

BIR 2025 Workshops and doctoral consortium

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The **International Conference on Perspectives in Business Informatics Research (BIR)** is dedicated to business informatics, business information systems and information systems engineering. It aims to support knowledge exchange between experienced and junior researchers, practitioners and industry professionals by considering both fundamental research and application-driven studies.

The 24th BIR conference, hosted by Riga Technical University, focuses on the theme “*Bridging knowledge, process, and systems for responsible digital transformation*” It explores how integrating knowledge management, process modeling, and information systems—with AI and smart technologies—can drive innovation and efficiency while ensuring ethical, sustainable, and inclusive practices. The conference traditionally attracts co-located workshops which encourage exchanging ideas and foster collaboration on topics related to business information systems. This volume contains publications presented during the conference workshops and the doctoral consortium:

- **The 15th workshop on Business and IT Alignment (BITA)** addresses aspects of the enterprise, such as organisational structures, strategies, architectures, business models, work practices, processes, and IS/IT structures, in order to create alignment between business and IT. The event received 9 submissions, of which it accepted 4 regular papers and 2 short papers.
- **The 10th workshop on Managed Complexity (ManComp)** covers topics related to complexity identification, representation, control and reduction, as well as strategies, methods, and tools for handling complexity. The event attracted 6 submissions, 5 accepted as regular papers and 1 as a short paper.
- **The 1st Workshop on Challenges and Opportunities in Digital Transformation (CODiT)** covers the areas of digital strategies, emerging technology adoption, organisational change and culture, and sector-specific applications across public and private sectors. The event received 9 submissions, out of which 6 were accepted as regular papers.
- **The Doctoral Consortium** of BIR 2025 provides an opportunity for PhD students to present their doctoral research plan and current progress and to receive feedback and ideas from senior researchers in business informatics acting as doctoral mentors. This year the doctoral consortium received 7 submissions, out of which 3 were selected for discussion at the consortium and inclusion in the proceedings.

Each workshop was independently chaired and had its own international program committee of experts who evaluated each submission with 2-4 reviews. Similarly, the Doctoral

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Consortium was independently chaired and had a committee of senior researchers evaluating and supervising doctoral paper submissions.

The workshop day at BIR 2025 also hosted two tutorial sessions. The first tutorial dealt with the implementation of the Scaled Agile Framework for the management of complex software development projects. The second focused on building enterprise models using the Fractal Enterprise Model (FEM) and the FEM software toolkit. Both tutorial authors were invited to describe their work in abstracts.

We would like to express our gratitude to the chairs initiating these satellite events, to their program committees, to the authors who submitted their work for evaluation and to the hosts at Riga Technical University who included the workshops day in the BIR 2025 program.

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Martin Henkel
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Preface: 15th Workshop on Business and IT Alignment (BITA)

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A contemporary challenge for enterprises is to keep up with the pace of changing business demands imposed on them in different ways. Today, there is an obvious demand for continuous improvement and alignment in enterprises, but unfortunately, many organizations don't have proper instruments (methods, tools, patterns, best practices, etc.) to achieve this. Enterprise modeling, enterprise architecture, and business process management are three areas belonging to business informatics traditions where the mission is to improve business practice and business and IT alignment (BITA). BITA is many times manifested through the transition of taking an enterprise from one state (AS-IS) into another improved state (TO-BE), i.e., a transformation of the enterprise and its supporting IT into something that is regarded as better. Recent developments within digitalization and digital transformation have brought new dimensions to BITA, where BITA becomes an important topic in relation to smart products and smart business ecosystems. A continuous challenge with BITA is to move beyond a narrow focus on one tradition or technology. There is a need to be able to deal with multiple dimensions of the enterprise in order to create alignment between business and IT. Examples of such dimensions are organizational structures, strategies, architectures, business models, work practices, processes, and IS/IT structures. IT governance is also a dimension that traditionally has had a strong impact on BITA.

This workshop aimed to bring together people who have an interest in BITA. We invited researchers and practitioners from industry and academia to submit original results of their completed or ongoing projects, and we also encourage a broad understanding of possible approaches and solutions for BITA. As organizational practices of business and IT alignment are also relevant for the research community, we included submissions of case studies and experience papers.

The workshop received nine submissions, and after the review process, six of these submissions were accepted for the workshop:

- From Tool to Colleague: How AI Partnership Transforms the Developers' Identity Across Cultural Boundaries
- The importance of an ontological view of a business system for the correct design of its business processes.
- Integrating Business Models of Actors in Digital Business Ecosystems
- Towards building blocks for predictive analysis of HVAC systems
- Factors and Consequences of Loneliness in the Digital Workplace: A Systematic Literature Review and Framework for Empirical Testing
- Resolving System-Organisational Misfits: Development and Assessment of a Misfit Resolution Framework for Off-the-Shelf ERP Systems

Acknowledgements

The BITA PC chairs thank the organizing team of the BIR 2025 conference and the BIR 2025 workshop chairs for their excellent support for the BITA workshop. Furthermore, we dedicate special thanks to the members of the international Program Committee for promoting the workshop, their support in attracting submissions, and for providing excellent reviews of the submissions. Without their committed work, BITA 2025 would not have been possible. Our

thanks also include the external reviewers supporting the paper selection process and the authors of submissions and presenters at the workshop.

BITA Organization

Program Committee Chairs

- Ulf Seigerroth, University of Jönköping, Sweden
- Kurt Sandkuhl, University of Rostock, Germany, and University of Jönköping, Sweden

Program Committee

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- Wiesław Wolny, University of Economics Katowice, Poland
- Alfred Zimmermann, Reutlingen University, Germany

Preface: 10th Workshop on Managed Complexity (ManComp)

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Managing Complexity and ManComp as a workshop within the International Conference on Perspectives in Business Informatics Research (BIR) has come to its tenth edition. While the management of complexity has a long tradition for algorithms and general problems, it is also an important issue in the Business Informatics domain.

The workshop focuses on approaches and methods for managing complexity in the domain of applied informatics that may concern the interplay of systems and ecosystems of various sizes and substances. Its purpose is to share and transfer knowledge on complexity identification, representation, controlling, and reduction, as well as to exploit possible synergies in the development of innovative complexity handling strategies, approaches, and methods.

The goal of the workshop is to bring together researchers and practitioners to discuss theoretical approaches or real-life case studies featuring success and/or failure stories in managing complexity. The purpose of these discussions is to deepen the understanding of strategies, approaches, and methods in managing complexity in enterprise engineering and software and hardware engineering. A cross-pollination of experiences in both domains is assumed.

This year, the workshop includes six contributions discussing complexity handling through the following topics:

- Knowledge Management Method for Training Customer Support AI Agents
- Game-Based Learning for Information System Integration in the Context of Post-Merger Integration
- Functionality Gaps, Data Integrity, and System Interoperability in Enterprise Systems
- Using C4 Design Method in the Development of Edge-Cloud Systems
- Process-centric Knowledge Management Capability for Design Thinking
- Structuring the Complexity of Requirement Management Tools

The papers of the ManComp 2025 workshop try to help reduce complexity in their target domains by amalgamating and structuring scientific knowledge and proposing approaches to the practical use of this knowledge.

ManComp Organization

Program Committee Chairs

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- Charles Møller, Aarhus University, Denmark

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- Peteris Rudzajs, Riga Technical University, Latvia

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Preface: 1st Workshop on Challenges and Opportunities in Digital Transformation (CODiT)

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The CODiT workshop was inspired by our ambition to provide a dedicated platform for researchers, practitioners, and industry experts to exchange insights on digital transformation as a critical driver of innovation, organisational change, and competitiveness. With the proliferation of emerging technologies such as AI, cloud computing, blockchain, big data analytics, and IoT, digital transformation continues to reshape the way organisations operate, deliver services, and interact with their stakeholders. At the same time, challenges including legacy systems, skill shortages, integration complexities, and employee resistance to change persist. The workshop embraced these complexities by inviting contributions that present empirical findings, theoretical advancements, methodological innovations, and sector-specific applications of digital transformation across public and private organisations.

We were pleased to receive nine submissions, of which six papers were accepted for presentation after a rigorous peer review process conducted by the international programme committee, each submission receiving 2–4 reviews. The accepted papers span a broad range of topics, reflecting the workshop’s ambition to combine academic depth with practical relevance. They include conceptual frameworks, design science contributions, comparative analyses, and qualitative studies that collectively advance our understanding of how digital transformation strategies can be effectively designed, implemented, and sustained.

The paper titled “Initial framework of active ownership of a public e-service within transformational government” introduces a novel framework that conceptualises active ownership of public e-services as a key factor in their success. It identifies two dedicated entities responsible for driving success and outlines their respective qualities and tasks. By synthesising insights from e-government research, the study offers actionable managerial guidance for public digital transformation.

The authors of the paper “A Hybrid Artificial Intelligence to Support Information Retrieval in Smart Buildings” explore how hybrid AI can support decision-making in intelligent buildings by integrating knowledge graphs, IoT data, and large language models. The authors propose and evaluate a prototype that facilitates facility management tasks through natural language interaction and real-time data access. The results demonstrate the feasibility of combining symbolic and data-driven AI for sustainable smart building solutions.

Another contribution, “Organizational Strategies for Digital Well-being: Balancing Work-life Demands in the Tech Industry,” investigates organisational strategies for promoting digital well-being. Guided by the Job Demands–Resources model, it identifies both the challenges of digital overload and the resources that can foster balance. The study highlights the importance of embedding well-being practices into culture and strategy, rather than relying on ad-hoc initiatives.

The paper “Object-Centric Process Mining for Public Sector Transformation” presents a novel framework that combines object-centric process mining with low-code tools to empower staff in the public sector. A prototype was evaluated in a tax administration agency, revealing its potential to reduce resistance and enable user-driven process improvements. The results underscore how public servants can co-create value during digital transformation.

The paper “Towards a Client-Based Digital Twin for Decision Making: A Workforce Integration Use Case” explores the potential of client-based digital twins, supported by AI-powered chatbots, to improve workforce integration. Developed through design science research and tested in the Swiss public sector, the prototype generates personalised integration roadmaps for diverse clients. Despite challenges in data management and compliance, the findings show promise for enhancing continuity of knowledge and collaboration in public services.

Finally, the contribution titled “AI for the Public Sector: Readiness, Adoption, and the Public Value Promise” analyses organisational readiness for AI adoption using the TOE framework and dynamic capabilities theory. Based on expert interviews, it identifies critical factors such as infrastructure, staff competencies, regulatory frameworks, and public trust. The paper highlights variations in readiness across institutional contexts and provides guidance for tailored AI strategies that enhance public value creation.

Together, these papers address diverse but complementary facets of digital transformation, ranging from AI-enabled privacy and smart building intelligence to public service innovation, digital well-being, and organisational readiness for AI. They provide valuable theoretical insights as well as actionable frameworks for both researchers and practitioners navigating the opportunities and challenges of digital transformation.

We would like to thank all the authors for their valuable contributions, the programme committee members for their dedicated reviews and constructive feedback, and the conference organisers for their support in hosting this workshop.

CODiT Organization

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- Gideon Mekonnen Jonathan, Stockholm University, Sweden

Program Committee

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Preface: Doctoral Consortium

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The Doctoral Consortium, held in conjunction with the 24th International Conference on Perspectives in Business Informatics Research (BIR 2025), offered for doctoral students an opportunity to present their work to senior researchers (mentors) and peers from diverse academic and industrial backgrounds, engage in discussions, and receive constructive and valuable feedback to improve their research proposals, advice for future research directions and, consequently, improve the outcome of their doctoral theses. The consortium also served the aim to allow PhD students to improve their scientific writing and presentation skills. The consortium was held on the first day of the conference, in English.

Each submitted paper was reviewed by at least two members of the Doctoral Consortium Committee, and evaluated for originality, significance, technical soundness, research contribution, and clarity. As a result of the review process, doctoral students received formal feedback from senior researchers

This year, the Doctoral Consortium attracted seven submissions, out of which we are pleased to have accepted three contributions for publication included in these proceedings. These are written by participating students from Estonia, Latvia and Lithuania.

The doctoral consortium also offered an environment to exchange knowledge and network with fellow doctoral students in a relaxed and supportive environment.

We are grateful to the Doctoral Consortium Committee for their assistance in evaluating the papers and providing constructive feedback for young researchers. We extend our thanks to all doctoral students for their submissions.

Doctoral Consortium Organization

Doctoral Consortium Chairs

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