



PhD in URBAN PLANNING, DESIGN, AND POLICY - 38th cycle

**PARTENARIATO PNRR Research Field: RESILIENCE AND SUSTAINABILITY OF
POLYCENTRIC AND LOW-DENSITY URBAN-TERRITORIAL SYSTEMS IN EUROPE AND
ITALY**

Monthly net income of PhDscholarship (max 36 months)

€ 1195.5

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field

The PhD research is part of the activities of a research project funded under the National Recovery and Resilience Plan (PNRR), Mission 4 Component 2 Investment 1.3 funded from the European Union NextGenerationEU, within the PNRR theme N. 9. Economic-financial sustainability of systems and territories, GRINS - *Growing Resilient INclusive and Sustainable, Spoke 7: Territorial sustainability. (Decreto di avviso D.D. 341 del 15/03/2022; Decreto di concessione D.D. 1558 del 11/10/2022; C.U.P. n. D43C22003110001).*

The field of research includes theoretical and operative research activities concerning territorial disparities, gaps in the provision of infrastructures and services, models for ex-ante forecasting and ex-post evaluation of investments in infrastructures and services. The main objective of the PNRR research is to identify the key challenges for transition towards sustainable, inclusive, and smart cities and territories with a focus on polycentric and low-density urban systems that characterize a relevant part of Italy and Europe.

It includes minor polycentric urban systems, coastal settlements, valley and foothill conurbations, and agro-industrial territories in the plains and hills, and medium-sized cities. The interaction and coexistence between local communities, productive activities, infrastructures,



	<p>and environmental networks raises urgent challenges for the resilience of territories and ecological transition processes, which here confront complex and multi-scalar spatial dynamics.</p> <p>In recent decades there has been a lack of in-depth studies capable of highlighting the most significant transformations, criticalities and potentialities that are affecting intermediate and low-density polycentric territories. With a focus on the themes of urban-territorial polycentrism, resilience and sustainability, the PhD research project aims at:</p> <ol style="list-style-type: none"> 1) providing an updated and differentiated representation of "intermediate", polycentric and low-density territorial systems in Europe within a comparative approach; 2) operating a selection of case studies, focusing on local and national specificities, describing and analysing their recent/ongoing socio-demographic, environmental and infrastructural metamorphoses and fragilities 3) analysing at the European level the most important national and regional policies dedicated to "intermediate", low-density, and polycentric territorial systems; 4) comparing and defining differentiate planning and policy solutions, focusing on their scalability and local implementation.
<p>Methods and techniques that will be developed and used to carry out the research</p>	<p>The PhD research requires the use of a plurality of integrated research methodologies and approaches.</p> <ol style="list-style-type: none"> 1) A wider review of the literature and dossiers describing the main identifying features of low-polycentric territorial systems in Europe and Italy. 2) The quantitative spatialization of the demographic, infrastructural, environmental, and socio-economic dynamics in the last decades to identify different territorial situations and trends; 3) The qualitative exploration of selected case studies that will be investigated from the point of view of sustainability and resilience; 4) The analysis of integrated and sectoral policies at different scales concerning vulnerabilities, risks, sustainability, and resilience in the observed case studies. <p>The PhD candidate will articulate the research through</p>



	<p>fundamental operations aimed at (i) measuring and monitoring the sustainability and resilience of low-density territorial systems to define detailed maps to describe territorial disparities and local vulnerability for specific case studies in Italy and Europe; (ii) identifying and comparing policies and interventions to reduce divides between territories; (iii) analysing the role of infrastructures and related services on ecological transition in different European context; (iv) exploring and comparing area-specific strategies for gap/vulnerability reduction and equalization policies.</p>
<p>Educational objectives</p>	<p>Through the study, the candidate will develop analytical and interpretative tools, as well as research/planning/design methodologies, to produce further advancement in urban studies, spatial and land use planning, green & blue infrastructure design, urban policies, and territorial governance with particular attention to polycentric networks and low-density urban settlements.</p> <p>Mixed-research methods, i.e., qualitative and quantitative analysis methods, research by design approaches, will be applied by the candidate in order to analyze, represent, and define new infrastructural model and strategies for socio-ecological transition of the "Italia di mezzo".</p>
<p>Job opportunities</p>	<p>According to its international orientation, the PhD programme in Urban Planning, Design and Policy trains highly qualified researchers and professionals in spatial planning, design and management of urban projects and policy, urban studies and urban governance.</p> <p>Doctors with such a profile could be employed by Italian and international academic institutions, public bodies and research centres, and public and private development agencies.</p>
<p>Composition of the research group</p>	<p>13 Full Professors 12 Associated Professors 0 Assistant Professors 52 PhD Students</p>
<p>Name of the research directors</p>	<p>Arturo Lanzani, Cristina Renzoni</p>



Contacts

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Further information is available at: Handbook a.y. 2018/2019 of the PhD Program in Urban Planning, Design and Policy (UPDP): <https://www.dastu.polimi.it/dottorato-urbanplanning/>

Additional support - Financial aid per PhD student per year (gross amount)

Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad

Amount monthly	597.76 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

Individual funds are available to purchase books and material, participate to summer schools, workshops and conferences:

1st year: max 1.624,30 euros per student

2nd year: max 1.624,30 euros per student

3rd year: max 1.624,30 euros per student

Various forms of financial aid are available for both research and teaching activities. PhD students are encouraged to take part in these activities within the limits allowed by the regulations.

In the PhD room workstations are available for shared use connected with a printer. All PhD students can use their own laptop with a wireless connection. Workstations and other equipment are available in the various laboratories linked with the doctoral programme.



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