



PhD in INGEGNERIA AMBIENTALE E DELLE INFRASTRUTTURE / ENVIRONMENTAL AND INFRASTRUCTURE ENGINEERING - 37th cycle

Research Area n. 3 - Environmental and Hydraulic Engineering and Geomatics

**THEMATIC Research Field: PROGETTO INNOVAZIONE POLIMI - REGIONE LOMBARDIA:
STRATEGIES FOR THE FURTHER IMPROVEMENT OF WASTE MANAGEMENT IN
ADVANCED CONTEXTS ***

Monthly net income of PhDscholarship (max 36 months)

€ 1400.0

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

Advanced urban waste management systems require the identification of innovative solutions, which include both continuous incremental improvements on all management phases, starting from collection and up to recycling, recovery and disposal of residues in safe conditions, and the search for solutions "Game-changer". In any case, any technological or managerial innovation requires a careful analysis of environmental, economic and social sustainability. The proposed doctorate will carry out this kind of analysis, starting from the careful study of advanced waste management systems, such as that of the Lombardy Region, to provide a perspective to be undertaken starting from 2027.

Methods and techniques that will be developed and used to carry out the research

The research will be conducted in collaboration with the Regione Lombardia Directorate on Environment and Climate.

The research will be based on the extensive use of Life Cycle Thinking Tools, such as Life Cycle Assessment (LCA), Life Cycle Costing (LCC), Social Life Cycle Assessment (S-LCA).



Educational objectives	The project will provide candidate with: knowledge of the sector in which they develop the research project; methodological competences at both the theoretical and applied level; capabilities to interact with people of diverse background; problem setting and solving capabilities.
Job opportunities	The PhD candidate might find occupation in the public sector as well as in private companies willing to improve their environmental performances, with particular reference to waste and resources management.
Composition of the research group	0 Full Professors 2 Associated Professors 7 Assistant Professors 4 PhD Students
Name of the research directors	M.Grosso, L.Rigamonti and a Reg. Lombardia tutor

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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	564.01 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p><u>Educational activities</u> (purchase of study books and material, funding for participation to courses, summer schools, workshops and conferences): financial aid per PhD student per 2nd and 3rd year: max 1534,33 euros per student per year on average.</p> <p><u>Teaching assistantship</u> (availability of funding in recognition of support to teaching activities by the PhD student): there are various forms of financial aid for activities of support to the teaching</p>



practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.

Computer availability and desk availability: 1st year + 2nd year + 3rd year: individual use.