



**POLITECNICO**  
MILANO 1863

DIPARTIMENTO DI  
INGEGNERIA GESTIONALE

## DIG PhD scholarship

<b>Title</b>	<b>Building sustainable and resilient supply chains</b>
<b>Theme</b>	<p>Sustainability has emerged as an important industrial strategic outlook expanding beyond organizational boundaries to include the supply chain. Simultaneously, the industry has also been faced with supply chain resilience concerns. Research on the intersection of supply chain sustainability and resilience is nascent and is a consequence of their observed mutual influences. However, confusion about concepts, implementation methods, and measurements of sustainable and resilient supply chains remains.</p> <p>The aim of the research is to understand and define how sustainability, in the broadest sense of the term, and resilience can be measured and integrated in the development of new practices in the design and management of industrial systems, with a particular focus in the manufacturing sector and in relation to circularity-symbiosis and also to digitalisation.</p> <p>The following activities will be required:</p> <ol style="list-style-type: none"><li>1- Literature review of concepts, performance and practices at the intersection of sustainability and resilience;</li><li>2- Case studies, in order to analyse practices measuring and improving the industrial sustainability, together with circularity-symbiosis, and resilience;</li><li>3- Development of frameworks to support the transition towards sustainability and resilience, considering the enabling role of digitalisation, along the system life cycle;</li><li>4- Contribution, through publications, to the theory development and to the analysis of the links between theory and practice.</li></ol>
<b>DIG professors involved</b>	Enrico Cagno, Guido Micheli, Alessandra Neri
<b>International collaborations</b>	Worcester Polytechnic Institute's Business School (USA), KTH Royal Institute of Technology (Sweden), Warwick University (UK), Aston Business School (UK), University of the West of England (UK), Universidad Politecnica di Madrid (Spain), University Technology Sydney (Australia)