

Theme 5: OPEN INNOVATION FOR INTERNET-ENABLED SERVICES

ICT PSP Information Day
Brussels, 28st February 2011

Per Blixt, Head of Unit
European Commission - DG INFSO
New Infrastructure Paradigms and Experimental Facilities
per.blixt@ec.europa.eu



European Commission
Information Society and Media

ICT is making cities "smarter"

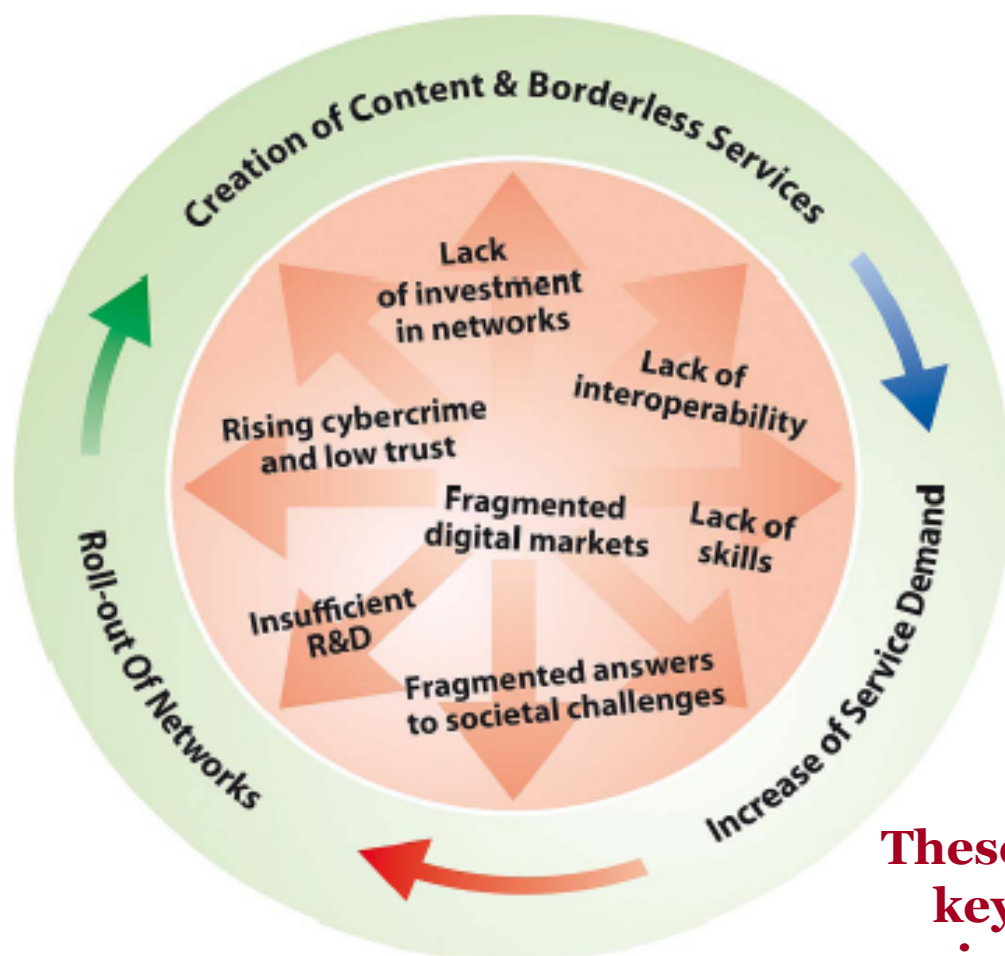
- Smart Cities and Regions are at the core of the implementation of the European Digital Agenda



- Smart Cities are a fertile ground for Internet innovation



A Digital Agenda for Europe



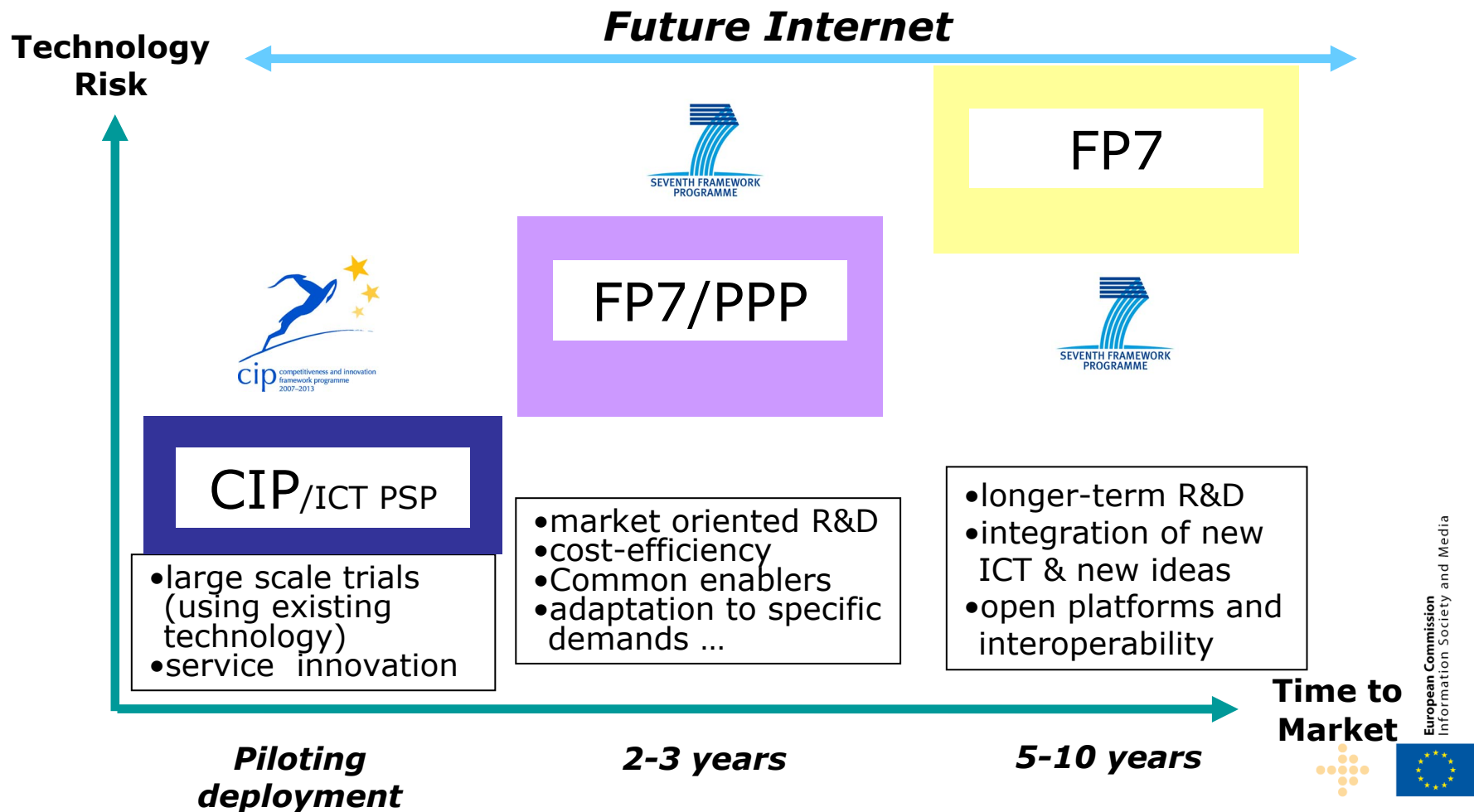
The 7 pillars:

- digital single market
- openness & interoperability
- online trust & security
- Internet for all
- ICT research & innovation
- digital inclusion
- digital public services

These challenges are as well key challenges for cities in becoming 'smarter'



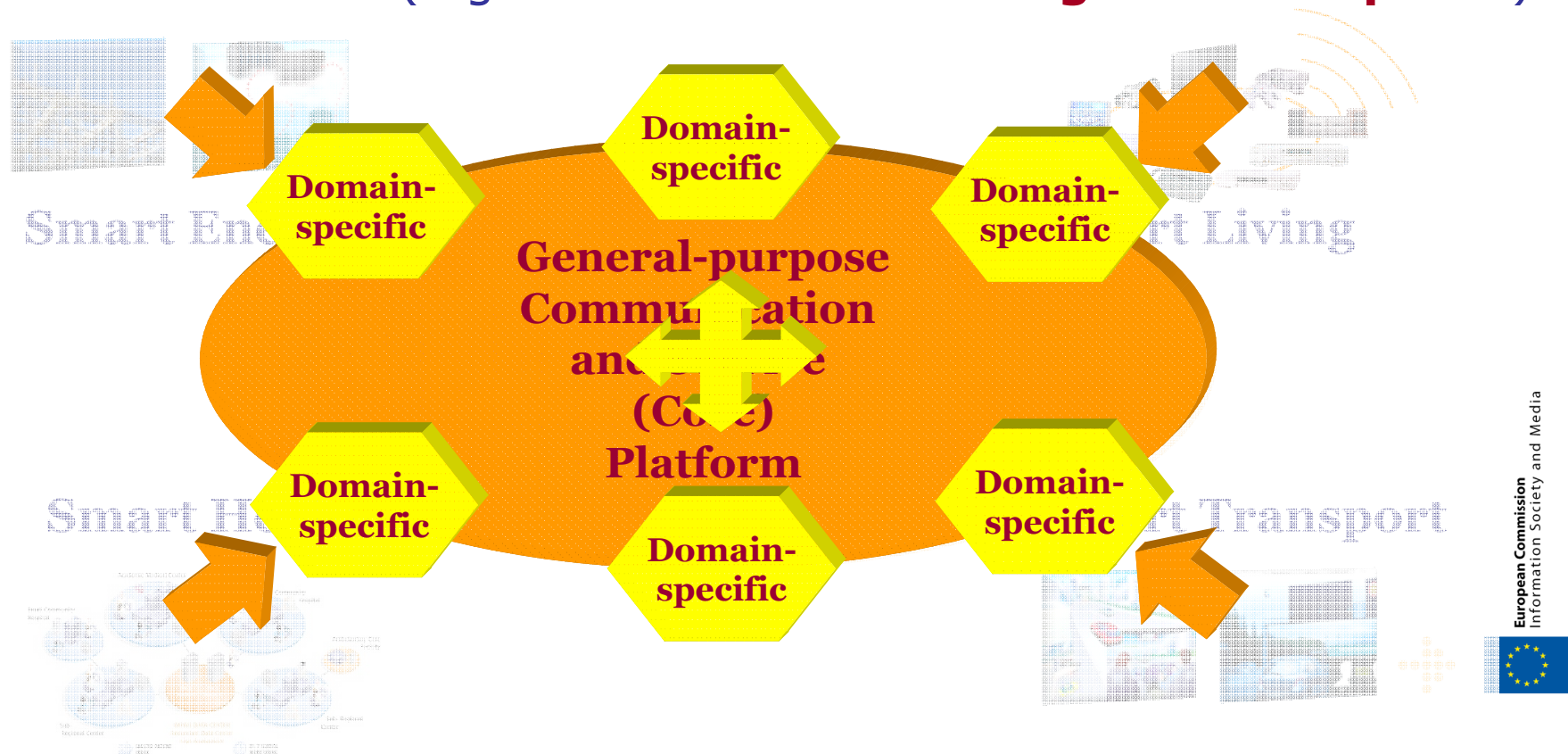
Future Internet: A Comprehensive EU Approach



FI PPP – The core principle

Balance of technology push & application pull

- Core platform activities driven by ICT technology providers
- Usage area activities driven by usage area actors
- Capacity building activities influenced by innovation ecosystem stakeholders (e.g. smart cities – **learning from CIP pilots**)



Motivation for the EC to act under the ICT PSP Programme

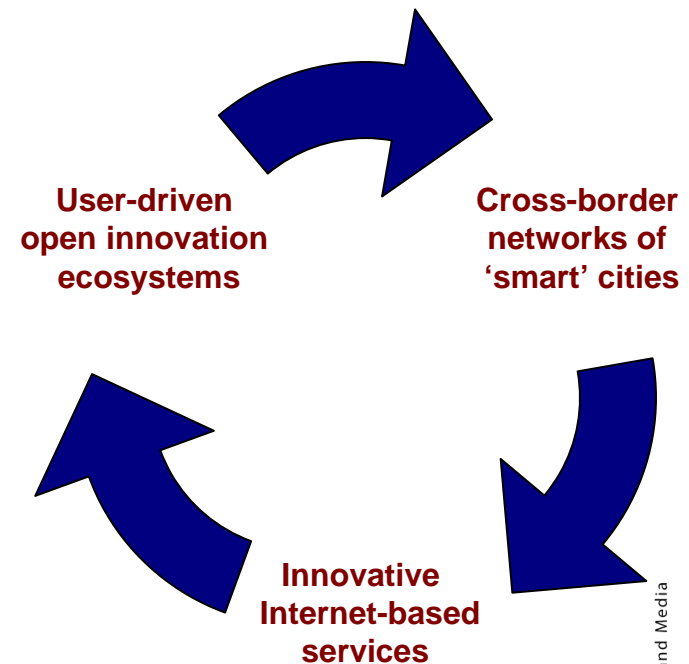
- **New and often “revolutionary” Internet technologies are maturing**
 - Ready for a new wave of Internet-enabled services
 - Transforming our way of life
- **Fragmented market of island solutions – a barrier for broad take-up**
 - Single solutions in individual cities
 - Pilots of limited scope
 - Fragmented groups of stakeholders
 - Need for open platforms for Internet-enabled services
- **Innovation ecosystems can bridge**
 - Work well locally in cities or regions
 - High potential for exploiting synergies across borders



Open Innovation for Internet-enabled Services in 'Smart' Cities - WP2010

- 7 pilot B projects selected within ICT PSP WP2010, first convened in November 2010
- 15 M€ EU funding

25 Smart Cities in 15 Member States



Supported by the Competitiveness and Innovation Programme under ICT Policy Support

WP2009: Sharing of best practices across European Living Labs involving SMEs as users & providers

WP2010: Open Innovation for Internet-enabled Services in 'Smart' Cities

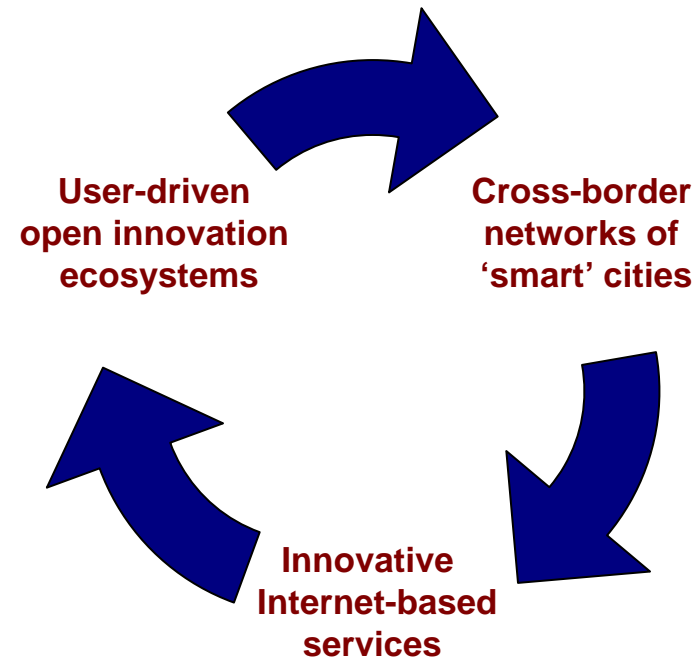
- 2009: APOLLON - Advanced pilots of Living Labs operating in networks
- 2010: EPIC - EU Platform for Intelligent Cities
- 2010: Life 2.0 - Geographical Positioning Services to Support Independent Living and Social Interaction of Elderly People
- 2010: Open Cities - Open Innovation for Future Internet Services in Smart Cities
- 2010: PEOPLE - Pilot Smart Urban Ecosystems Leveraging Open Innovation for Promoting and Enabling E-services
- 2010: PERIPHÈRIA - Networked Smart Peripheral Cities for Sustainable Lifestyles
- 2010: SMART-iP - Smart Metropolitan Areas Realised Through Innovation & People
- 2010: Smart-Islands - Smart Webservices for Mediterranean Islands (under negotiation)



Open Innovation for Internet-enabled Services in 'Smart' Cities - WP2011

Focus and Outcome: three major elements

- Total EC contribution: up to 14 M€
- Accelerating the uptake of innovative "ultrafast Internet" based technologies and services in cities, based on shared platforms
- One pilot 3M€ expected to show benefits of Internet of Things
- Apply user-driven open innovation methodologies across networks of smart cities



User-driven open innovation ecosystems

Bridging the gap between the development of Internet-based technologies and their rapid take-up in new services

- Integral part of local city ecosystems while being networked across Europe
- Engage the user early into the innovation process
- Enable PPPs - Public Private Partnerships with People - involving the citizens



Cross-border network of smart cities

A cross-border network of smart cities - exploit synergies and best practices by sharing common service platforms and related services and applications in a set of key areas

- Local Governments - City authorities and public service operators – driving role
- Key areas include: key policy objectives such as aging society, environment, reducing energy consumption, transportation, empowering patients, inclusion of people with disabilities



Innovative Internet-based Services

Leverage on ultrafast fixed and wireless Internet connectivity, based on an appropriate combination of innovative, but mature, technologies

(Digital Agenda for Europe: “by 2020,
(i) all Europeans have access to much higher internet speeds of above 30 Mbps and
(ii) 50% or more of European households subscribe to internet connections above 100 Mbps”)

- Mobile such as LTE (Long Term Evolution) networks
- Digital dividend
- Wireless devices and interfaces, mobile and location based technologies, cloud resources, sensor networks
- Trust and security must be addressed explicitly

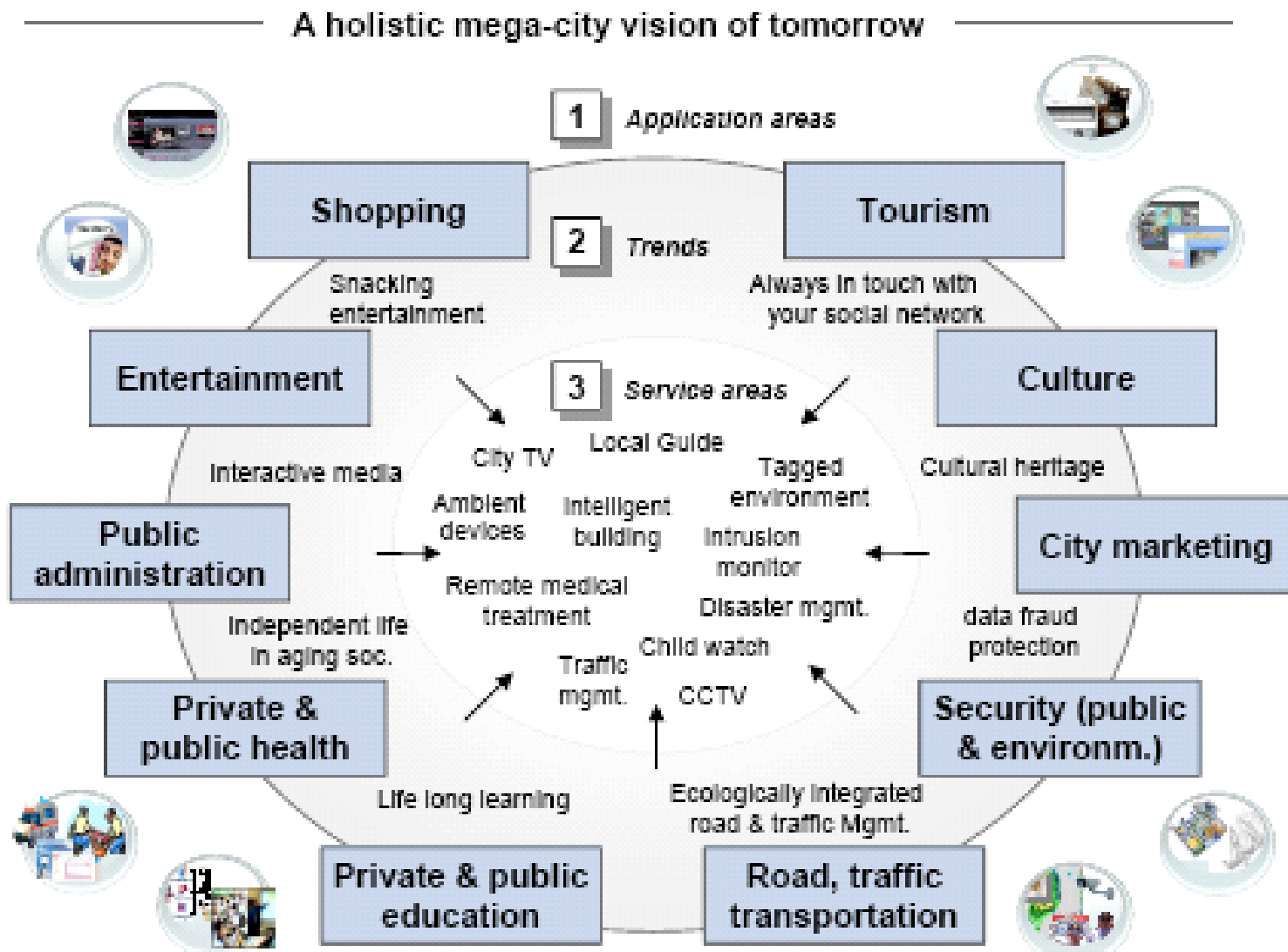


Features and elements of a “Smart City”, e.g. Internet of Things perspective

- **Instrumented**
 - Smart meters, distribution networks
 - Building management systems
 - Infrastructure sensors
 - Public safety systems
 - Smart clothes and materials
- **Interconnected**
 - Networked environments – fibre, wireless, buildings, open spaces
 - Networked sensors, sensor platforms, concentrators
 - Enterprise Service Bus (ESB) – a platform to realise a service-oriented enterprise architecture
- **Intelligent**
 - Lots of data – how to get value from it?
 - Real-time analysis of sensor data streams
 - “Enterprise-view” visibility of the city in action
 - Behavioural modelling of physical, natural and people systems,...



Smart City: A System of Systems



Conditions and characteristics

- **Pilots should as far as possible adapt, integrate or extend**
 - existing open platforms/environments in cities for innovative Internet based platforms and services
 - existing or emerging Living Labs or open city platforms, kind of services, scale, user involvement, added value, exploitation plans, ...
- **Balanced business-citizens-public authorities-academia partnerships - industrial stakeholders, SMEs, large user groups**
- **At least 3 cities in different Member States (or Associated Countries)**
 - urban regions with city focus as well
 - may link to smaller 'satellite' cities or towns
 - EU funding to be significantly complemented
 - specific and realistic quantified indicators to monitor progress
- **Collaboration of all pilots under this objective in a joint working group**
 - to exploit synergies
 - to disseminate experiences
 - to evaluate the "networked living lab approach"
- **Dissemination and communication important**



Expected Impact

- Stimulating a wave of open platforms using innovative Internet technologies
- Benefit from advanced wireless technologies, towards digital dividend
- Wider uptake of innovation ecosystems in cities through sharing of experiences in 'smart' city concepts
- Reinforcing the role of the user/citizen, facilitating technological and also social innovation
- Broad exploitation, cross borders
- Improving capacities for SMEs



Conclusions

The Digital Agenda for Europe and the ICT related initiatives under the EU research and innovation programmes strongly contribute to and support smart cities



Objective 5.1 Constituency building workshop tomorrow 1/3 in Brussels

- Open innovation for Internet-enabled services in 'smart' cities – Tuesday, 1st March, 09:00-17:00 hrs (registration 08:30)
- Register now via <http://ec.europa.eu/livinglabs> - Registration deadline: Today, 28 February, at 16:00 hrs
- Possibility to present briefly your proposal idea (4 min) or, separately, your pilot participants competences (2 min) – Bring your presentation slides on a USB stick to the venue
- Venue: European Commission, Centre Borschette (CCAB), Rue Froissart 36, 1040 Brussels (closest metro station: Schuman, 10 min walk)
- Opportunity to discuss also during the Networking today here with Olavi Luotonen, DG INFSO F4, Objective 5.1 coordinator



Further Information

- ec.europa.eu/livinglabs – living labs, smart cities
- ec.europa.eu/ict_psp – ICT Policy Support, Competitiveness and Innovation Programme
- ec.europa.eu/foi – read about the many activities the EC undertakes on Future Internet
- www.internet-of-things.eu ; www.race-networkrfid.org
Internet of Things, RFID
- www.future-internet.eu – The European Future Internet Portal – the community site
- www.openlivinglabs.eu – The European Network of Living Labs – the community site
- ec.europa.eu/ict4ee ; www.eumayors.eu/
Green Digital Charter

