ESMARTCITY project
Smart Cities as Innovation Ecosystems

Prof. Luca Ferrarini

ICT Department, Politecnico di Milano

Esmartcity

- A project funded under Interreg Mediterranean programme

- Focus on "Enabling Smarter City in the MED Area through Networking"

- 10 partners coming from 6 Mediterranean countries

Project co-financed by the European
Regional Development Fund

Smart City

- Investment in human and social capital

- Utilization of traditional and modern infrastructure

- Leading to
  - Sustainable economic growth
  - High quality of life
  - Management of natural resources
  - Participatory governance

- Balance between economic, social and environmental demands

Problem Statement

- Smart City enabling technologies are mature (-ing)
  - Embedded devices
  - Ubiquitous networking infrastructure
  - Service Oriented Architecture
  - IoT
- Smart City Paradigm is largely technology-pushed
- Adequate end-user pull is missing

Problem Statement

- Smart City pilots did not create adequate end-user pull

- Many **proprietary** solutions / installations / pilots dedicated to a sole application / service

- How become more **open** and **standardized**?

- How to manage the **maintenance** of relevant infrastructure after the pilot?
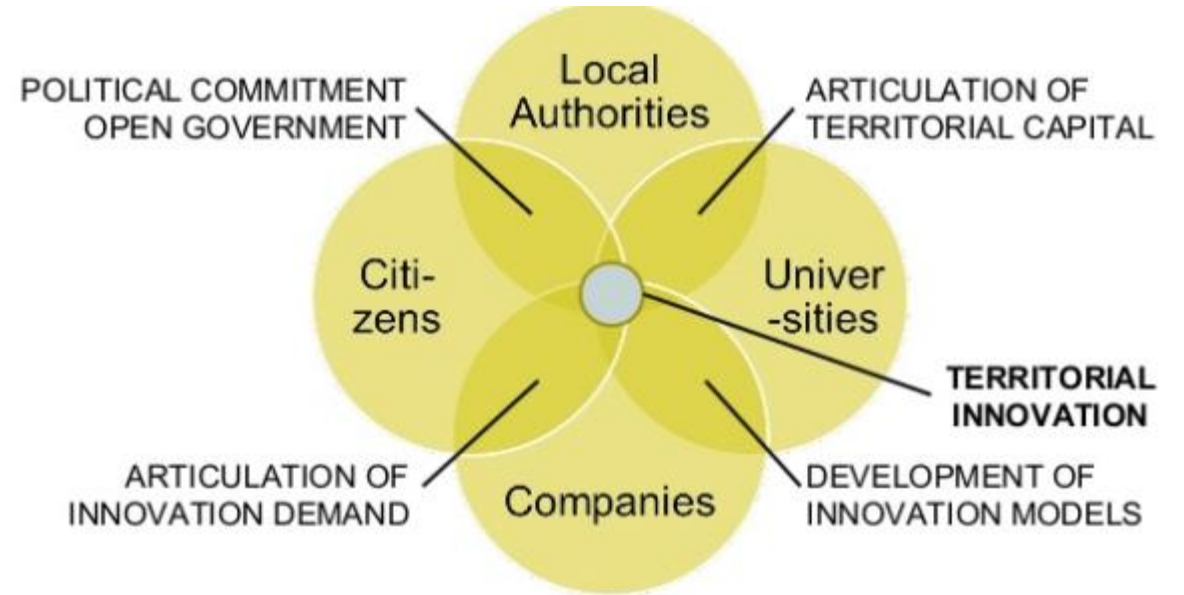
ESMARTCITY Approach

- View MED cities as **innovation ecosystems** and not mere end-users of the Smart City paradigm

- Enhance end user **pull** for Smart City application and services through **pilot** testing

- Smart City relevant **experimentation** and **co-creation**

- Appropriate **strategies** for Innovation Policy Change transferred to policy makers in the area

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Quadruple Helix

- All stakeholders need to be involved

  - Government / policy makers

  - University / academia

  - Enterprise / SMEs / Clusters

  - Civil Society / general public

- Networking is essential

POLITICAL COMMITMENT OPEN GOVERNMENT · Local Authorities · ARTICULATION OF TERRITORIAL CAPITAL · Citizens · Universities · TERRITORIAL INNOVATION · ARTICULATION OF INNOVATION DEMAND · Companies · DEVELOPMENT OF INNOVATION MODELS

Smart City Application Areas

- Innovation Economy
  - Intelligent sectoral clusters, intelligent districts, incubation

- City Infrastructure and Utilities
  - Smart transport / mobility / parking, smart grid, safety / environmental monitoring

- Governance
  - Public services to citizens, participatory processes, monitoring and measurement

- ESMARTCITY focuses on
  - Intelligent districts, smarter buildings, and smarter lighting

ESMARTCITY Results

- Upgrade of existing innovation clusters in the area integrating Smart City context

- Create a Smart City networked community in MED

- More effective MED territorial policies improving city ecosystem innovation capacities

Pilot Demonstration

- Smarter Energy Efficient Buildings in
  - Milan, Italy
  - Region of Western Greece
  - Palmela, Setuban and Sesimbra, Portugal
- Smarter Public Lighting in
  - Pescara, Italy
  - Lyon, France
  - Huetor Tajar and Argon, Spain
  - East Ilidza, Bosnia Herzegovina

Pilot Demonstration

- Smarter Energy Efficient Buildings in
  - Milan, Italy (University + Metropolitan Headquartes)
  - Region of Western Greece (Reaserch labs + Region build.)
  - Palmela, Setuban and Sesimbra, Portugal (Regional buildings)
- Smarter Public Lighting in
  - Pescara, Italy (Public Streets)
  - Lyon, France (University Campus)
  - Huetor Tajar and Argon, Spain (Sport Centers + Public streets)
  - East Ilidza, Bosnia Herzegovina (Public streets)

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Policy Change

- Green Paper on Innovation Policy Change
  - How to address infrastructure maintenance and upgrade?
  - How to ensure installed infrastructure will be up and running after the intervention?
  - How public tenders should be affected?
  - How Smart City context as well as installed infrastructure is taken into consideration in future tenders?

- Capacity building interventions towards policy makers

- Transfer activities towards Smart City networked community

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Pilot Demonstration

Pescara, Italy

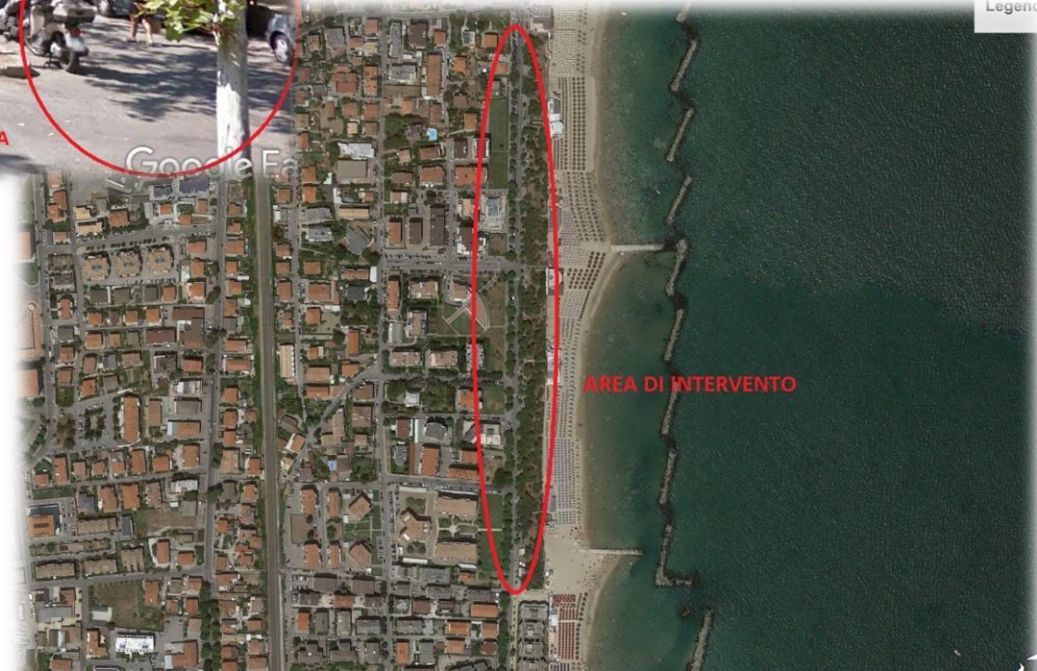The pilot project plans to implement a new system composed by:

- 1 Supervision Unit,

- 1 Electrical Control Panel

- 20 LED street lamps with Controller and Lamp control device

- 1 urban Wi-Fi system on Power Line

- CCTV cameras with PowerLine transmission

- Sensors for the detection of traffic flows

- Sensor for ambiental parameters

Pilot Demonstration

Pescara, Italy

Project co-financed by the European
Regional Development Fund

Pilot Demonstration

Huetor Tajar and Argon, Spain

- Campo de Futbol Miguel Moranto de Huetor Tajar: 24 lighting points in the field with MH technology and 2000W, to change to LED technology 900W each.
- Pista polideportiva del ayuntamiento de Huetor Tajar: 16 lighting points

The proposed system should monitor and analyse in realtime:

- Motion and/or trigger event
- Lighting: ambient light and UVA/UVB
- Air quality (CO, NO2, O3, SO2)

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Pilot Demonstration

Huetor Tajar and Argon, Spain

Project co-financed by the European
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Pilot Demonstration

East Ilidza, East Sarajevo, Bosnia Herzegovina

The system will manage 20 Energy Points and be composed by Energy Metering Controllers, Energy Meters and Sensors:

- Motion detection: pedestrians, cyclists and cars (detection range: 15m on each side, 9 m front)

- Temperature, humidity and pressure sensor

Pilot Demonstration

East Ilidza, East Sarajevo, Bosnia Herzegovina

Pilot Demonstration

Lyon, France

Aims:

- creating an experimental urban area on the Lyon Tech -La Doua campus for deploying and testing new smart digital solutions

Goals:

- Test in a real context and under real operating conditions, concepts,

algorithms, and technologies for smart lightning.

- Replicate the experience in different urban scenarios.
- Enhance the state-of-the-art know-how.

Pilot Demonstration

Lyon, France

- low-energy long-range wireless network of sensors using LoRa techology
- 15 devices composed of:
    - An enclosure
    - Batteries
    - Motion sensors
    - Light sensor
    - Sound sensor
    - Temperature, humidity and air pressure sensor
    - SD card and connectors

Pilot Demonstration

Lyon, France

Area: 100ha

80 research lab

50 high-tech companies

restaurants, student residence

sport facilities

700 company employees

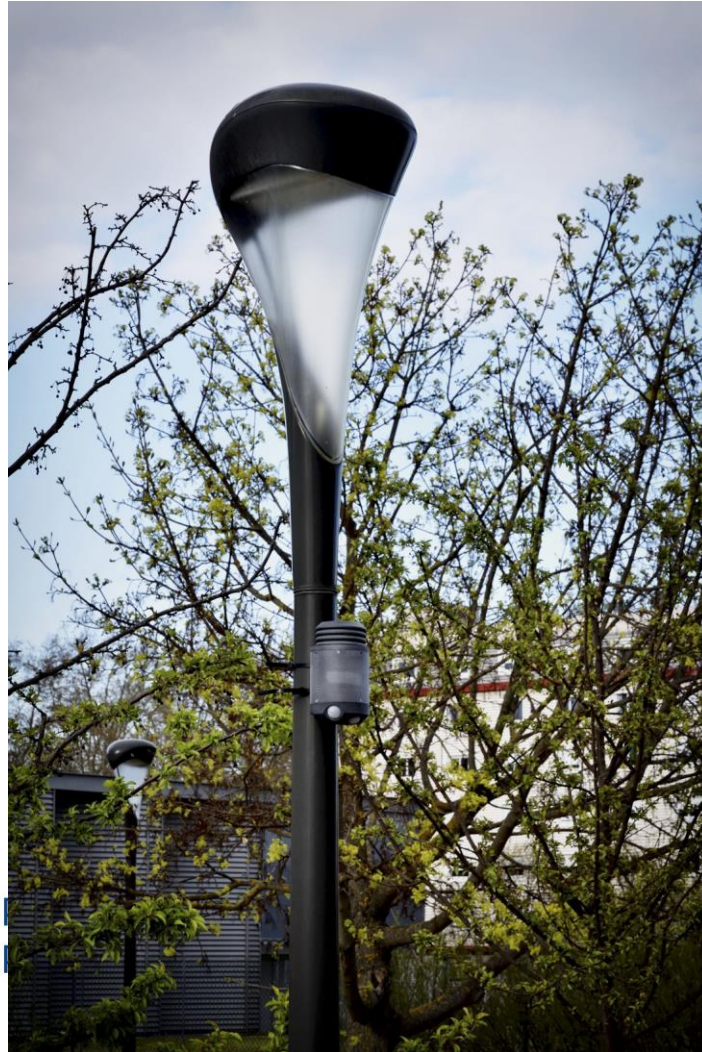25 000 students, 1 500 researc

2 500 administrative staff.

Pilot Demonstration

Lyon, France

Luca Ferrarini

Politecnico di Milano

luca.ferrarini@polimi.it

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