



POLITECNICO
MILANO 1863

DIPARTIMENTO DI
INGEGNERIA GESTIONALE

DIG PhD scholarship

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| Title | Sustainability and Circularity of Industrial Systems |
| Theme | <p>The opportunity of improving the sustainability and circularity of industrial systems requires better use of existing economic, social and environmental resources. Despite both sustainability and circularity could lead to effective improvements in the competitiveness of industrial activities, their potentiality is not exploited, as well as the possible synergies deriving from addressing contemporary the two concepts. A wiser use and management of resources in industrial activities is a strategic and crucial element to be considered in the sustainability and circularity evaluation, especially when considering systems - e.g., supply chains, networks, districts - characterized by complex relationships among the different firms composing the system.</p> <p>The research will be thus focused within the area of industrial sustainability. Stemming from an initial analysis addressing the relationships between the concepts of sustainability and circular economy, the aim is at understanding and exploiting possible synergies among the two. This exploitation would pass from the development of advanced methodologies for the sustainability and circularity analysis and management, addressing, in particular, improvement measures tackling contemporary different aspects such as eco-efficiency, safety, quality and innovation. The focus will be on the planning, design and management of the operations in industrial systems, through the different perspectives of the involved industrial decision-makers, and along the whole product lifecycle. A specific highlight will be given to the analysis of the influence of suppliers of technologies and related services for the improvement of sustainability and circularity related performance.</p> |
| DIG professors involved | Enrico Cagno, Paolo Trucco, Guido J.L. Micheli, Yulia Lapko |
| International collaborations | <i>Donald Huisingsh (University of Tennessee, USA); Patrik Thollander (Linkoping University, SV); Ernst Worrell (Utrecht University, NL); Joseph Sarkis (Worcester Polytechnic Institute, USA); Nevenka Hrovatin (University of Ljubljana, SLO); Michael Howard (University of Essex, UK); Andrea Trianni (University of Technology Sydney, AUS); Steven Cayzer (University of Bath, UK).</i> |