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ESISTONO LE SMART CITIES IN ITALIA?

L'ESPERIENZA DI GENOVA SMART CITY

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A Changing City

In the last 20 years the city undertook a reconversion process characterized by:



- ✓ An economic transition from industry to technology
- ✓ A tourism and cultural activities boost (UNESCO World Heritage)
- ✓ A mercantile port that became also an important marina

The harbor as a distinctive characteristic of Genoa.

The port is adjacent to the city center, thus amplifying congestion problems and pressure on the mobility system, which are typical of port cities.

Addressing these issues has a positive effect on the quality of the urban environment and at the same time provides a case study with great potential for replication. The members of AGSC submitted about 25 projects that fall within one or more of the four areas proposed. The projects were evaluated and classified by the Scientific Technical Committee of the Association and are currently being integrated into a single, comprehensive project called "Project Genoa Smart City."

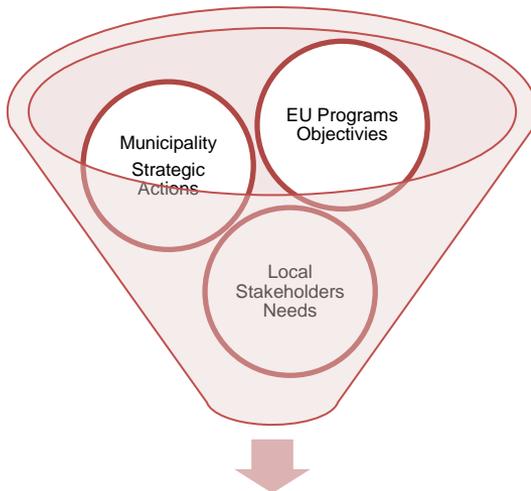
After the first scientific classification process, there will also be an evaluation of the proposals according to other parameters, such as bankability, the type of financing possible, the creation of jobs, the induction of behavioral changes, and the creation of awareness.





Strategic city planning

During the last period we changed our methodological approach in order to focus on the **strategic city planning** able to involve all the actors/stakeholders present in our territory.

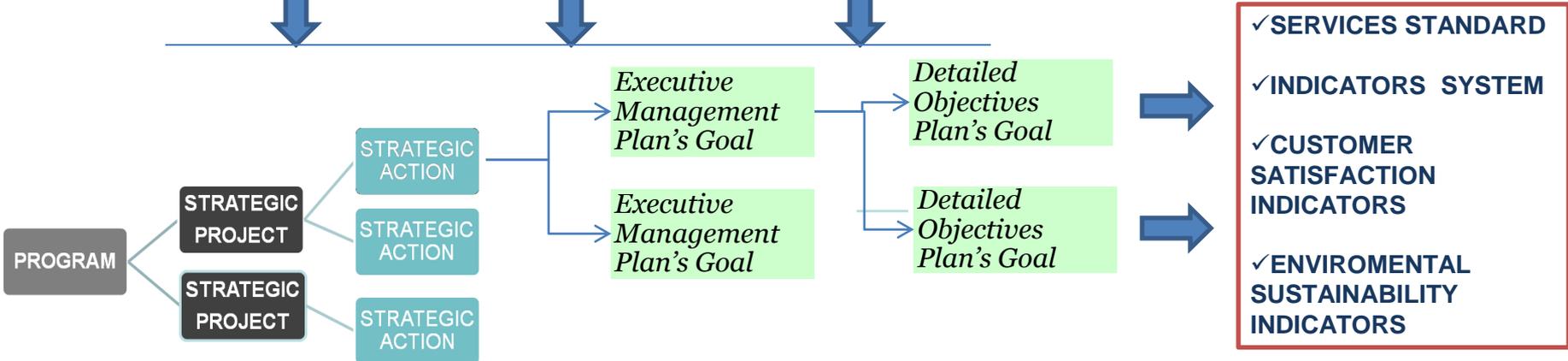
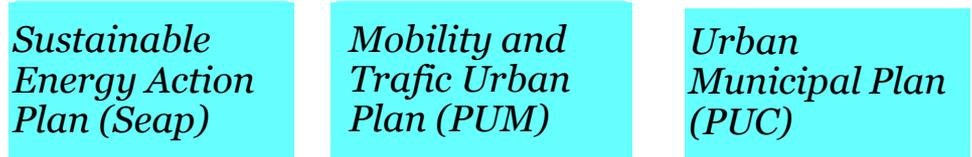


This is a **long-term participatory process** carried out by our internal Strategic Planning and Organizational Development Dept and the Genova Smart City Association.

The GSC Association is our first interface actor on the territory as it represents a network of active realities on the territory

Municipality Governance

Monitoring and



How to implement this model ?

- Bottom up approach
- Collection of all project ideas from:
 - Municipal departments
 - Local Institutions
 - Research Bodies
 - Stakeholder
- Analysis of coherence with the program guidelines
- Creating a strategy map of the coherent ideas based on some key variables

Strategy map's - some key variable

- Timeframe of the proposals (*long, mid, short term*)
- Type of intervention (*infrastructure, service*)
- Possible sources of finance (*municipal funds, european funds, private funds, ppp, croudfunding, sponsorships*)
- Actors involved

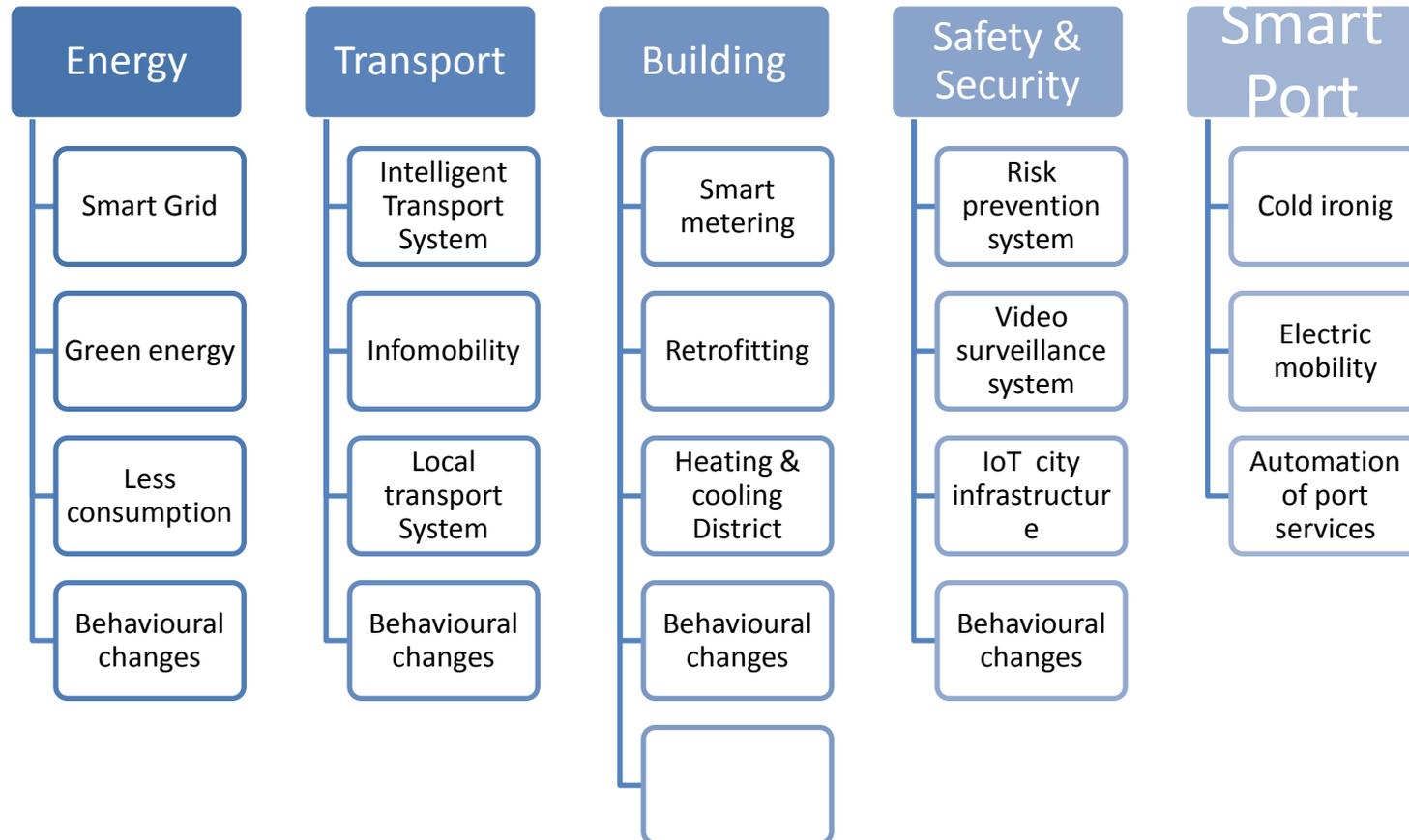
Stakeholders engagement

- It is based on the Genova Smart City Association which was founded in 2010 by the Municipality of Genoa, the University and ENEL
- The GSC Association was designed to consolidate and facilitate the process of transformation into a smart city and to engage key partners to undertake a virtuous path: research, enterprises, institutions, finance and citizens.
- Today the Association has more than 80 members
- This model of partnership is based on voluntary cooperation between public and private sector

The GSC Association:

- An Assembly of Members
- A Board of Directors
- An Executive Committee
- A President embodied by the Mayor of the City of Genoa
- An Executive Vice President
- A General Secretary
- A Technical and Scientific Committee
- A Board of Auditors

Genoa Smart City Strategy is based on 5 pillars



Genoa Smart City Strategy able to provide 4 fundamental requirements:

Balanced

- Able to find the best possible use of all resources and factors

Resilient

- able to withstand stress and catastrophe

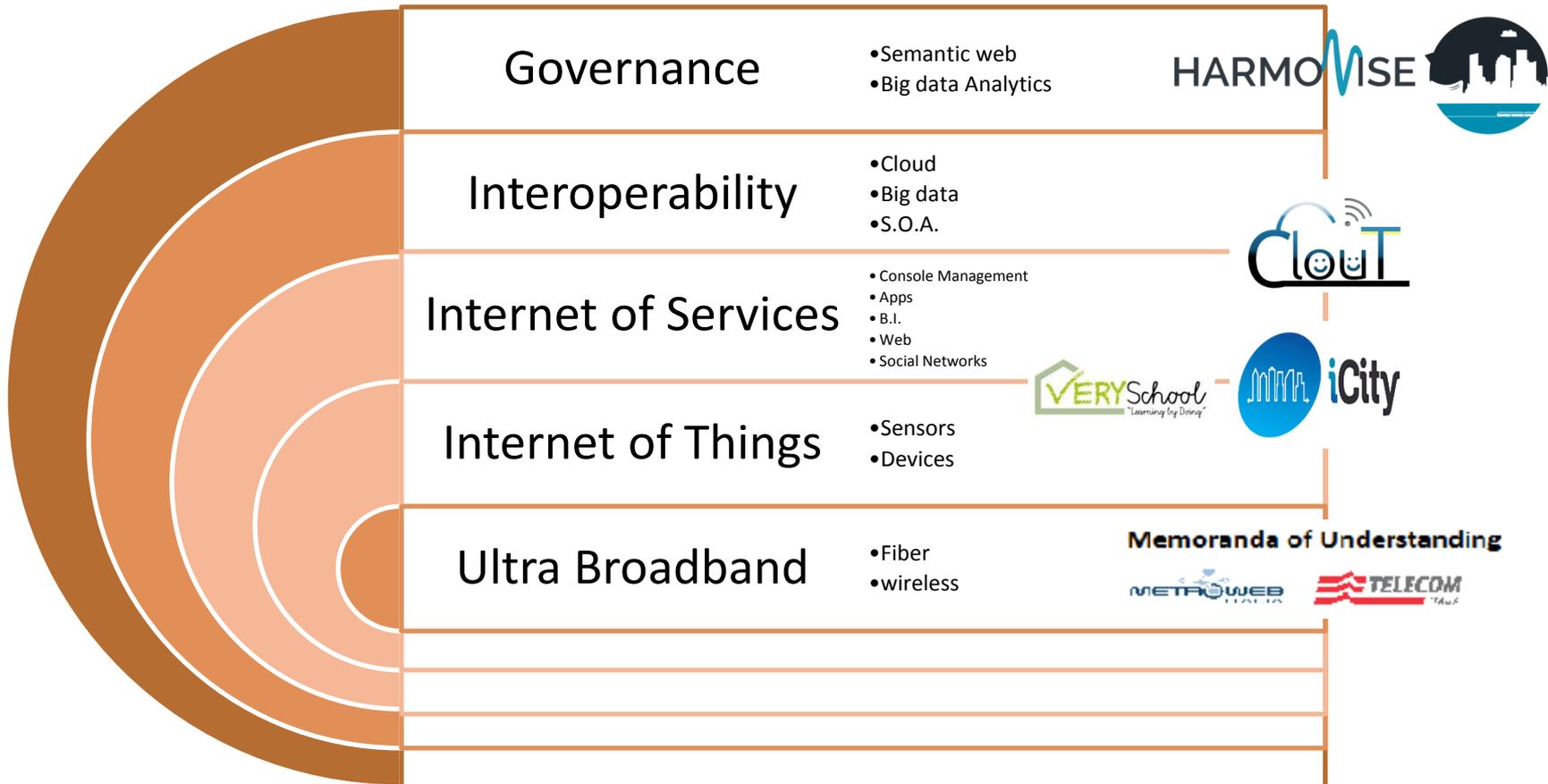
Adaptive

- able to change easily when needed

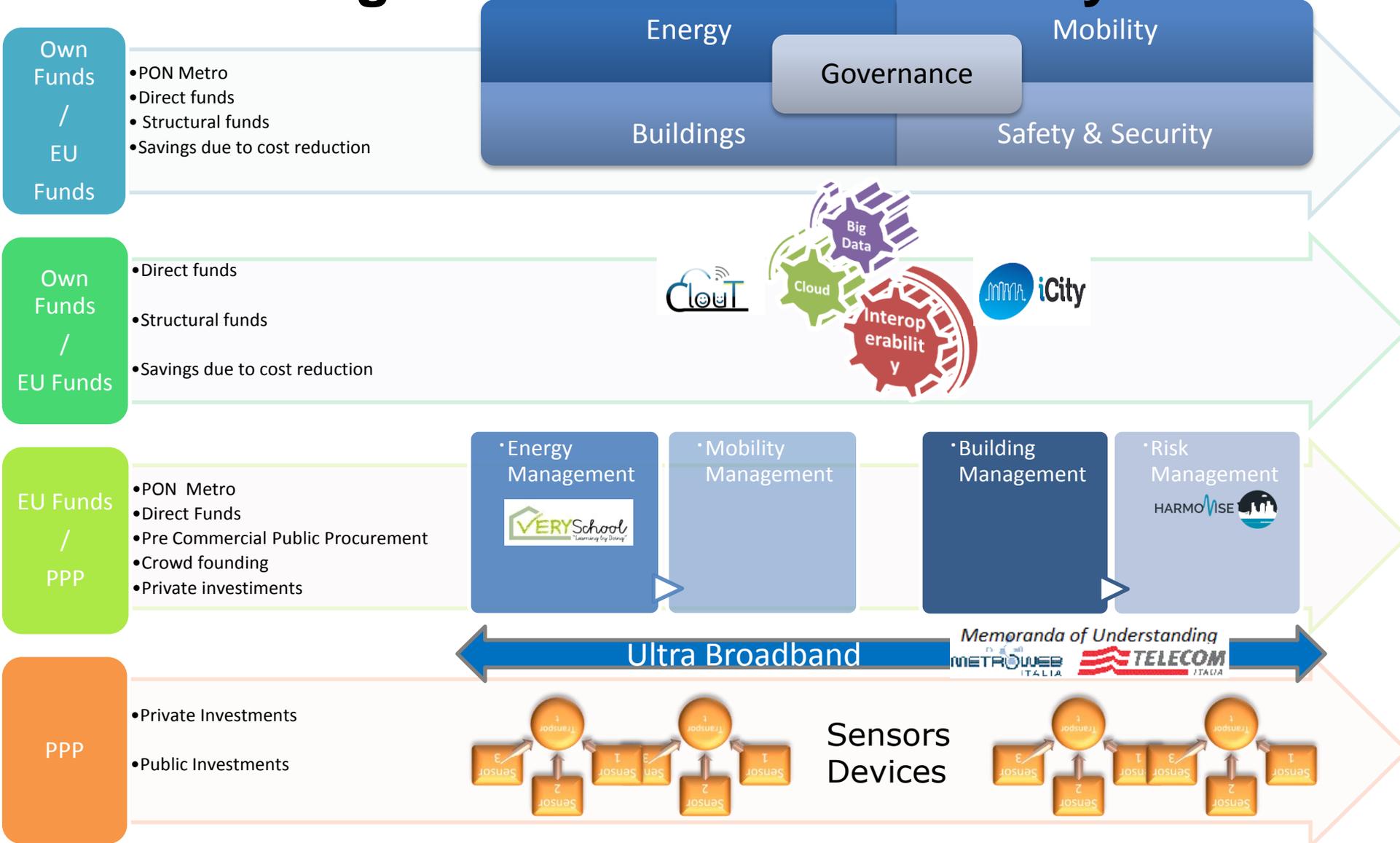
Open

- able to interact with the external environment

It is strictly related with KETs & Future Internet Applying a model composed by different layers



An integrated & sustainable ecosystem



Memoranda of understanding

The Municipality of Genoa has signed memoranda of understanding engaging some companies to carry out analysis and feasibility studies of specific projects:

- ✓ ABB: intelligent medical building, transparent technological laboratory, green port
- ✓ Elkrom: mini wind turbines and intelligent sports facilities
- ✓ Enel: development of smart grids, smart meters, Renewable Energy Funds (FER)
- ✓ Ericsson: Smart Mobility
- ✓ Italian Post Office: Integrated digital communications and friendly counters (Sportello Amico)
- ✓ Selex ES: energy consumption of “Matitone” building, security through voluntary participation in the “Maddalena” area, experimental systems for hydro geological monitoring of landslides
- ✓ Siemens: intelligent historical buildings, green airport, green harbor, urban mobility
- ✓ Singularity: e-Government
- ✓ Telecom Italy: smart school, mini-trenches for laying optical fiber
- ✓ TOSHIBA Transmission & Distribution Europe: energy optimization of water courses, intelligent museums and sport facilities.
- ✓ Finmeccanica Group and its companies: other specific projects.

R&I AND BUSINESS CAPACITY

Genoa is reinforcing its Research and Innovation economic sector becoming one of the main research excellence cities in Italy. In this framework its former industrial neighborhoods host many technological companies and research institutions having national relevance:

- ✓ The University of Genoa
- ✓ The Italian Institute of Technology - IIT one of the most important Research excellences in Italy
- ✓ Many departments belonging the National Council for Research (CNR).
- ✓ The Ligurian Technological District - SIIT which is a Public and Private Partnership aiming to boost industrial research at regional level in the field of integrated intelligent systems.
- ✓ Dixet is a Technological and Advanced Technology club joined by more than 110 Genoese companies operating in the field of electronics, robotics, mechatronics, information technology, telecommunications and biomedical.

Many important initiatives are being activated by other public and private subjects present on Genoese territory in order to reinforce the international positioning of Genoa:

- ✓ The **GENOVA2021** project aims to create a network among the Genoese High-Tech companies to promote the economic growth and young people job opportunities in the field of technological innovation and to get the acknowledgment of Genoa as the European City of Technology;
- ✓ The **SEA TECHNOLOGIES CLUSTER** initiative promoted by Genoa WTC aims to put together the major USA and Canadian private subjects operating in the field of applied research to the following sectors: boat and shipbuilding, defense & security, desalination & water treatment, marine recreation, ocean science & observation.

Main European Projects 1/2

TRANSFORM (total budget €5,611,852.34) supports cities to meet the European Union 20-20-20 targets by the integration of energy in urban management. It's integrative approach brings operational plans to the strategic level, including strong stakeholder processes, data analytics and takes into account all relevant energy flows, environmental aspects, urban mobility, and the interrelation of possible measures and their costs. This integration of elements creates win-win business models for stakeholders with initially different interests. The TRANSFORM consortium consists of six frontrunner cities from across Europe in the fields of Smart City, Integrated Urban Planning and sustainable project development. Energy companies, both local and European, work with them, together with knowledge institutions and leading European commercial partners.

R2CITIES (total budget €9,011,330.87) aims to develop and demonstrate an open and easily replicable strategy for designing, constructing, and managing large scale district renovation projects for achieving nearly zero energy cities. For this purpose, it will be developed a demonstration and dissemination framework of very innovative strategies and solutions for building energy renovation at district level.

CELSIUS (total budget €14,074,798.00) is the largest winning projects in the Smart Cities & Communities 2011 call. The four-year project presents best practice solutions in the area of smart district heating and cooling by taking a holistic approach to overcome technical, social, political, administrative, legal and economic barriers. The project brings together excellence and expertise from five European cities with complementary energy baseline positions: Cologne, Genoa, London, Gothenburg and Rotterdam.

Main European Projects 2/3

iCITY (total budget €5,210,472) is a EU financed project aiming to develop an approach to allow third parties (developers, small and medium enterprises,...) to create and exploit services based in the use of available public information, digital assets and infrastructures in cities. Interested parties will be given access to public information and infrastructures through a shared technological platform integrated in the four participant cities (Barcelona, Bologna, Genova and London): the iCity platform.

ClouT (total budget €2,316,932 only for EU) is a EU-Japan cooperation project whose overall concept is using the Cloud as an enabler to bridge the Internet of Things with Internet of People via Internet of Services with the main goal in mind which is to enforce the citizen clout in the city life.

GeoSmartCity (total Budget €3.802.906,00) aims to create a framework in which Geo Open Data from the cities are exploited towards the “Smart City” paradigm allowing the developing of various added value applications and new specialized services. It concerns the sharing of information and data relating to the subsoil (water and gas pipes, electrical cables and telecommunication equipment...) allowing a better understanding of existing infrastructure and their interaction with the surrounding environment.

Strategic (total budget €4.762.744,00) has the goal to facilitate organizations in leveraging the benefits of public cloud services, through the transferring of existing on-line services to the Cloud, the adaptation and localization of existing services, which was successfully deployed by other organizations and the creation of new public cloud services on the basis of available legacy services.

Future Projects goals

- To implement new business models to meet the challenges of globalization
- To increase job opportunities for young people also through innovative study courses and training
- To develop collaborations in some strategic issues:
 - Smart pillars
 - TTIP
 - R&I
 - Security
- To reinforce collaborations in some our specific excellences:
 - Cultural heritage
 - Micro grid & power intelligence
 - Maritime technologies

Grazie per l'attenzione

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