



Smart Technologies & Public Participation in Transport Planning

- who's in control and who is it for?

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Technology in cities is nothing new

- 100+ years ago the disruptive influence of the car transformed and shaped our cities.
- At first people were sceptical, but then we all wanted one.
- We now realise this was a bad move as we try to re-plan our cities less reliant on oil
 - e.g. car free Hamburg 20 year plan

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My starting point



- Proponents of the smart city suggest that it offers a more equal playing field for engagement in emerging governance systems through access to dynamic Internet-enabled services.
- **BUT**, the biggest challenge for cities is to realise that not everyone is getting equal access to the skills and opportunities that are claimed by some, yet many cities continue to promote *their* smartness and are spending vast amount of money on it.
 - an urban strategy deployed by cities seeking to succeed in a global economy
 - the relationship between ICTs and globalisation make this kind of strategy a “no brainer” for cities
 - for cities “digital” has become a buzzword much like “sustainable”
- Many cities are being influenced by corporate IT agendas
 - most City I(C)T departments are outsourced
 - lack of internal knowledge in cities/LAs about ICT

What is a smart city?

- *"The 'smart city' has displaced the 'sustainable city' and 'digital city' as the word of choice to denote ICT-led urban innovation, and new modes of governance and urban citizenship."*

Moir et al p.4, 2014

- *"The smart city can be understood as an urban strategy that seeks advanced technological solutions to the pressing issues facing policymakers today"*
- *"smart cities can be understood as marketplaces for technology products and services"*

Viitanen & Kingston, p.803 & 804 2014

- see <http://youtu.be/f4hSoZXsp54> for a typical example from Barcelona

Will the real smart city please stand up?

- Holland (2009, 315) states "*progressive smart cities must seriously start with people and the human capital side of the equation, rather than blindly believing that IT itself can automatically transform and improve cities.*"
- Mainly the Smart City caters for the rich, mobile, creative business people, through the creation of informational portals and services, connections to services through smart phones/tablets but simultaneously ignores the welfare needs of its poorer residents (Graham, 2002).

3 broad smart city categories

- Technologically deterministic?
 - it's all about the technology – led by multinationals
 - social construction of technology
- Place marketing/branding?
 - it's all about inward investment
- Improving the places where we live?
 - it's all about the people - liveability
 - people, places, communities

Two approaches

The new (experiments)

- Songdo City, S. Korea
- Masdar City, UAE (90,000)
- PlanIT Valley, Portugal (150,000)

The retrofit

- Rio de Janeiro
- Barcelona
- Amsterdam
- New York
- Manchester...?



So who controls the smart city?

“For smart cities to succeed they need to be more than instrumented, interconnected and intelligent. They also need collaborative leaders who will lead by listening.”

—Sam Palmisano, October 1, 2009, SmarterCities New York



Is this any different to what cities try to do anyway?




- But, who are they collaborating with and who are the leaders listening to?
- What and where is the role for ordinary citizens here?

What is being controlled in the smart city?

- This is not just about city services
 - cynical view would be commercial gain by big corporates
 - upbeat view would be commercial companies can push down cost and drive efficiency
 - this creates a market-place integrating ICTs with city development
 - views people primarily as consumers rather than citizens (Viitanen and Kingston, 2014)
- Top down business as usual or bottom up grassroots hacktivists?

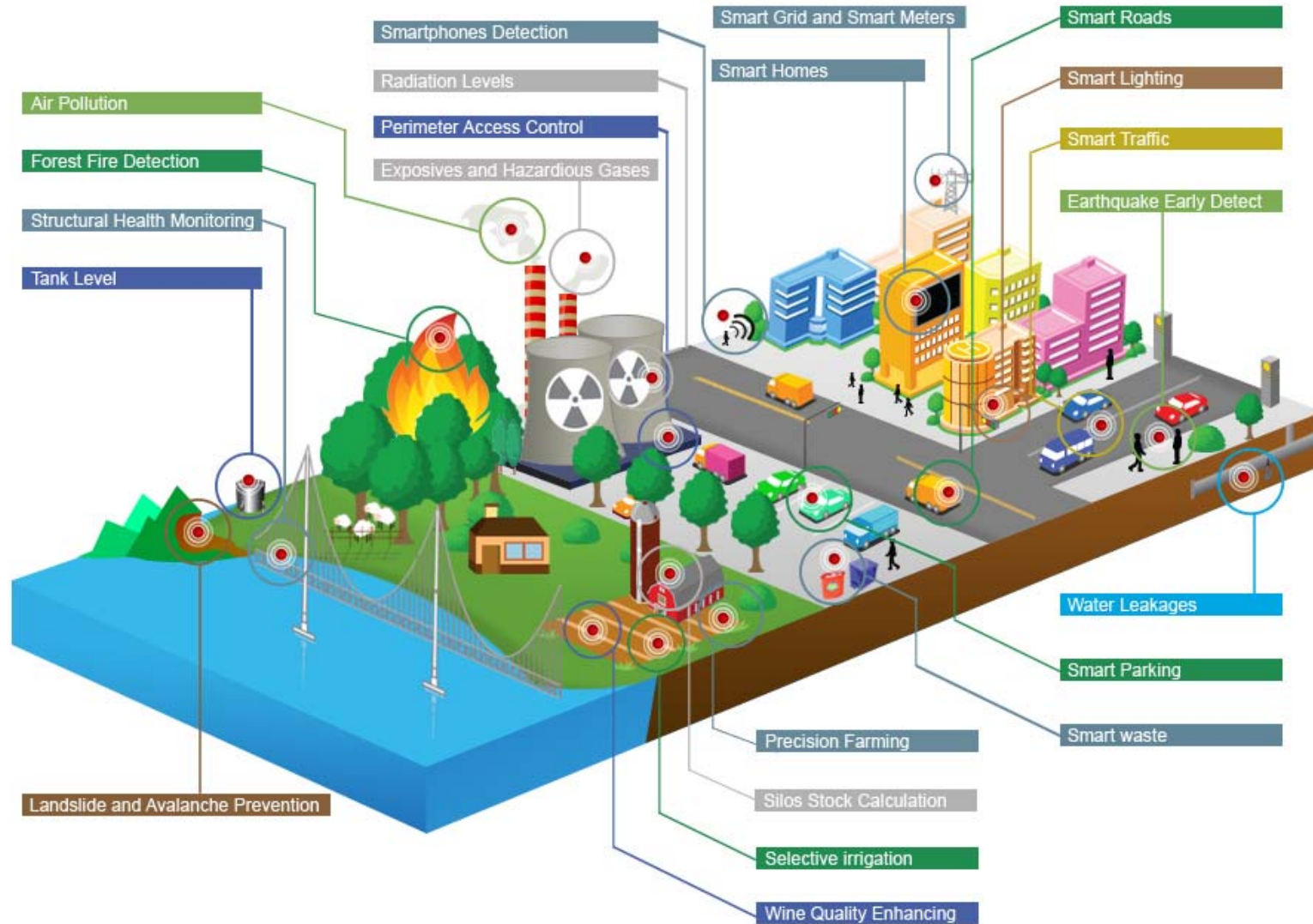


Commercially led

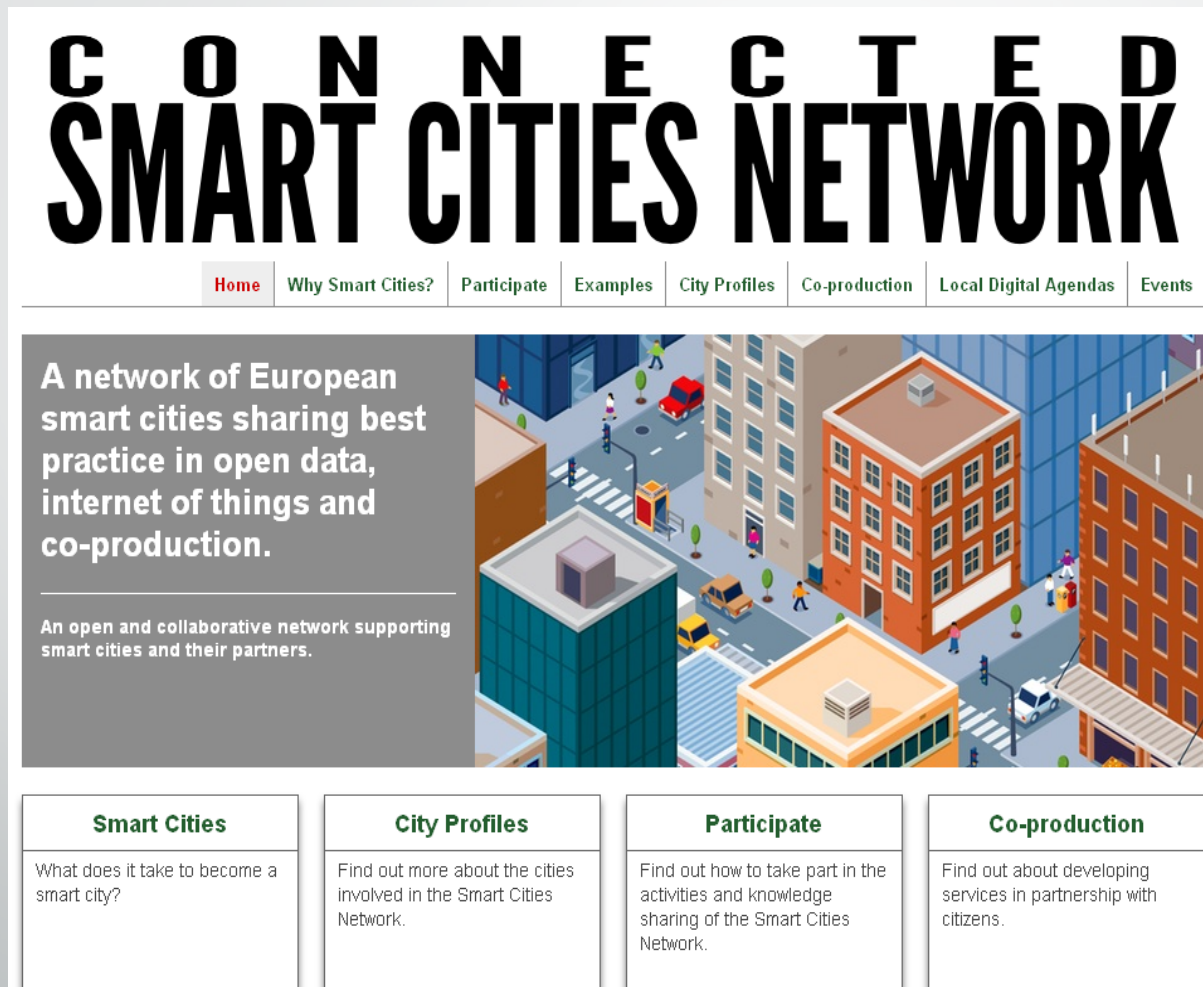
- As world populations shift to urban areas, community leaders are pressed for answers to related problems. These include overcrowding, pollution, budget and resource constraints, inadequate infrastructures, and the need for continuing growth. ...x...’s solutions use intelligent networking capabilities to bring together people, services, community assets, and information to help community leaders address these world challenges. By connecting the unconnected, we can do amazing things to address these real world challenges and create a more sustainable environment.” 
- “By 2050, cities will be home to more than 75% of the world’s population, and wield more economic power and have access to more advanced technological capabilities than ever before. Simultaneously, cities are struggling with a wide range of challenges – to their finances, and to their ability to deliver services in areas as diverse as transportation, energy, clean water, education, social services, public safety and economic development.” 
- “The world’s urban populations will grow by an estimated 2.3 billion over the next 40 years, and as much as 70% of the world’s population will live in cities by 2050. This catches the planet between the pressures of global warming and population explosion: cities consume 75% of the world’s energy and produce 80% of its GHGs. The concept of the smart city is a framework for a particular vision of modern urban development that recognizes the growing importance of ICTs — broadly characterized here as “networks” — in driving economic competitiveness, environmental sustainability and general liveability.” 

The instrumented city

Letantos Smart World



Sharing knowledge and experiences




**C O N N E C T E D
SMART CITIES NETWORK**

[Home](#) [Why Smart Cities?](#) [Participate](#) [Examples](#) [City Profiles](#) [Co-production](#) [Local Digital Agendas](#) [Events](#)

A network of European smart cities sharing best practice in open data, internet of things and co-production.

An open and collaborative network supporting smart cities and their partners.



Smart Cities	City Profiles	Participate	Co-production
What does it take to become a smart city?	Find out more about the cities involved in the Smart Cities Network.	Find out how to take part in the activities and knowledge sharing of the Smart Cities Network.	Find out about developing services in partnership with citizens.

Public vs. Private

- *"the private sector does not comprehend how its technologies fit into this complex environment because it tends to view cities as just physical structures upon which to add ICT."*

CISCO, 2012

- **BUT**, most cities lost nearly all of their internal IT expertise to judge the value of smart city technologies
 - so how can cities make an informed judgement?

Publicly led with corporate backstabbing

- Birmingham City Council successfully applied for £10 million of government funding under the 'Super-Connected Cities Project'
 - investment to increase broadband speeds in 20 cities
- However, because council secured funding from public sector to introduce services intended to compete with the private sector, it required approval from the European Commission under state-aid rules
- Similar story in Manchester...

BT and Virgin oppose Birmingham broadband plan

22 OCTOBER 2012

Virgin Media and BT are pursuing legal action against Birmingham City Council's proposal to build its own city-wide fibre-optic network

Virgin Media and BT have appealed a decision by the European Commission (EC) to allow Birmingham City Council to build its own city-wide fibre-optic broadband network.

This summer, Birmingham City Council successfully applied for £10 million of the £150 million the government is making available as part of its 'Super-Connected Cities Project', which is to be invested in increasing broadband speeds in 20 cities.

However, because the council secured the funding from the public sector to introduce



Virgin Media and BT are taking legal action against Birmingham City Council

The Manchester way... putting people at the centre

Co-production across themes	Smart engagement	Smart environments	Smart mobility
Recognizing people as assets	Consumers of data & apps to producers of data & apps, e.g. participatory budgeting with citizens moving from personal budgeting to public/civic budgeting	Citizens as sensors and sensing networks	People mapping themselves 'on the move'
Valuing work differently	Citizens as active co-creators in analysing the needs of local communities	People engaged in environmental improvements on an equal basis with professionals	People maps as a tool in improving mobility planning and delivery
Promoting reciprocity	Service efficiencies creating new community investment funds	Citizens being resourced to improve the quality of life	Incentivising greener and more effective ways of improving mobility
Building social networks	Developing new social capital New collaborative approaches to holistic planning including a citizens data aggregator resource management	Identifying and activating citizens' capacity	Creating innovative new mobility possibilities

SmartiP

- The SMARTiP project started from the premise that the development of services in **smart cities should** be driven by conscious efforts to ensure that digital technologies are used to **improve living and working conditions and the overall quality of life**, so that, in doing so, a more inclusive and sustainable urban environment can be developed. One of the main objectives of this approach has been to develop user-driven open innovation in ways which maximise the active engagement of users and citizens thus enabling the co-creation and co-production of new services.
 - Smart engagement
 - Smart environments
 - Smart mobility

Smart Environments

- Real time data collector as a wearable device
 - <https://vimeo.com/10401896>
- Trialling such approaches in the 'corridor'
 - UoM's living lab
 - using Pachube and Zigbee Wasmote wireless sensors to map in real time via data dashboards



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Smart Engagement

- Need to understand *how* smart city approaches can support, possibly reinvigorate community engagement – learning about what works
- We can shift the focus of the smart city towards the citizen, community and neighbourhood
- Our current approach to this is '*gamification*' as a method of engagement with communities, for communities
 - can create a sense of belonging to community
 - leads to ownership & interest in their community
 - revealed that the games were successful in increasing the 'play' factor in participatory approaches



<http://www.smart-ip.eu/>



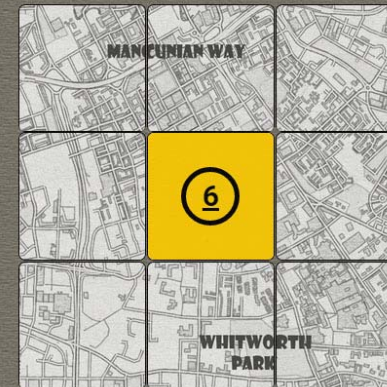
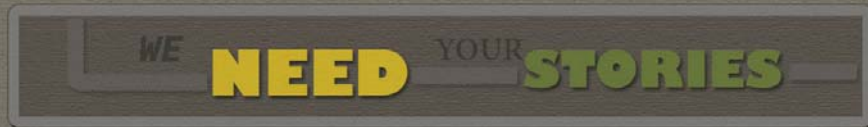
Gamification in the smart city



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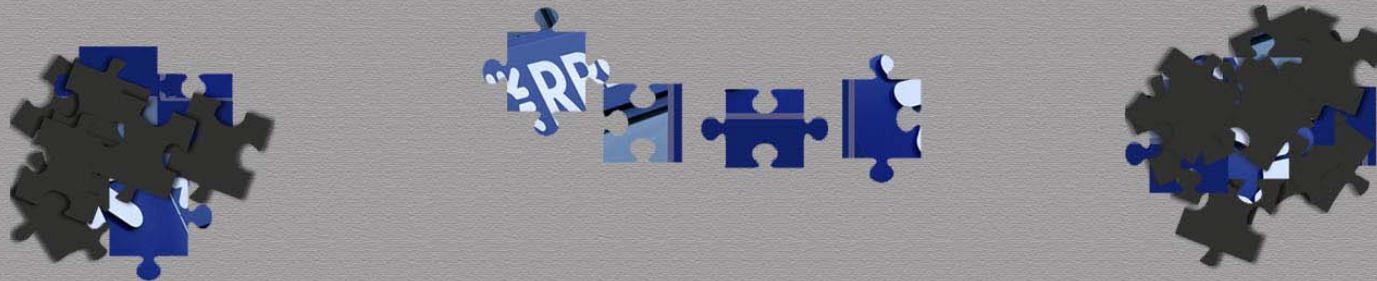


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SOLVE THE PUZZLE, FIND THE PLACE

LOOK IN THE PILES AND FIND USEFUL PIECES!



WHO IS THE OWNER OF THIS PLACE NOW?!

Check!

Why is this important for cities?

- The biggest challenge for cities is to realise that not everyone is getting equal access to the skills and opportunities that are claimed by some through the *Information Society*
- **BUT**, many cities continue to promote *their* smartness and are spending vast amount of money on it
 - Smart City rhetoric is about place marketing
 - technology push
 - what about 'ordinary' citizens?

What next for the smart city?

- The data driven city, reacting in near real-time, to solve immediate problems still requires longer term planning
 - what about problems associated with hacking (e.g. traffic management systems)
 - what happens when the power goes off – will the city fail?
- We ALL need to be connected equally
 - we must avoid 'cherry picking' and 'social dumping'
- Solutions must be provided by the people who live in our cities and communities
 - many cities where solutions focus on the urban core
 - fail to deliver benefits to 'ordinary' citizens

Brent Toderian, Vancouver's former Director of Planning

"Although many such products sound useful, this feels like part of the 'technology will save us' movement, which in its worst moments, uses up city funds while giving cities 'permission' not to make the hard choices that will really work to make us more resilient and successful. This seems more common in America than elsewhere, where the feeling that the marketplace will respond and provide products to fix problems, still has resonance.

"At a conference late last year in Spain [2010], I found myself on panels discussing new technologies that will improve cities, surrounded by tech-company reps hard-pitching to a global audience. I likely disappointed them, by stating that in my opinion the 'technologies' that will do the most good, are not new - compact, mixed-use, walkable communities; bikes, separated bike lanes and bike sharing; transit; small scale innovation like wheeled luggage; simple techniques that we've forgotten like passive building design; or globally-understood tech like district/neighbourhood energy based on renewable resources. But those big companies weren't selling those products. They were selling smart city solutions."

Source: <http://www.planetizen.com/node/48050>

Any questions...?

Viitanen, J. and Kingston, R. (2014)
Smart cities and green growth:
outsourcing democratic and
environmental resilience to the
global technology sector.
Environment and Planning A, 46(4),
803 – 819, [doi:10.1068/a46242](https://doi.org/10.1068/a46242)

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