

# SMART CITIES STUDY:

International study on the situation of ICT, innovation  
and Knowledge in cities

Bordeaux, 31<sup>st</sup> May 2013



Comisión de *Ciudades Digitales y del Conocimiento*  
Committee of *Digital and Knowledge-Based Cities*  
Commission des *Villes Numériques et de la Connaissance*



## Cities in the digital, innovation and knowledge age

Rapid development in information and communication technologies (ICTs), innovation and knowledge, which has increased their presence in day-to-day life and made them **basic elements for the social and economic progress of territories.**



#### AFRICA:

Nioro du Rip (Senegal)  
District of Ngaka Modiri Molema (South Africa)  
Municipality of eThekweni-Durban (South Africa)  
City of Bissau (Guinea Bissau)  
Moka Flacq District Council (Mauritius)

#### LATIN AMERICA:

Charata (Argentina)  
Municipality of Agua de Oro (Argentina)  
Municipality of La Costa (Argentina)  
Municipality of Villa Gesell (Argentina)  
IMDEC Region - Municipal Integration for the  
Development of East Catamarqueño (Argentina)  
Municipality of Patacamaya (Bolivia)  
City of Guatemala (Guatemala)  
Mexico City (Mexico)  
Colima City (Mexico)

#### ASIA:

Taipei City (Taiwan - R.O.C.)

#### EUROPE

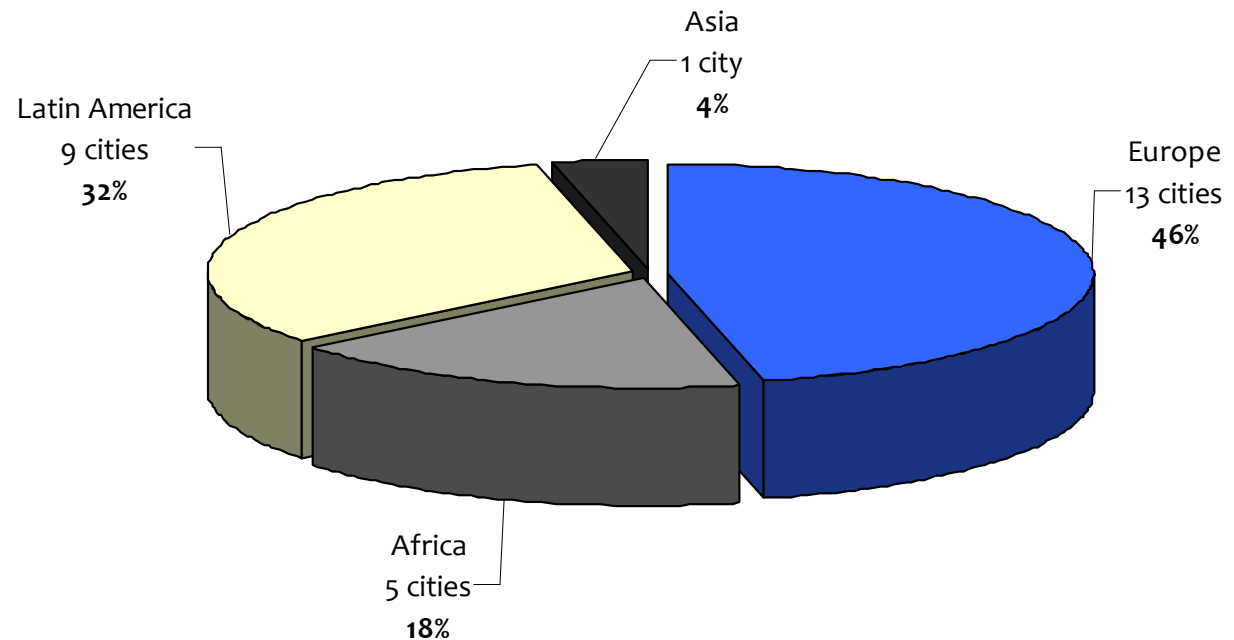
City of Roeselare (Belgium)  
Barcelona City Council (Spain)  
Bilbao City Council (Spain)  
Madrid City Council (Spain)  
Provincial Council of Jaen (Spain)  
Bordeaux City Council (France)  
L'Havre City Council (France)  
Limoges City Council (France)  
City of Helsinki (Finland)  
City of Lappeenranta (Finland)  
City of Malmö (Sweden)  
City of Lisbon (Portugal)  
Katowice City Council (Poland)

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Knowledge in cities



**28 cities** from all over the world





## Commitment of Local Authorities

Follow-up to the commitment acquired by the Local Authorities that took part in the II World Summit of Local Authorities on the Information Society held in 2005 in Bilbao for [boosting the information society in their territories](#).



## Evolution from digital cities to innovative cities

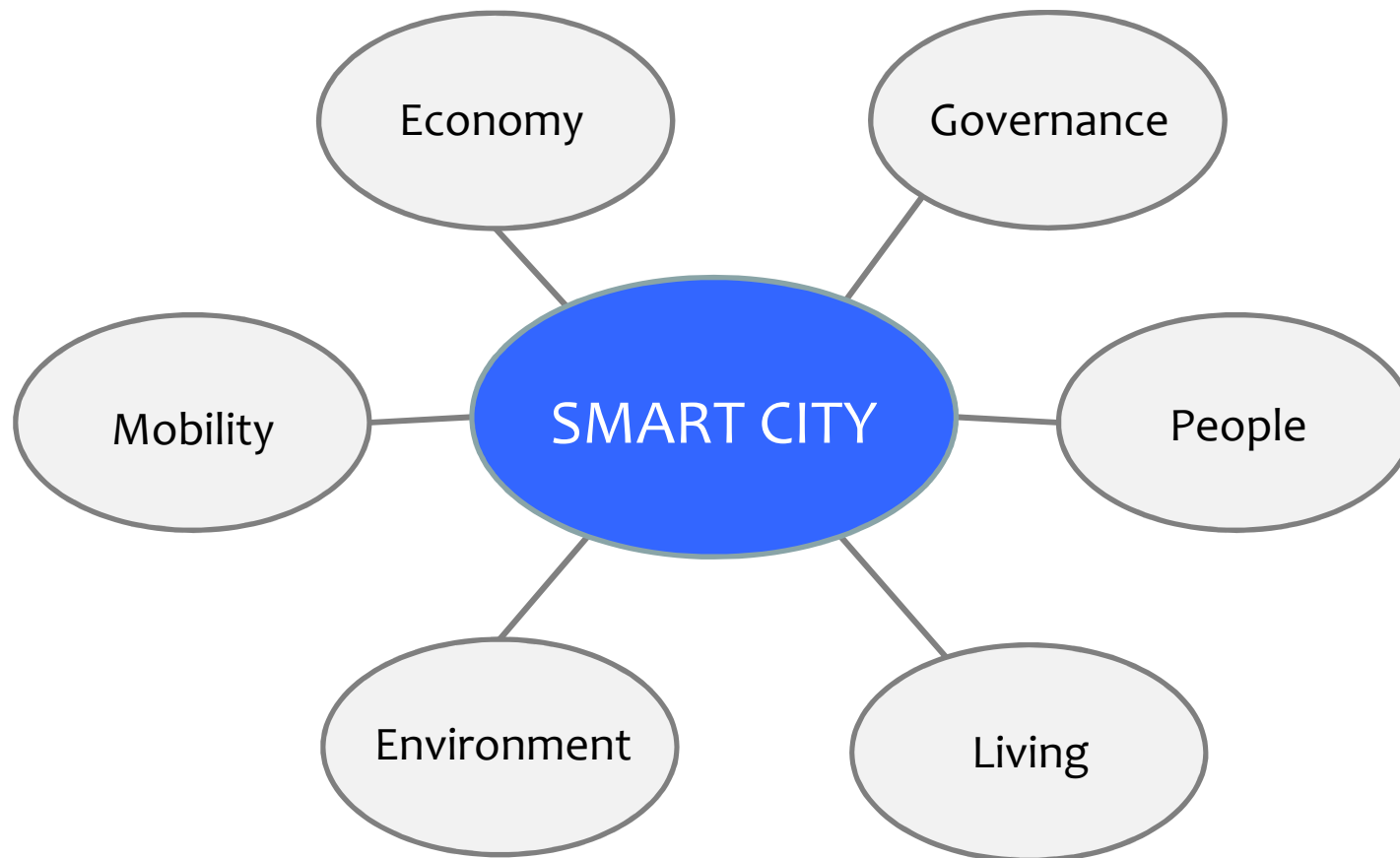
The world is becoming increasingly digital and no-one can afford to be left out of the changes taking place. This rapid change has given as a result a new model of city, the so called “Smart City”.

A city, that seeks to become more livable, functional, competitive and modern through the use of new technologies, the promotion of innovation and the management knowledge.



## Areas and factors of a “Smart City”

We talk about a “[holistic](#)” vision of Smart City, which brings together [6 key Areas of performance](#) that affect the development of cities.





## Smart Cities Study

For the development of the Study we have established [indicators](#) that help us to learn if we are working in the right direction to achieve a more competitive cities and municipalities.

It is important to remark that [the Study did not seek to make a ranking of cities](#).

With this Study, from the Committee we want to provide a [reference document](#) for UCLG members that show the degree of progress made by the members in regards to ICT, innovation and knowledge, in each of the 6 areas.

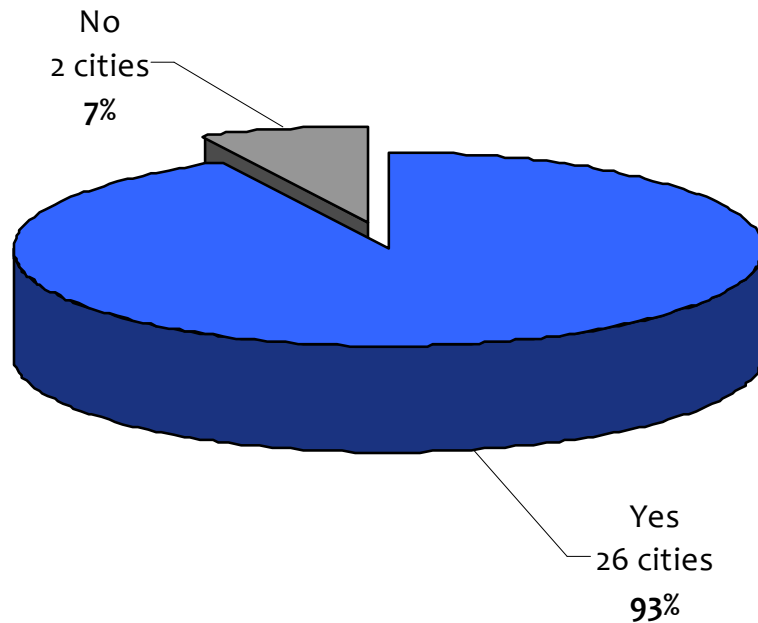


## Global and regional vision of the information

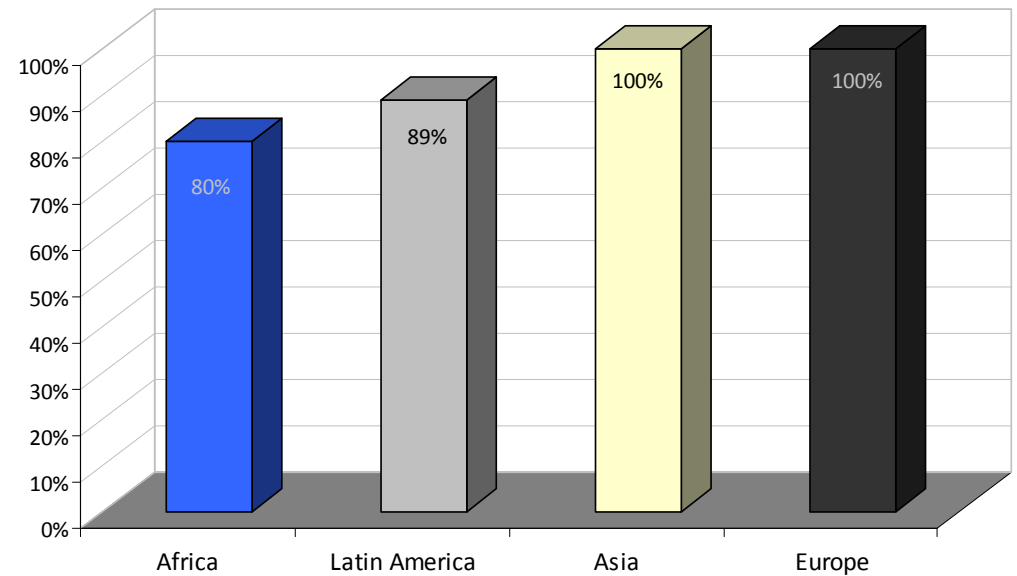
Through the Study we analyse the information that was made available by the 28 cities, related to these 6 areas and the key factors that they include.

This has allowed us to have a global vision of the situation of cities in each of the action fields, but also a vision at a regional level.

**Does your City/Municipality have a website?**



**% of cities that have websites by region**





# Knowledge-sharing: Best practices and experiences

The Study also provides many **best practices and experiences** that help to boost the exchange of knowledge between cities, since the cities that have taken part in the Study have shared their initiatives and experiences related to all these issues.



Some of the main results of the Study

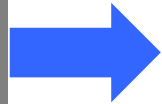
## Smart Economy

Penetration of ICT use in businesses



**Increase** in the number of companies that have computers and Internet connections, although there are differences between regions in Europe and Asia compared with Latin America and Africa, .

Economic promotion



**75%** of cities have a Local Development Agency. This trend however does not exist in African cities . Cities also promote sectors that are considered strategic, either by developing sectoral strategic plans or by promoting certain industries, especially those based on technology, innovation and creativity.

Retaining and attracting talent and promoting creativity



**65%** of cities have developed some kind of initiative to attract and retain talent in their territory, but this trend is more intense in Europe and Asia.

Support for entrepreneurship



**68%** of cities have developed some type of programme to support entrepreneurship in cities, except in Africa, where the number of cities that have developed such initiatives is very small.

Business spaces



**Most part** of the cities have infrastructures to support business activities in their territories, such as science or technology parks, industrial parks and business incubators. There is however a gap with cities in Africa.

Internationalization



**65%** of cities have developed some sort of plan or strategy for the international promotion of the city.

## Smart People

### Education and Training

**67%** of cities the Percentage of population **with university degrees** ranges between 0% and 25% , a trend that increases in European and Asian cities.

**62%** of Cities believe that the **University has a strong presence in the city**.

**53%** of cities believe that the education offered **does not adapt to the demands of the current market**. This percentage is particularly higher in Africa and Latin America.

### e-Learning

**50%** of cities have **digital development** plans for their schools is growing.

**78%** of cities the percentage of **schools connected to the Internet** is very high, ranging between 76% and 100%.

However the percentage of **teachers using new technologies for educational purposes**, is relative small since, in most cities (**46%**) it is between 0% and 25%.

**30%** of cities have promoted some type of **e-learning programme**.

### Life-long training

**60%** of cities have implemented measures to **promote lifelong learning**. This trend can be seen mostly in European and Asian regions.

### Human Capital

**68%** of cities have developed some for of **cooperation between companies and knowledge centres**, especially in Europe, Africa and Latin America.

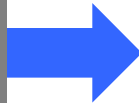
### R&D&i

Most cities dedicate a **percentage of their revenue on R&D&i** in their territories. The average percentage of revenue dedicated to R&D&i stands at **1.59%**.



## Smart Governance

Local Public spending on ICT



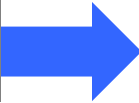
The average percentage of Public **spending on ICT** in cities on the total budget stands at **3%**.

Website availability



**93%** of cities **have web site** as their main channel of communication with the public.

Strategic plans to promote e-Government and ICT



**64%** of cities have developed **an e-Government action plan**. This proves that cities have sought to meet the commitment acquired in Bilbao Summit.

On-line public services



**64%** of cities the percentage of **public services that can be performed on-line** in most cities is still small, ranging from 0% to 25% of the services offered by cities. **Most popular on-line services**: the possibility of filing complaints and claims, requesting certificates and reports, making payments and debits, on-line registrations and paying taxes and fees.

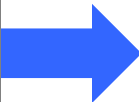
**54%** of cities offer the possibility of using **electronic signatures** for municipal procedures.

Transparent governance



Cities provide the public **access to municipal information through their websites**. The institutional information that is most frequently posted by cities refers to municipal plans, regulations and budgets.

e-Democracy



**62%** of cities have some type of **on-line platform for citizen participation**; this trend can mostly be seen European and Asian cities.

**15%** of cities use **electronic voting**.

Promoting ICT and Innovation



**46%** of cities organize **events related to ICT and innovation**.

## Smart Mobility

### Connectivity and ICT infrastructure



**41%** of cities have a high percentage of [Internet users](#), ranging between 76% and 100%.

**70%** cities have between 76% and 100% of the municipal territory covered by broadband services.

**40%** of cities have a percentage of the [population subscribed to broadband services](#) between 76% and 100%. This trend can be seen especially in Europe and Asia.

**62%** of cities have a percentage high percentage of the population subscribed to mobile phone services between 76% and 100%.

There has been an increase in the percentage of people who use [mobile Internet services](#).

### Public Internet Access



More and more cities have [Wi-Fi hotspots around town](#) with the aim of extending the benefits of the Information Society to all citizens.

Cities also provide [municipal spaces where computers with Internet connection](#) are placed at the disposal of the public.

In some cases, cities have reached some kind of [agreement with ISPs](#) with a view to providing the public with the opportunity of subscribing a high-quality Internet connection at reasonable prices.

## Smart Environment

Security and trust

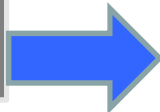


A growing number of cities have implemented [systems to improve citizen security](#) based on ICT.

The main system used is [video surveillance](#).

New technologies are also used to improve [computer systems](#) with a view to [managing incidents and emergencies](#).

Culture and identity



A growing number of cities have promoted some type of initiative to [digitize and share their cultural heritage](#), especially in the cities of Asia and Europe.

## Smart Living

### e-Health

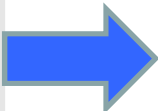


Through the use of new technologies, citizens can enjoy a number of [on-line medical services](#), including key services such as requesting an appointment on-line or the possibility of having a digital record. However, the percentage of cities that offer such possibilities is still small.

The percentage of cities that have some sort of [electronic health card](#) is also small. Cities in Europe and Asia are primarily starting to use this system.

The number of cities that offer the possibility of accessing [remote home services, alarm systems or remote patient monitoring systems](#) is still limited.

### Accessibility and e-Inclusion



More and more cities (52%) are driving [digital inclusion programmes for groups at risk of exclusion](#). Such initiatives are conducted primarily in Asia and Europe, while the percentage of cities in Latin America and Africa that have introduced them is still small.



## Available in Spanish and English

The Study is available both in Spanish and English and you can download it from the Committee Website.

<http://www.cities-localgovernments.org/committees/cdc>



Thank you for your attention



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