



Dipartimento  
Meccanica  
Matematica  
Management

MUR  
Dipartimento  
di Eccellenza  
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## Research project

**Nome and Surname:** Ilaria Giannoccaro, Giovanni Francesco Massari

**Title:** Designing resilience of circular supply chains through smart technologies

**Description:** The research aim concerns the formulation of novel strategies to mitigate the disruptions threatening the stability of circular supply chains, based on the exploitation of smart technologies. This aim aligns with the research activities currently carried out by the “Supply Chain Management” group, coordinated by Prof. Ilaria Giannoccaro, within the MICS Spoke 7 “New and consumer-driven business models for resilient and circular supply chains” (Award Number: PE00000004) whose aim is to define and experiment with supply chains structural archetypes, schemes of coordination mechanisms, collaborative management approaches and tools, supported by emerging technological solutions, for resilience, sustainability and circularity.

Specifically, the post-doc researcher will have to develop a Digital Twin Simulation tool to create a virtual representation of the circular supply chain and simulate its dynamic behavior in different scenarios. Scenarios will be defined to take into account the different disruptions occurring on circular supply chains and drivers for resilience building. The tool will be validated on real-world circular supply chains. Numerical simulations will be carried out and the results will be used to formulate novel strategies for improving the resilience of the circular supply chain.

**Candidates should provide detailed CV**

### Contacts

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