Preface

It is our great pleasure to introduce the proceedings of the 16th International Conference on Software Business (ICSOB 2025). This volume presents a diverse and stimulating collection of works that reflect the state-of-the-art in software business research and practice. The ICSOB community continues to expand and evolve, bringing together scholars, practitioners, and students who share a deep interest in understanding how software drives innovation, value creation, and societal transformation in digital economies.

This year's conference was hosted by the University of Stuttgart, located in the heart of one of Europe's leading industrial and innovation regions. Stuttgart provided an ideal environment for ICSOB 2025, bridging academic excellence, industrial collaboration, and a rich tradition of engineering and technological advancement. Participants enjoyed an inspiring atmosphere fostering both intellectual exchange and interdisciplinary dialogue in the historic building of the "House of Commerce" in the center of the city of Stuttgart.

The theme of ICSOB 2025, "Software Business in Digital Societies," emphasizes the pivotal role of software in shaping economic and societal well-being. As software increasingly permeates all aspects of modern life, software businesses—both established enterprises and new ventures—face opportunities and responsibilities in driving digital progress. The conference invited contributions addressing topics such as digital ubiquity, AI-driven innovation, ethical and responsible digital transformation, as well as sustainable and human-centered software design.

ICSOB 2025 received 65 submissions from authors representing ten countries, highlighting the international reach and diversity of the community. In total, the contributions came from Egypt, Belgium, Brazil, Canada, Denmark, Germany, Finland, Italy, Netherlands, Sweden, with a few co-authors also coming from other countries. Furthermore, we are proud to have received multiple papers from industry, highlighting the practical relevance of ICSOB and the associated research endeavors. This widespread participation reflects ICSOB's strong tradition of inclusivity and collaboration across borders.

All submitted papers underwent a rigorous double-blind peer review process, with at least three reviewers contributing to the final acceptance decision. Overall, 29 submissions from the following contries were accepted: Finland (12), Germany (8), the Netherlands (3), Denmark (2), Sweden (2), Italy (1), and Brazil (1). The submissions include 18 full and 11 short papers. The conference program encompassed a wide range of topics pertinent to the evolving role of software in digital societies. Discussions addressed the growing ubiquity of software and the emergence of socially responsible business models that foster inclusion, equity, and sustainability. Contributions explored how digital platforms and ecosystems can support underserved communities, and how ethical considerations can guide software business in platform economies. Other papers examined how incumbent organizations are transforming into software-driven enterprises, focusing on the use of AI and data governance in the manufacturing, automotive,

and service sectors, as well as on how standards and digital ecosystems can enable small- and medium-sized enterprises to participate in this transformation.

Innovation and deep technology also played a central role in this year's program. Several contributions investigated a wide range of technologies as enablers of new forms of software business, while others examined how emerging technologies such as generative AI and blockchain can support ethical and responsible digital transformation. Moreover, the role of software in critical infrastructures such as education, defense, and transportation was a recurring theme, drawing attention to the intersection between technological progress, geopolitical dynamics, and societal resilience.

Ethics, security, and digital rights were equally prominent, with research addressing algorithmic accountability, AI transparency and fairness, privacy-preserving technologies, and digital sovereignty. Human-centered perspectives emphasized trust, transparency, and user empowerment through responsible software design, as well as the evolving practices of post-agile software development in dynamic environments. Further contributions explored the rise of citizen development through AI and AI-platforms, reflecting on the ethical implications of democratizing software creation and on initiatives that promote accessibility and digital literacy. Finally, sustainability and responsibility emerged as cross-cutting concerns, spanning from green software engineering and energy-efficient algorithms to fairness-aware machine learning and regulatory compliance in AI-driven services.

ICSOB 2025 continued the tradition of rigorous peer review and academic excellence. Each submission was evaluated by domain experts and reviewed by a program chair if the evaluations differed, ensuring that the accepted papers reflect the highest standards of research quality and relevance. The proceedings include both full and short papers, offering theoretical insights, empirical studies, and practical experiences that advance the understanding of software business in digital societies.

As the software business domain continues to evolve rapidly, ICSOB remains a unique venue where academia and industry meet to discuss the challenges and opportunities ahead. This year's program also featured two inspiring keynote presentations that exemplified the interdisciplinary and practice-oriented spirit of ICSOB. Daniel Trabucchi from Politecnico di Milano delivered an engaging talk titled "Future-Proof Your Business: Embracing Platform Thinking for Sustainable Growth," in which he explored how platform-based strategies can drive sustainable innovation and organizational resilience in a rapidly changing digital landscape. Rose Sturm from Mercedes-Benz offered an industry perspective in her keynote on Software-Defined Vehicles, highlighting the transformation of the automotive industry through software, data, and connectivity, and discussing the implications for business models, value creation, and innovation ecosystems.

In addition, ICSOB 2025 hosted the PhD Retreat, which received three applications from doctoral researchers working on topics closely aligned with the conference theme. The retreat provided a unique setting for emerging scholars to discuss their research ideas, receive mentorship from senior academics, and engage with the broader ICSOB community. We are confident that the contributions in this volume, together with the keynotes and the PhD Retreat, will inspire further research and collaboration, and we

hope that the discussions initiated at ICSOB 2025 will continue to shape the discourse on the role of software in our increasingly digital world.

The evening program complemented the academic prgram with inspiring excursions to IBM Quantum Computing, ARENA2036, and the Computermuseum at the Department of Computer Science of the University of Stuttgart, offering participants a unique blend of innovation and heritage.

We thank all authors, reviewers, and participants for their dedication an d contributions, as well as the local organizing committee at the University of Stuttgart for their outstanding work in hosting this year's conference. We look forward to meeting the community again at ICSOB 2026, building on the strong foundations and vibrant discussions of this year's event.

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