

# **Research Project Abstract**

## **“Inclusive and sustainable development of smart city ecosystems”**

### Introduction:

My research proposal is built on the classical paradigms of smart city (Halegoua, 2020) and urban ecosystems. It aims to provide a new bottom-up and data-driven planning strategy for the development of Italian innovative urban ecosystems.

### Theoretical background:

The concept of “smart city” is always associated with the introduction of ICT technologies in the urban context. However, the sustainable development of an intelligent city involves many aspects other than the digital infrastructure.

Secondly, the ranking criteria that are used to measure the "smartness" of cities seem to be mainly focused on the technological endowment of urban centers. Rural or less dense cities are consequently excluded because they are not able to innovate their digital infrastructures. The choice of these criteria matters a lot. The highest ranked cities receive private and public financing and these resources shape their nuclei, affecting the growth of the cities themselves and the quality of urban life. Lowest ranked cities will be segregated consequently.

Thirdly, bottom-up initiatives for a joint urban planning (made by public authorities, enterprises and citizens) do not count significantly in the "smartness" assessment (Rossi, 2017). Smart city ecosystems are currently classified - and designed - through a top-down logic that ignores the real needs of urban communities.

Political and technological urban solutions cannot follow a one-size-fits-all approach. They must arise from the dialogue between all stakeholders instead. By acting differently, “smart” urban initiatives could move far from these requests in a way that makes digital innovations useless for all.

Cities play a key role in creating policies for sustainable development and carbon neutrality. Only projects and digital tools that fit perfectly to urban needs could support cities in achieving important results in the long-term (Menga, 2021).

For all these reasons, it is very important to develop smart city ecosystems that are human-centered and human-driven. It requires the creation of a completely new bottom-up data-driven planning strategy.

### Methodology:

First of all, the study intends to provide a series of original indicators for measuring the ability of Italian stakeholders to design a smart city ecosystem through a co-creation process. I would design an online survey with Public Administrators for mapping the most critical issues in developing smart city ecosystems.

Additionally, I would schedule on-site urban laboratories with key stakeholders (e.g. Administrators, enterprises, citizens) in the main Italian cities. Participants will be required to jointly design a new smart city model that is truly inclusive, sustainable and adaptive. All sessions will be recorded and transcribed.

These activities would allow me to identify a new series of key indicators, other than those currently used for ranking activities.

These indicators will constitute the starting point of a new smart city ecosystem theoretical model that promotes sustainability, inclusiveness and joint decision-making processes. This new set of indicators could help both futuristic cities and peripheral urban areas in designing (or reshaping) their urban ecosystem in a more successful way.