

28<sup>th</sup> Cambridge International Manufacturing Symposium

## Future-proofing manufacturing supply chains

*Navigating paradigm shifts in geopolitical, technology and climate transitions*

19-20 September 2024, Møller Institute, Cambridge



The annual Cambridge International Manufacturing Symposium is the chance to hear from world-leading business figures and thinkers on the challenges facing modern manufacturing. It is a unique event that brings together senior industrialists and leading academics to share approaches and experiences in this strategic domain, covering the following key themes:

- ▶ Geopolitical influences on global supply chain reconfigurations
  - ▶ Global Manufacturing and China
- ▶ Rethinking supply chain resilience in response to multiple disruptions
- ▶ Transforming supply chains through digital platforms and technologies
  - ▶ Exploring circular supply network transformation strategies

### Attendance at the Symposium includes:

#### INDUSTRIAL DAY | THURSDAY 19 SEPTEMBER 2024

The first day consists of presentations by leading industrialists on the overall theme of the Symposium.

#### ACADEMIC RESEARCH DAY | FRIDAY 20 SEPTEMBER 2024

The second day comprises a mixture of keynote academic presentations and research papers in several parallel sessions.

There will be ample opportunity for networking during the day with both industry and academic stakeholders. The sessions will include questions and informal discussion, with an open forum at the end of the day to debate issues and identify common themes and needs.

## Key themes

### ▶ Geopolitical influences on global supply chain reconfigurations

Evolving geopolitical and economic landscapes, now further complicated by regional conflicts and upcoming elections in key economies where deglobalisation sentiments are strong, are presenting novel supply chain design scenarios. These scenarios are prioritising shorter lead times, greater volume and variety flexibility, and supply security. For instance, increasing US-China tensions, alongside heightened security concerns, are driving a strategic shift in manufacturing supply chains away from China, encouraging regionalisation and national self-sufficiency in manufacturing. Supply security and international trade considerations are also shaping government investments and subsidies in critical areas like semiconductors. How might international firms reconfigure their supply chains given these drivers to address geopolitical challenges and regionalisation opportunities?

### ▶ Global Manufacturing and China

Since 2005, when China was emerging as the 'world's workshop' driving the rapid globalisation of manufacturing, Zhejiang University in China and the University of Cambridge in the UK have co-organised an annual conference. These annual events, alternating between Zhejiang and Cambridge, have discussed these dramatic transformations in both global manufacturing and Chinese industry developments. Following a successful event in Hangzhou in 2023, GMC delegates will once again be convening at this year's Cambridge International Manufacturing Symposium to continue GMC discussions and workshop, in what is a very different geopolitical context. Special academic sessions this year will include a strong industry delegation from Zhejiang Province with presentations addressing emerging challenges and responses in Global Manufacturing related to China.

### ▶ Rethinking supply chain resilience in response to multiple disruptions

As supply chain resilience becomes a foundational requirement for future-proofing supply chains, we face the reality that new sources of vulnerability are emerging. In this evolving context, how to refine risk management strategies to deliver network-level resilience? Approaching resilience as a complex, multi-dimensional concept, we examine methodological innovations and enabling technologies. These include the application of digital technologies, advanced analytical tools supported by new developments in AI and machine learning, cyber-resilience, as well as strategic supply network redesign and collaboration initiatives that mitigate risk. How effective are these network design and analytical approaches in addressing high-impact supply chain risks and vulnerabilities?

### ▶ Transforming supply chains through digital platforms and technologies

Modern manufacturing supply chains increasingly rely on digital technologies for their effective operation. We continue to explore latest developments in terms of how multiple digital technology interventions combine to deliver competitive advantage. Taking stock of applications and developments over the last 10 years, we discuss where next in the digital supply chain transformation journey. How might digital twin supply chains, control towers, advanced analytics, AI applications and digital-platform supply chains evolve? How will these developments shape supply chain management practice and governance, and support business and operating model innovation? From a skills perspective, how best to enable IT-OT integration in change programmes and intervention projects? What is the new North Star in digital transformation programmes?

### ▶ Exploring circular supply network transformation strategies

While Net Zero sustainability targets have now been incorporated into corporate strategies, addressing resource scarcity and scope 3 emissions is far more challenging. Circular supply networks provide a potential solution to tackle these system level challenges but adoption of such business and operating models have flatlined in recent years. So, what can we learn from exemplar circular supply networks in terms of product and network design, and associated operating and business models? We aim to explore circular transformation strategies across industries by examining leading examples of circular supply networks. How are advanced manufacturing and digital technologies facilitating the transition towards circularity? What are the barriers faced by companies in transitioning to circular models? How do circular ecosystems evolve and what role does regulation play?



## Symposium location

The event will be held at the Møller Institute, a purpose-built conference facility in the grounds of Churchill College, Cambridge.

The symposium dinner will be held at Magdalene College, Cambridge.



## Who should attend:

Senior executives responsible for:

- ▶ manufacturing networks
- ▶ global supply chains
- ▶ operations strategy
- ▶ network reconfiguration
- ▶ procurement & sourcing
- ▶ logistics and customer service

Researchers working in the fields of:

- ▶ strategic & operations management
- ▶ design of manufacturing or service based supply networks
- ▶ international business
- ▶ network capabilities
- ▶ sustainable & resilient network design

### Recent industrial participants...

ABB, Aggreko, ALPS Electric (UK), APV, Arup, AstraZeneca, BAE Systems, Beiersdorf AG, Bombardier, BP Solar, Cadbury, Carl Zeiss, Caterpillar, Cisco, Danfoss, Diageo, Domino, Electrolux, Fujitsu-Siemens Group, GKN, GlaxoSmithKline, Grundfos, Hewlett Packard, Honeywell, Huawei, Jaguar Land Rover, Jeyes, Johnson Matthey, Kraft Foods, The LEGO Group, Linde, Mars, Maruti Suzuki, Morgan Crucible, Nestlé, P&G, Philips, Reckitt Benckiser, Rolls-Royce, Schneider Electric, Sealed Air, Shell, Siemens, Smiths Group, Unilever, Wärtsilä, Wavin, WABCO, Yamazaki

### Symposium organisers

The Symposium is organised and hosted by the Centre for International Manufacturing (CIM), one of several research centres within the University of Cambridge's Institute for Manufacturing (IfM).

### For further information

Please contact: Dr Jag Srni, Director of Research in the Department of Engineering, University of Cambridge, and Head, Centre for International Manufacturing (IfM), for detailed programme information: [ifm-events@eng.cam.ac.uk](mailto:ifm-events@eng.cam.ac.uk)