

# SYSTRA GROUP



## KEY FIGURES

- €612m turnover in 2016
- Over **60 years'** experience in public transportation
- Client references in **150 countries** and **350 towns and cities**
- **100%** of High Speed Railway lines in France and **50%** worldwide
- **1 in 2** metro lines in the world completed
- **First catenary-free tramway line project** in the world



## EFFICIENT TEAMS AND RECORD BREAKING PROJECTS

A large range of expertise and a continuous innovation dynamic allows SYSTRA to permanently outperform to better meet the needs of those with whom we work.

- World record for tramway lines constructed: **500 km**
- Record for tramway public works: **30 lines**
- World rail speed record: **574.8km/hour**



HIGH SPEED RAIL



CONVENTIONAL RAIL



BUS RAPID TRANSIT



PEOPLE MOVER



MASS RAPID TRANSIT



LIGHT RAIL TRANSIT



CABLE CAR & FUNICULAR



FREIGHT & MULTIMODAL

# SYSTRA SMART CITY PROGRAM

Population growth



Change in mentalities



NTIC/digital/IoT



Emmergence of new mobilities



# SYSTRA SMART CITY PROGRAM

- **Smart Citizen:** Develop participatory approach based on research studies, network and web-based tools.

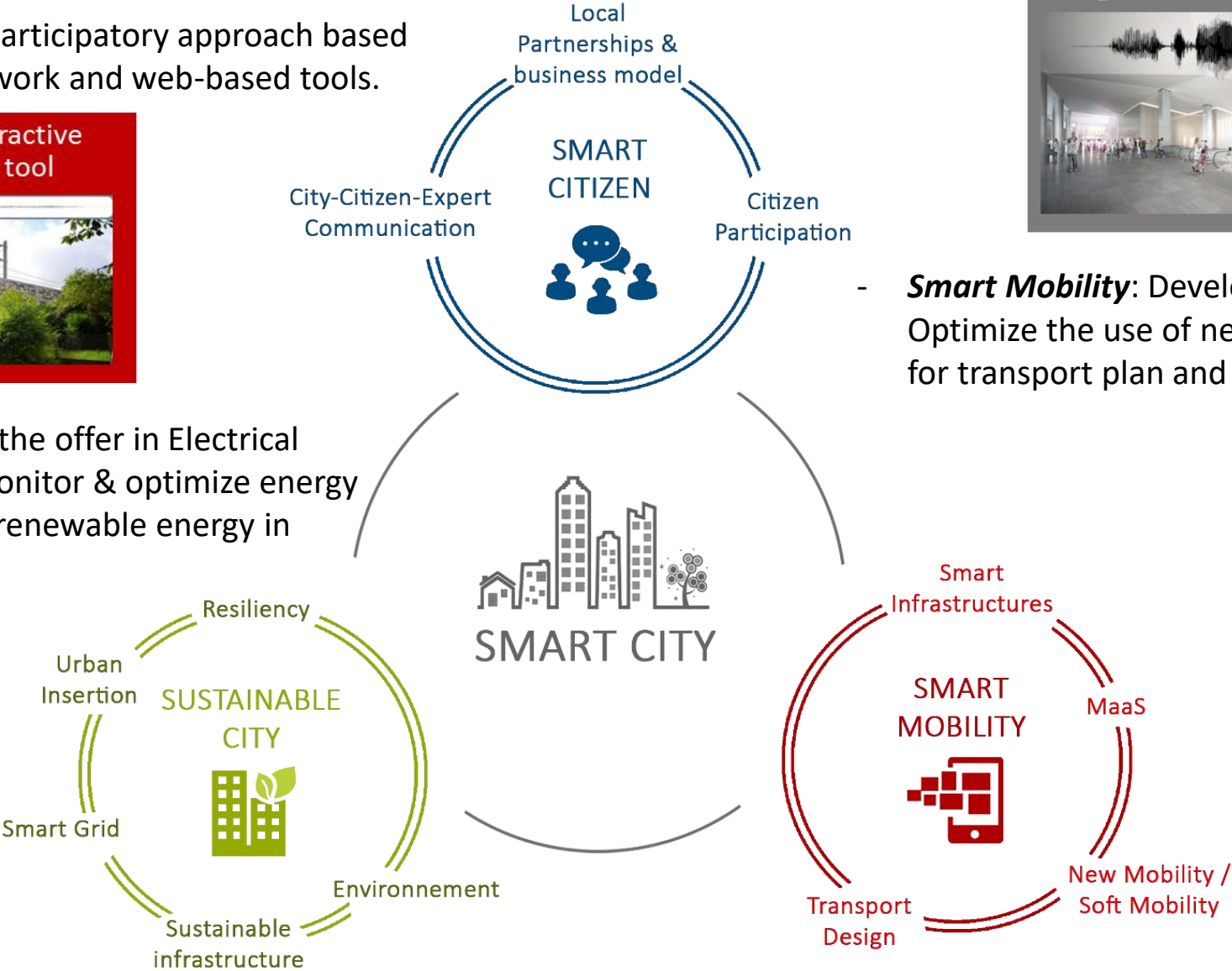


- **Smart Mobility:** Develop the multimodal offer. Optimize the use of new data and digital platform for transport plan and operation.

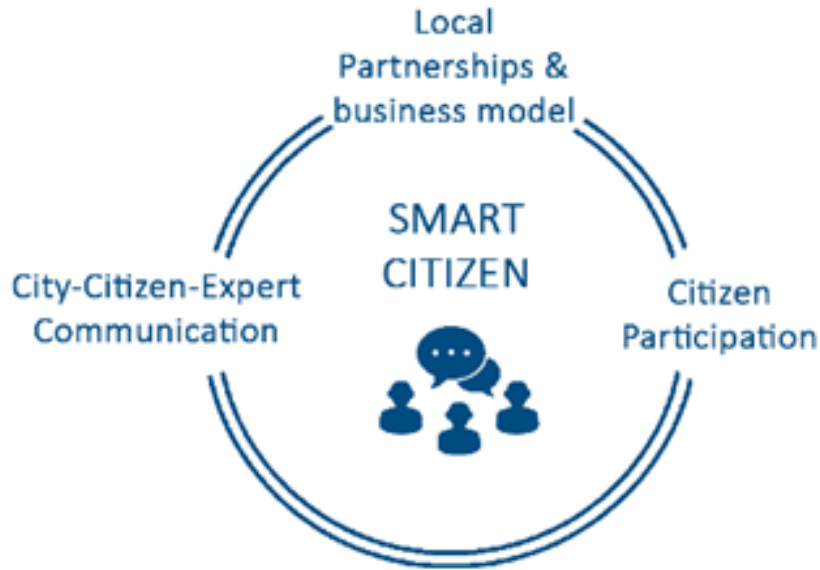
- **Sustainable city:** Develop the offer in Electrical Vehicles (bus and cars). Monitor & optimize energy consumption. Implement renewable energy in transport infrastructure.

**New Transport System Electric Vehicles**  
Specification of an electric vehicles fleet

Quelle technologie, nombre, localisation, ...?



# SMART CITIZEN



Project acceptability is the first challenge in designing new infrastructure. How the project can be defined to optimize the benefit of all stakeholders, who may have divergent interests?

Citizen involvement in the decision process is becoming increasingly critical for any new city's development. How this is done?

This is the topic investigated in our Smart Citizen approach:

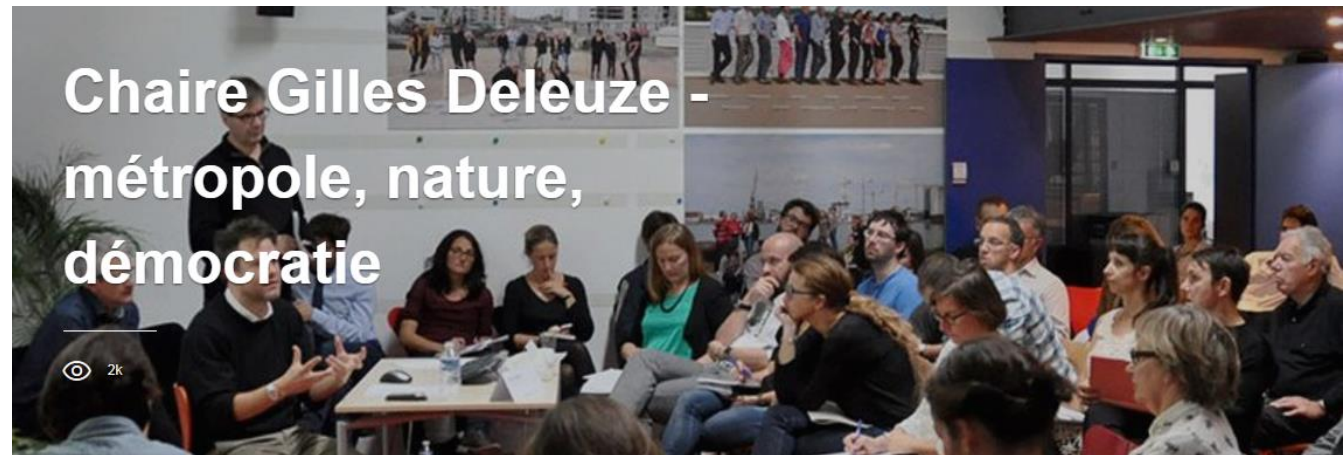
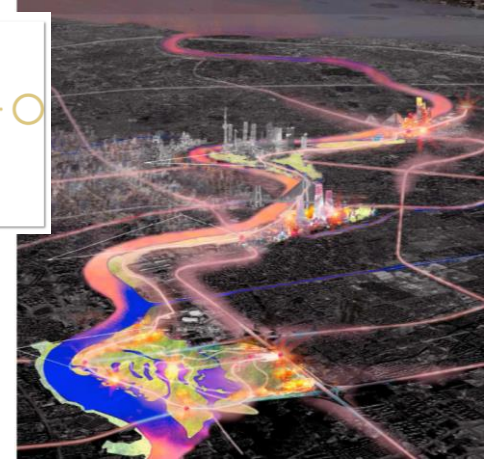
- Participation with cities and universities in thinking groups
- Development of numerical tools to facilitate communication and involvement of the citizen

# Research & Collaboration

SYSTRA, universities and cities share reflections and common work around the urban insertion of infrastructures, involvement of citizen in the decision process, governance ...

- Metropolitan Mobility Chair with Strasbourg and Tonji
  - Workshops
  - Teaching
  - Sharing views between disciplines
  - ...
- Deleuze Chair with Bordeaux
  - Student projects
  - Seminar with renown experts
  - Developing proof of concepts
  - ....
- Supervising PhD Thesis

METROPOLITAN  
MOBILITY CHAIR



# Digital tools development

Tools to visualize data, facilitate understanding and help the decision process:

Tools to facilitate communication between citizen, cities and transport authorities:

## IMMERSE

Immersive Scenario Explorer to evaluate visual and acoustic impacts of a new infrastructure.



## WeMAP

Smartphone apps to facilitate communication between citizen, passengers, cities and transport authorities.



## InPROVE

In Context Project Viewer: Webservice, which can gather all types of data available and useful for the project

