Local Leaders Reports

Cities as a Lab: Designing the Innovation Economy demonstrates how design can foster innovative approaches to the changing needs of American cities. The world is increasingly urbanizing and cities and their wider metropolitan areas are asserting themselves as a fundamental unit of the global economy. Cities can thrive by building transformational places that incubate creativity and adapt to future challenges and opportunities. Cities as a Lab explores the design and policy choices now creating the great places of the future: urban design interventions, visionary planning efforts, and public-private partnerships. The fabric of the city, with its people, buildings, commerce, and transportation networks, promotes relationship formation, business creation, and game-changing ideas.

Cities as a Lab: Designing the Innovation Economy *shows how innovative design is helping to strengthen the economy and spur invention in cities across America. From district scale solutions that build the relationship infrastructure to colocation that creates eco-systems for relationships to germinate, design is transforming places and fostering connections in imaginative new ways. City streets are being re-imagined and temporary architecture is helping to revitalize dormant urban places, all while parklets and alleyways are creating new public gathering spaces. People are learning from one another in exciting new spaces, from robotic libraries to makerspaces that spark inventions. Walls are being torn down as offices and houses are reconfigured to meet future needs and realities. Ideas and energy are flowing, because cities are the place to be, and great design serves as the critical linchpin. Read Cities as a Lab to learn more.*

nfographics to better understand local and regional governments' concerns

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As the celebration of the [World Summit of Local and Regional Leaders and 4th UCLG Congress](#) approaches and as the majority of local and regional elected representatives worldwide prepare to travel to Rabat, UCLG has created infographics on the main issues placed at the core of local and regional governments' agenda.

With the purpose of representing the main trends for the future of the Towns, Cities and Regions in relation to the contents and issues developed in the **[Manifesto for the City of 2030](#)**, UCLG has created infographics on the following topics: strategic urban planning, challenges of new urbanization, proximity government, resilience of cities and regions, and human rights.

UCLG encourages a careful reading of each of the following infographics that provides a quick but global glance of these issues that are both complex and inter-connected. A **[new section](#)** has been created on the UCLG website to host them and a summary can be found below:

Strategic planning

This infographic deliberates the importance of Strategic Planning and the role played by the local and regional level of governance in this process, opportunies and challenges.

Urbanization

This infographic explores the urban reality and the essential role played by local and regional authorities in this process with view to the future.

Proximity Government

Proximity government and the benefits of effective local level governance. This infographic demonstrates the key areas in which Proximity Government can and should be promoted.

Resilience

What are the challenges for city resilience today? How are local governments addressing these issues? This infographic sets the scene to further explore the issue.

Human Rights

What do we understand by implementing human rights in the city? The infographic outlines some of the key issues and the way in which they concern the local and r

Total connectivity of the city to generate innovation

The ability to connect among things, objects or infrastructures has grown exponentially in recent years. Only if the entire city is conceived as a platform for action, rather than for information, this connectivity will be useful to generate innovation. Therefore information must be used for the management of the city, putting people at the centre of the conversation and having the community involved.

Big Data, the Internet of Things, machine-2-machine connections or cloud computing are information-related concepts, related to the ability to store and process data, to analyse the reality and understand how we interact with the urban environment and how objects and the infrastructures within interact with each other. The Smart City Expo World Congress 2012, revealed the need to further improve the integration of different sources of information and the data they provide, set up analysis systems that enable scalability in order to gradually increase the capacity for information management and data processing in real-time and to work with open-source technology platforms that allow the inclusion of different professional and social profiles in their development. The analysis potential of the city generates new business opportunities, encourages citizens to get involved in managing the urban environment and, above all, it strengthens the social bonds of the community, of the people who, after all, should be at the centre of the technology debate.

Cities can function as sensory systems that respond to certain scenarios in real-time

Thanks to new technologies, cities can function as sensory systems that communicate their needs and respond to certain scenarios in real-time. To respond effectively to the challenges that arise in areas such as mobility, energy and environmental protection, the cities of tomorrow must develop systems able to absorb the huge volume of data generated by a multitude of sensors, including information provided by citizens or by infrastructures. In the technology and innovation sessions at the Smart City Expo 2012 World Congress, these and other related issues were discussed, such as machine-to-machine (M2M) connectivity, the Internet of Things (IoT), the city as a technology platform or the "city in the cloud".

The cities of tomorrow must develop systems able to absorb the huge volume of data generated by a multitude of sensors

The whole city must be seen as an action platform rather than an information platform

In recent years technological platforms have evolved considerably. Not only in terms of data storage and management capabilities but also the boom of social networks has encouraged citizen participation so that now the inhabitants of a city are also important sources of information, and contribute to improving the quality of the urban environment. For this reason Peter Hirshberg, The Reimagine Group, stressed the importance of being close to the citizen, of listening to their needs and provide them with the appropriate channels to actively take part in the public life of their community. The entire city must be seen as a platform for action rather than information, not only by addressing the technological side but also by making room for young entrepreneurs, the software developer community, or the public administration. For the platform to generate value for the city, as well as to encourage participation and ensure collaboration between all these agents, it is essential for it to inspire innovation, generating sufficient critical mass for new practical and effective ideas to emerge.

Technological platforms have evolved considerably encouraging citizen participation as important sources of information, contributing to improve the quality of the urban environment

It is important to channel information towards relevant aspects related to city management

The citizen has become a live sensor, capable of sending data in real-time. The deployment of mobile phones and the ability of current smartphones encourage data collection; something that already occurs spontaneously, therefore another challenge is to channel this data collection towards aspects relevant to the management of the city. Sometimes it means publishing the results of a given set of data, targeting the local community through awareness raising and sensitization, an aspect that Andrew Vande Moere, of K.U.Leuven, is working on, Moere presented several practical examples of generating citizen debate, showing real-data from one neighbourhood at street level using simple projections or posters. The proliferation of sensors capable of measuring different parameters as well as their easy integration into almost any part of the city offers a wide range of possibilities for the analysis of the urban metabolism. Combined with communications systems and particularly, with the Internet, the so-called Internet of Things (IoT) emerges. Pablo Gutiérrez, Telefónica Digital, wondered what would happen in 2030, when it is estimated that the capacity to manage information of the entire human population through their five senses will be exceeded by the data management capacity of the internet. To channel the potential of the IoT concept it is necessary to continue operating in open software and to create modular interactive platforms that can be expanded with new functions. You can virtually install a sensor in any physical place and a very wide range of parameters can be measured, so that an extended concept of the IoT is starting to emerge which would be the Internet of Everything (IoE). As John Baekelmans , Cisco, explained the IoE adds to the IoT the possibility of working on a distributed network and a larger network storage capacity, upgrading from cloud computing to fog computing, according to which a larger amount of data will be available on the internet more rapidly, favouring real-time tracking. The physical world of the city becomes not only a sensorial agent, but also an agent of action. The ability of things, objects or infrastructure to connect has grown exponentially in recent years, enhancing physical systems. The so-called "machine-to-machine connectivity" (M2M) emerges as a concept whose application, explained Robin Duke-Woolley, Beecham Research Ltd, makes objects work as service providers, reducing costs and increasing efficiency in the use of energy.

Technology must be adapted to local conditions, customise technology to the real needs of people

Involving the local community, applying simple technologies can generate huge social benefit

The technology aspect of the city should not be treated as something mechanical, but practical. Technology must be adapted to local conditions, customise technology to the real needs of people, so that simple technological applications can achieve significant benefits for a particular community. This was clearly reflected in the example presented by Federico Casalegno, MIT, about an experience for improving the environment and citizen safety developed in a favela in Rio de Janeiro using mobile phones with camera. Nowadays, a lot of information is available about different sectors that operate in and make up the city: energy, mobility, water management, the environment, etc. To effectively use this information, it has to be clear, first, what objectives are to be achieve and in what direction. In the case of Europe, these goals can be defined, among others, by the so-called 20-20-20 strategy, as argued by Colette Maloney of the European Commission, the challenge is now to integrate data from all sectors involved, to which is necessary to develop scalable models and define a

set of vertical standards for data that really matter. There is data that provides an insight into the habits of citizens or, at least, reflects common behavioural patterns in a particular city, such as data related to water management, as explained Jordi Zubelzu, Agbar, or data related to financial transactions, as explained Marcelo Soria Rodríguez, BBVA bank. Both made it clear that what really matters is not so much the data collection process or the overwhelming amount of data available, but the ability to analyse the data and to find new ideas and ways to exploit it and even to obtain financial return from it.