Digital Transformation Strategy for L'Aquila: the City as a Living Lab

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Reconversion of industrial Areas in the framework of regional policy
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Dipartimento di Ingegneria e Scienze
dell' Informazione e Matematica

Università degli Studi dell'Aquila

The city of L'Aquila

From the April 6th 2009 Earthquake to Now

- More than 300 people died

- Many historical buildings destroyed

- The reconstruction offers the "opportunity" (*green field*) to transform L'Aquila in a pilot smart city integrating new infrastructures and technologies

L'Aquila
A testbed for Innovative projects

INCIPICT

INnovating CIty Planning through Information and Communications Technology

The University of L'Aquila is driving this ambitious project by means of collaborations with industry partners/other universities and research centers that have the main objectives in trial, develop and validate new applications and innovative technologies in the area of IoT and Smart Cities.

- Experimental optical network for the city

- Construction of an innovative communication network

- Information accessed easily and efficiently

Project Objectives

INCIPICT

Key Dates: October 2014 - December 2021

Requirements of the Ministry of Social Cohesion:

- Push the reconstruction towards a Smart-City model

- Fully integrate the City and its University

The project has been designed as a "Living Laboratory" model by leveraging on the University skills in key research areas related to the Smart-City concept, attracting at the same time the interest of the Scientific Community on L'Aquila.

Smart Tunnel

INCIPICT

5G TRIAL

Milano

Prato

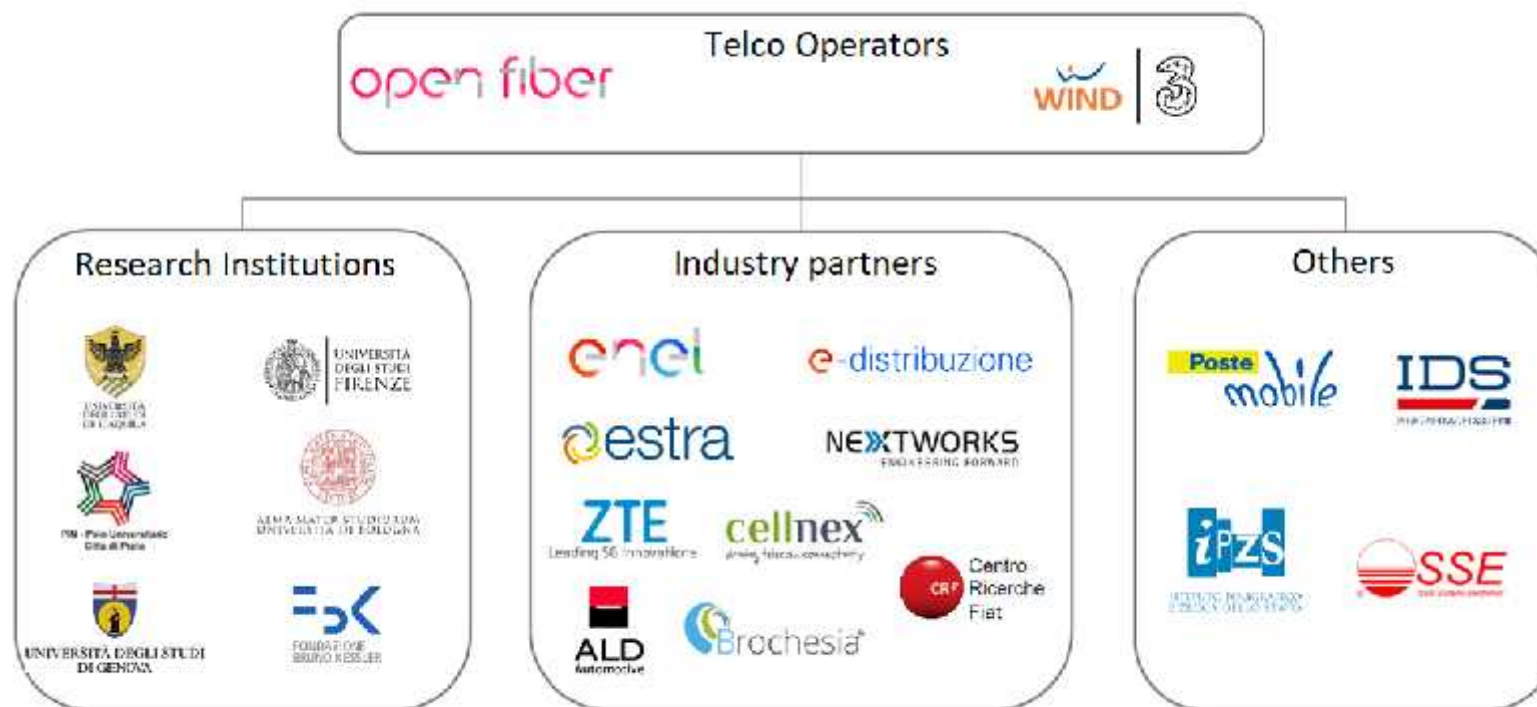March 2017 – The city of L'Aquila for the 5G national trials 2018-2020

L'Aquila

Bari

Matera

- The use cases of the INCIPICT project have been selected for the 5G trial
- The INCIPICT research activities on 5G fiber optics, front hauling are included in the trial program
- The University of L'Aquila plays a crucial role in the automotive use case (connected vehicle)

September 2017 – the MISE temporary assigns to Wind Tre the frequencies for the trials

MISE 5G trial in L'Aquila
Consortium

MISE 5G trial in L'Aquila

Video

L'Aquila

Population [inhabitants] **69,753**

Employment rate [%] **57.2%**

Key sectors:

> Construction
> Retail
> Hotels and restaurants
> Business services
> Health

L'Aquila has used the earthquake as an opportunity to start an important digital transformation on its territory

What are we doing today?

☼ > In compliance with the European Digital Agenda, L'Aquila started its digital transformation in 2014 with the "Agenda Digital Regione Abruzzo 2014-2020" plan to move towards a knowledge-based economy. So far, early findings show that citizens need to be actors and not receivers of the change by proactively identify the needs and opportunities, proposing solutions, planning activities and evaluating results.

> Moreover, the City together with its University decided to address the reconstruction towards an innovation based approach, compliant with the local vocations – Living Laboratory.

> An agreement with an electricity provider has been concluded to raise consumption awareness and promote a sustainable mobility through electric cars

> A national research agency is equipping a designed area of the city with two large screens which will display social networking activities about the city initiatives and events entered by citizens through a portal and an app

> A publicly-used infrastructure network for charging electric vehicles has been deployed.

> Open Fiber, a fiber optical network provider, is developing a Fiber To The Home (FTTH) access network solution for the City.

> L'Aquila is involved in a 5G pilot project with a major telecommunication provider and other qualified partners (5G trial cities).

> The University of Aquila is implementing an experimental infrastructure for innovative optical and wireless technologies as well as smart city solutions.

> European, regional and national resources are financing the initiatives; Special funding for the areas hit by the earthquake.

Where do we want to go?

> L'Aquila aims to become a Smart City by focusing on 6 major policies namely Smart Economy, Smart Mobility, Smart Environment, Smart People, Smart Living and Smart Governance, developed in the frame of a living laboratory model.

> Further increase the involvement of citizens as a key element of the living lab, pushing the city to wisely and deliberately address its digital path regarding social cohesion, environment, energy, transportation, etc.

> The digital infrastructure gap will be reduced by making a more efficient and secure power grid thanks to automated management and setting up a global fiber optical network locally and across the region.

> The installation of an intelligent public lighting system along a 4-5 km circular path.

> The development of 5G enabled use cases (E-Health, structural health monitoring, ICT for cultural heritage).

> Narrow Band IoT for smart city applications (e.g. structural health monitoring).

> To built up an ecosystem favorable to the creation of new business opportunities linked to the innovative technological elements of 4.5G and 5G, thus attracting public and private investments.

> Foster the inclusion and the accessibility in the digital area is part of L'Aquila priority.

> Part of the overall digital development will focus on the support of e-commerce and public body planning competences.

☼ Governance & leadership
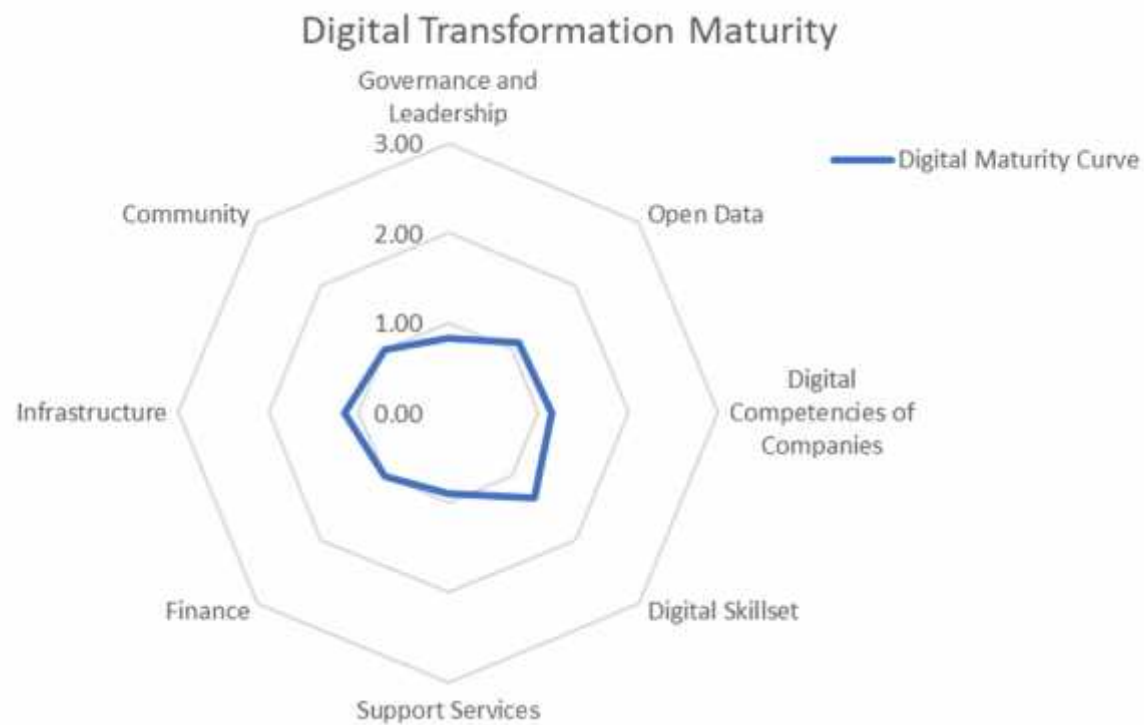Support services

Ⓒ Finance
Community

Infrastructure
Access to data

Digital skillset
Companies' digital competencies

DIGITAL'AQ
SAT results

Digital Transformation Maturity

Governance and Leadership

Community — Open Data

Infrastructure — Digital Competencies of Companies

Finance — Digital Skillset

Support Services

Digital Maturity Curve

DIGITAL'AQ

Based on SAT results the digital experts of the project suggest the horizontal and vertical strategies elements for the digital transformation of L'Aquila

UNIVAQ-ZTE partnership

A Local Ecosystem?

Thank You for Your Attention!

CONTACTS

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