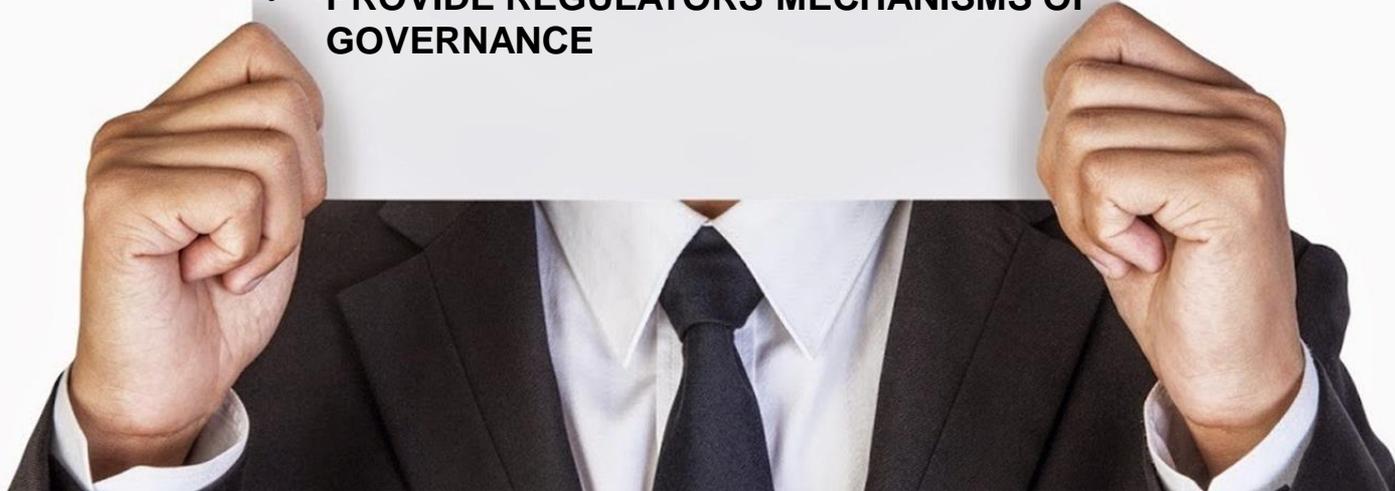


# Smart City Terrassa Strategic Plan



**AN INTELLIGENT AND SUSTAINABLE CITY  
TAKE ADVANTAGE OF ICT INFRASTRUCTURE  
IN A WAY ADAPTABLE, RELIABLE,  
SCALEABLE, ACCESSIBLE, SECURE AND  
FLEXIBLE IN ORDER TO:**

- **IMPROVING THE QUALITY OF LIFE**
- **ENSURING SUSTAINABLE GROWTH**
- **ESTABLISHING AN APPROACH  
ENVIRONMENTALLY RESPONSIBLE**
- **RATIONALIZE CITIZEN SERVICES**
- **STRENGTHEN PREVENTION AND  
RESILIENCE**
- **PROVIDE REGULATORS MECHANISMS OF  
GOVERNANCE**

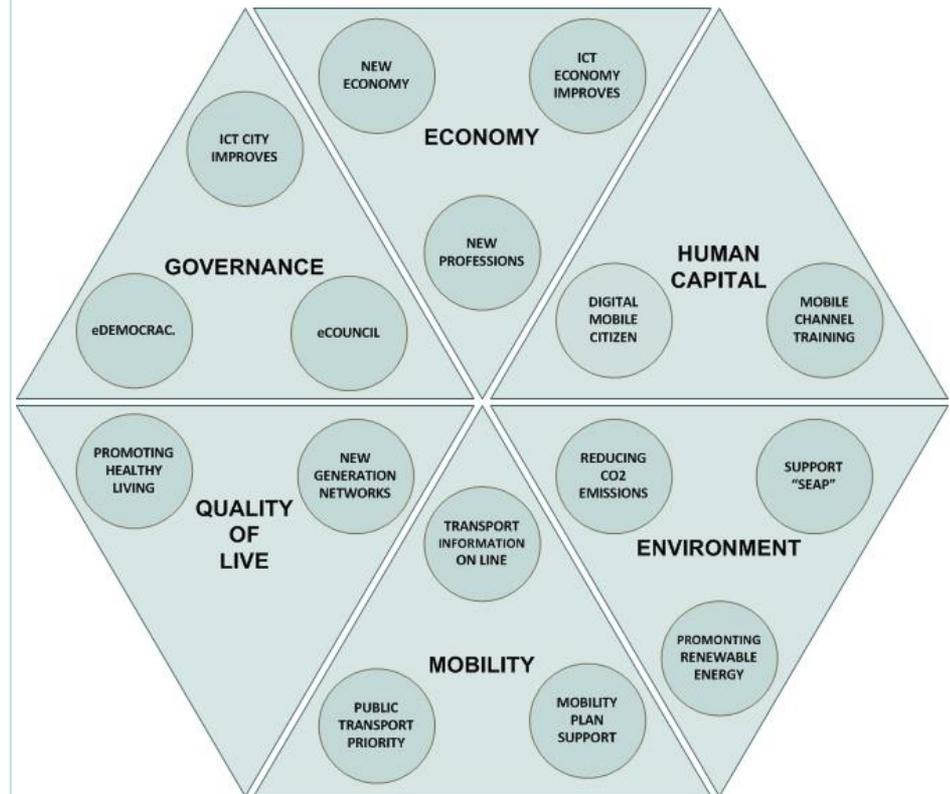




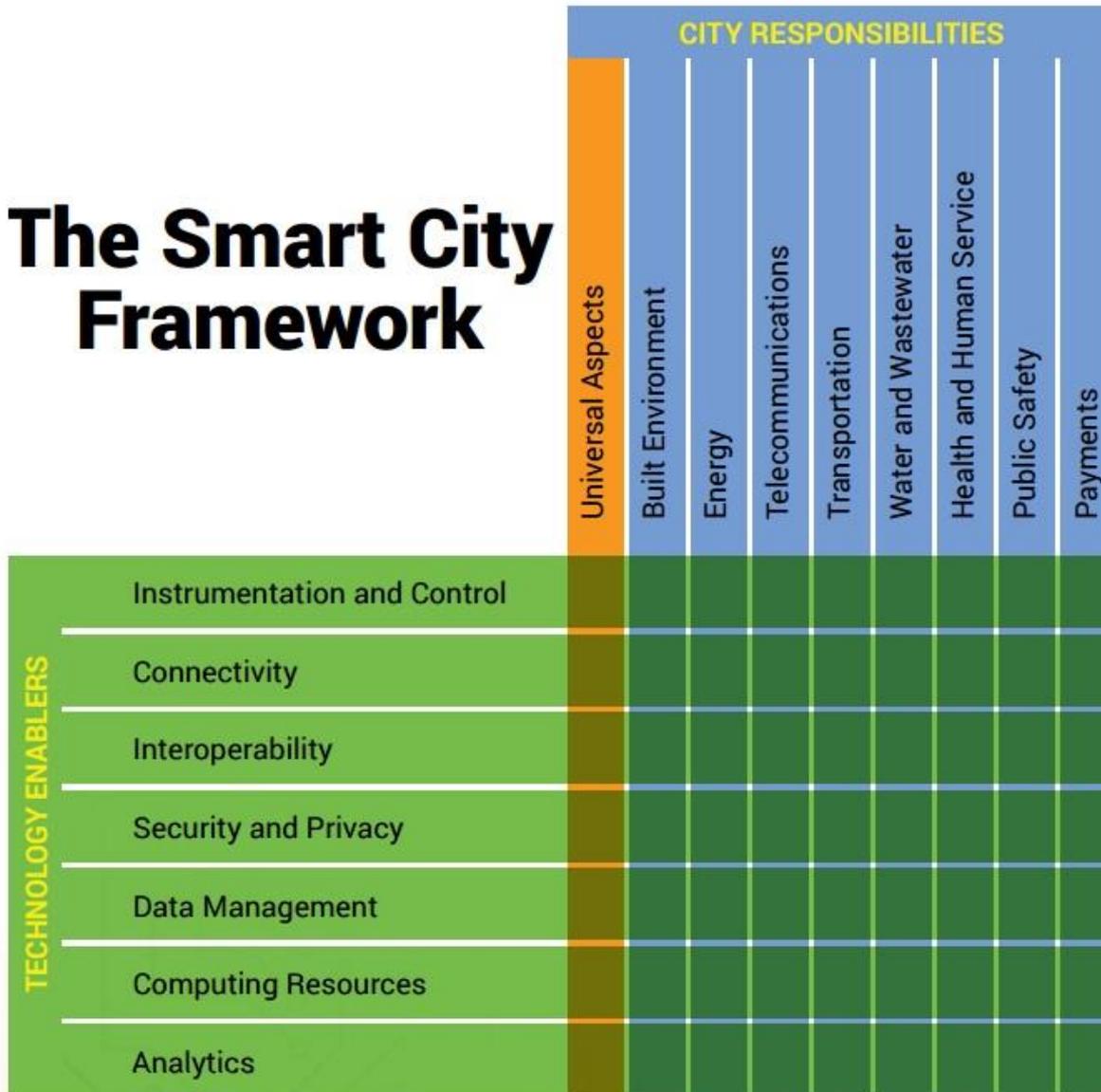
**A SMART CITY USE ICT TO IMPROVE  
HABITABILITY, WORKING CONDICIONS  
AND SUSTAINABILITY**

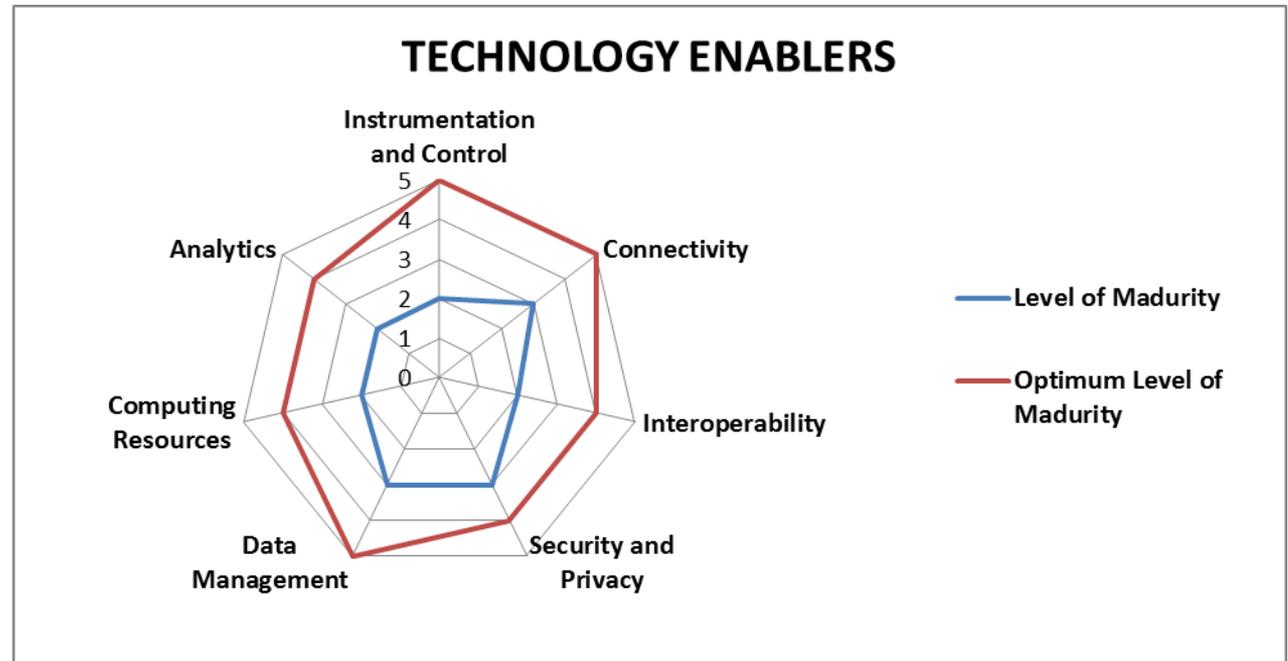
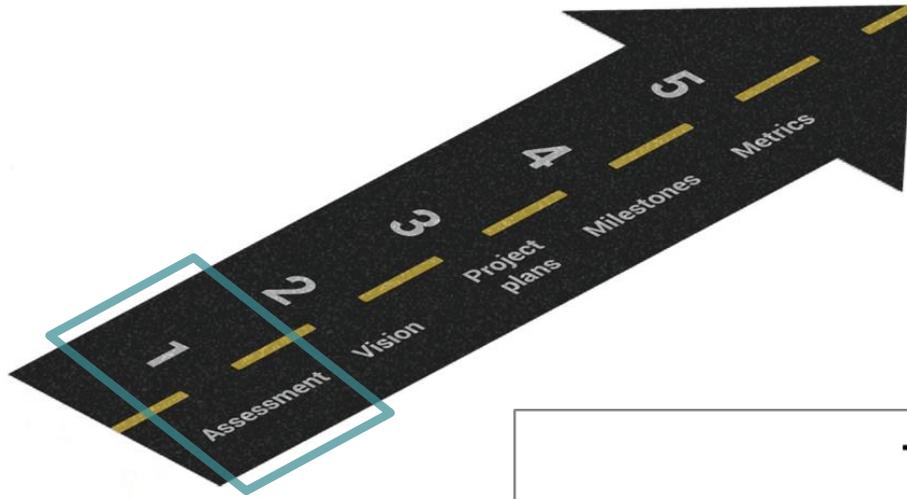
## Key elements of the Plan:

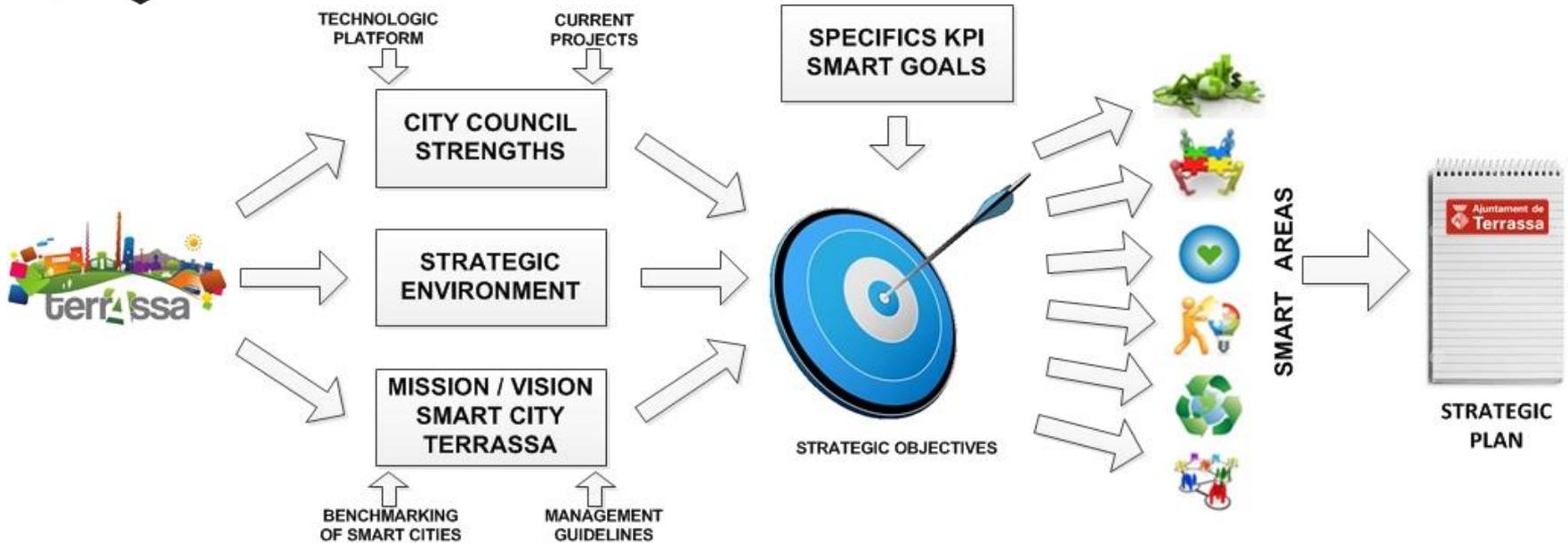
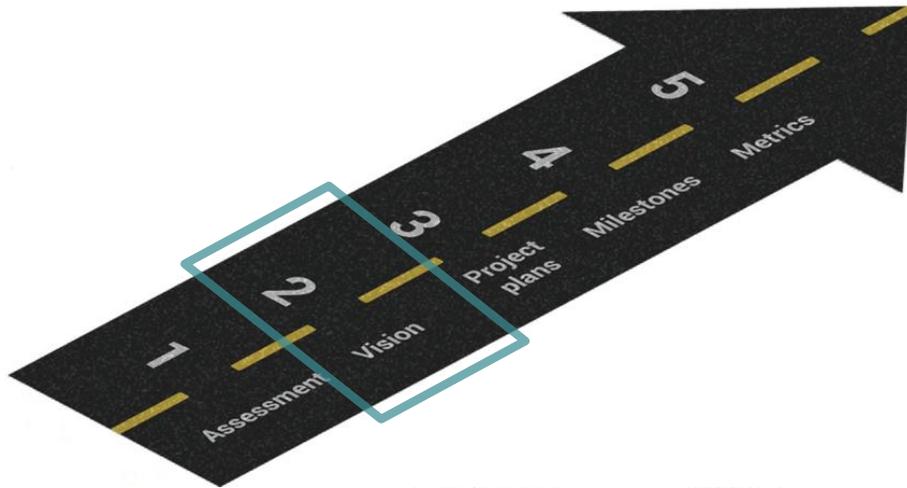
- Time period 2015-2020
- Establishment of the framework
- Diagnosis of level of maturity
- Integrating Mission & Vision
- Definition of strategic objectives and the initial battery of key indicators
- Roadmap for the development of the Plan



# The Smart City Framework







## Basic guidelines of the Plan:

- City project - Involving Entities / Universities / Research Centres / Companies / Citizenship
- External financing or co-financing - Public / private partnerships - Participation in Catalonia / Spain / Europe programs
- Sustainability - Analysis of returns - Monitoring key indicators at all levels – Measuring project-level and Plan-level success
- Citizenship-centered projects – New Services
- Transparency – Access to Services management’s information – Building confidence - Diffusion
- Transversality - Distributed execution, centralized monitoring - Promotion of consensus
- Improved Training Organization - Search talent - Learning – Organizational re-engineering

## **SMART CITY TERRASSA: GLOBAL, INNOVATIVE, TRANSVERSAL**

To achieve the commitment of:

- Turn the city into a dynamic economic engine capable of generating more and better jobs.
- Become a city leader in the defense of social rights and committed to the welfare of its citizens.
- Be protagonist of the democratic renewal process with actions to restore trust in politics increasing participation and transparency.
- Opting to territorial balance and mobility, infrastructures, telecommunications networks and quality and sustainable facilities.

Through the generation, management and operation of a set of projects of innovation, developed on a common and transversal technological infrastructure.

## Action Plan Progress

### Dimension: Economy

#### Strategic Objectives:

- Increase the start-ups of new economy.
- Improve ICT infrastructure in the areas of economic activity.
- Promote activity and hiring professionals in sectors of the new economy and the economy of social innovation.

#### Lines of action:

- Promotion of events linked to the world of ICT at the exhibition grounds. Promote Terrassa as a reference in the use of new technologies.
- Establish channels of communication and coordination between the participating companies and educational centers in the city.
- Establish a policy of city in new generation telecom networks coverage.
- Enhance support for co-working spaces and promote local networks of collaboration in innovation.
- Advance innovative purchase model.

## Action Plan Progress

### Dimension: Human Capital

#### Strategic Objectives:

- Increase the knowledge and systematization of the bidirectional use of digital channels between City Council and citizen using mobile devices.
- Improve the knowledge of ICT to promote the figure of mobile digital citizen.

#### Lines of action:

- Enhance the level of competence of municipal workers in the use of mobile communication channels.
- Establish new internal coordination communication systems, promoting the new functionalities arising from the use of smartphone and IP telephony networks: conferencing, social business, etc.
- Find new methodologies for the development of Smart projects, encouraging the transversality and the teamwork of the form compatible to the municipal organizational structure.
- Promotion of learning in sensor platforms open to schools taking advantage of our infrastructure Sentilo Terrassa.

## Action Plan Progress

### Dimension: Governance

#### Strategic Objectives:

- Improve the management of the city and facilitate the acquisition of information through ICT networks and sensors.
- Promote e-democracy and e-portal of open government.
- Establish the head office as a reference point with the citizen.

#### Lines of action:

- Review the procedure and tools of municipal workers on the territory and introduce the use of mobile terminals.
- Deepen in the management processes to facilitate access to all electronic records using telematic means to build the digital city Council.
- Promote and develop new services, Open Government platform which includes the OpenData and transparency portals
- Incorporate citizen participation tools in the of open Government platform of the City Council.

## Action Plan Progress

### Dimension: Quality of Life

#### Strategic Objectives:

- Promotion of a healthy life with ICT as an element of support and in the framework of the plan RIS3CAT PECT.
- Promotion of the improvement of the coverage of next-generation telecommunications networks in all households.

#### Lines of action:

- Collaborate in the development of PECT in the framework of the RIS3CAT strategy
- Promote and coordinate the deployment of FTTH networks in the city.
- Encourage the deployment of broadband mobile networks in the city, giving priority to the installation of base stations into municipal facilities.
- Establish a policy of sharing to the pipeline infrastructure of the city, in line with the two previous projects.

(these projects are very cross, but affect directly on the new Smart Services for the improvement of the quality of life of the citizens).

## Action Plan Progress

### Dimension: Environment

#### Strategic Objectives:

- Reduction of total CO2 emissions produced by City Council.
- Support the SEAP 2009-2020 (Sustainable Energy Action Plan), to the tasks of the Local Agency for energy and climate change, and improving the management of the water cycle.
- Advance in the generation and renewable energy self-consumption.

#### Lines of action:

- TEI ( Terrassa Smart Energy) project, in its aspect of reduction of CO2 emissions.
- Collaboration in the process of definition of data sources and processes related to the management of the water cycle.
- Establishment of platforms for data capture of measurement systems and verification of the quality of the environment in the city.
- Support for technological processes of collection and treatment of urban waste and street cleaning.
- TEI project, in its aspect of installation of renewable energy generation plants to the own consumption and the development of these infrastructures in the city.

## Action Plan Progress

### Dimension: Mobility

#### Strategic Objectives:

- Post real-time traffic data and public transport
- Prioritize public transport within the city traffic.
- Determine a plan for transport mobility in common and individual, innovative, citizen-oriented and respectful of the environment.

#### Lines of action:

- Establish data collection systems in real time related to different systems of public transport and traffic situation (boosting Open Data).
- Analyze patterns of mobility in order to establish the level of success of the projects related to the mobility
- Foster the car-sharing in the city and transform the municipal vehicle fleet in a resource accessible to the public.
- Implement tools and platforms that encourage the use of public transport and prioritize its operation within the traffic of the city (traffic lights prioritization).

## Action Plan Progress

### Dimension: Technology

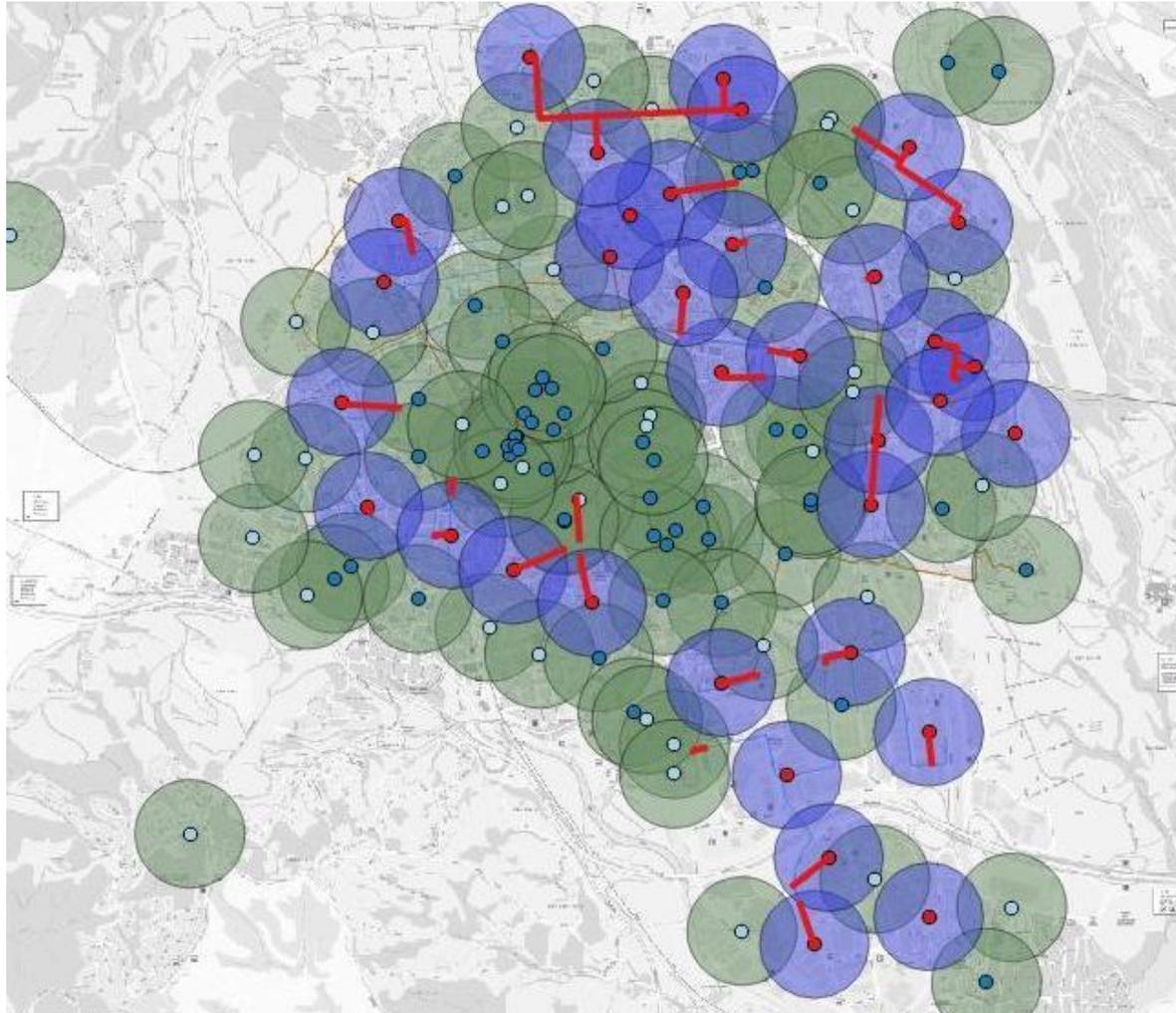
#### Strategic Objectives:

- Improve the coverage of communications networks.
- Establish and prioritize standards for ICT equipment and technology to install both the internal as external.
- Encourage Open Data to create synergies with third parties
- Orient the Smart City's ICT platforms to the cloud (Cloud).
- Establish a protocol of ethics of treatment of data.
- Have an integrated data management system.

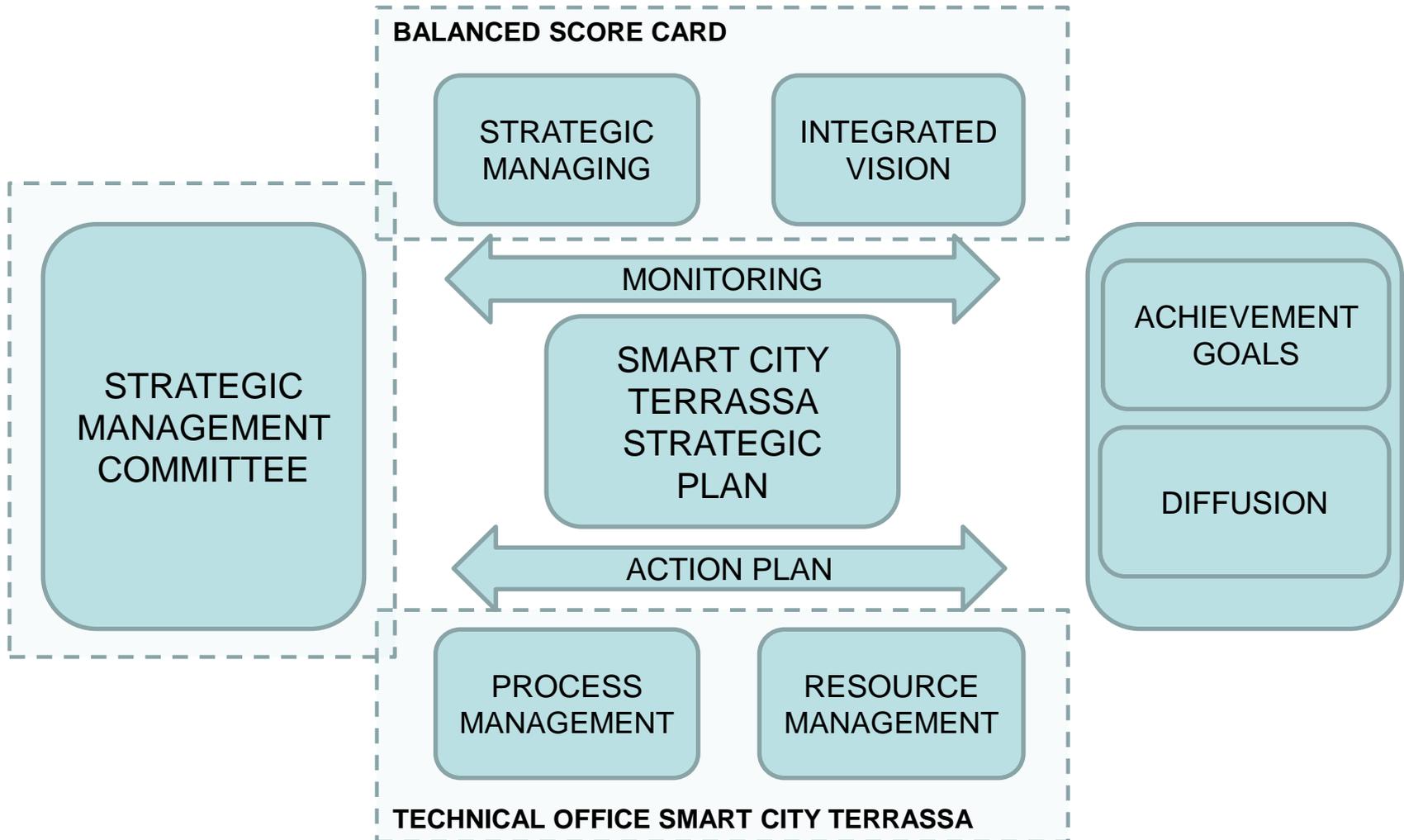
#### Lines of action:

- Increase the coverage of the local networks to maximize the connection of devices and systems involved in the management of the municipal services
- Promote the development of interconnection and service platforms (Sentilo Terrassa).
- To Influence on the hiring of local goods and services in order to ensure compliance with the standards and specifications Smart.
- Establish a platform for the management of the balanced score card and the Government of the area Smart.
- Define clear policies and rules on the use and the treatment of the data generated by Smart technologies.

## Backbone Smart City:



## Government platform of strategic Plan



## Strategic Management Committee



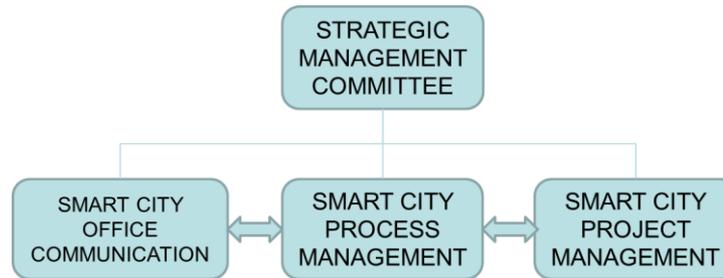
### FUNCTIONS

- Evaluate the fulfillment of strategic goals and the alignment with the strategies of the city.
- Become the Forum of collaboration between the City Council and the rest of the city partners: research centres, companies, universities, etc.
- Approve the action plan made by the technical Office.
- Approve the budget of the Smart projects.

### ROADMAP 2015-16

- Establishing the organization of the Management Committee, with the leadership of the Mayor.
- Define the operating methodology of the Committee, encouraging participation and collaboration both internally (Groups and Municipal Services) and social partners involved.
- Review and / or confirmation strategic objectives.

## Technical Office Smart City Terrassa



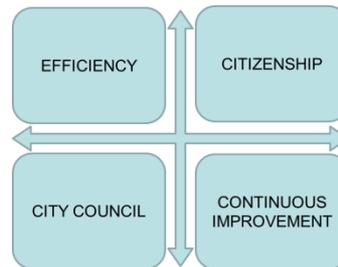
### FUNCTIONS

- Implement the Plan and ensuring compliance objectives.
- Maintain a cross vision and develop the Action Plan.
- Facilitate the achievement of resources and tenders.
- Coordinate and execute all activities related to the implementation of the Action Plan.
- Communicate the results
- Establishing a link and communication channel between strategy and operation.

### ROADMAP 2015-16

- Specifications for the project and communication offices (Services already existing).
- Structure, dimensioning, roles and tasks of the technical office.
- Operational methodology (participation, coordination and transversality).

## Balanced Score Card

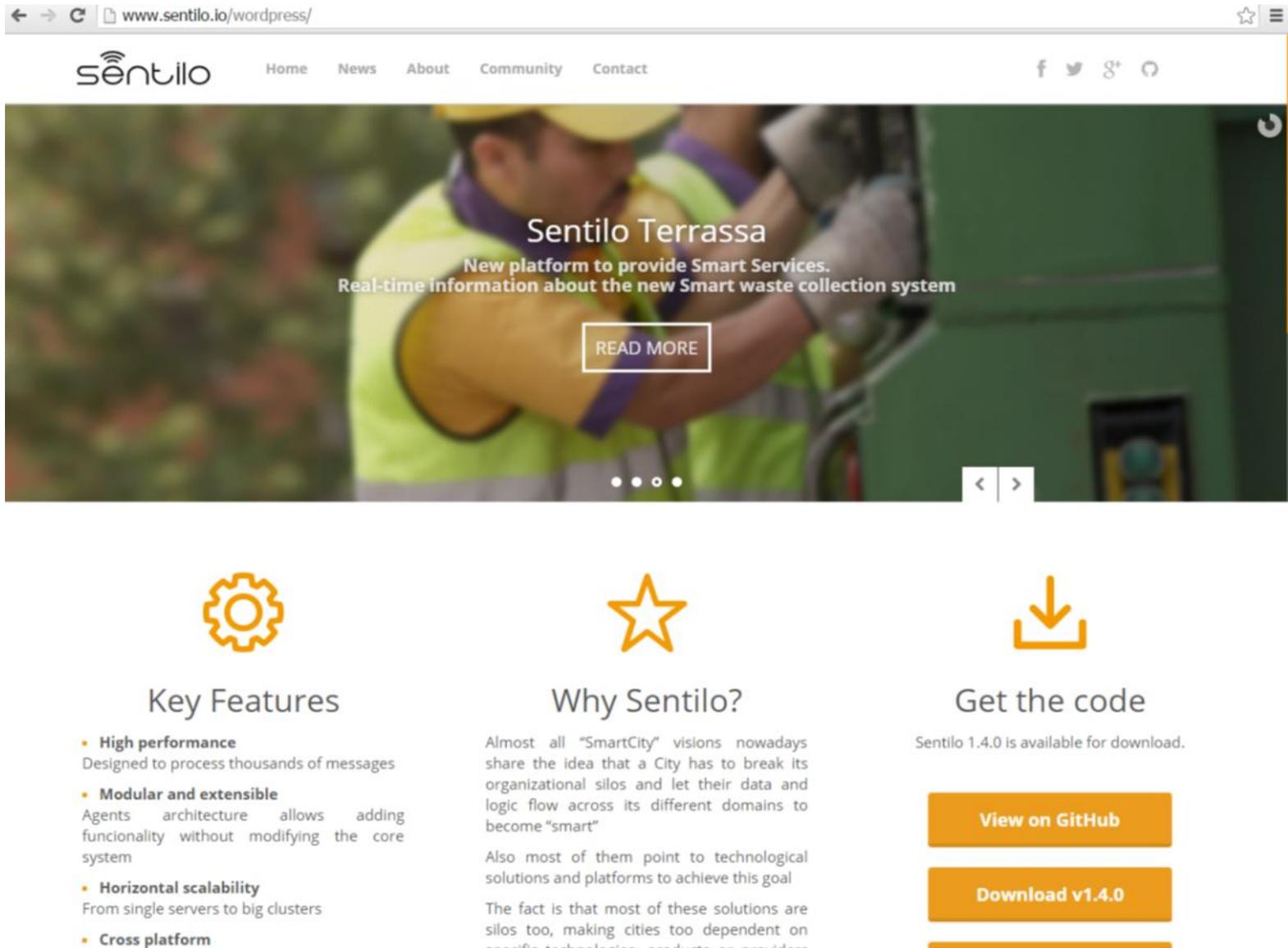


### FUNCTIONS

- Consolidating the set of KPIs established in the Strategic Plan.
- Publish, communicate and monitor the degree of achievement of objectives for each area.
- Get real-time what the "IQ" of the city.
- Overall analysis, holistic vision, the whole is greater than the sum of its parts.

### ROADMAP 2015-16

- The auditing of information sources, formats, etc.
- Study of available data, targets and indicators.
- Definition of data structure to be presented, update period, etc.
- Benchmarking of tools available.
- Definition of functional requirements.
- Implementation of the platform.
- Methodology for integrating new data.
- Diffusion - Strategic map view.



← → ↻ www.sentilo.io/wordpress/ ☆ ☰

sentilo Home News About Community Contact f t g+ ↻

## Sentilo Terrassa

New platform to provide Smart Services.  
Real-time information about the new Smart waste collection system

READ MORE

• • • •

< >

### Key Features

- **High performance**  
Designed to process thousands of messages
- **Modular and extensible**  
Agents architecture allows adding functionality without modifying the core system
- **Horizontal scalability**  
From single servers to big clusters
- **Cross platform**

### Why Sentilo?

Almost all "SmartCity" visions nowadays share the idea that a City has to break its organizational silos and let their data and logic flow across its different domains to become "smart"

Also most of them point to technological solutions and platforms to achieve this goal

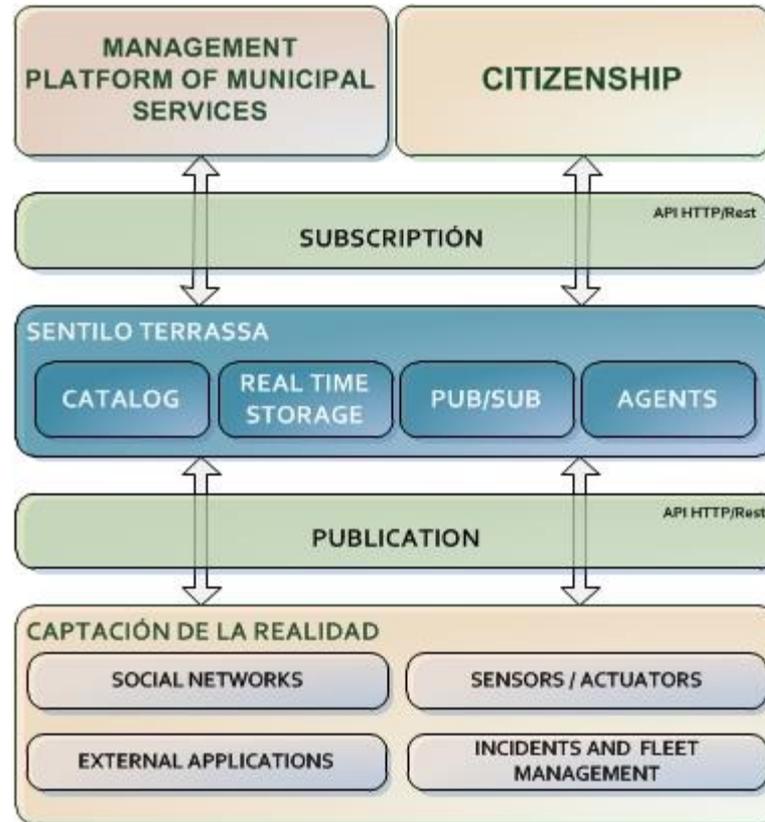
The fact is that most of these solutions are silos too, making cities too dependent on specific technologies, products or providers

### Get the code

Sentilo 1.4.0 is available for download.

[View on GitHub](#)

[Download v1.4.0](#)



**High Performance**

**Open Source**

**Modular and Extensible**

**Standards Based**

**Scalable**

**Multiservice**

**Sensor Viewer**

## Integrated Services:



**Side Waste Collection**



**Monitoring Energy Consumption**



**Occupation Indoor Parking**



**Fleet Maintenance Management**



**Traffic Status**



**Meteorological Stations**

**Irrigation Management**



**Street Cleaning Vehicles**



**Air Pollution Control**



**Gauging Counters**



**Street Lighting Control**



**Urban Transport Fleet Management**



**Sound Level Meters**



**Water Cycle Management**



## Sentilo Terrassa for Kids

