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## **Public-private partnership, buildings energy efficiency and social housing: renewed tools to satisfy emerging needs**

**Empirical findings from a comparative analysis of Italian experiences**

**European Real Estate Society 22<sup>nd</sup> Annual Conference**  
24-27 June 2015 - Istanbul, Turkey



**İTÜ**



# Introduction

Since 2008, recession of global economy

- has entailed the need to provide a significant boost to a **renewed growth** (e.g. financing strategic infrastructure and facility)
- but, conditions of **public finances** allow recourse to government intervention only in exceptional and temporary basis

Further diffusion of **Public-Private Partnership** (PPP)

- appears to be a viable strategy to implement investment projects
- but, also PPP initiatives have been progressively slowed down by **unfavourable conditions** emerged in capital markets

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**PPP  
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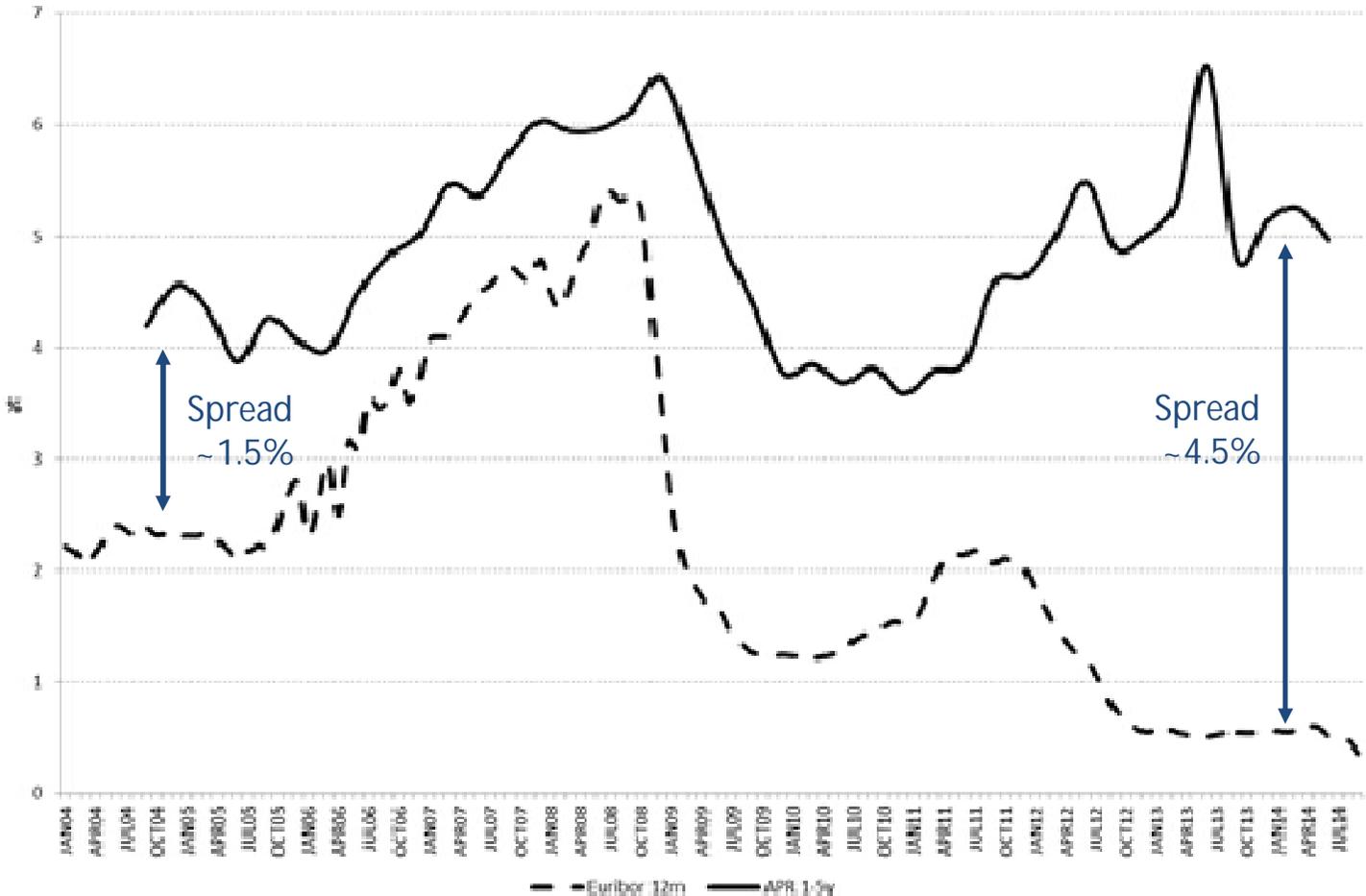
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# PPP's slowdown due to crisis



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# PPP and emerging needs

Meanwhile, communities are expressing **emerging needs** to be fulfilled by means of PPP transactions

- no more only infrastructures (in Italy: motorways) and facilities (in Italy: hospitals)
- but also rehabilitation of public buildings intended for administrative offices or schools, **refurbishment of social housing stock** and **supply of new homes at affordable prices or rents**, in any cases **according to current energy efficiency standards**

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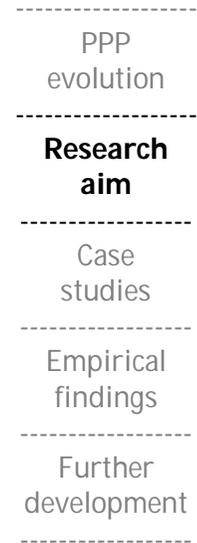
# Aim and design of the research

## Aim of this research is

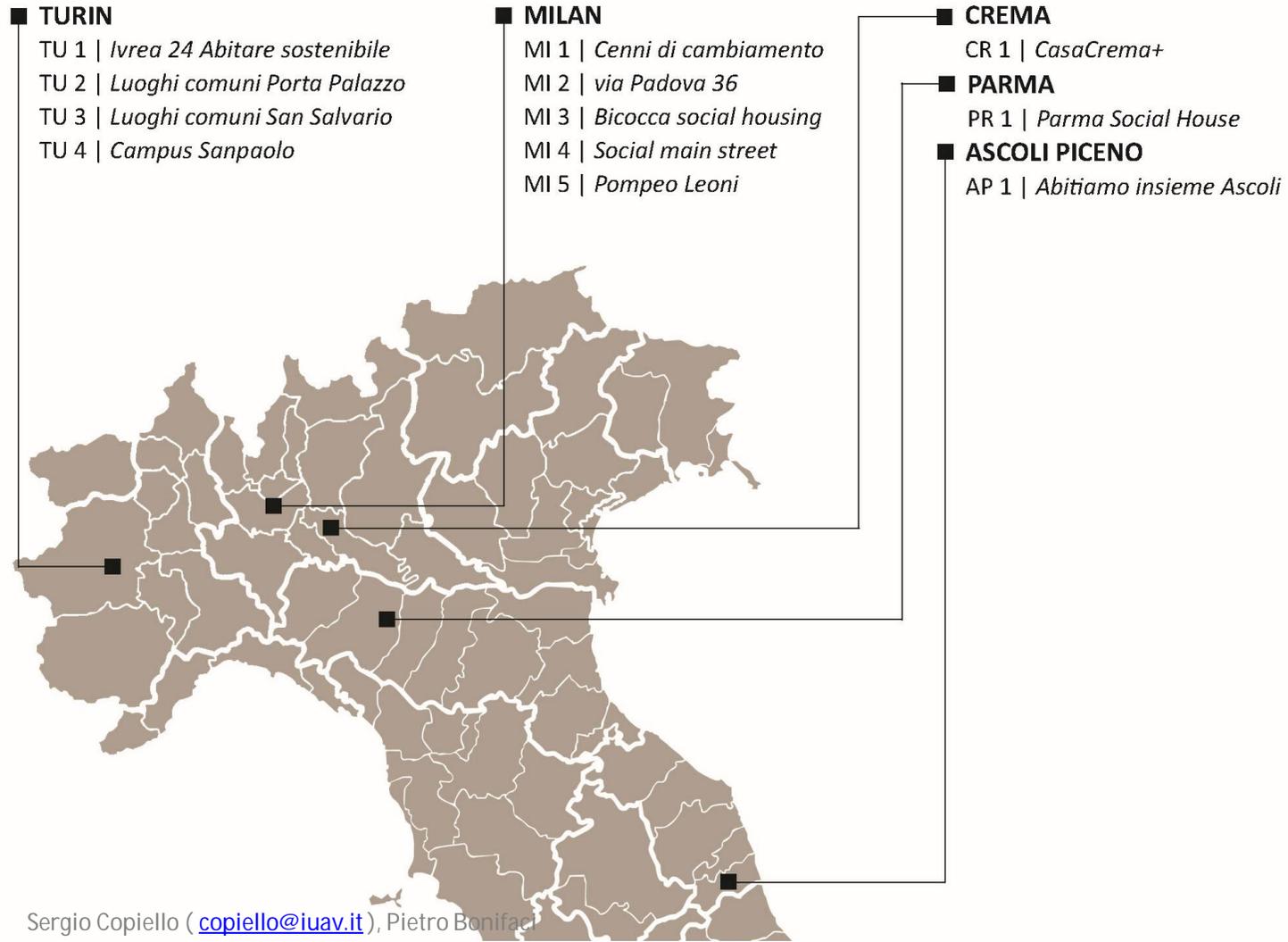
- to examine whether **buildings energy efficiency** positively affect the feasibility of **social housing projects** to be carried out by means of **PPP transactions**

The **issues** addressed by the research may be expressed as follow

- is the adoption of energy efficiency measures useful to provide significant monetary savings?
- how are these savings allocated among stakeholders involved in the provision and management of social housing?
- may these savings provide a valuable support in order to boost provision of social housing?



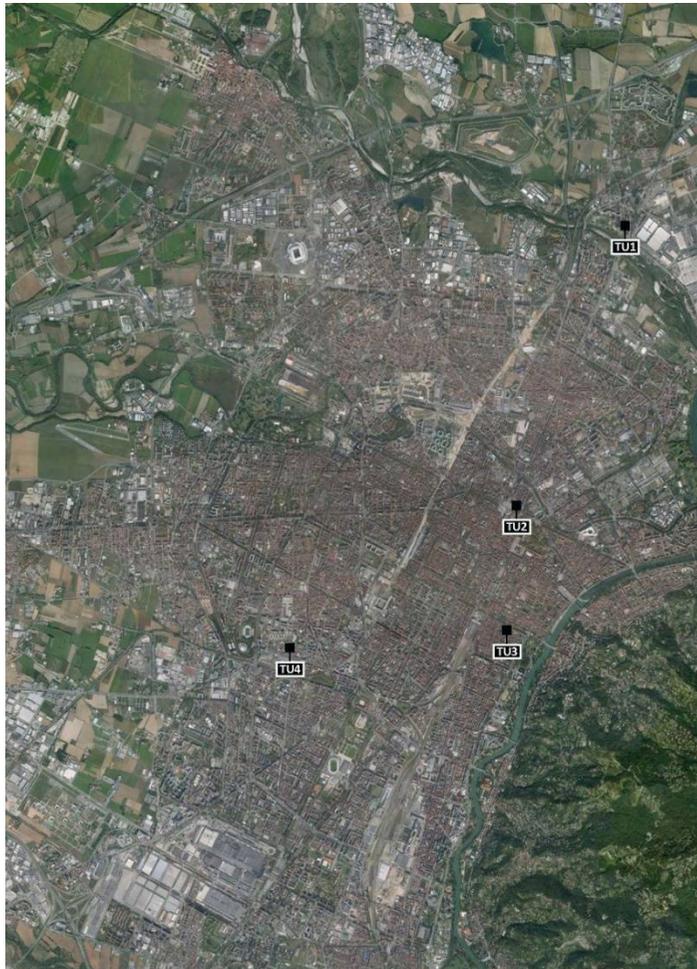
# Case studies



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# Case studies



TU1 | via Ivrea 24



TU1 | Ivrea 24 Abitare sostenibile



TU2 | via Clemente Damiano Priocca 1



TU2 | Luoghi comuni Porta Palazzo



TU3 | via San Pio V 11



TU3 | Luoghi comuni San Salvario



TU4 | via Rodolfo Renier 43



TU4 | Campus Sanpaolo

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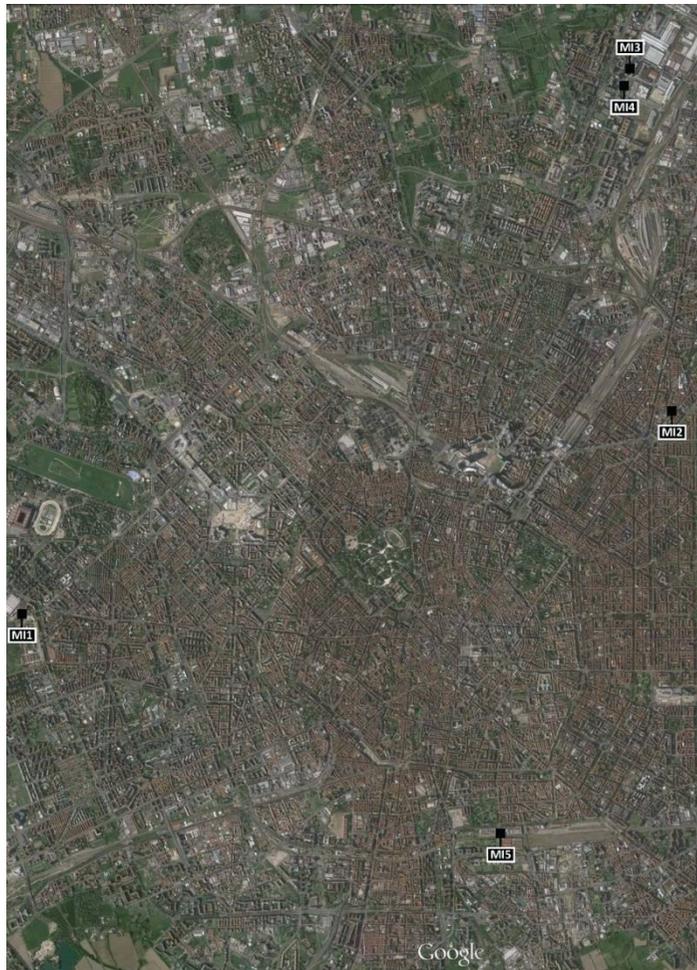
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# Case studies



MI1 | via Cenni 14



MI1 | Cenni di cambiamento



MI2 | via Padova 36



MI2 | via Padova 36



MI3 | viale Sarca



MI3 | Bicocca social housing



MI4 | viale Sarca



MI4 | Social main street



MI5 | via Pompeo Leoni 2



MI5 | Pompeo Leoni

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# Case studies

**Variables under investigation** are classified into four groups

- **location**, kind of **intervention area**, project physical **dimensions** and **timeline**
- **PPP-related aspects** such as involved **subjects** and their **roles** (developers, sponsors, lenders, and so on); data on **investment costs and expected return** are also gathered
- **social housing features** (beneficiaries, assignment models of dwellings, rental fees or sale prices)
- **buildings energy efficiency** measures adopted and their impact on running costs



# Preliminary empirical findings

## New kinds of involved private entities

- role of developer is played by **bank foundations and cooperative companies**, while traditional PPP transactions in Italy were promoted by general construction firms
- emerging stakeholders are characterized by the adoption of a **venture philanthropy approach**, therefore they are willing to accept a fair profit lower than market benchmark
- expected investment yields are the following: 2 percent over inflation rate (cases MI1 and MI2); 3 percent (TU1); 4 percent (TU4); 6 percent (PR1)

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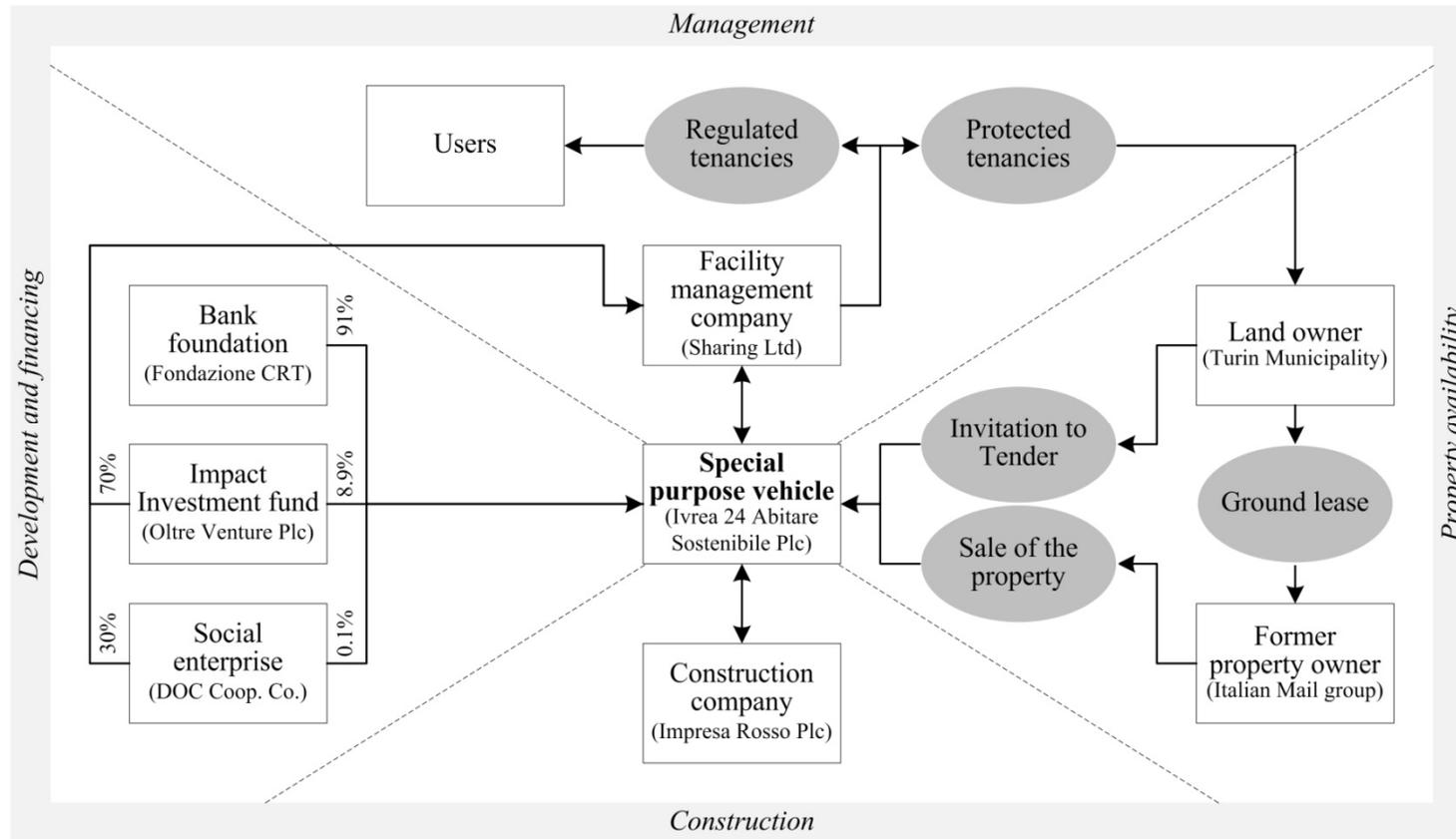
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# Preliminary empirical findings



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- PPP evolution
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- Empirical findings**
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- Further development
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Source: Copiello, S. (2015), Achieving affordable housing through energy efficiency strategy. *Energy Policy*, 85, 288-298, <http://dx.doi.org/10.1016/j.enpol.2015.06.017>

# Preliminary empirical findings

## Role of public bodies

- risks and uncertainties are mitigated by means of **public-private agreements**
- nonetheless, **public bodies' intervention is reinventing itself**
- due to lack of public funds, **non-repayable grants** towards capital expenditure **are decreasing**
- cash contributions are partly replaced by **indirect contributions** (tax rebates, e.g. exemption from payment of local construction fees) as well as by **in-kind contributions** (buildings, or building lands, made available for free or under a symbolic concession fee payment)

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# Preliminary empirical findings

## Role of energy efficiency measures

- **saving on energy supply costs is converted into a rent premium**
- energy efficiency measures allow to propose agreed rents far higher than social or fair rents, and only slightly lower than market ones, therefore they stand out for being a considerable **feasibility driver**

## Some data

- case TU1: delta to fair rent +57 percent; delta to market rent -12 percent
- case TU2: delta to fair rent +61 percent; delta to market rent -7 percent
- case MI1: delta to fair rent +22 percent; delta to market rent -59 percent
- case MI2: delta to fair rent +57 percent; delta to market rent -27 percent

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# Further development

## Open questions

- it is still unclear if **moderate yields** have a direct or inverse correlation with the entrepreneurial initiative undertaken by **third sector stakeholders**: is it the **cause** or its **effect**?
- are these best practices going to give an **effective boost to the provision of social housing estates** and will they spread themselves across the country?
- does energy efficiency really allow to **let the tenants neutral to rent increases**?

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