

# Smart Cities & Smart ICT



# 3. Smart City Smart ICT



# Smartness – Viewport & Dimensions



Outside

Stakeholder viewport:  
Smart Citizens vs.  
Smart Administration

Dimensions

Who?

**Social together:** Citizen, Business drivers  
government bodies

What for?

**Functions:** Transport, sewage system,  
environment protection

What is?

**Facilities:** Re-creational, entertainment,  
Education, jurisdiction

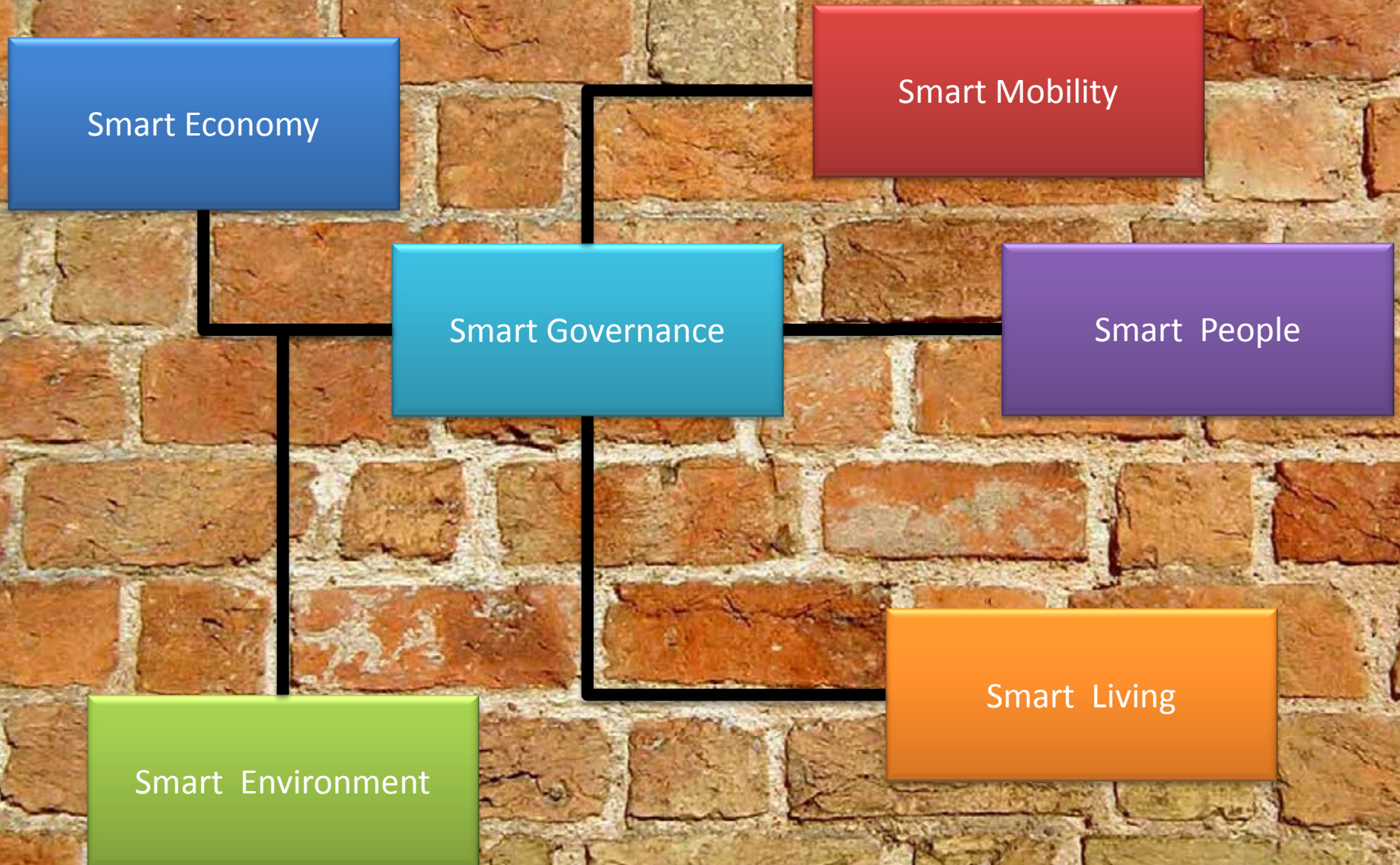
## Smartness and the Role of ICT

Splatters from the Internet – What constitutes a smart city?

- ... efficiency based on the intelligent management and integrated ICT
- ... ability to solve problems and use of ICTs to improve this capacity
- ... main focus is still on the role of ICT infrastructure
- ... investments into ICT



# ICT is the mortar which ties building blocks together



Smart Governance

Steering



Smart  
Economy

Smart  
Mobility

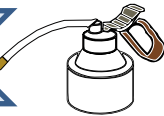
Smart  
People

Smart  
Environment

Smart Living

Smart City  
Strategy

Supportive  
Measures



Organisation & Processes

Enabler



Policies

Values





## Influencers to ICT-Smartness Factor Identification

- *Good Governance*: ICT usage to leverage many eyes and many opinions
- Sensor networks: Smart power grids, user sensors
- Situation-aware devices: GPS sensors and ambient technologies
- User generated design: 3-D printers
- Real time data, open data, business intelligence
- Intelligent transport and routing
- Visualisations, Simulations and scenario planning
- Usability and applicability
- E-Learning and distant education
- Seed funding and venture capital

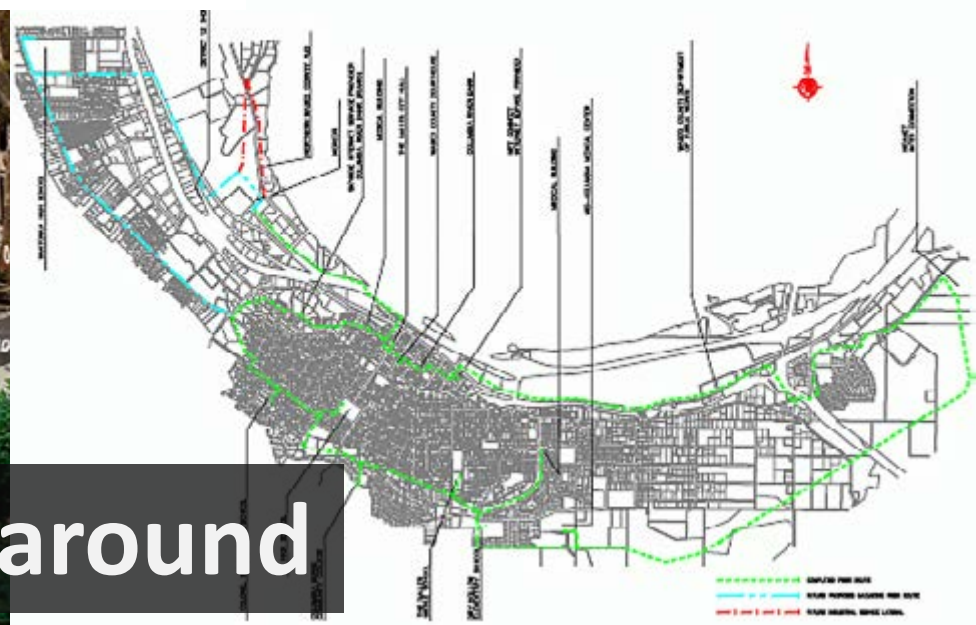


# CITY SENSE

Shaping our environment  
with real-time data

city | network

CITY OF THE DALLES  
Q-LIFE FIBER OPTIC NETWORK



Pervasive data all around



# User sensors?



Dienstag, 08. Juni 2010 16:19:43

## CO - Carbondioxide Sensor

Group - Karl, Sam, Steven, Alexander and I  
0 510.0 urban sensing



Dienstag, 08. Juni 2010 16:21:37

## Cups of Coffee Today

This feed was created using Data Logger for iPhone.

0	75	coffee
1	-33.86931	lat, latitude
2	151.20492	lon, longitude
3	50	alt, altitude, elevation



Freitag, 11. Janner 2013 14:25:43

## Bigpond Cable Modem Signal levels

I have been having problems with my bigpond cable modem for over 2 months. After 4 home visits and 2 street visits it's still not fixed. So I thought I'd track the signal levels to see if there is something funny going on here. I've written a simple java app that logs the levels to Parihue. Obviously this logging only works if the cable is up :)

0	1.2	null
1	39.4	null
2	48.5	null

<http://sensingsydney.com/explore/#/feed/>

Department for E-Governance

Danube University Krems. The University for Continuing Education.

# ICT-Factors contributing to the Smart City Strategy

## Guiding principles

1. Value is defined by the city stakeholders;
2. Technology and stakeholder groups are an entity; technological solutions influence the stakeholders;
3. Isolated technical solutions are meaningless;
4. Interoperability is always beneficial;
5. Increased verified information leads to better decisions;
6. Intensity of ICT usage is inappropriate to predict the contribution towards the Smart City goals

## Next steps

- Desk research on Factors
- Factor clustering
  - Possible Dimensions: Involving human interaction, Governance, ICT, Education, Innovation & Creativity
- Test ICT Smartness assessment model on projects
- Model refinement
- Visualisation and comparison of project ICT-smartness



## To consider

- Qualitative or quantitative model?
  - What does a smartness value of „25“ express?
  - Is a project of smartness value 10 only half as smart compared to a project of smartness value 20?
  - Who can reliably and mostly unbiased assess projects according to their smartness?
- Use results for benchmarking?
- Integrate into planning process
  - Make smartness contribution compulsory for every new ICT project?

4 Cities  
• take us



# Challenges no longer met by nations?

G7 / G8 / G20 → C-40



Rural structures dominate cities -  
Federal government paralysed by shut down.  
*„New York garbage has to be removed nonetheless.“*



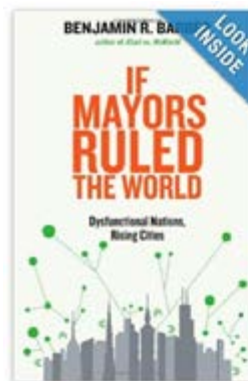


# Terms & Associations

City	Nation
Function	Identity
Work, innovation & creativity	Cultural origins
What you do and how you do it – aims and interests	Who you are and where you come from
Advertisement	Flags
Motion - driven by aspiration	Static - defined by history
Collaboration	Power
Mayors discuss garbage and snow removal	Prime ministers / chancellors proclaim distinctive identities

# An idea not that revolutionary

- *Democracy* was born in the *Polis*, the *city-states* of ancient Greece
- Literature on that topic



## If Mayors Ruled the World: Dysfunctional Nations, Rising Cities Hardcover

by Benjamin R. Barber (Author)

★★★★☆ 2 customer reviews

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In the face of the most perilous challenges of our time—climate change, terrorism, poverty, and trafficking of drugs, guns, and people—the nations of the world seem paralyzed. The problems are too big, too interdependent, too divisive for the nation-state. Is the nation-state, once democracy's best hope, today democratically dysfunctional? Obsolete? The

[Read more](#)



- **Open Data, Transparency and Open Innovation**
- E-Democracy and E-Participation
- E-Voting
- Bottom-Up Movements
- Social and Mobile Media for Public Administration
- Open Collaborative Government
- Democracy, Globalization and Migration
- **Connected Smart City**
- Technology and Architecture
- Self-governance in Complex Networks
- Rethinking Information Visualization for the People
- Freedom and Ethics in Digital Societies
- Design and Co-creation for E-democracy
  
- PhD Colloquium

## Important Deadlines

Deadline for the submission of papers, workshop proposals, reflections:

**6. January 2014**

Notification of acceptance

**7. February 2014**

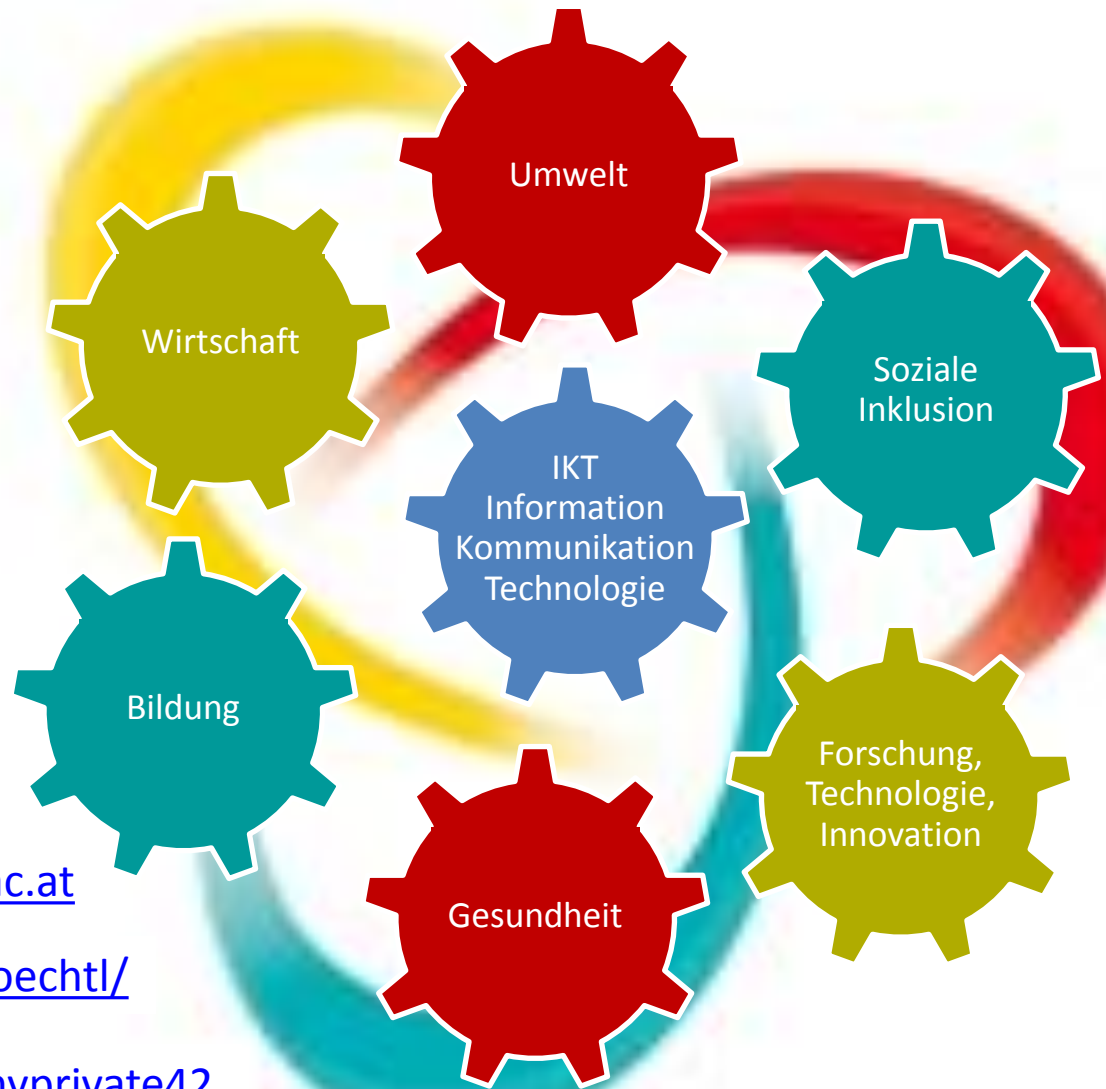
Camera-ready paper submission

**28 February 2014**

Conference

**21. - 23. May 2014**





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