

An aerial night view of a city, likely Vienna, showing a dense urban landscape with illuminated buildings, streets, and a river. The lights create a warm, golden glow against the dark sky.

Planning Smart Cities - or just planning?

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What is a smart city?

semantics

sustainable city - liveable city - healthy city - sociable city - green city - eco-city - intelligent city - creative city - sociable city - good city - ubiquitous city

Purpose of smart city?

- = **planning tool** to make cities better?
- = vehicle for **commercial** innovation? new markets
- = sea change of **living** conditions // electricity



Origin of smart city?

- 1970s Smart Communities - California
- 1980s Global Forum – telco - ICT
- 1992 UN Conference for Environment & Development Agenda 21
- 1997 World Foundation for Smart Communities - California
- 2008 IBM smarter planet smarter cities



Smart city types: definitions

- = **intelligent - integrated - networked** (D)
- = **hard** and **soft** ICT infrastructure combined (EU)
- = **economic** development driver (UK BIS) >
digital utility **control** - social capital - skills, community...

narrow - wide - narrow&wide

Narrow concept of smart city

Aim: reduce resource consumption

- confined to high tech-ICT-support systems
- remote - centrally controlled
- sectoral: water, energy, transport

Cisco: "Internet = 4th essential utility"

EU: "platform for innovation where converging technologies transform government"

narrow

Smart cities: industry driven

Smart City Industry = \$ 400 billion by 2020



Smart city industry

- establish **global** credentials
- membership of **smart city networks**
- produce **hardware, software, services**
- **data** hosting and management
- **central control**



e.g. IBM, Cisco, Siemens (Crystal London), Telefonica

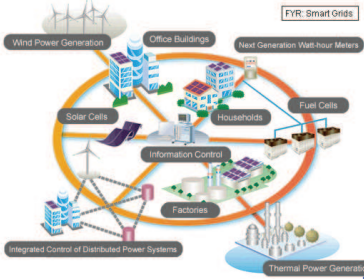
Industry shaped smart cities

- smart grids at city scale
 - power lines, broadband, smart meters...
- reliability, flexibility, efficiency, sustainability
- market enabling demand
- response support
- latent demand coverage
- consumer information
- central remote control
- metered consumption



narrow

Industry shaped smart cities



Wider understanding of smart city

+ socio-cultural - with people in mind:

- behaviour change
- Adaptation
- co-design
- public participation
- social inclusion
- social & spatial justice

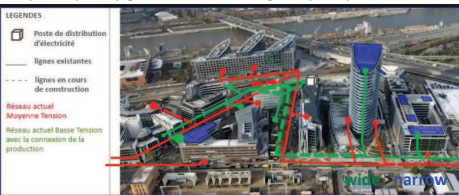
// sustainable city?

wide

Word cloud terms: EFFICIENCY, ECARS, EDUCATION, LIGHTING, ELDERLY, CITIES, MOBILITY, ENERGY, GRIDS, RENEWABLE SOURCES, TRANSPORT, ENVIRONMENT, LOGISTICS, ARCHITECTURE, AIR, SMART, WATER, INVENTIONS, PPP, PRESERVATION, POWER, MODERN, DEFENDERS.

'Wider' smart city in Europe

- Quality of knowledge communication & smart grids
 - Social infrastructure -> sustainable economic growth
- > wise finite resource management
- > participatory governance -> -> higher quality of life

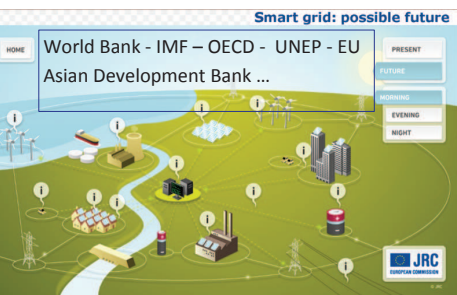


**'Wider'
smart
city in
Europe**

Pioneer:
Issy-les-Moulineaux
Greater Paris



Agencies promoting smart cities



Smart City Expo World Congresses

• Topics:

- smart thinking solutions
- urban planning and building
- sustainable built environment
- smart society
- collaborative city
- self-sufficient neighbourhood
- new urbanism – compact design



Confounding:

- intelligent - digital – cyber - innovative – ubiquitous - competitive – sustainable – green – resilient – eco--- cities

- *Industry aims to achieve global recognition of standards*
- *New industries through green revolution*

narrow -> wide

EU smart cities initiatives



- **Narrow:** benchmarking with compliance
EU Aim 1: strategic partnerships
between industry and smart cities
to develop infrastructure of tomorrow
EU Aim 2: develop green markets...

- **Wide:** Smart Communities
// EU 2020 Climate Action Goals
// Ecocities Goals

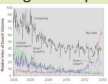
narrow & wide

Academia and smart city

- soft infrastructure, creativity (Richard Florida)
- human capital - education - social relational capital
- environmental concerns – measuring 'smartness'

- ICT hard and soft infrastructure combined
- increase competitiveness with ICT
- business-led urban development

- collective community intelligence
- local intelligence capacity -> local prosperity



Smart cities: blurred boundaries



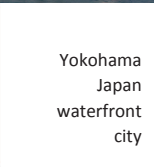
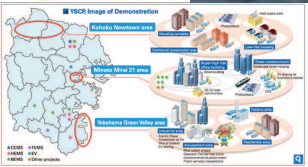
- Smart cities: relative to other city typologies?
- re quality of life

- Smart cities: provided by whom, for whom?

- Narrow: comfort in the home // digital cities

- Wide: ecologically responsible lifestyles
aided by technology (// eco-cities)

New World smart city (proto)types



Yokohama
Japan
waterfront
city

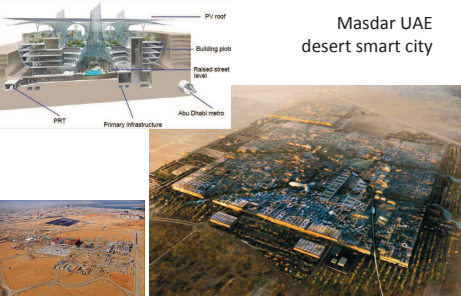
New World smart city (proto)types

Dongtan
(China)
blue-
green
field city



New World smart city (proto)types

Masdar UAE
desert smart city



New World smart city (proto)types

Songdo South Korea
greenfield smart city



(con)fusion of:
smart – sustainable
– eco-city

Stated aim:
"reproduce diversity
and vitality that
organic development
has in and of itself –
on reclaimed land"



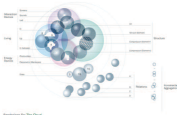
Smart city retrofitting : London

Hype or reality?

smart city, world class city, zero carbon city

But: air pollution, congestion, social polarisation, housing crisis

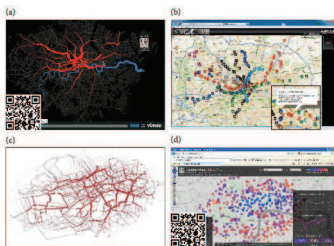
- Smart London Vision
- Smart London Board
- Smart London Plan
- Smart London Export Programme,
- Smart London Innovation Network
- Smart London Platform
- Smart **Datastore** (Atlas) with interactive maps



Smart city retrofitting : London

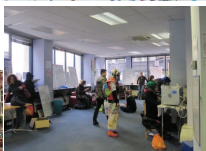
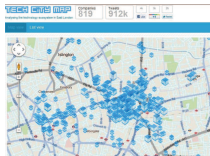
Reality

- Retrofitting ancient housing stock?
- Upgrading Victorian infrastructure?
- Recycling waste heat, materials, waste?
- Quality of digital infrastructure
- ?



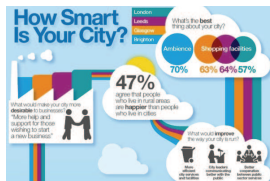
London: alternative smartness?

- **Artists** colonising redundant buildings
- Ecological **community** initiatives
- SMEs in **Silicon Roundabout**
- Transition town type **barter**
- Urban **food** growing in (semi) public realm
- **Crowd** sourced networks
- **Occupy** SXL






Smart cities & planning policies

- What are their **normative** characteristics?
- Including smart city **standards** in planning law?
- Measurability: **evidence base**?
- Bellagio: indicators - standards - frameworks



Critique 1: The Economist Debate

- Are smart cities an empty hype? (2014)
- No: Irving Wladawsky-Berger (IBM)
"2nd electricity age, large data sets for commercial use" 
- Yes: Anthony Townsend (Institute for the Future)
"excessive surveillance, intrusion into privacy"
"...the quest to centralise the distributed and messy yet highly resilient intelligence of existing cities within a single network or piece of software appears quixotic at best..." 
- Ludwig Siegele moderator 

Critique 2 of 'smart city'

- Peter Madden - Future Cities Catapult

"The whole smart city concept... well, it is marketing, you know..."



- Patrick Geddes

"conservatory surgery to heal cities"



Σ *Techno vs socio-cultural quality of urban life*

Critique 3 of 'smart city'

- Greenfield site requirement



- Central controls
= preconditions of
'ideal type' smart city



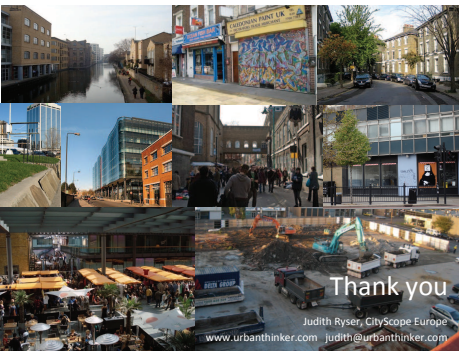
"Just calling cities 'smart' does not make them smart"

Questions for CORP 2014

Smart city - or simply 'city'

- How many smart cities are there?
- How many (of these) are self-designated?
- What are overlaps with other adjectified cities?
- What are their contradictions, incompatibilities?
- Does notion of smart city vary over time & space?
- Are smart cities improving quality of life?

- *What city would like to be 'unsmart'?*



Thank you

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