



**POLITECNICO**  
MILANO 1863

DIPARTIMENTO DI ARCHITETTURA  
E STUDI URBANI

PhD Programme in

# Urban Planning Design and Policy

*38th Cycle*

**4 Thematic** Scholarships funded with resources of the  
**National Recovery and Resilience Plan (PNRR)**

**OPEN CALL | Deadline: 12<sup>th</sup> September 2022**

# DASU - Politecnico di Milano

## PhD programme in Urban Planning, Design and Policy

### Additional call for applications 2022 now open!

The PhD programme in **Urban Planning, Design and Policy** grants **four PhD positions** funded with resources of the National Recovery and Resilience Plan (PNRR) to start in November 2022.

All positions are fully funded with scholarships and other benefits.

► **Four positions** are based on predefined research topics as follows:

**1. Ecological transition and new paradigm for spatial planning: Performance indicators to select Nature-based solution as design tools for regenerating the contemporary city**

Academic Supervisor: Prof. Andrea Arcidiacono (andrea.arcidiacono@polimi.it).

**2. The contribution of digital platforms in a Recovery and Resilience perspective: exploring territorial impacts, inspiring public policies**

The research is carried out in partnership with Giangiacomo Feltrinelli Foundation.

Academic Supervisors: Prof. Valeria Fedeli (valeria.fedeli@polimi.it) and Prof. Grazia Concilio (grazia.concilio@polimi.it)

**3. The role of social actors in defining and implementing territorial development strategies oriented towards social and environmental sustainability and ecological transition**

This position is co-funded with resources of the Italian General Confederation of Workers - CGIL Lombardia.

Academic Supervisor: Prof. Gabriele Pasqui (gabriele.pasqui@polimi.it)

**4. Broken Cities. The role of public action in supporting urban inclusiveness and the infrastructure of everyday life in the face of social, economic, and environmental inequalities**

This position is co-funded with resources of Giangiacomo Feltrinelli Foundation.

Academic Supervisor: Prof. Massimo Bricocoli (massimo.bricocoli@polimi.it)

### How to Apply

**The official call for applications, along with procedures and requirements, is available on:** <https://www.dottorato.polimi.it/en/prospective-phd-candidates/calls-and-regulations/calls-starting-november-2022/pnrr-calls>

► **Deadline: 12th September 2022**

► **For administrative inquiries, contact:**

Marina Bonaventura (marina.bonaventura@polimi.it)

► **Information about the PhD programme in Urban Planning, Design and Policy is available on:** <https://www.dottorato.polimi.it/en/phd-programmes/architecture/urban-planning-design-and-policy>

# Ecological transition and new paradigm for spatial planning: Performance indicators to select Nature-based solution as design tools for regenerating the contemporary city

## Motivation and objectives of the research

The environmental, ecological, and social emergencies caused by human activities in the Anthropocene Era are impacting human well-being and the quality of urban life. Adaptation to climate change, disaster risk prevention and resilience are the main challenges that cities need to address in the next future. Global warming affects water resources in multiple ways ranging from a rise in temperature, low precipitation patterns and snow cover, and an increase in the frequency of flooding and droughts. Therefore, managing stormwater in cities is an urgent issue considering the risk of floods and water pollution and the increasing number of people living in urbanised areas affected by disaster risk events. Adopting an ecosystem services approach for defining Nature-based solutions (NBS) has emerged as a valuable method for addressing stormwater management in urban areas through the provision of runoff mitigation, stormwater treatment. NBS have a significant impact on current urban development practices if they are integrated into planning practices.

The National Recovery and Resilience Plan (PNRR), approved as part of the Next Generation EU programme, addresses the emergences presented before in its mission two Green Revolution and Ecological Transition, and, specifically, in its fourth component, reserved to the protection of the territory and the water reserved to the protection of the territory and the water resource. This fourth component is based on the development of an advanced and integrated monitoring and forecasting system, intended as the supporting tool to address three primary objectives: adaptation to climate change and hydrogeological risk reduction, protection of

air quality and biodiversity, fostering of the sustainable management of the water resource. The achievement of these purposes requires a new role of the planning practice as coordinator or main actor of water management interventions. The PNRR could become an opportunity to rethink the role of planning in Italian society and its outdated paradigm.

The proposed research aims to propose an innovative solution for stormwater management in urban areas and to integrate climate, environmental, and ecological issues in the planning practice as primary challenges to lead the development of contemporary cities.

The research project aims to test innovative approaches in constructing the contemporary city project, ecologically oriented, addressing the challenges posed by climate change from an adaptive and resilient perspective. In this sense, the educational objectives of the research program aimed at building a profile of a qualified researcher capable of addressing the environmental and ecological challenges of the city in terms of design and spatial planning solutions, acquiring skills in environmental and ecological assessment, and innovative planning tools' implementation. In particular, the researcher will acquire specific knowledge of theoretical and practical features in the design and planning methodologies aimed at improving the conditions of urban naturalness and biodiversity and enhancing the permeability of urban soils through sustainable urban drainage technics and using Nature-based solutions (NBS).

### For further information:

Supervisor of the PhD Research:  
Prof. Andrea Arcidiacono, DASTU, Politecnico di Milano.  
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# The contribution of digital platforms in a Recovery and Resilience perspective: exploring territorial impacts, inspiring public policies

## Motivation and objectives of the research

Contemporary world is grappling with new forms of economic organization, based on the spread of digital technologies, produced, and managed by a new category of economic actors: Digital Platforms. Their success depends on an energy-intensive use of artificial intelligence techniques while accelerating the creation, storage, transmission, and recovery of georeferenced data from people, machines, devices, and sensors. This production and use of data constitute an unprecedented source of value production through fewer intermediate forms of economic organization, which are progressively replacing the traditional relations between capital, labor, and space. Digital Platforms are transforming value chains and opening new channels for value addition, restructuring the capitalistic accumulation processes.

The PNRR assigns Digitalisation a crucial role. Digitalization is defined as “a transversal necessity, as it concerns the continuous and necessary technological updating in production processes; infrastructures as a whole, from energy to transport where monitoring systems with sensors and data platforms represent an innovative archetype of asset quality and safety management (Missions 2 and 3)”. Under Mission 1 and 2, the PNRR pays significant attention to the productive sector’s innovation and digitization, considering it central to reducing territorial cleavages. Mission 3 supports logistic organization and mobility, focusing on the traditional infrastructural gaps of the country and the need to keep the digitalization of logistics. Under this axis, the PNRR foresees the reduction of the emissions produced by logistics through the digitalization of logistic chains and

interoperability. Nevertheless, when explaining the expected impacts on the reductions of cleavages and divides, the plan remains vague regarding territorial effects and how public policies shall cope with them.

The effects of Digital Platforms Economy on spaces, people and local economic trajectories, and the environment are significant. Digital platforms are based upon new combinations of physical and virtual spaces that challenge the consolidated nexus between cities, territories, and economic development. In its distributed and dispersed nature, the new forms of cyber capital question the traditional effects of spatial agglomeration that characterize urban history and the relationship between the urban dimension and economic development.

Digital technologies stress public policies and institutions engaged in producing development frameworks coherent with a logic of equity, redistribution, and sustainability. How can public policies elaborated in a recovery perspective detect and contrast the uneven territorial and environmental impacts of the new logics of capital accumulation adopted by digital platforms?

### For further information:

Supervisors of the PhD Research:  
Prof. Valeria Fedeli, Prof. Grazia Concilio, DASTU, Politecnico di Milano.  
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### Partnership:

Giorgio Feltrinelli Foundation - <https://fondazionefeltrinelli.it/>

# The role of social actors in defining and implementing territorial development strategies oriented towards social and environmental sustainability and ecological transition

## Motivation and objectives of the research

The Italian General Confederation of Workers (CGIL) is the largest Italian trade union. CGIL Lombardia is the largest regional structure of CGIL and it is actively engaged in co-design and implementation of sustainable territorial development strategies in Lombardy, with particular attention to social issues and contrast to territorial inequalities. The objective of a PhD scholarship activation is the study, also in a comparative perspective, of social actors and of trade unions role in the definition and implementation of territorial place-based development strategies.

In current implementation start-up phase of investments envisaged by EU programming in our country (National Program for Recovery and Resilience - PNRR, Complementary Fund, EU Structural Funds Programming for the period 2021/2027), it is important to understand the way territorial actors (business associations, trade unions, local and third sector actors, institutions) play an important role in guaranteeing efficiency and effectiveness for public investments. In particular, in the context of development strategies aimed at ecological transition of territories and business system, it is very important to understand what role of co-design and implementation can be played by social actors and their associations. Given these general objectives the research is coherent with the strategies of Italy's Recovery and Resilience Plan (PNRR).

In particular, the research is focused on the conditions to reinforce Italy's Economic and Social Resilience, through actions that will enhance social and territorial cohesion, promoting the transformation of vulnerable territories into

smart and sustainable areas. The main focus of the research undertaken by the PhD candidate is coherent with many PNRR missions and submissions. Among them the most important are: Mission 2: Green Revolution and Ecological Transition Mission 3: Infrastructure and Sustainable Mobility Mission 5: Inclusion and Cohesion and especially Submission 5.1 Policies for work Submission 5.2 Social infrastructures, households, community and third sector.

The general objective of PhD Scholarship is therefore divided into three sub-objectives:

1. Construction of an updated theoretical framework, based on an extensive review of international literature and cases, on social actors role in definition and implementation of place-based development policies and strategies aimed at ecological transition, with reference to the European context;
2. Comparative analysis, on a European scale, of social actors active involvement in the implementation of investments planned under the structural funds programming and Next Generation EU;
3. An in-depth study of policy processes and dynamics in programming and implementation of PNRR and structural funds in the context of the Lombardy Region, with particular attention to forms of involvement and dialogue with social actors and especially with trade unions.

### For further information:

Supervisor of the PhD Research:  
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E-mail: gabriele.pasqui@polimi.it

### Co-funding and hosting partner:

General Confederation of Workers - CGIL Lombardia - <https://www.cgil.lombardia.it/>

# Broken Cities. The role of public action in supporting urban inclusiveness and the infrastructure of everyday life in the face of social, economic, and environmental inequalities

## Motivation and objectives of the research

The research is jointly proposed with Fondazione Giangiacomo Feltrinelli. Since 1949, the Foundation is a leading documentation and research centre in the field of historical, political, economic, and social sciences. In partnership with the Department of Architecture and Urban Studies, the 'Observatory on cities and urban transformation' has been established to support analysis of the political, economic, and social changes of the last decades and to explore the geography of the places we'll inhabit in the future. Exasperated by the recent pandemic, cities across the world have become more vulnerable, their deficiencies in being able to guarantee a fair social and economic development increasingly palpable.

Cities are broken under many aspects: a lack of adequate services, a lack of access to affordable housing, physical isolation, areas of cities that are ailing, degraded, and abandoned. Cities risk to be no fertile lands for inclusiveness and collective well-being, creating hubs of social injustice and of growing inequalities. It is in cities that social, environmental, and economic emergencies become increasingly visible, but it is also in cities that new solutions may emerge as well as new forms policy innovation and of activation of citizenship in the decision-making processes for the socio-ecological transition.

Some cities feature the concentration of investments, increasing attractiveness and a dynamic -yet insecure and unstable- labour market together with a rise of living costs that tend to increasingly exclude newcomers, young generations, migrants and to significantly reduce the wellbeing of many.

Privatisation, market choice, outsourcing are the watchwords that have shaped policy in the last years, resulting in the degradation of the foundational economy.

The foundational economy encompasses the material infrastructure of the everyday life (water, housing, education, health care). This system of provision is currently threatened by dynamics of change that feature increasing trends of exclusion and of polarisation in the access to basic services and fundamental rights. The research will develop a specific policy domain to be defined by the candidate with reference to the overall Mission n. 5 Inclusion and Cohesion of the PNRR (and specifically the M5C2 mission and the objectives of reducing exclusion and social vulnerability through the improvement of social infrastructures, social housing and services).

The research will explore: the governance of the social infrastructure, the conditions of access or exclusion, the impacts of policy orientations on containing or exacerbating inequalities. How public action may support inclusiveness and extended access in the face of polarization will be a further and leading research question.

### For further information:

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