INTERREG MED Programme

2014-2020

ESMARTCITY

Enabling Smarter City in the MED Area through Networking

(3MED17_1.1_M2_022)

Priority Axis 1. Promoting Mediterranean innovation capacities to develop smart and sustainable growth

Specific Objective 1.1 To increase transnational activity of innovative clusters and networks of key sectors of the MED area

WP3 – Testing

Activity 3.3 – Pilot Testing

Deliverable 3.3.2 – Pilot Capacity Building – Partner PP7

Contractual Delivery Date: 1**7.02.2020**

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Dissemination Level		
PU	Public	X
PP	Restricted to Programme Partners and MED Programme	
RE	Restricted to a Group defined by the Partnership and MED Programme	
CO	Confidential, only for members of the partnership and MED Programme	

Contents

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1. Introduction

Within WP3, Polimi developed a pilot at its own premises, exploiting an advanced multi-sensor network to improve the overall energy efficiency and comfort in a 4-floor building. The pilot constitutes a benchmark for a wide spread innovation within the Smart City paradigm.

The present document follows the activities within A3.3 on Pilot Testing and specifically describes D3.3.2 on offering Capacity Building services towards SMEs of the project networked community associated with the Smart City concept.

The main objective of the capacity building is the utilization of the quite innovative pilot deployment in Building 25 of POLIMI as a test bed for a more systematic deployment by the SMEs of new applications and services.

The event is open to Italian SME's, and more specifically is addressed to the innovation and productive ecosystem of the North of Italy, where Polimi is more active and attractive.
Twenty participants attended the one-day local capacity building workshop, amounting to 14 innovative SMEs.

In order to achieve the objective and maximize the interaction with people and companies active in the energy efficiency field, the capacity building workshop was organized like this:

- Introduce the basic technologies and basic action plans of ESMARTCITY
- Discuss the pilot choices from technical, monetary and social points of view
- Share lessons learnt and acquired knowledge by pilot
- Invite other speeches to stimulate discussion and different perspectives
- Discuss technologies/state of the art or even general problematic faced by the smart city market (open data, IoT, data analytics but also access to tenders and EC policies)
- Obtain feedback from the participant SMEs
- Stimulate a follow-up event after 6 months

The capacity building workshop is held at the premises of the Fondazione Politecnico di Milano on Feb 12 2020, from 9:30 to 13:30. The detailed schedule of the capacity building workshop has been appended in **Annex 1**. Fondazione Politecnico di Milano is which is an organization aiming at bridging the gap between academic research and the market and industrial needs.

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The list of participants attending the one-day local capacity building workshop is appended in **Annex 2**.

2. Content of the capacity building workshop

Pilot Capacity Building relevant to the Smart City concepts and the deployed Pilot has been developed and provided taking in account lessons learnt and acquired knowledge. The event has been offered towards innovative SMEs and companies of the networked community of Politecnico di Milano. The event is organized in the local language in order to be more accessible for SMEs.

The first part of the capacity building is devoted to the introduction of the following themes:

- ESMARTCITY project introduction
- Brief description of the pilots of the whole project
- Detailed description of the local pilot (technology used, faced issues, lessons learnt and acquired knowledge) and to quantitative aspects gained (costs and savings)

Then the workshop proceeded with the discussion of experts in similar research projects, one involving Polimi and one involving a construction company very active in the NZEB construction and renovation as well as the adoption of digital technologies. This paved the way to:

- Initiate a wide discussion on concrete future opportunities
- Brainstorming regards the role of SME's in the process of building Smart Cities
- Collect participant feedbacks
- Evaluate their level of readiness in design and supply new applications and services.

More precisely, the first part of the presentations touched the following topics:

- Project Objective
- Improvement of the innovation capacities of the Mediterranean cities.
- Problem Statement and the Quadruple Helix
- Smart City Application Areas
- ESMARTCITY Approach and Results obtained so far

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- SME Change
- Policy Change.

While for the Polimi pilot the following topics were discussed:

- Description of the building (4 floors, 14 classrooms, 1500 student capacity)
- IoT technologies adopted
- Data acquisition and analysis
- Data interpretation and Modeling of the system
- Development of simple and non intrusive control improvements
- Discussion of the results obtained

The discussion proceeded with external experts focusing on two complementary topics. One was on the advantages of measuring not only the final impact on the user (comfort) but also the energy generation in order to deliver the right amount of energy in the right moment at the highest efficiency rate. The other was on pushing digital technologies also in the phase of design of the buildings, from BIM technologies, to simulation ones to better anticipate the impacts and the costs of improvements.

During and after the presentations, many topics were debated, from the technology used, the adoption of an open data paradigm, the monetary seeds that could boost the innovation at smart city level. It was also discussed about how to involve SME's in design and supply of new applications and services.

The key findings and conclusions are as follows:

- Strong appreciation to the Esmartcity project, for the concrete development of wide and interesting case studies
- There is no practical objection to move towards the development of "green" business
- Innovation is also understood as a mandatory goal for SME's to develop their own business
- Local SME's are quite aware of the available technological solutions to improve energy efficiency and innovate city's infrastructure;
- There is a wide understanding of the quadruple helix approach
- There is a general expectation that local authorities and the national government push the overall process, with adequate incentives and "green" regulations;
- There is also a general threat that data protection and privacy issues may impair a fast growth of new market opportunities.

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3. Selected photos from the capacity building workshop

Figure 1: Presentation of ESMARTCITY project

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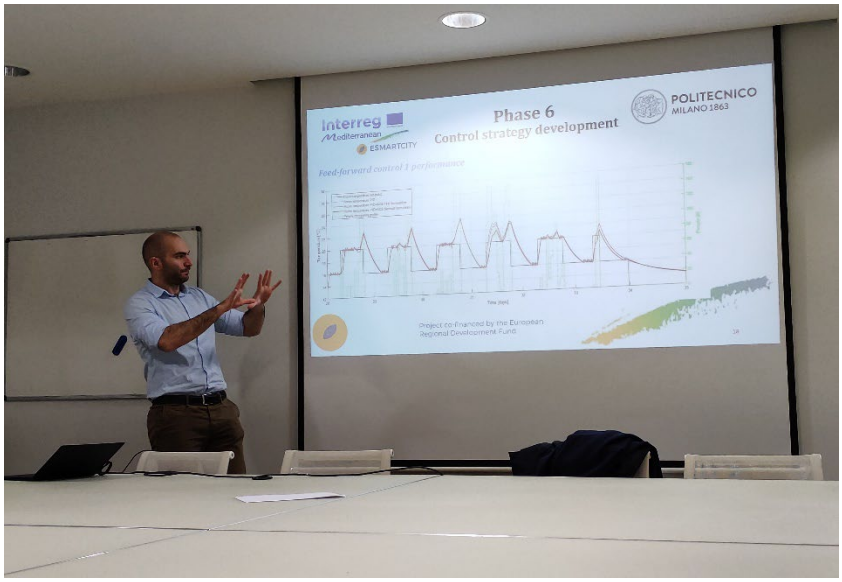

Figure 2: Presentation of local pilot deployment

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Figure 3: Participants engagement in the discussion

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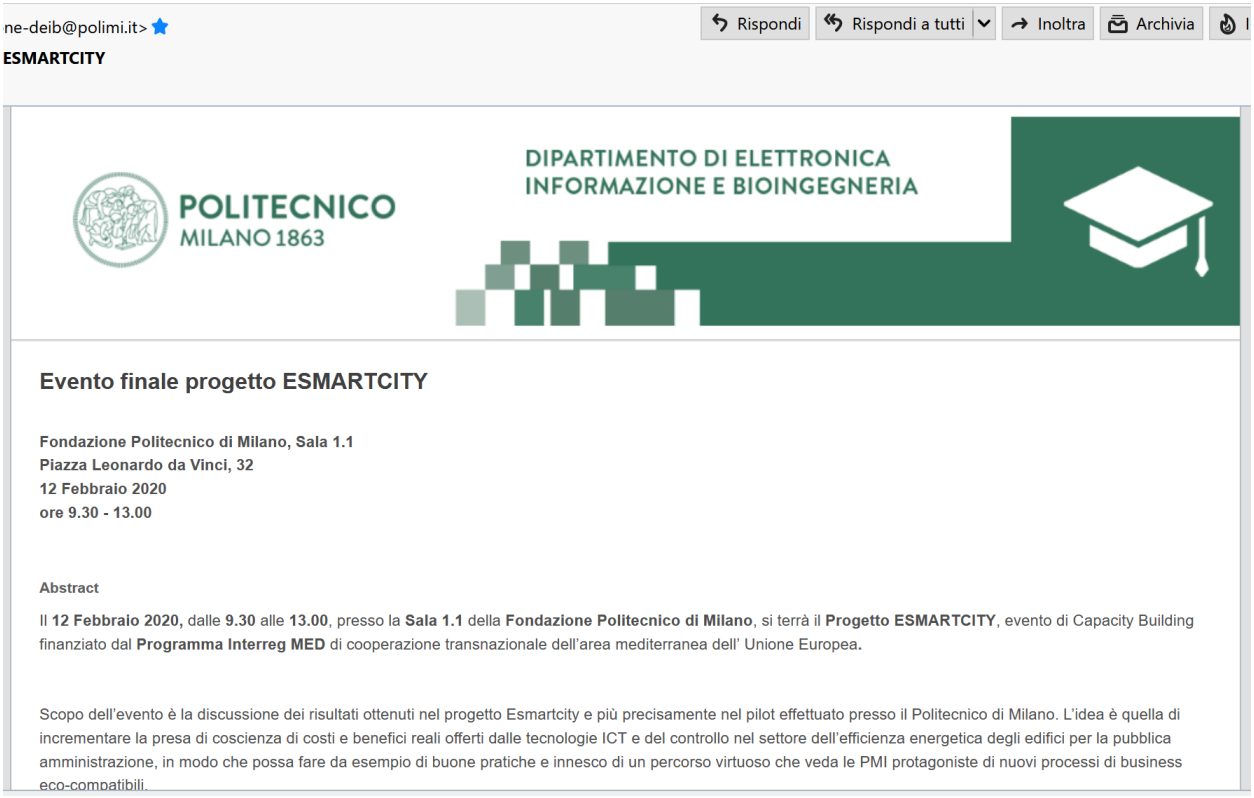
4. Publicity

The event was spread through the classic channels of POLIMI:

- Mailing to all POLIMI's personnel (all-deib@polimi.it).
- Mailing to Fondazione Politecnico di Milano to all SME's and other companies of their network.
- Posting the e-board and public area screens of Dipartimento di Elettronica, Informazione e Bioingegneria
- Advertisment on the Daisy Lab web site

An example is in the following:



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5. Annex 1 – Agenda

Progetto ESMARTCITY

Evento di Capacity Building

Sala 1.1 Fondazione Politecnico di Milano

Piazza Leonardo da Vinci 32

12 febbraio 2020 | 9:30 – 13:00

Scopo dell'evento è la discussione dei risultati ottenuti nel progetto Esmartcity e più precisamente nel pilot effettuato presso il Politecnico di Milano. L'idea è quella di incrementare la presa di coscienza di costi e benefici reali offerti dalle tecnologie ICT e del controllo nel settore dell'efficienza energetica degli edifici per la pubblica amministrazione, in modo che possa fare da esempio di buone pratiche e innesco di un percorso virtuoso che veda le PMI protagoniste di nuovi processi di business eco-compatibili.

Programma

9:30 – 9:50	**Registrazione dei partecipanti**
9:50 – 10:00	**Introduzione** *Luca Ferrarini (Politecnico di Milano)*
10:00 - 10:30	**Il progetto ESMARTCITY** *Luca Ferrarini (Politecnico di Milano)*
10:30 - 11:00	**Il progetto pilota al Politecnico di Milano: edificio 25** *Riccardo Babini (Politecnico di Milano)*
11:00 - 11:30	**Dal BIM alla valutazione delle prestazioni energetiche: il progetto BI-SMART** *Cecilia Hugony (Teicos srl)*
11:30 – 11:45	**Coffee break**
11:45 - 12:15	**Tecniche di controllo predittivo per migliorare l'efficienza energetica degli edifici** *Soroush Rastegarpour (Politecnico di Milano)*
12:15 - 12:45	**Dibattito sui risultati ottenuti e sfide future**
12:45 – 13:00	**Conclusioni dei lavori** *Luca Ferrarini (Politecnico di Milano)*

6. Annex 2 – List of participants

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Progetto ESMARTCITY – Smart Building pilot Capacity Building event

Fondazione Politecnico di Milano, 12 febbraio 2020

N.	Ragione sociale	Nome e cognome	Email	Telefono/cellulare	Firma
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3	ENERGA GROUP SRL	ALESSIA GATTO	alessia.gatto@energa.org	349 8166834	
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7	POLITECNICO DI MILANO	SOROUSH RASTEGARPOUR	soroush.rastegarpour@polimi.it	328/2848176	
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Il presente evento è finanziato dal Programma Interreg MED di cooperazione transnazionale dell'area mediterranea dell'Unione europea

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POLITECNICO MILANO 1863

Progetto ESMARTCITY – Smart Building pilot Capacity Building event

Fondazione Politecnico di Milano, 12 febbraio 2020

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Interreg Mediterranean ESMARTCITY

POLITECNICO MILANO 1863

Progetto ESMARTCITY – Smart Building pilot Capacity Building event

Fondazione Politecnico di Milano, 12 febbraio 2020

N.	Ragione sociale	Nome e cognome	Email	Telefono/cellulare	Firma
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