Prof. PhD Luca Canetta

- **Professor of Supply Networks and Operations Management**
- **Head Sustainable Production Systems Laboratory at SUPSI**
- **15 years applied research EPFL, SUPSI**
- **Phd in Demand Modelling and Operations Management at EPFL (CH), Master of Science in Management Engineering at University of Bergamo (I)**

"Collaborative Supply Chain Management to foster excellence, innovation and sustainable development"

Teaching, training and further education

Master of Science in Engineering (MSE): Factory Planning, International Logistics

Bachelor of Science: Supply Chain and Operations Management, Sustainable Supply Chain Management

Research topics and research questions (of the institute)

How to integrate the real and digital/virtual factory to optimize the performances of the whole Value Chain?

How new paradigms (Sustainability, Mass Customization, Sharing Economy, Industry 4.0) are reshaping Supply Chain configuration and management?

How to apply collaborative supply network strategy to achieve complex good performance measured by multi-criteria indexes (operation excellence, innovativeness, lean, agility, robustness, resilience)?

Main areas of expertise (of the institute; Sustainable Production Systems Laboratory)

Sustainable Supply Chain: innovative business models, Life Cycle Assessment methodologies and software tools, human-driven symbiotic robotized flexible production system

Digital transformation of Production Systems and Supply Chains: Factory Virtualization and integration of real plants and Digital Twins, Production and Supply Chain Simulation and Optimization decision support tools, Digitalization maturity assessment models

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SUPSI (University of Applied Science and Arts of Southern Switzerland)
ISTePS (Institute of Systems and Technologies for Sustainable Production)
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Resources of the institute/chair
Assistants: 3
Bachelor 3rd year: 20–25
Master students: 15–20
Researchers and Lecturers: 15
Professors: 2

Selected Projects

- SMC-Excel Enhancing Sustainability by Mass Customization for European Consumer Electronics, ECO-INNOVERA, BAFU, 2014–2017
- S-MC-S Sustainable Mass Customization Mass Customization for Sustainability, EU FP7, 2010–2013
- REMPLANET Resilient Multi-Plant Networks Model in non-hierarchical manufacturing networks, EU FP7, 2009–2012
- DiFac Digital Factory for Human Oriented Production System, IMS, KTI, 2008–2010

Selected Publications

- A.E. Rizzoli, R. Montemanni, A. Bettoni, L. Canetta: Software Support for Sustainable Supply Chain Configuration and Management, ICT Innovations for Sustainability, Advances in Intelligent Systems and Computing, Volume 310, Springer (2014)
- G. Mattei, A. Barni, M. Cannata, M. Salani, M. Cardoso, L. Canetta, R. Klaus, GIS-based Decision Support System for multi criteria analysis of intermodal transport networks, IEEE Proceedings of the International ICE Conference (2015)
- M. Hora, S. Hankammer, L. Canetta, S. Kaygın Sel, S. Gomez, & S. Gahrens: Designing Business Models for Sustainable Mass Customization: A Framework Proposal, International Journal of Industrial Engineering and Management, 7 (4), 143–152, (2016)
- L. Canetta, A. Barni, E. Montini: Development of a Digitalization Maturity Model for the Manufacturing Sector, IEEE Proceedings of the International ICE Conference (2018)

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