the Research Methodology:

- ① City-to-city Replicability based on:
 - ① Adaptability
 - ② Scalability
 - ③ Singularity
- ② Qualitative as relevant as Quantitative
- ③ Same Urban Solutions may have diverse Impacts.
- ④ Plugging Urban Stakeholders' Interdependency:
Penta Helix.
- ⑤ Grounded research tasks.

Project	Cities involved	Timeframe & Tittle	Funding institutions
EU-FP7-314277- STEEP Smart City Plan	• Bristol (UK) • St Sebastian (SP) • Florence (IT)	2014-2015: Systems Thinking for comprehensive city Efficient Energy Planning Smart City Master Plan.	EU-FP7 http://www.smartsteep.eu/
EU-FP7-314679 STEP UP Smart City Plan	• Glasgow (UK) • Riga (Latvia) • Gothenburg (Sweden) • Ghent (Belgium)	2014-2015: Energy Planning for Cities Smart City Master Plan. MSc Master in Global Sustainable Cities.	EU-FP7 www.stepupsmartcities.eu/
EU-H2020SCC-Lighthouse. REPLICATE	• Bristol (UK) • St Sebastian (SP) • Florence (IT) • Laussane (SW) • Essen (DE) • Nilüfer (TK)	2015-2020: REinassance of PLaces with Innovative Citizenship And TEchnology'.	EU-H2020-SCC
EU-Marie Curie Actions- Cofund-Regional Programmes	• Bristol (UK) • Glasgow (UK) • Bilbao (SP) • Barcelona (SP)	2015-2016: Comparing Smart City-Regional Governance Strategies: Bilbao, Barcelona, Bristol & Glasgow'.	EU-Marie Curie Actions- Cofund
Innovate UK	• []	[]	Innovate UK Malasya
NESTA	• []	[]	EU-Smart Cities, design for succesful innovation ecosystems
ESADE Business School	• []	[]	EU-Marie Curie Actions-IF

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Final Conclusions (7)

1. We need more 'big' methodologies, not more big data.
2. Work out what problems need fixing.
3. Find collective leaderships.
4. The tech is probably the easiest bit to fix: Who pays, who drives the changes, who should be involved?
5. Share data to foster an ecosystem for innovation in cities. (Barcelona > <http://innovation.300000kms.net/>)
6. Design from the bottom up: How?
7. Get urban stakeholders on board (Penta Helix)

Thanks for your attention

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