

# Foreword

The Institute for Production and Supply Chain Management (PSCM-HSG) at the University of St.Gallen aims to facilitate dialogue between academic research and practical application in the areas of production, supply chain management, purchasing, and transportation. With a focus on being "science-based, practice-driven", the institute links cutting-edge research to practical solutions for real-world problems.

The PSCM-HSG conducts research on the complex challenges facing global value creation networks, developing concepts, methods, and instruments to improve production and supply chain management in various sectors, including industry, trade, service, and the public sector.

In addition, the PSCM-HSG also promotes knowledge transfer from science to practice and the development within an international network of renowned universities and institutes.

One specific area of interest for the PSCM-HSG is the use of Generative Artificial Intelligence (Gen AI) in logistics. The implementation of the technology has the potential to transform logistics practices on a large-scale. As more and more organizations start exploring potential application fields of the technology, the present study aims to provide guidance in three domains: providing essential technology knowledge, offering a variety of potential use cases within logistics operations, and presenting practical hands-on guidance around a four-phase «Gen AI in logistics journey» framework.

To achieve this objective, the PSCM-HSG collaborates with a consortium of renowned logistics service providers, logistics planners as well as industrial and retail companies in the field of supply chain management.

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# Management Summary

The use of Gen AI in logistics has garnered considerable interest in recent years. Industry professionals anticipate that the technology will drive cost reductions and improve efficiency in growth initiatives. Nevertheless, the discourse around potential applications in logistics has so far lacked a systematic evaluation of relevant use cases and a structured assessment of the technology's potential as well as guidance towards deployment.

This practitioner-oriented consortium study, conducted by the Institute for Production and Supply Chain Management (PSCM-HSG) at the University of St.Gallen and its promotional association, presents a theoretical foundation of Gen AI, explores both current and forward-looking use cases within the logistics field and offers practical frameworks and actionable recommendations to support companies in proactively navigating and shaping their own «Gen AI in logistics journey».

Through extensive literature, expert interviews and focus groups, the study identified 16 potential Gen AI in logistics use cases for companies to explore and adapt to their own business environment. These use cases can be classified into three categories: knowledge enablement, decision drafting, and operational intelligence. Knowledge enablement use cases include e.g. providing

expert knowledge through a digital knowledge twin or through an instruction-based employee training. Decision drafting use cases deal with the provision of draft or full versions for output data in different domains, including e.g. offer creation or contracts-invoice checks. Operational intelligence use cases are applied at the core of logistics operations and include use cases e.g. in data management or customs clearance.

Furthermore, the study provides a variety of practical assistance in enabling companies to shape their own «Gen AI in logistics journey» through a four-phase framework. Within the identification phase, the study provides guidance in identifying relevant use cases that address real pain points. In the assessment phase, the study provides insights on how to evaluate potential use cases. The implementation phase is guided by practical knowledge around an eight-step introduction framework. The deployment & control phase offers assistance for monitoring the performance of a Gen AI solution.

By leveraging the collaborative forces of the participating companies, this study presents a shared perspective on the potential of Gen AI in logistics. It serves as a resource for both industry professionals and academic scholars, supporting effective integration of Gen AI with a particular focus on logistics.

From insight  
to impact.

# Preface Bayer AG



## About us

Bayer is a leading global life sciences company, operating in the areas of health care and agriculture. With a history spanning over 160 years, Bayer is committed to addressing some of the world's most pressing challenges through innovation and science. Operating across three divisions – Pharmaceuticals, Consumer Health, and Crop Science – Bayer's mission is: Health for all, Hunger for none. In 2024, the company generated revenues of €47.6 billion and employed around 100,000 people across 80 countries.

Bayer's Consumer Health division is a global leader in over-the-counter products, offering trusted brands in areas such as nutritional supplements, allergy relief, dermatology, pain management, and digestive health. Our Pharmaceuticals division focuses on prescription medicines in key therapeutic areas including cardiology, oncology, women's health, ophthalmology, and radiology. With a strong pipeline and a commitment to innovation, Bayer continues to deliver impactful solutions that improve lives around the world.

## Research interest

Artificial Intelligence is already reshaping the logistics landscape, unlocking new levels of efficiency, precision, and responsiveness. At Bayer, we see immense potential in leveraging AI to transform our supply chain operations. By participating in this study, we aim to identify breakthrough use cases that go beyond incremental improvements and deliver true disruption. Our ambition is to lead in this space, using AI to enhance service quality and reliability. Ultimately, this supports our mission to provide superior care and timely access to our products for patients and consumers worldwide.

## Further Information

[www.bayer.com](http://www.bayer.com)

# Preface Endress + Hauser



## About us

Endress+Hauser is a global leader in measurement and automation technology for process and laboratory applications. With over 70 years of experience, the family-owned company operates in 125 countries, employing 18,000 people worldwide. Its extensive network includes 50 sales centers and 40 production sites, reflecting a strong commitment to local presence and global reach.

At home in many industries, Endress+Hauser provides reliable devices, solutions, and services that enable customers to optimize processes for improved efficiency, safety, and sustainability. What truly sets Endress+Hauser apart is its partnership approach. The company collaborates closely with customers to understand their challenges and develop solutions that create lasting value.

With a strong focus on sustainability and innovation, Endress+Hauser is committed to driving progress in industrial process engineering.

## Research interest

The Global Logistics Operations Center located with 40+ people in Ireland is a strategic hub for Endress+Hauser's worldwide supply chain management. It coordinates and optimizes logistics processes to ensure seamless, efficient, and timely delivery of products to customers around the globe. By leveraging advanced technology and data analytics, the center enhances transparency and responsiveness across the entire logistics network. The Global Logistics Operations Center plays a crucial role in driving operational excellence and supporting Endress+Hauser's commitment to outstanding customer service.

AI is becoming indispensable in this context. By automating repetitive tasks and enabling smarter decision-making, AI increases productivity and frees up skilled experts to focus on high-value activities – delivering greater impact for customers and supporting sustainable growth.

## Further Information

[www.endress.com](http://www.endress.com)

# Preface Migros



## About us

The Migros Group is the largest retail company in Switzerland and one of the country's most significant private employers. With a broad portfolio spanning retail, industry, logistics, financial services, and travel, the Migros Group is present in many aspects of daily life.

Logistics plays a central role in this ecosystem. The logistics function within Migros ensure that thousands of products are delivered reliably and sustainably to stores, distribution centers, and customers every day. Advanced technologies, a strong network, and dedicated employees enable a highly efficient and resilient supply chain.

## Research interest

Gen AI is a promising technology with great potential to transform supply chains – from forecasting and planning to process automation and decision support. For Migros, participating in the consortium study was a valuable opportunity to identify practical use cases, assess the maturity of current solutions, and critically reflect on the applicability of Gen AI within our logistics environment.

In particular, the study's structured approach and the evaluation tools developed provide a solid foundation for future decisions in the context of AI initiatives. Migros sees this as an important contribution to further digitalization and innovation in logistics.

## Further Information

[www.migros.ch](http://www.migros.ch)