

# ISIEA 2026

## PROGRAMME

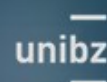
*5<sup>th</sup> International Symposium on  
Industrial Engineering and Automation*

**People, Planet, and Progress: New  
Trends in Design and Manufacturing**

**Bolzano - June 17-19, 2026**



Co-funded by  
the European Union



Freie Universität Bozen  
Libera Università di Bolzano  
Università Lielda de Bulsan

# ISIEA 2026

5<sup>th</sup> International Symposium on  
*Industrial Engineering and Automation*

ISIEA 2026

**People, Planet, and Progress:  
New Trends in Design and Manufacturing**

Bolzano, June 17<sup>th</sup> – 19<sup>th</sup> 2026

Organized by

 Fakultät für Ingenieurwesen  
Facoltà di Ingegneria  
Faculty of Engineering

Sponsored by

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# PROGRAMME

## DAY 1 – Wednesday, 17<sup>th</sup> June 2026

1:30pm - 2:00pm	<b>Registration</b> <i>NOI Techpark - B1 Building – Foyer</i>		
2:00pm - 2:45pm	<b>Conference Opening</b> <i>NOI Techpark - B1 Building - Aula Magna</i> <b>Chairs:</b> Aurora Berni, Yuri Borgianni, Margherita Molinaro, Guido Orzes <b>Greetings:</b> Marco Baratieri (Vice Rector for Teaching), Dominik Matt (Head of the Macro-area “Industrial Engineering and Automation”)		
	<b>Parallel Sessions</b>		
	<b>D&amp;E1: Special Track: Energy system transition - possibilities and challenges for industry</b> <i>NOI Techpark B1 Building -B1.1.12</i> <b>Chair:</b> Eva Thorin	<b>M1: Special Track: Sustainable Supply Chain Management - part 1</b> <i>NOI Techpark B1 Building - B1.1.13</i> <b>Chair:</b> Stefan Seuring	<b>T1: Digitalization and innovation beyond the company borders</b> <i>NOI Techpark B1 Building - B1.1.14</i> <b>Chair:</b> Stefano Abbate
2:45pm - 4:30pm	<b>Operational Optimization of Battery Swapping Stations with Photovoltaic: A MILP–Heuristic Comparison</b> <u>Renzi, Massimiliano</u> ; Alberizzi, Jacopo Carlo	<b>Key Figure System for Assessing the Introduction of Digital Product Passports in Closed-Loop Supply Chains</b> <u>Wohlschläger, Lukas</u> ; Thomann, Jeanne Clara; Fottner, Johannes	<b>Capability-Enabled Value Co-Creation in Industrial Ecosystems</b> <u>Meierhofer, Jürg</u> ; Wulf, Jochen; Pascher, Nikola; Santini, Erica; Saccani, Nicola
	<b>A decision support framework for flexible integration of energy prosumers</b> <u>Renzi, Massimiliano</u> ; Alberizzi, Jacopo Carlo	<b>Technological Adoption and Quantification Technologies in Sustainable Supply Chains: A Bibliometric Analysis of the Last Decade and Global Assessment in the OECD and BRICS</b> <u>Quimbita Yupangui, Yadira Magali</u> ; Rojas Lema, Ximena Bernarda; Morales Arévalo, Verónica Paulina	<b>Geomatics-based Assessment of Climate Change Impacts on Mountain Glaciers in the Argentine Patagonia</b> Cappa, Cecilia Belén; Sánchez Granel, Álvaro; <u>Salimbeni, Sergio</u>

	<p><b>Industry as part of a resilient energy system</b></p> <p><u>Thorin, Eva</u></p>	<p><b>Artificial Intelligence in Sustainable Procurement: A Systematic Review and an Integrative Framework</b></p> <p>Nersesian, Lia; <u>Kalchschmidt, Matteo</u></p>	<p><b>Digitale Weiterbildung der Weiterbilder - "DiWeiWei"</b></p> <p><u>Meier, Jean-Michel</u>; Triltsch, Udo; Wittholz, Varinia; Meyer, Michael; Robra-Bissantz, Susanne</p>
2:45pm - 4:30pm	<p><b>Decarbonizing Heavy-Duty Logistics: A Scenario-Based Economic and Resilience Analysis of Fleet Electrification</b></p> <p><u>Cudia, Luca</u>; Thorin, Eva; Avelin, Anders; Wallin, Fredrik; Nalcaci, Gamze; Chinese, Damiana</p>	<p><b>The role of digital technologies to enable fair value redistribution in agri-food supply chains</b></p> <p><u>Formentini, Marco</u>; Shmalenyuk, Evgeniya; Romano, Pietro; Alessandro, Zironi; Mateja, Zavadlav; Testa, Stefania; Massa, Silvia; Rovida, Raffaella; Latino, Maria Elena; Giangrande, Maria Laura; Lo Nigro, Giovanna; Rizzitello, Eleonora</p>	<p><b>A multi-criteria life-cycle framework for selecting sustainable restoration techniques in cultural heritage</b></p> <p><u>Abbate, Stefano</u>; Scotto Di Santolo, Anna</p>
4:45pm - 6:00pm	<p><b>D&amp;E2: Nature-inspiration and bio-based solutions in design and mechanical engineering</b></p> <p><i>NOI Techpark B1 Building - B1.1.12</i></p> <p><b>Chair:</b> Lorenzo Pagliari</p>	<p><b>M2: Special Track: Bridging Research and Practice of Valuebased &amp; Digitally-enabled Healthcare Systems - part 1</b></p> <p><i>NOI Techpark B1 Building - B1.1.13</i></p> <p><b>Chair:</b> Elena Pessot</p>	<p><b>T2: Industry 4.0 and sustainability</b></p> <p><i>NOI Techpark B1 Building - B1.1.14</i></p> <p><b>Chair:</b> Guido Orzes</p>
	<p><b>Thermal Ageing-Induced Structural Changes and Their Impact on Tribological Performance of Grapeseed Oil</b></p> <p>Michalec, Michal; Baruscotti, Axel; Concli, Franco; <u>Pagliari, Lorenzo</u>; Křupka, Ivan; Hartl, Martin; Svoboda, Petr</p>	<p><b>Macro- and Meso-Level Perspectives on Business Model Innovation in the Australian Cell Therapy Industry</b></p> <p><u>Hou, Xinyi</u>; Sohal, Amrik; Nand, Alka</p>	<p><b>The impact of Collaborative Robots in Warehousing: an experimental analysis of cognitive load and perceived stress</b></p> <p><u>Tudisco, Vittoria</u>; Perotti, Sara; Tappia, Elena; Sguerri, Andrea</p>

<p>4:45pm -</p>	<p><b>Biomimetic Design of a Lightweight and Sustainable Footwear Sole Inspired by Octopus Suction Structures</b></p> <p><u>Goncalves, Clara</u>; Silva, Joana; Ferreira, Rosária; Costa, Susana; Carneiro, Filipa; Costa, Patricia; Soares, Adriana; Ferreira, Maria José; Coelho, Carlos; Meireles, Joana</p>	<p><b>Configurational Patterns of Lead-User Engagement in Healthcare Product Development: Evidence from South African Case Studies</b></p> <p>Bhebhe, Meluleki; <u>Pessot, Elena</u>; Sara, Grobbelaar; Gitto, Simone</p>	<p><b>The 'Green' Side of Automated Warehouses: Modelling Energy, Environmental and Economic Performance of the Rack-Climbing AMR-based Warehousing System</b></p> <p>Perotti, Sara; <u>Cannava, Luca</u>; Musicco, Francesca</p>
<p>6:00pm</p>	<p><b>Comparative Study of Nature-Inspired Spiderweb and Honeycomb Structures for Impact Absorption in Footwear Applications</b></p> <p><u>Ferreira, Rosária</u>; Silva, Joana; Goncalves, Clara; Costa, Susana; Carneiro, Filipa; Costa, Patricia; Soares, Adriana; Ferreira, Maria José; Coelho, Carlos; Meireles, Joana</p>	<p><b>The role of integration in community healthcare: perspectives from General Practitioners</b></p> <p>Giuliani, Ginevra; Ancarani, Alessandro; Di Mauro, Carmela; <u>Gitto, Simone</u></p>	<p><b>An Approach Towards an Ethical Human Digital Twin for Industry 5.0</b></p> <p><u>Ranasinghe, Thilini</u>; Grosse, Eric H.; Neumann, Patrick W.</p>
<p>6:00pm - 8:00pm</p>	<p><b>Standing Dinner</b> <i>NOI Techpark - B1 Building - Foyer</i></p>		

## DAY 2 – Thursday, 18<sup>th</sup> June 2026

				Parallel Sessions		
				<b>D&amp;E3: Fatigue and wear behaviour in mechanical systems</b>  <i>NOI Techpark B1 Building - B1.1.12</i>  <b>Chair:</b> Giuseppe Casalino	<b>M3: Special Track: Circular Economy in the Manufacturing Industry: challenges and opportunities - part 1</b>  <i>NOI Techpark B1 Building - B1.1.13</i>  <b>Chair:</b> Nicola Saccani	<b>T3: Smart and Additive Manufacturing</b>  <i>NOI Techpark B1 Building - B1.1.14</i>  <b>Chair:</b> Yuri Borgianni
				<b>Molecular Dynamics Study on the Fatigue Crack Growth in Single-crystal and Polycrystalline Defect-free <math>\alpha</math>-Fe</b>  <u>Baruscotti, Axel</u> ; Concli, Franco	<b>From Circular Narratives to Organizational Reality: Understanding the Limits of Circular Economy Transitions in Incumbent Firms</b>  <u>Bortoluzzi, Davide</u> ; Trevisan, Caterina; Formentini, Marco	<b>Geometry-Driven Detection of Support-Part Intersection Points for Robotic Post-Processing in Additive Manufacturing</b>  <u>Schachtsiek, Jan</u> ; Kuhlenkötter, Bernd
9:00 - 10:45	<b>Experimental Investigation of the Bending Fatigue Life of POM-C Polymer Spur Gears</b>  <u>Pagliari, Lorenzo</u> ; Longato, Riccardo; Dian, Alessandro; Concli, Franco			<b>Integrating Industry 5.0 and Circular Economy: A System Dynamics Tool to Assess SMEs' Financial Performance</b>  <u>Salimbeni, Sergio</u> ; Muraca, Emanuele; Agesta, Maria Victoria; Giglio, Carlo; Iazzolino, Gianpaolo	<b>Robotic Additive Manufacturing: Capabilities, Limitations, and Strategic Pathways for Improving Part Quality</b>  <u>Dimauro, Alessandro</u> ; Dalpadulo, Enrico; Pini, Fabio; Leali, Francesco	
				<b>Experimental Investigation of the Wear Behavior of POM-C Polymer Spur Gears</b>  <u>Pagliari, Lorenzo</u> ; Longato, Riccardo; Dian, Alessandro; Concli, Franco	<b>Evaluating Smart Labs Potential for Circular Economy Education</b>  <u>Despeisse, Mélanie</u> ; Acerbi, Federica; Sassanelli, Claudio	<b>When does Smart Manufacturing pay off? A configurational Investigation based on necessary Condition and Fuzzy-set qualitative comparative Analysis</b>  Podrecca, Matteo; <u>Arcidiacono, Francesco</u> ; Bearzi, Michela; Schupp, Florian
				<b>Numerical Prediction of Crack Initiation and Growth in Case-Carburized Gears under Bending Fatigue</b>  <u>Pagliari, Lorenzo</u> ; Pehlivan, Kendal; Hong, Isaac; Kahraman, Ahmet; Concli, Franco	<b>Accounting Scope 3 supplier-specific carbon emissions at the Supply Chain level: a method</b>  <u>Saccani, Nicola</u> ; Bressanelli, Gianmarco; Lombardi, Giorgio; Perona, Marco	<b>Large Language Models for external disruption scenarios generation for shop floors' resilience assessment</b>  <u>Aruväli, Tanel</u> ; Francalanza, Emmanuel

10:45am - 11:15am	<p align="center"><b>Coffee Break</b> <i>NOI Techpark - B1 Building - Foyer</i></p>		
11:15am - 12:15pm	<p align="center"><b>Academic Keynote</b> <b>"How to Design for Absolute Sustainability in a world of rebound effects?"</b> Prof. Daniela C. A. Pigosso <i>NOI Techpark - B1 Building - Aula Magna</i> <b>Chair:</b> Yuri Borgianni</p>		
12:15pm - 1:30pm	<p align="center"><b>Lunch</b> <i>NOI Techpark - B1 Building - Foyer</i></p>		
1:30pm - 3:15pm	<p align="center"><b>Parallel Sessions</b></p>		
	<p align="center"><b>D&amp;E4: Progress in mechanical simulation</b></p> <p align="center">NOI Techpark B1 Building - B1.1.12 <b>Chair:</b> Patrick Kröpfl</p>	<p align="center"><b>M4: Special Track: Sustainable Supply Chain Management - part 2</b></p> <p align="center">NOI Techpark B1 Building - B1.1.13 <b>Chair:</b> Philipp Christopher Sauer</p>	<p align="center"><b>T4: Special Track: Achieving Sustainable Industry 5.0: The Role of Lean and Digitalization</b></p> <p align="center">NOI Techpark B1 Building - B1.1.14 <b>Chair:</b> Mélanie Despeisse</p>
	<p align="center"><b>MBSE-Supported Orchestration of Virtual Engineering Methods for Mechanical Engineering</b></p> <p align="center"><u>Kröpfl, Patrick</u>; Cichocki, Max; Ortner-Pichler, Alexander; Landschützer, Christian</p>	<p align="center"><b>Accumulation of industrial climate and energy policies: lessons from the European Union context</b></p> <p align="center"><u>Zecchillo, Nunzia</u>; Molinaro, Margherita; Orzes, Guido</p>	<p align="center"><b>Scalable Resource Efficiency Assessment for Smart Green Manufacturing</b></p> <p align="center"><u>Despeisse, Mélanie</u>; Fang, Qi</p>
	<p align="center"><b>Data-Driven Discrete-Event Simulation for Capacity Sizing of FFF Additive Manufacturing Cell</b></p> <p align="center">Contuzzi, Nicola; Isania, Zahra; Falbo, Laura; <u>Casalino, Giuseppe</u></p>	<p align="center"><b>Organizational Capabilities and Sustainable Competitive Advantage: Examining the Mediating Role of Eco-Innovation in Indonesian Manufacturing Firms</b></p> <p align="center">Wijaya, Lianna; Cheng, Kin Meng; <u>Gruenbichler, Rudolf</u></p>	<p align="center"><b>FIWARE-based Multimodal Asset Tracking for Digital Twins with RFID and Edge-AI Vision</b></p> <p align="center"><u>Monteiro, Romilson</u>; da Cruz, António M. R.; Paiva, Sara; Ivan, Sérgio</p>

1:30pm - 3:15pm	<p><b>Fatigue Design and Structural Assessment of an Injection-Molded Bicycle Frame</b></p> <p><u>Costa, Susana</u>; Silva, Joana; Carneiro, Filipa; Gonçalves, Clara</p>	<p><b>Supplier Involvement in Product Development: An Analysis of Trends, Stages, and Objectives</b></p> <p><u>Abdollahi, Alireza</u>; Ries, Jörg M.; Grosse, Eric H.</p>	<p><b>From Adoption to Advantage: Activating Supply Chain Integration through Industry 4.0 in Emerging Economies</b></p> <p>Reza, Sajjida; <u>Seuring, Stefan</u>; Khalid, Raja Usman</p>
	<p><b>CFD-Based parametric investigation of diesel engine combustion and soot formation</b></p> <p><u>Bensalem, Chafik</u>; Mahfoud, Brahim; Shang, Weiwei</p>	<p><b>Supply Chain Governance Forgotten About the Local Contexts of Upstream Partners</b></p> <p>Petri, Lena; <u>Sauer, Philipp Christopher</u>; Seuring, Stefan</p>	<p><b>Towards Resilient Construction Sites: A Digital Platform Integrating Safety, Monitoring, and Circular Resource Management</b></p> <p><u>A. Trujillo, Jairis Arleen</u>; Bravo Segarra, Alejandro; Montanaro, Andrea; Turrisi, Giuseppe; Fruni, Riccardo; Massone, Eleonora; Surano, Luigi</p>
3:15pm - 3:45pm	<p><b>Coffee Break</b> <i>NOI Techpark - B1 Building - Foyer</i></p>		
<b>Parallel Sessions</b>			
3:45pm - 5:00pm	<p><b>D&amp;E5: Challenging the conventional tenets of engineering design</b></p> <p>NOI Techpark B1 Building - B1.1.12</p> <p><b>Chair:</b> Laura Ruiz-Pastor</p>	<p><b>M5: Special Track: Sustainable Supply Chain Management - part 3</b></p> <p>NOI Techpark B1 Building - B1.1.13</p> <p><b>Chair:</b> Margherita Molinaro</p>	<p><b>T5: Progress in the development and application of Digital Twins</b></p> <p>NOI Techpark B1 Building - B1.1.14</p> <p><b>Chair:</b> Sergio Salimbeni</p>
	<p><b>Exploring Theory-Driven Prompting for AI-Based Product Planning</b></p> <p>Rotini, Federico; <u>Bacciotti, Daniele</u></p>	<p><b>Bringing production home: The sustainability implications of manufacturing reshoring</b></p> <p><u>Losciuto, Alessandro</u>; Ancarani, Alessandro; Di Mauro, Carmela</p>	<p><b>CoboTwin2.0: A Maturity-Driven Digital Twin for Col-laborative Robot Task Orchestration</b></p> <p><u>Quesado, Gonçalo</u>; Cruz, António; Lopes, Sérgio</p>
	<p><b>Analysis of the influence of product shape on the sale price based on Product Phenetics</b></p> <p>Artacho Ramírez, Miguel Ángel; Zou, Xiangyu; <u>Arrufat Álvarez, José Manuel</u>; Berni, Aurora</p>	<p><b>A Multidimensional Sustainability Risk Assessment Framework for SMEs in the Automotive Industry: A Case Study Implementation</b></p> <p><u>Drissi Yahyaoui, Oumayma</u>; Rauch, Erwin; Grünbacher, Georg</p>	<p><b>A Human-Centered Learning Factory Architecture Integrating Digital Twins, Autonomous Systems, and EEG-Informed Adaptation</b></p> <p><u>Andreau, Jorge Mario</u>; Salimbeni, Sergio</p>

<p>3:45pm - 5:00pm</p>	<p><b>Eco-design attributes and sustainability perception: A survey to investigate the missing links</b></p> <p><u>Sierra Fontalvo, Lesly Marcela</u>; Berni, Aurora; Borgianni, Yuri</p>	<p><b>From Promise to Practice? Paradoxical Tensions in implementing Supply Chain Traceability Technologies</b></p> <p>Allenbacher, Janine Sophie; <u>Sauer, Philipp Christopher</u></p>	<p><b>Securing FIWARE-based Digital Twins for Industrial Settings</b></p> <p><u>Lemos, Tiago</u>; Severino, Ricardo; Cruz, António; Teixeira, Patrício; Lopes, Sérgio</p>
<p>5:15pm - 6:00pm</p>	<p style="text-align: center;"><b>SIDE EVENT</b></p> <p style="text-align: center;"><b>"An ERC project application after PhD completion: my experience and my suggestions"</b></p> <p style="text-align: center;">Prof. Daniela C. A. Pigosso</p> <p style="text-align: center;">NOI Techpark - B1 Building - B1.1.12</p>		
<p>7:00pm - 11:00pm</p>	<p style="text-align: center;"><b>Gala Dinner at Mareccio Castle</b></p> <p style="text-align: center;">Mareccio Castle</p> <p style="text-align: center;">Claudia-de'-Medici-Straße 12, Bozen Via Claudia de Medici, 12, Bolzano</p>		

## Day 3 – Friday, 19<sup>th</sup> June 2026

		Parallel Sessions		
		<b>D&amp;E6: Overlooked players and aspects in design</b>  <i>NOI Techpark B1 Building - B1.1.12</i>  <b>Chair:</b> Aurora Berni	<b>M6: Special Track: Bridging Research and Practice of Valuebased &amp; Digitally-enabled Healthcare Systems - part 2</b>  <i>NOI Techpark B1 Building - B1.1.13</i>  <b>Chair:</b> Simone Gitto	<b>T6: Human-Machine collaboration</b>  <i>NOI Techpark B1 Building - B1.1.14</i>  <b>Chair:</b> Alireza Abdollahi
9:00am - 10:15am	<b>Design for experience: how technology turns passive individual aesthetic appraisal into interactive and educational experiences</b>  Artacho-Ramírez, Miguel Ángel; Juste-Ruiz, Azahara; Arrufat-Álvarez, José Manuel; <u>Berni, Aurora</u>	<b>Factors Facilitating or Hindering the Implementation of Optimized Operating Room Scheduling Systems: A Systematic Review</b>  Vannelli, Sara; <u>Orsini, Federico Filippo</u> ; Porazzi, Emanuele; Foglia, Emanuela; Visintin, Filippo	<b>Safe and human-centric End-Effector Design: a systematic Literature Review</b>  <u>Cutajar, Isaac</u> ; Francalanza, Emmanuel; Zammit, Joseph	
	<b>Designing Sustainability Across Languages: Creativity and Environmental Framing in Multilingual Design Education</b>  Barchi, Kim Anne; <u>Ruiz Pastor, Laura</u>	<b>Evaluating the effectiveness of Community Health Centres in managing minor emergencies</b>  Flaminio, Francesca; <u>Gitto, Simone</u> ; Giuliani, Ginevra	<b>Harmonising Human-Robot Order Picking: Taxonomy Development and Human Factors Analysis</b>  <u>Bosch, Jarne</u> ; Abdollahi, Alireza; De Lombaert, Thomas; Ramaekers, Katrien; Grosse, Eric H.; Caris, An	
	<b>Additive Manufacturing in Consumer Goods: an Exploratory Analysis of Products, Motivations, and Commercial Outcomes</b>  <u>Dianda, Angelica</u> ; Borgianni, Yuri	<b>From bottlenecks to efficiency: Simulation-driven improvement of inbound operations in a pharmaceutical warehouse</b>  <u>Ferreira, Diogo Cunha</u> ; Costa Marques, Ana Sara	<b>A Tertiary Study of Human-Technology Interaction in Industry 4.0</b>  <u>Ranasinghe, Thilini</u> ; Grosse, Eric H.; Glock, Christoph H.; Burinskiene, Aurelija; Daskevici, Diana; Lingaitiene, Olga	
10:15am - 10:45am	<b>Coffee Break</b>  <i>NOI Techpark - B1 Building – Foyer</i>			

<p>10:45am - 11:45am</p>	<p align="center"><b>Industrial Keynote</b></p> <p align="center"><b>"Making More, Wasting Less: Smart Manufacturing as a Sustainability Enabler"</b></p> <p align="center">dott. Fabio Fattori</p> <p align="center">NOI Techpark - B1 Building - Aula Magna</p> <p align="center"><b>Chair:</b> Guido Orzes</p>		
<p>12:00pm - 1:15pm</p>	<p align="center"><b>Parallel Sessions</b></p>		
	<p align="center"><b>D&amp;E7: AI and algorithms along the whole design cycle</b></p> <p align="center"><i>NOI Techpark B1 Building - B1.1.12</i></p> <p align="center"><b>Chair:</b> Federico Rotini</p>	<p align="center"><b>M7: Special Track: Circular Economy in the Manufacturing Industry: challenges and</b></p> <p align="center"><i>NOI Techpark B1 Building - B1.1.13</i></p> <p align="center"><b>Chair:</b> Nicola Sacconi</p>	<p align="center"><b>T7: Engineering applications of AI and Machine Learning</b></p> <p align="center"><i>NOI Techpark B1 Building - B1.1.14</i></p> <p align="center"><b>Chair:</b> Andrea Revolti</p>
	<p align="center"><b>Understanding the Impact of Domain-Oriented Fine-Tuned Large Language Models in Engineering Design</b></p> <p align="center"><u>Liu, Xiaodong</u>; Vasantha, Gokula; Goh, Keng; Marzano, Adelaide; Lin, Wenguang</p>	<p align="center"><b>Linking Product-Service Systems and Remanufacturing: An Approach to Enhance Industrial Sustainability</b></p> <p align="center"><u>Arioli, Veronica</u>; Galimberti, Mattia; Pirola, Fabiana; Pezzotta, Giuditta</p>	<p align="center"><b>Evolution of Scan-to-BIM Approaches from 2020 to 2026: A State-of-the-Art Review on Machine Learning-based Object Recognition in the AEC Industry</b></p> <p align="center"><u>Revolti, Andrea</u>; Dallasega, Patrick; Rauch, Erwin</p>
	<p align="center"><b>Algorithmic theory of engineering design</b></p> <p align="center"><u>Sedenkov, Vladimir</u></p>	<p align="center"><b>Reframing Industrial Symbiosis as Portfolio Governance: Integrating Circular Economy and Project Portfolio Management</b></p> <p align="center"><u>Pompei, Alessandro</u>; Fraccascia, Luca; Nonino, Fabio</p>	<p align="center"><b>A Principled AI Agent for Interactive Requirements Engineering Using RAG and LLMs</b></p> <p align="center"><u>Bataleblu, Ali Asghar</u>; Esmailian, Maryam; Fuchs, Matthias</p>
		<p align="center"><b>Circular Economy Barriers in the Textile Industry: Bridging Literature and French Stakeholders' Insights on Recycling Strategies</b></p> <p align="center"><u>Sagnard, Jade</u>; Legardeur, Jérémy; Vechiu, Natalia</p>	<p align="center"><b>From decision support to decision autonomy: how agentic AI is rewiring operations and supply chains</b></p> <p align="center"><u>Scarton, Giorgio</u>; Formentini, Marco</p>

1:15pm - 2:30pm	<b>Lunch</b> <i>NOI Techpark - B1 Building - Foyer</i>
2:30pm - 3:15pm	<b>Closing Session, Award Ceremony and Presentation of ISIEA27</b> <i>NOI Techpark - B1 Building - Aula Magna</i> <b>Chairs:</b> Aurora Berni, Yuri Borgianni, Margherita Molinaro, Guido Orzes

## KEYNOTES



### **How to Design for Absolute Sustainability in a world of rebound effects?**

Prof. Daniela C. A. Pigosso

Daniela is Professor of Design for Absolute Sustainability at DTU Construct and Principal Investigator of the ERC REBOUNDLESS and ERC REBOUNDLESS POLICIES projects. She works within the fields of Design for Sustainability, Engineering Design, Rebound Effects, Absolute Sustainability and Circular Economy. Strong research and innovation activities demonstrated in 20+ national and international projects, carried out in close collaboration with industry. Member of the Advisory Board of the Design Society. Several high-impact publications and international recognition with significant industrial and policy impact.

### **Making More, Wasting Less: Smart Manufacturing as a Sustainability Enabler**

Dott. Fabio Fattori

Fabio Fattori, B.Sc. (Università Statale di Milano) is a Partner & Associate Director at Boston Consulting Group (BCG) in Milan, where he leads manufacturing and Industry 4.0 transformation programs. With over 25 years of consulting experience, Fabio specializes in lean manufacturing, smart factory design, and AI-enabled operations, with a strong focus on Aerospace & Defense, Rail, Shipbuilding, and Industrial sectors. He has led



large-scale re-industrialization programs, non-quality cost reduction initiatives, and advanced digital manufacturing projects — including computer vision systems for quality defect detection and Generative AI applications for manufacturing process optimization. Before joining BCG, Fabio spent 15 years at JMA Consultants Europe, a Japanese consulting group, leading lean and supply chain transformations across Europe. He holds a Professional Certificate in Artificial Intelligence: Implications for Business Strategy from MIT Sloan School of Management (2025) and is a core member of BCG's Operations and Industrial Goods practice areas.