Reuse and Replicate in the Smart City

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Smart Cities: innovation & people

"Technology, Talent and Tolerance" Richard Florida.

- **Digitally enabled urban regeneration**
- **Transformational Infrastructure** (mobility, digital, energy)
- **User driven open innovation – Living Labs**
- **Co-creation – co-production**
  - **innovators, inventors and entrepreneurs**
  - **building, operating and owning infrastructure**
  - **user generated content and services**
  - **generating global skills and jobs locally**
- **'Smart Cities'**

Smart Cities: innovation & people
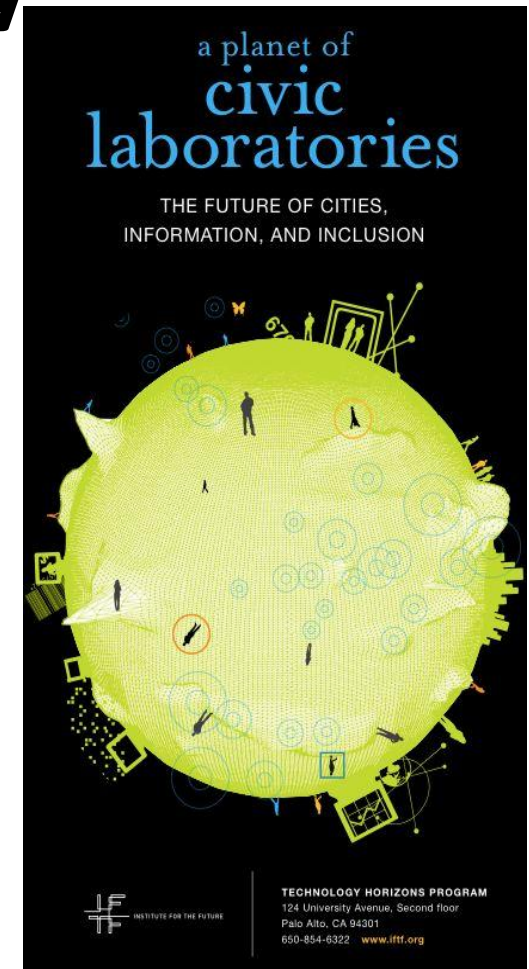
Manchester – England's 2nd City

- **Post-industrial city – reinventing itself for 21st c.**
- **Knowledge industries – building on traditional strengths in manufacturing, telecoms, business services, retail, science**
- **Home of the Co-operative movement – 2012 is international year of the co-op http://2012.coop/**
- **Engaged with European networks through Eurocities Knowledge Society Forum**
- **Projects: APOLLON, FIREBALL, SMARTiP, CITYSDK, NICE etc.**

Towards a "holistic" view of the smart city

Smart city as a "contested space" –

- **Do we just mean smart grids?**

- **Can there be a single "smart city platform" from a single provider?**

- **How close are we to becoming "smart"?**

- **Lots of people are talking about it but we, as cities, have to be practical about implementing it**

a planet of
civic
laboratories

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Towards a "holistic" view of the smart city

So a few thoughts…

- Smart cities are a contested space but also cannot be limited within a particular policy or discipline domain. This has been recognised by the recent joint call on Smart cities by the commission.

- The "vision" of a smart city where all services in a city are IP-enabled and where the city therefore becomes a "laboratory " for innovation – e.g. a Living Lab – is well articulated.

- For cities, the key aspect of this move to innovation is how to do that whilst still keeping the key services of the city running.

- Over the last two years a number of consortiums have been working together to develop this work.

Moving towards a Smart City

- **Integration.** through utilising research from the Future Internet community, development of test beds and living labs – and integrating this into a city context. This has seen, in a city context, planners speaking with technologists working with city policy officers.

- **Cooperation.** So as well as a city integrating different aspects, national and transnational cooperation is valuable. Even when there is competition (e.g. UK's Future Cities competition)

- **Collaboration.** FIREBALL – Future Internet, Living Labs and Smart Cities. And in January 2012 we asked "what's next?" and how will we keep this going?

Key Drivers

- Next generation broadband
- Smart grid
- Energy Efficient ICT
- Integrated e-Government services
- Internet of things
- Open Data

Smart Citizens in Smart Cities: Bologna

Smart Citizens in Smart Cities: Bologna

Smart Citizens in Smart Cities: Bologna

- 1400 citizens asked about their transport needs and habits

- 256 offered to do follow up session

- 50 involved in beta testing prototypes

- 10 municipal policemen involved in user test

Smart Citizens in Smart Cities: Ghent
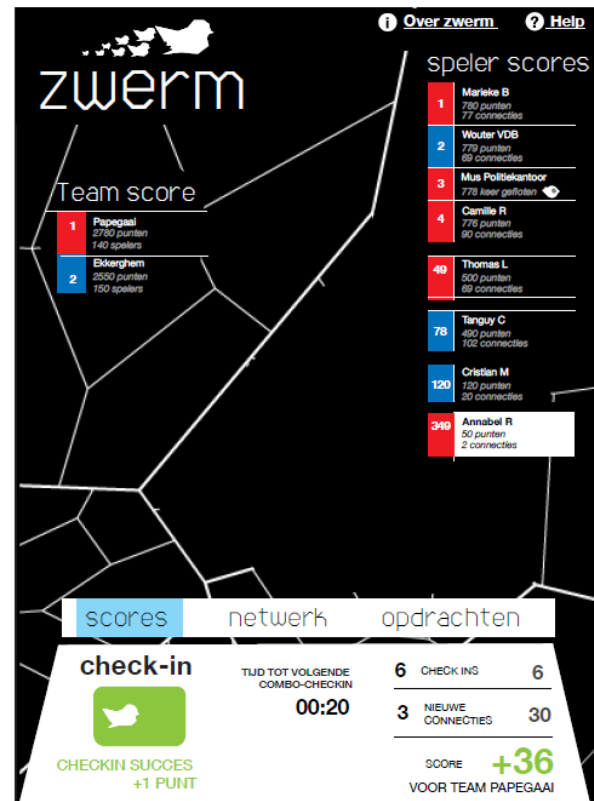
Smart Citizens in Smart Cities: Manchester

www.madlab.org.uk – community hackspace

Smart Citizens in Smart Cities: Manchester
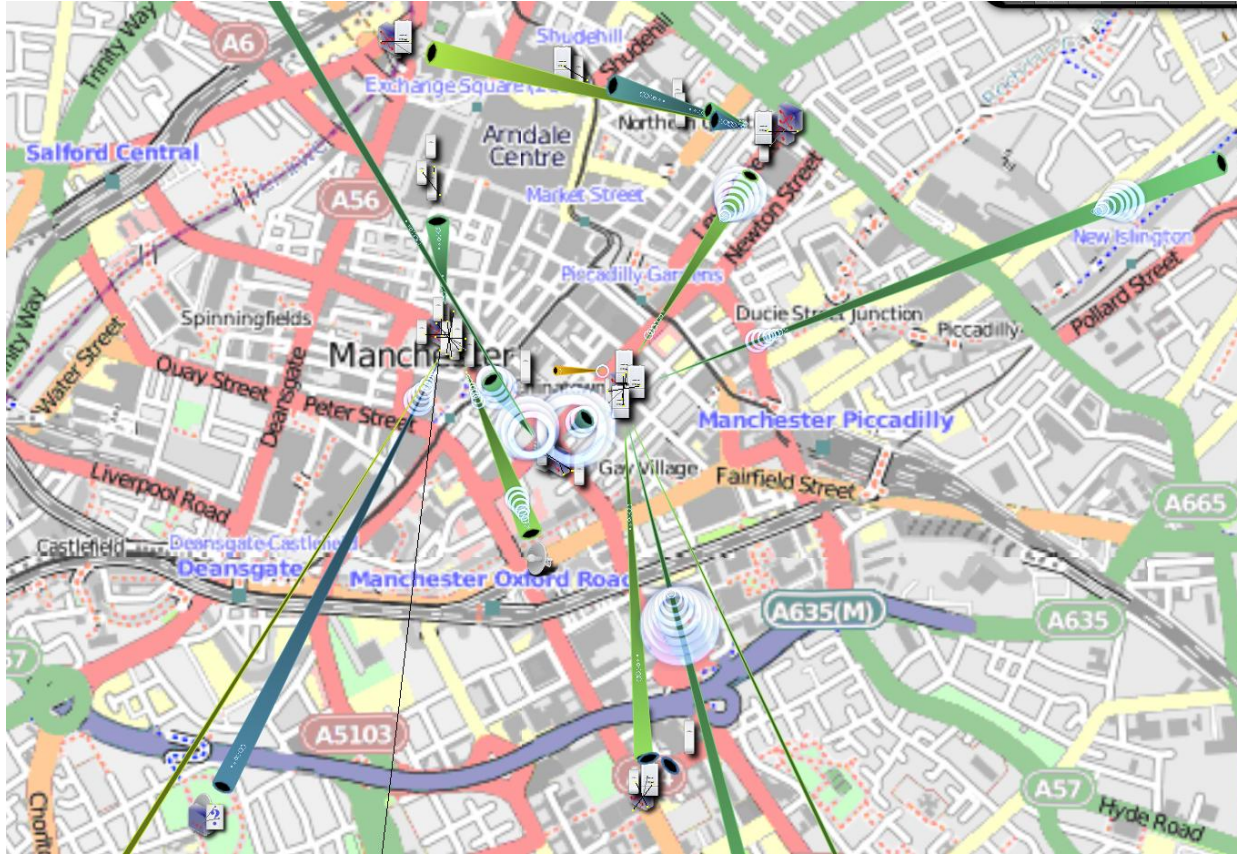
"Bottom up" broadband – Manchester Public Wifi

Smart Citizens in Smart Cities: Manchester
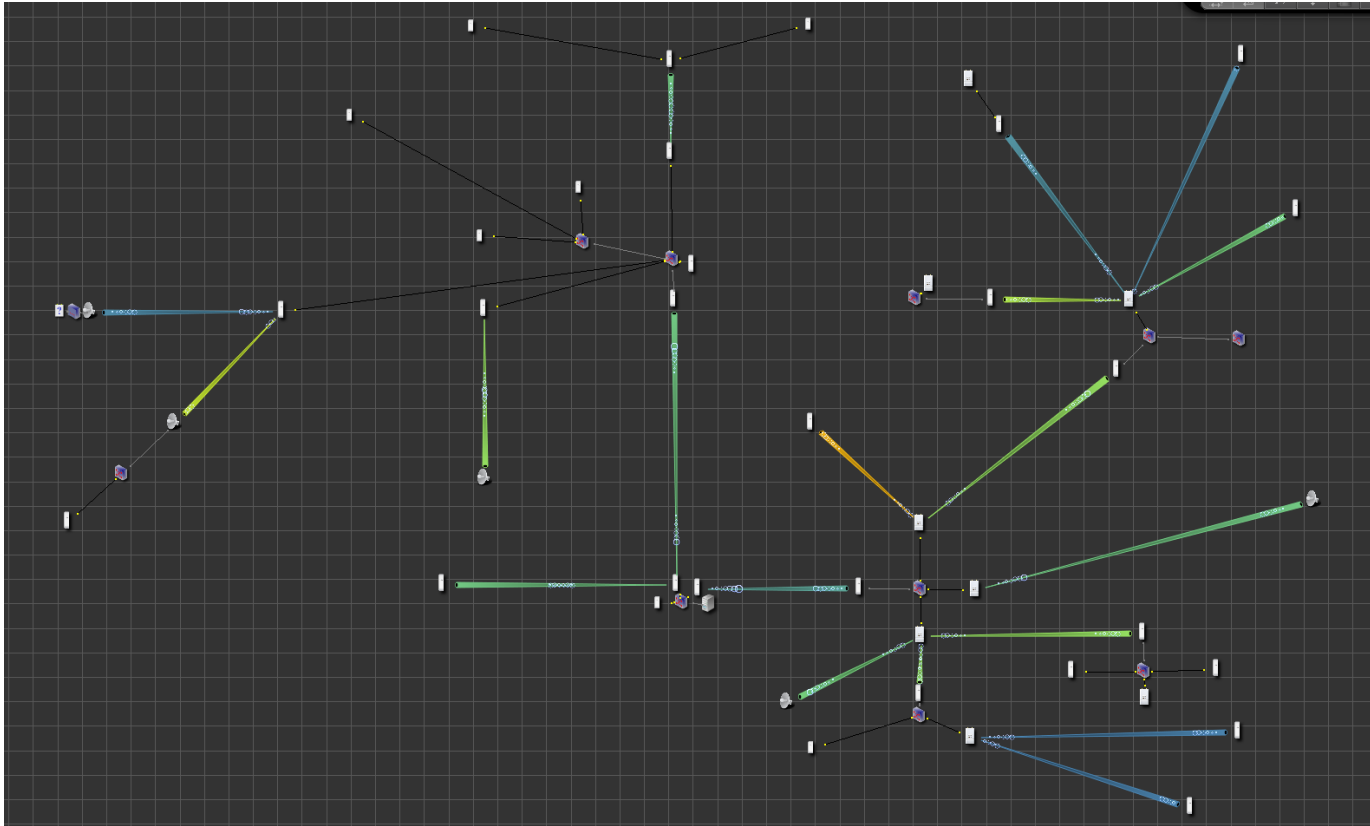
"Bottom up" broadband – live schematic

How we Learn

The move towards next generation access

- we've taken inspiration from Helsinki and Amsterdam
- Within our own context have pushed for more fast connectivity – FTTP and wireless
- Responded to requests from businesses, housing associations, city council
- IP – enables – sensor network, energy efficiency, digital industries, telepresence
- Have built an organic "public wifi" off a single 100mb connection as proof of concept
- Provides a "bottom up" broadband model that we are now sharing with Barcelona et al via Commons 4 EU project

How we Learn

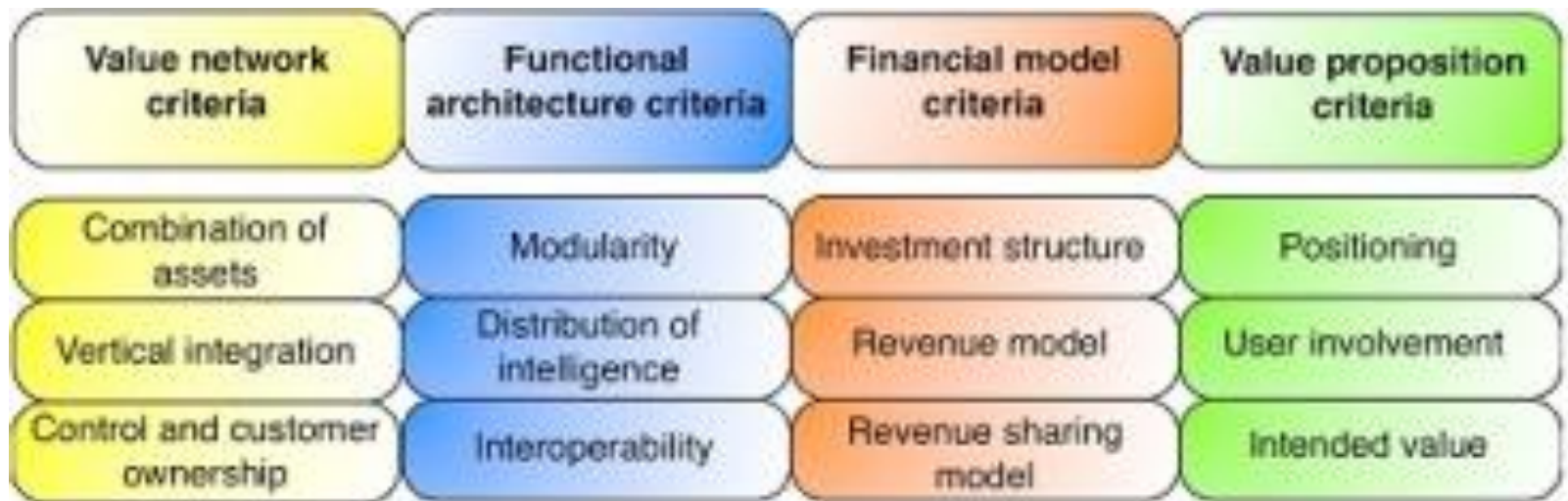The city is not just one organisation but a network of people, businesses and organisations

- Embrace the developer community

- Develop SMEs and "start ups" to develop new technologies

- Share experience or resources with other cities (e.g. joint data centres)

- Look to re-use good practice through open source, open data and interoperable systems

Reuse & Replicate – Business Models

What are the things we can share from one pilot to another?

Value network criteria	Functional architecture criteria	Financial model criteria	Value proposition criteria
Combination of assets	Modularity	Investment structure	Positioning
Vertical integration	Distribution of intelligence	Revenue model	User involvement
Control and customer ownership	Interoperability	Revenue sharing model	Intended value

Reuse & Replicate – How We Share

Open source – making code available via Github and other common places

Toolkits – e.g. CITYSDK – service development kit

Share skills and resources – European code fellows - http://commonsforeurope.net/

Co-production – linking with university research (e.g. NW Co-production network) and Living Labs

Joint development – e.g. Open311

Interoperability – open data

Networks – ENoLL, Eurocities, Connected Smart Cities network
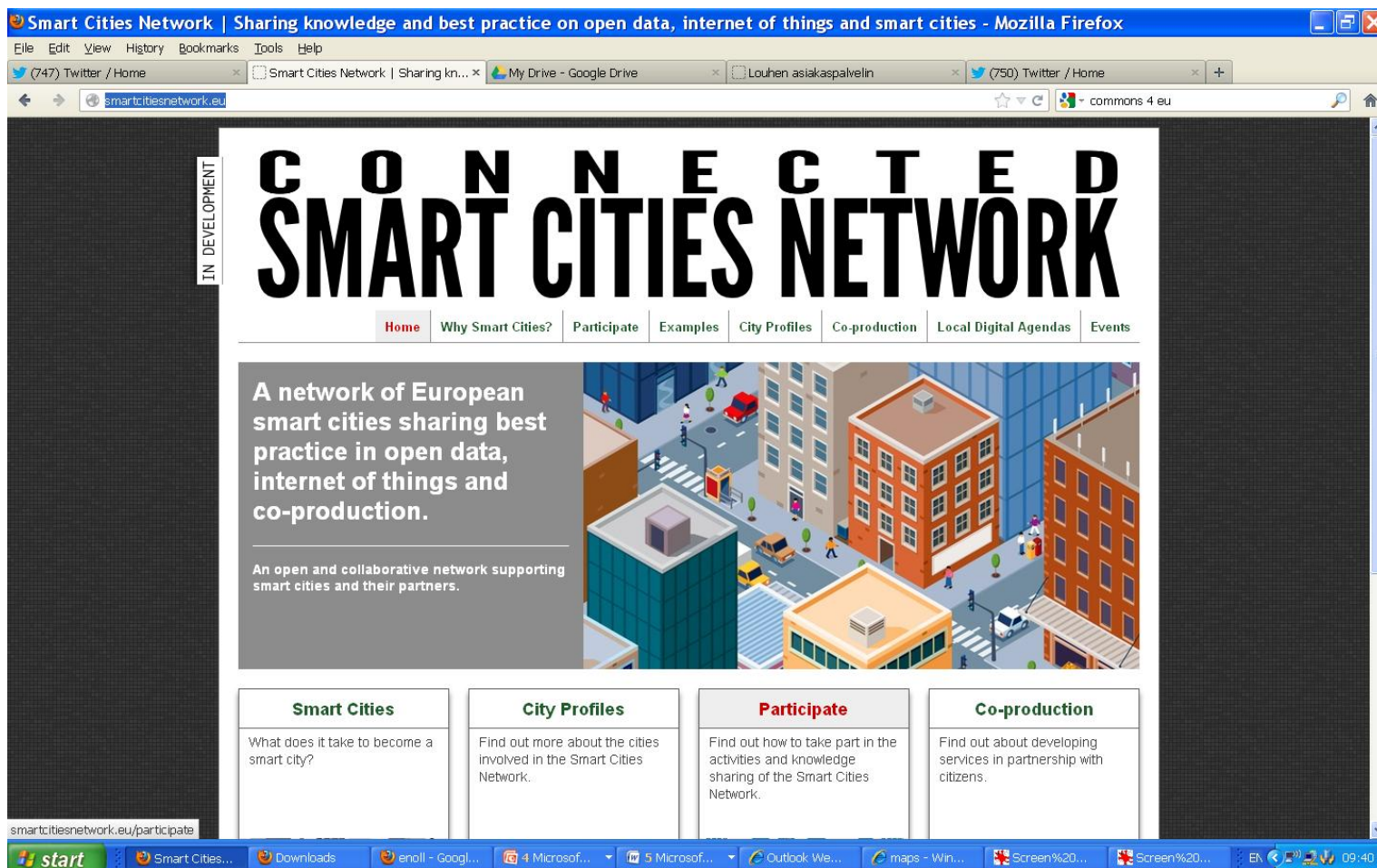
Connected Smart Cities Network

Links the CIP funded projects to knowledge
share – and agree common goals

Website: http://smartcitiesnetwork.eu/ (beta) to
become http://connectedsmartcities.eu in
next week

Specific coordination around open data
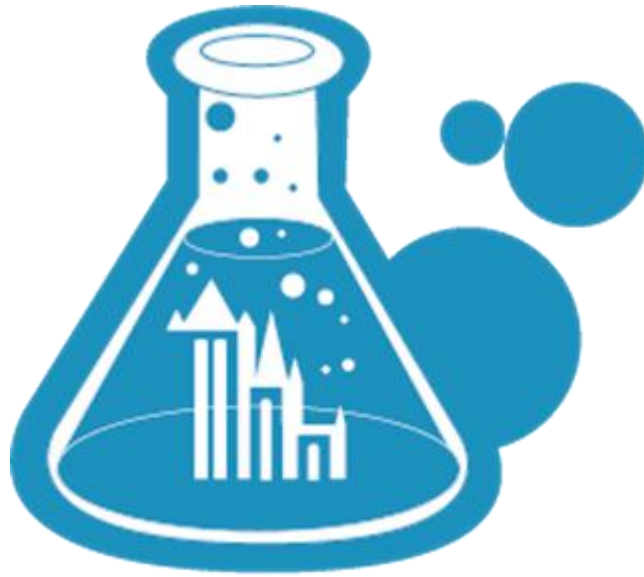initiatives for cities led by CITYSDK project

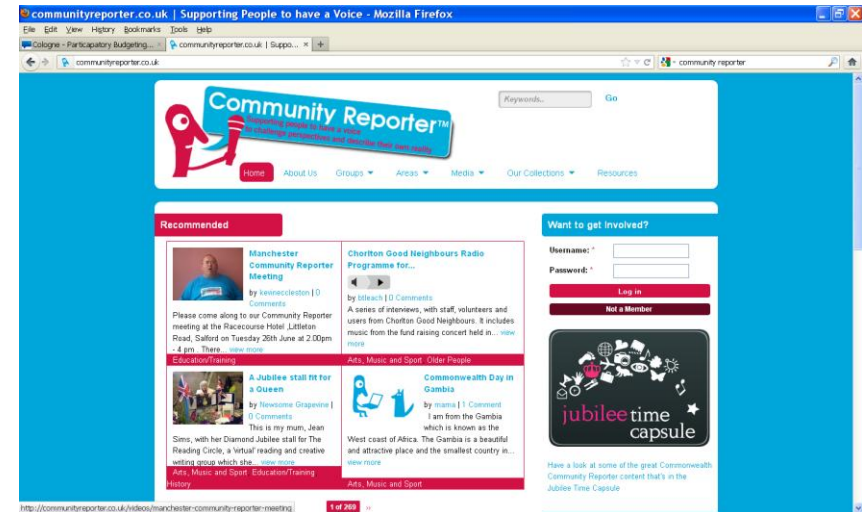# Connected Smart Cities Network

Living Lab as Local Link

Local activity takes place within a "living lab" or "citizen centred" environment.

Ghent Living Lab

Thank you.

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www.smart-ip.eu

www.citysdk.eu

www.fireball4smartcities.eu

www.eurocities.eu

www.openlivinglabs.eu

http://smartcitiesnetwork.eu/