



**Invited Session on: "Digital Platforms for Supply Chain Resilience", session code: 558r8**

for 11th IFAC Conference on Manufacturing Modelling, Management and Control, **Trondheim, Norway, 30 June - 3 July 2025**

**Organized by:**

Prof. Dr. Aseem Kinra, Heriot-Watt University (UK) and Institute for Shipping Economics and Maritime Logistics (ISL). Email: [kinra@uni-bremen.de](mailto:kinra@uni-bremen.de) ; [kinra@isl.de](mailto:kinra@isl.de)

Prof. Dr. Xavier Brusset, Director of the PRISM Research Centre, SKEMA Business School. Email: [xavier.brusset@skema.edu](mailto:xavier.brusset@skema.edu)

**Overview**

Supply chain disruptions have become increasingly common, driven by crises such as the COVID-19 pandemic, Ukraine war, geopolitical conflicts and other natural disasters. These disruptions have underscored the vulnerability of global supply chains and the critical need for resilience. The proposed invited session, "Digital Platforms for Supply Chain Resilience," aims to explore the role of digital platforms in assessing, managing, and enhancing supply chain resilience across different industries, with a particular focus on Small and Medium-sized Enterprises (SMEs).

Digital supply chain platforms, which integrate technologies like cloud computing, AI, IoT, and data analytics, present a robust solution for managing supply chain disruptions. However, significant gaps remain in understanding their adoption and integration, especially within SMEs. Furthermore, current literature emphasizes the use of digital platforms in consumer-facing applications, leaving B2B applications largely unexplored. This session will bring together academics and practitioners to examine how these platforms can be leveraged to improve resilience and performance in supply chains.

**Session Objectives**

This session will explore how digital platforms can help in supply chain management and make supply chains become more resilient by enabling better risk management, collaboration, and adaptability. In particular, it will focus on:

1. **Resilience Assessment:** Leveraging digital platforms for real-time resilience assessment and identification of vulnerabilities in supply chains.
2. **SME Engagement:** Investigating how digital platforms can be tailored to support SMEs in improving their resilience in the face of global disruptions.
3. **Adoption Challenges:** Understanding the key constraints in the adoption of firm-integrated digital supply chain platforms in the B2B context.
4. **Collaborative Ecosystems:** Evaluating the roles and interactions of different stakeholders within the digital platform ecosystems and their impact on performance and resilience.

**Key Questions:**

1. What are the key constraints involved in the adoption and implementation of firm-integrated digital platforms for supply chain resilience?
2. How can digital platforms be leveraged to assess and enhance supply chain resilience in B2B firms?
3. How do the roles and interactions of different stakeholders affect the adoption and performance of digital supply chain platforms?

4. What strategies and incentives can be developed to encourage SMEs to adopt digital platforms towards attaining supply chain resilience?

**Key Points for Submission Consideration:**

1. Submission as an invited paper requires the invited session code: **558r8**. When you submit your paper to the IFAC system, you will be required to provide this invitation code in order to associate your paper to this invited track: <https://ifac.papercept.net>
2. Papers reporting original research (**limited to 6 pages in IFAC format**) are welcome
3. Accepted papers will be published open access in Elsevier's IFAC-PapersOnLine.
4. Special issues of MIM 2025 Conference are planned in IFAC and other high-ranking journals.
5. Conference website: <https://conferences.ifac-control.org/mim2025/>

**Important Dates:**

1. Full paper submission deadline: 30/11/2024
2. Notification to acceptance: 30/01/2025
3. Final paper submission deadline: 28/02/2025
4. IFAC MIM 2025 Conference dates: 30/06/2025 – 03/07/2025

**References**

- Bonina, C., Koskinen, K., Eaton, B., & Gawer, A. (2021). Digital platforms for development: Foundations and research agenda. *Information Systems Journal*, 31(6), 869–902.
- Brusset, X., Davari, M., Kinra, A., & La Torre, D. (2023). Modelling ripple effect propagation and global supply chain workforce productivity impacts in pandemic disruptions. *International Journal of Production Research*, 61(8), 2493–2512.
- Ivanov, D. (2021). Digital supply chain management and technology to enhance resilience by building and using end-to-end visibility during the COVID-19 pandemic. *IEEE Transactions on Engineering Management*.
- Kinra, A., Ivanov, D., Das, A., & Dolgui, A. (2020). Ripple effect quantification by supplier risk exposure assessment. *International Journal of Production Research*, 58(18), 5559–5578.
- Qi, Y., Wang, X., Zhang, M., & Wang, Q. (2023). Developing supply chain resilience through integration: An empirical study on an e-commerce platform. *Journal of Operations Management*, 69(3), 477-496.
- Shree, D., Kumar Singh, R., Paul, J., Hao, A., & Xu, S. (2021). Digital platforms for business-to-business markets: A systematic review and future research agenda. *Journal of Business Research*, 137(August), 354–365.
- Suali, A. S., Srai, J. S., & Tsolakis, N. (2024). The role of digital platforms in e-commerce food supply chain resilience under exogenous disruptions. *Supply Chain Management: An International Journal*, 29(3), 573-601.
- Zhao, N., Hong, J., & Lau, K. H. (2023). Impact of supply chain digitalization on supply chain resilience and performance: A multi-mediation model. *International Journal of Production Economics*, 259, 108817.
- Zouari, D., Ruel, S., & Viale, L. (2021). Does digitalising the supply chain contribute to its resilience? *International Journal of Physical Distribution & Logistics Management*, 51(2), 149-180.