

A call for papers for a Special Issue in the Journal of Business Chemistry

Innovation and Production Management in the Process Industries

Submission deadline: 15 September 2026

This Special issue (SI) invites papers that shed light on enhanced models and practices for managing on-going and future eco-industrial transformations in the “family” of process industries. We particularly encourage papers that not only explore the close interconnection between product and process innovation but also adopt an interdisciplinary perspective on “Innovation and Production Management”. Both conceptual and empirical contributions that enrich a fundamental understanding of these topical areas are welcome. While we are especially interested in contributions from the chemical, petrochemical, biotechnological, and pharmaceutical industrial sectors, we also invite submissions from other sectors of the process industries, fostering a cross-sectoral learning and knowledge exchange. Please observe that the Journal of Business Chemistry (JoBC) has a special Practitioner’s Section, and in reference to the topical area for this Special issue, collaborative papers together with academic scholars and industry practitioners are especially appreciated.

Guest editors:

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Special issue information:

In assembly-based industries, the components in a product largely remain unchanged during and after the production process. In contrast, materials in the process industries are subjected to a transformative production process that convert them into completely different entities. These products are typically homogeneous (Lager and Simms, 2023), and their functionalities in customer use are primarily determined by their internal structural properties (Kuwashima and Fujimoto, 2023). In essence, in “assembly-based” production systems, the product largely defines the configuration of subsequent production system, whereas in the process industries – characterized as “transformation-based” production systems - the production process defines both the product and its final product specifications (Lager, 2024 p.30). Barnett and Clark (1996) argued early that innovation in process industries is primarily enabled by process innovation, which simultaneously constitute the most constraining factor for product innovation. Consequently, an in-depth understanding of the production system is critical for success in both product and process innovation. Moreover, in the pursuit of new pathways in eco-industrial transformations (Fagerlin et al., 2019), a reengineering system approach (Hammer, 1990) combined with a shift toward more radical corporate process innovation is most likely a necessary road to follow (Sandberg and Aarikka-Stenros, 2014, Radnejad et al., 2020).

Given that product innovation in the process industries is fundamentally an outcome of successful innovation of new process technology (Lager, 2024), and considering that CO₂ emissions from production processes often constitutes the major company environmental challenge, an integrative approach in managing innovation and production technology is desirable. Such an approach incentivizes an exploration of new pathways and inter-organizational solutions for eco-industrial transformations. Furthermore, the ability to create intra-organizational value chains through an interlinkage of production plants, infrastructures, by-products, and energy flows in large-scale global

operations – referred to as “Verbund” in the BASF company (2026) – is an interesting approach in the perspective of industrial symbiosis (Heck et al., 2024). Conversely, the strongly integrated and asset-intensive industrial infrastructure is unfortunately often hindering an ability to respond to environmental changes (Samuelsson and Lager, 2019).

In conclusion, process innovation (Lager, 2010) has become an increasingly critical concern for the “family” of process industries, since the production process is a major contributor to greenhouse gas emissions and the necessary interconnectedness between product and process innovation in all stages of product innovation (Wittfoth et al., 2022, Rammer, 2023, Lager, 2024). Consequently, the complex and idiosyncratic environment of process industries crave intertwined product, process, and raw materials innovation in a concurrent view on all these areas in a systemic innovation approach (Storm et al., 2013). Such “Systemic Innovation” (Teece, 1986, Midgley and Lindhult, 2021) is emerging not only as a vital mechanism for establishing a more dynamic integration of different categories of innovation but also as the establishment of a “collaborative playground” for necessary novel eco-industrial experimental networks.

Tentative research questions:

- How can cross-sectoral organizational learning and knowledge exchange be facilitated and stimulated in a process-industrial context?
- In the context of eco-industrial transformation of corporate unit process technology - sometimes encompassing whole production systems -, how can such a “re-engineering” corporate perspective be institutionalized and applied?
- What novel conceptual and practical frameworks are necessary for future industrial supply and value chain configurations in eco-industrial transformations in the process industries?
- How can early-stage integration of equipment suppliers, technology providers, and intermediaries in the process-industrial eco-system enhance systemic innovation and sustainability outcomes?
- Given the experimental nature and longtime horizons of process innovation in eco-industrial transformation, how can the process development work be accelerated to meet the urgency of fossil-free technology development?
- What kinds of organizational and work process reconfigurations are necessary to enable more radical process innovation in eco-industrial transformations in the process industries?

Manuscript submission information:

As a continuation of a series of international workshops on the overall theme “Innovation and Production Management in the Process Industries”, the 5th invitational workshop IMP2026 will be convened at Blekinge Institute of Technology (BTH) in May 2026, in Karlskrona, Sweden (www.bth.se/ipm2026). Authors that intend to submit a paper to this Special Issue are invited to present their papers at the workshop. **However, workshop participation is not a prerequisite for submission to the Special issue and will not influence the selection of SI papers for full peer review.**

- March 2026 Submission starts for Special issue
- 22 March Deadline for submission of abstracts for the workshop (thomas.lager@bth.se)
- 29 March Notification of acceptance and request for working papers for the workshop
- 17 April Deadline for submission of working papers together with registration
- 23 April Final full workshop program and book of abstracts available for delegates
- **6-7 May Two-day workshop**
- 15 September Submission deadline for Special issue

All manuscripts for the Special issue should be submitted to contact@businesschemistry.org.

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