

Barcelona as a Smart City

Lessons learned from the evolution of the concept and the influence in the city attractiveness

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Objectives

1

To describe the concept of Smart City and its relation with Tourism strategy

2

To understand Barcelona´s strategy to become one of the world references

3

To summarise some key success factors on the development of a Smart City strategy

Smart city: the development of the concept

70% of the world population will live in urban areas by 2050. By 2015 there will be 26 megacities with more than 10M inhabitants



A city that has developed features (walls, moats, portcullises, etc.) to protect its **people** and **profit**

Concentration of the population in cities

Economic **efficiency** focus given the the scarcity of resources

Development of **technology**, connectivity, innovation

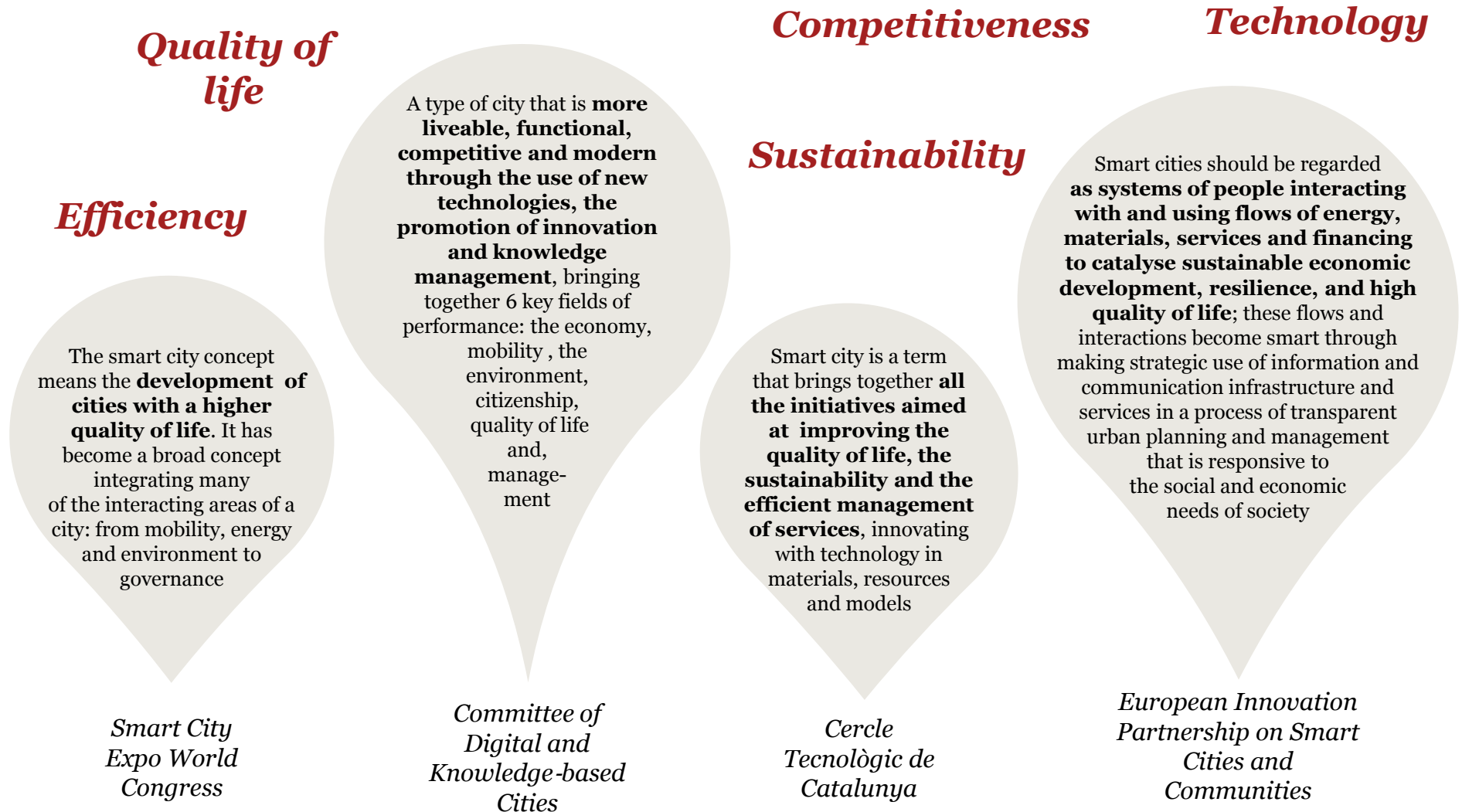
Sustainability focus given demographic growth and climate change



A city developed with **efficiency**, **functionality** and **sustainability** in mind

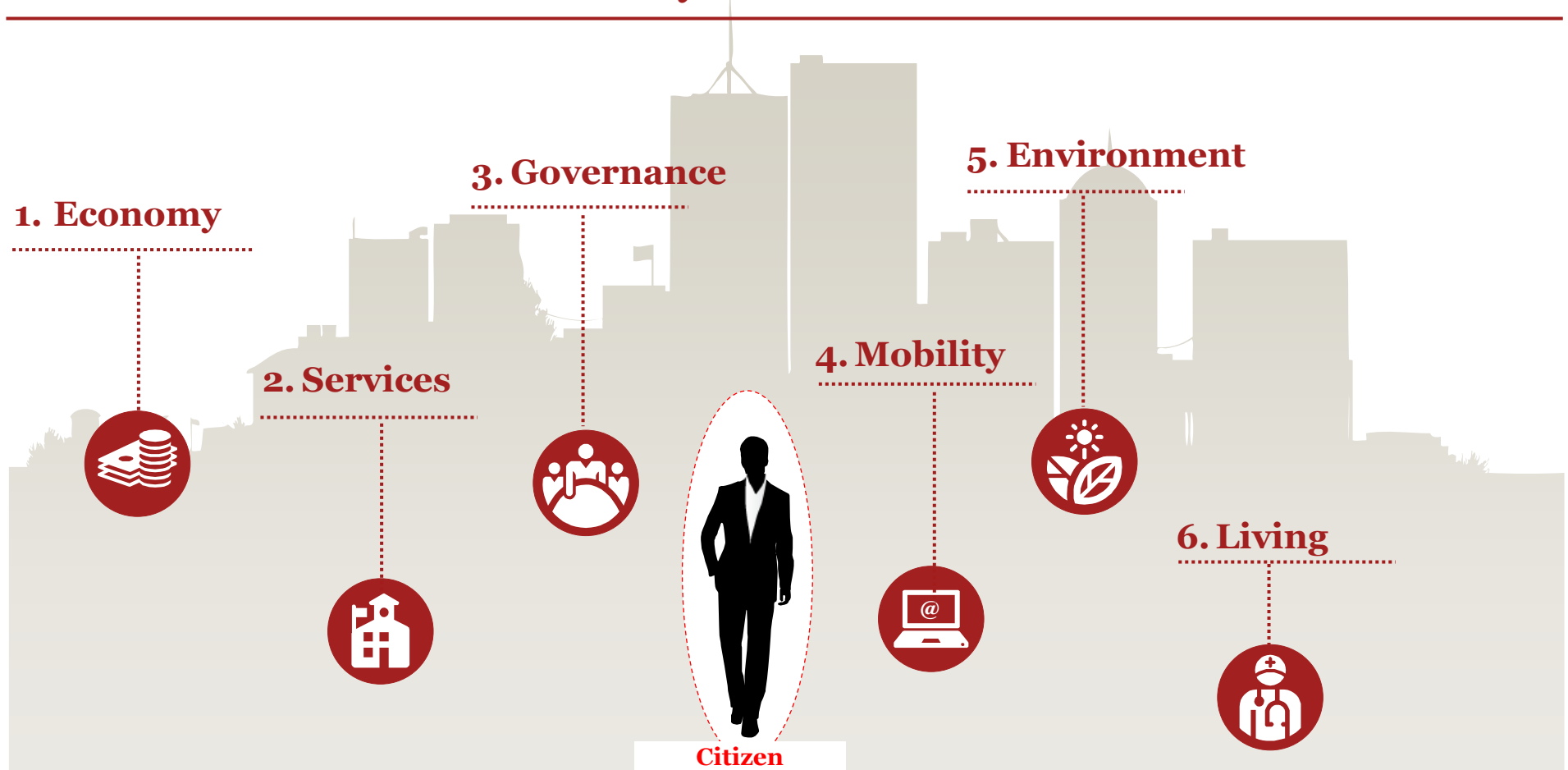
Source: "Smart Cities" PwC, Ctecno, PwC analysis

What is a smart city? Still work in progress...but with some common concepts



“A city that uses new technologies to make it more efficient, functional, competitive, modern and liveable for citizens”

Key dimensions



Source: Committee of Digital and Knowledge based cities, Ctecno

Smart City + Tourism -> Smart Destination

The **'Smart Destination' concept** includes:

- ✓ **Touristic planning** of the territory
- ✓ Applying **sustainability** to the touristic value chain
- ✓ Including **technology** in the tourist experience and service delivery
- ✓ **Managing effectively and efficiently** the resources based on existing capacities
- ✓ **Being able to respond** to the needs and behaviours of tourists

7. Tourism

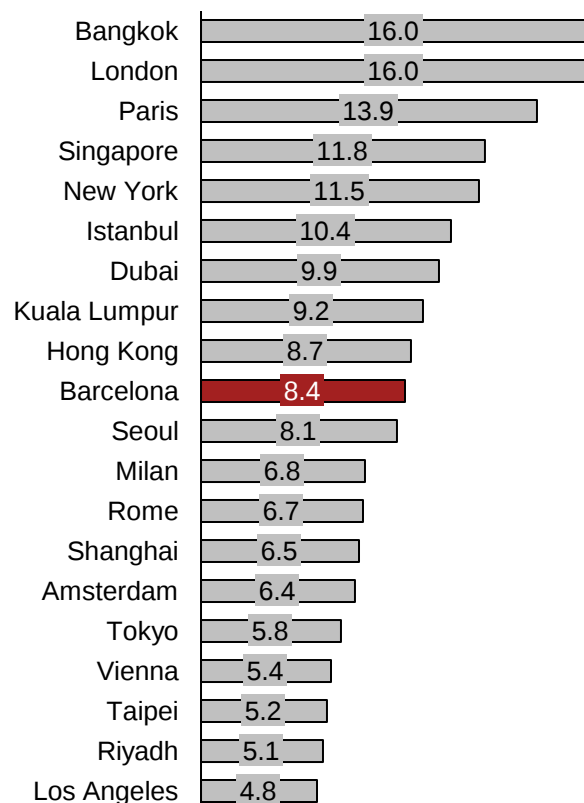


Source: Committee of Digital and Knowledge based cities, ALS, PwC Analysis

Barcelona: a worldwide known example of successful destination among top capital cities

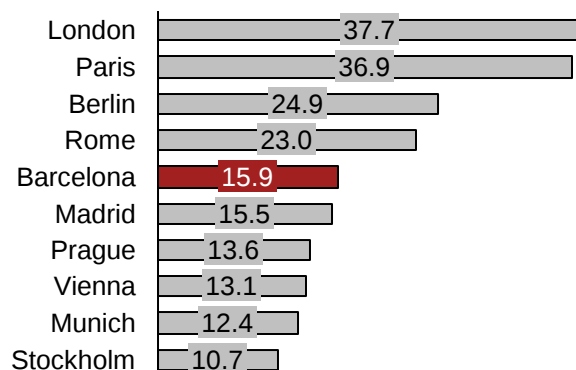
Top 20 global destinations 2013

Global Top 20 destination cities by international overnight visitors (millions)



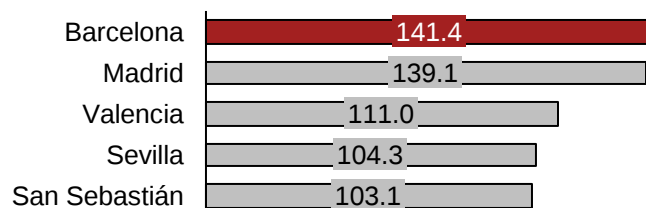
Top 10 European destinations 2013

Top 10 European cities by overnight stays volumes (millions)



Top 5 Spanish destinations 2012

Top 5 Spanish cities by touristic success indicator¹ (medium=100)



Awards

- #1** European Capital of Innovation 2014 (iCapital)
- #1** First city to receive Biosphere Worldclass Destination certificate for responsible tourism
- #4** Fourth European Smart City 2013
- #1** IDC Smart Cities Index Ranking
- #5** Fifth destination in the world - Travellers choice Tripadvisor awards 2013
- #1** Best Spanish port in terms of cruises – Excellence award 2013

¹) Index composed by various tourism indicators, such as hotel offering quality, flights routes and frequency, etc.

Source: Global Destination Cities Index; Top European destinations by European Cities Marketing; Ranking of Exceltur top 20 successful touristic destinations in Spain

Barcelona's process to become a successful destination has been fuelled by several factors...

**“Structural”
Factors**

**Strategy
oriented**

Underlying characteristics of the city, which facilitate its evolution into a smart city and destination (i.e. the starting position of the city)

Projects and policies put in place by the various city stakeholders which act in the right direction for a future evolution into a smart city



Wide cultural offering

High touristic capacity thanks in part to the 1992 Games

Modern infrastructure: port of Barcelona, El Prat airport, AVE, ...

Wide offering of air connections

High adoption of ICT and mobile solutions

Creation of Consorcio Turisme of Barcelona

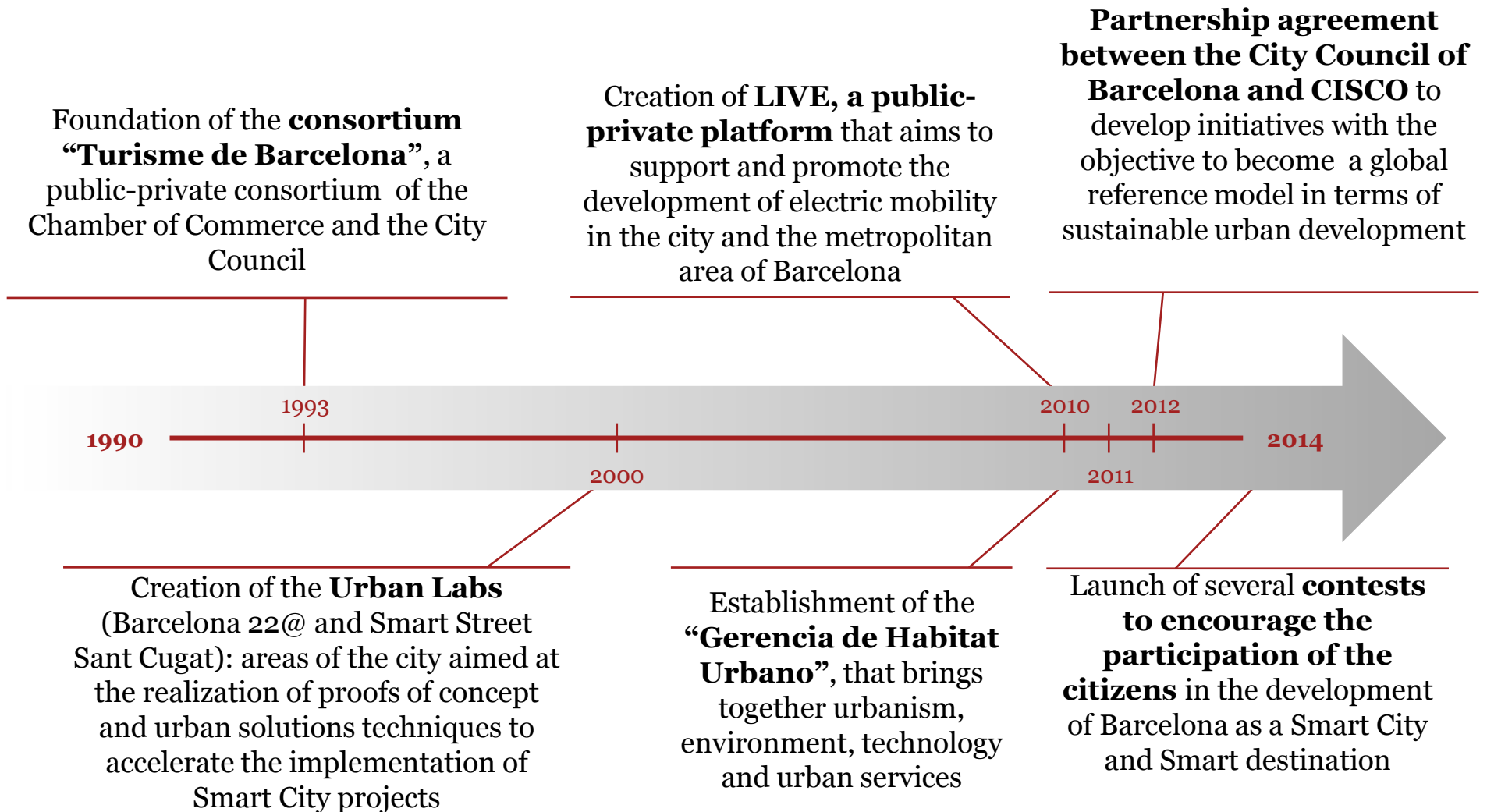
Mobile World Capital

Creation of Gerencia de Habitat Urbano

Promotion of public-private collaborations

Creation of the LIVE platform

...in a long journey that started some time ago

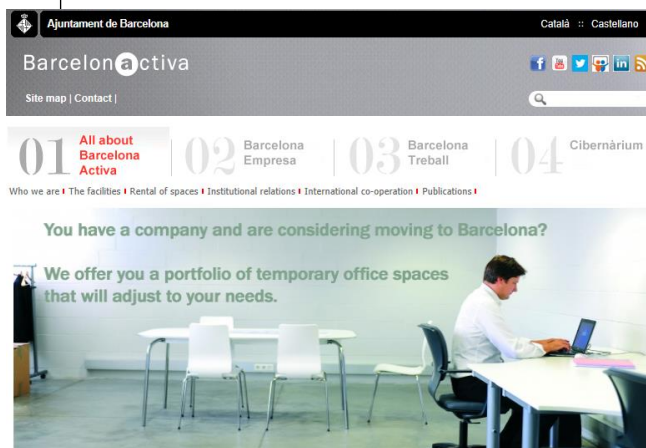


Some key elements on Barcelona's Smart City strategy

Economy



- Creation of organisms and platforms, such as Barcelona Activa, to support the entrepreneurship in Barcelona (entrepreneurial activity rate of 5,5% in 2012, above the Spanish and European average)
- Initiatives to promote the ICTs, such as the technological center Barcelona digital and its ICT cluster (Catalonia counts with 3,349 ICT companies, around the 70% located in Barcelona)



Some key elements on Barcelona's Smart City strategy

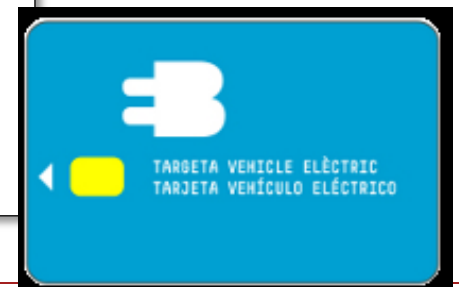
Government, Mobility



- Website for procedures and council services (Virtual office of the City Council)
- “Open Data Multi-ayuntamiento”, a common site for the data diffusion of each municipality



- Fiber optic installation in the whole city
- Establishment of a public bicycle sharing system
- Promotion of the electric car through the development of the necessary infrastructure (e.g. charging points) and the impulse of economic advantages (e.g. subsidies for the circulation tax)
- Sensors to facilitate the parking search
- Free public Wi-Fi (the biggest network in Spain and one of the biggest in Europe)
- Free Wi-Fi service for the users of the three railway stations of the Generalitat in the Eixample district



Some key elements on Barcelona's Smart City strategy

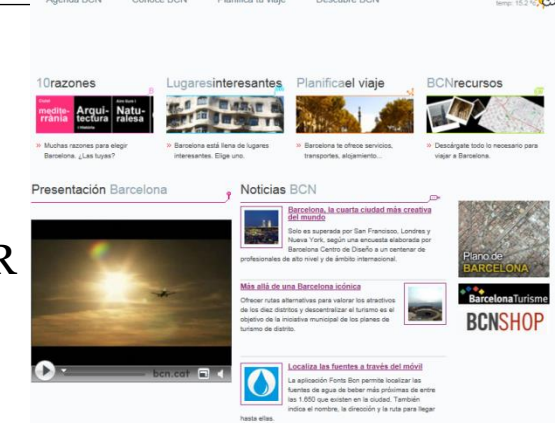
Environment, Tourism



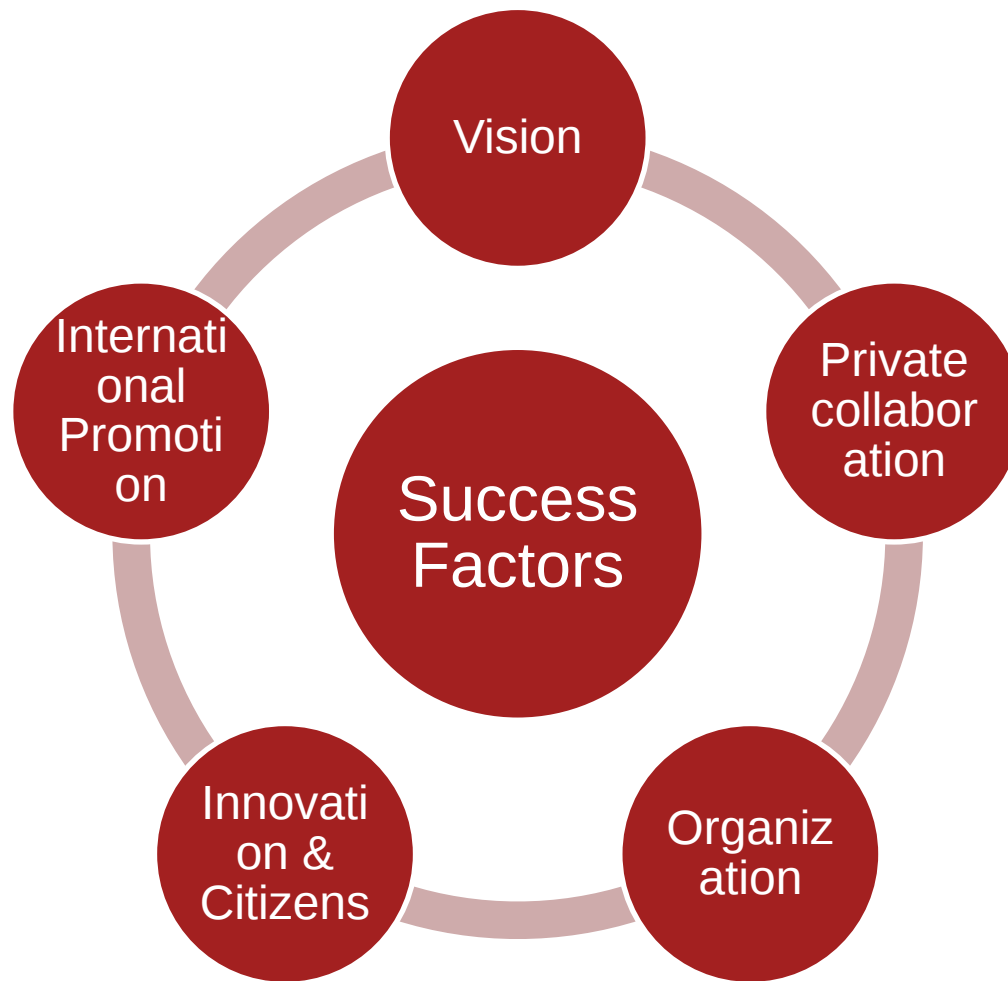
- Intelligent traffic lights, with audio for blind people
- Optimized traffic control through sensors for flow control
- Trash containers sensors that optimize the collection routes
- IT equipment for safety
- First electric bus in Spain
- “Manzanas autosuficientes” project: a new model for the construction and rehabilitation of buildings aimed at more energy autonomy and a more sustainable management



- Touristic guides through apps (e.g. Official Guide to BCN, Barcelona Restaurants, official audioguides, iBarcelona-Smartour, etc)
- Touristic buses with Wi-Fi
- Underground transport system guides, such as Barcelona Metro AR and Barcelona Metro
- Augmented reality apps linked to the touristic buses
- Videomapping sessions in emblematic buildings



Some learnings from Barcelona's experience

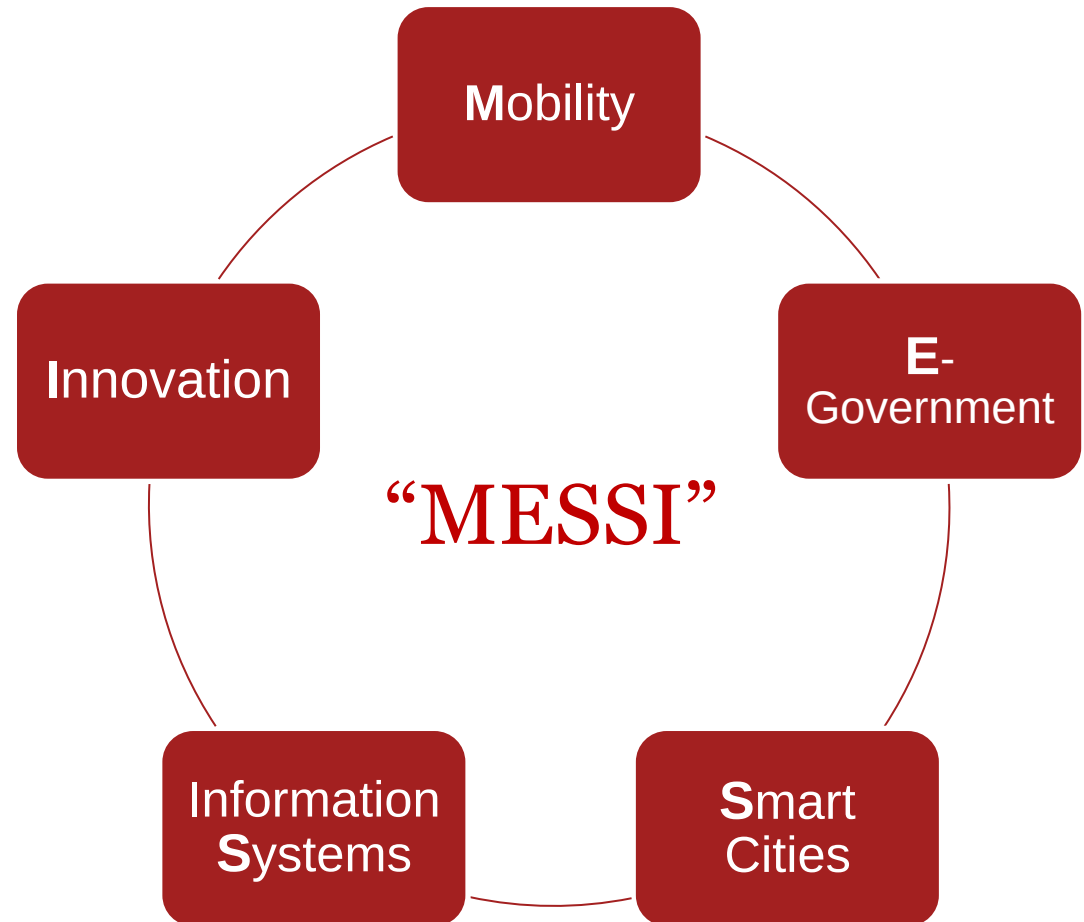


+ Robust Program
Management

+ Financing

1. Vision & Long term Strategy

“To use the **information technology** to achieve five strategic objectives”



2. Public-private collaboration



Smart City
Campus



Project
LIVE



3. Organizational transformation

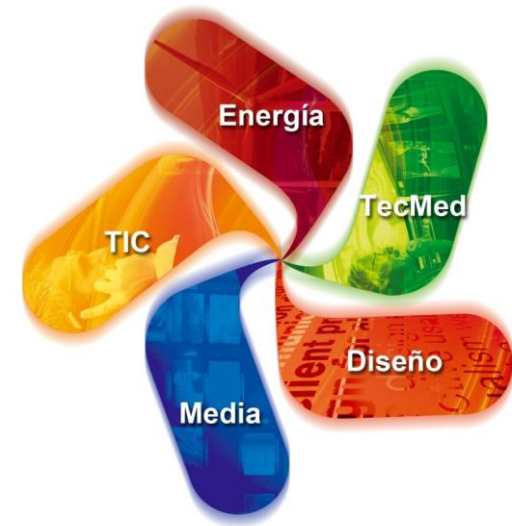


“An integrated approach to drive change within the City Council organization”

4. Innovation & citizen's involvement



Innovació
en tecnologies
mòbils



5. International promotion



Muito obrigado



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