



# ERCIS

European  
Research  
Center for  
Information  
Systems

## ANNUAL REPORT

## 2024



**20**  
**YEARS**  
**OF ERCIS**  
2004-2024

AUSTRALIA AUSTRIA BELGIUM BRAZIL CZECH REPUBLIC DENMARK FINLAND FRANCE  
GERMANY HUNGARY IRELAND ITALY LIECHTENSTEIN LITHUANIA NORWAY POLAND  
PORTUGAL SLOVENIA SOUTH KOREA SPAIN SWEDEN SWITZERLAND THE NETHERLANDS  
UKRAINE UNITED KINGDOM UNITED STATES OF AMERICA

[www.ercis.org](http://www.ercis.org)



## THE ERCIS NETWORK

ERCIS, the European Research Center for Information Systems, stands as an international nexus of scientists dedicated to collaborative research in the dynamic field of Information Systems. Established in 2004 at the University of Münster, Germany, ERCIS secures funding from the German State of North Rhine-Westphalia, the University of Münster, and Industry stakeholders. This vibrant network champions innovative thinking and a multidisciplinary approach to grapple with the challenges emerging from the ever-evolving societal and organizational landscape influenced by Information Technology.

Committed to tackling these challenges through a symbiotic relationship between research and practice, ERCIS is renowned for its exceptional communication and the seamless initiation of research collaborations and projects. Its key strength lies in the personal connections between researchers, rendering it a dynamic and lively network.

ERCIS spans an extensive array of disciplines and perspectives related to Information Systems research. Oversight is vested in the Board of Directors in Münster, helmed by two academic directors, Prof. Dr. Dr. h.c. Jörg Becker and Prof. Dr. Jan vom Brocke, complemented by eight additional professors active in the Information Systems research field. The network boasts internationally renowned researchers from over 25 Associated Research Institutions, Personal Members, and Advisory Board Members representing diverse industry entities. All ERCIS research partners are esteemed experts in various Information Systems-related disciplines.

ERCIS engages in comprehensive research, encompassing both fundamental and application-oriented endeavors. In addition to individual research pursuits, the network consolidates and supports specific research aspects of Information Systems in Competence Centers, amplifying research in targeted areas. The inclusion of Advisory Board Members from diverse industry sectors ensures the practical relevance of ERCIS research. Regular meetings between the Board of Directors and Advisory Board Members, coupled with annual workshops of ERCIS' Associated Research Institutions, foster a continuous, direct, and productive exchange of knowledge.

Students and young researchers reap the benefits of engaging with ERCIS, as many research partners extend exchange programs lasting one or two semesters, providing invaluable international exposure. Joint lectures and guest talks organized by ERCIS members contribute significantly to the internationalization of teaching.

If you are eager to connect with this vibrant network, please feel free to reach out to us.

For further information, please visit [www.ercis.org](http://www.ercis.org).

## PREFACE

› Preface Prof. Becker and Prof. vom Brocke [www.ercis.org](http://www.ercis.org)

Dear ERCIS partners and friends,

**2004:** founding ERCIS with a nice event in the castle of Münster.

**2024:** 20 years of ERCIS (unbelievable!) with a couple of noteworthy celebrations, especially the one in the “Schlossgarten-café” in Münster, a beach party at ECIS 2024 in Cyprus, and the wonderful annual workshop in Viterbo. And we have already set the course for the next 20 successful years of ERCIS.

As you may have already noticed, this is the second annual report in which two authors write the foreword together. For both of us, Jörg and Jan, it has been a distinct pleasure to work together, and, alongside all our partners, propel ERCIS to the next level.

In this current annual report, we look back on the many outstanding activities of the past year while also offering a glimpse into the future:

During our annual workshop in Viterbo, organized by our friend and ERCIS partner Alessio Maria Braccini and his wonderful colleagues, it was again a truly outstanding experience to see how the network stands together, works together, and has fun together. In one session, organized in a world café format, we discussed the impact of “Safer AI”: how to use AI so we can trust the outcome. These were really intense and fruitful discussions! Jointly we are now further developing these ideas to present them to decision makers across Europe and beyond.

In Viterbo, this beautiful medieval town, we collectively shaped a shared vision and ambition to further expand ERCIS's contributions to research, teaching, and innovation across Europe. We are excited by the prospect of creating clusters that span countries and sectors, serving both businesses and societies across Europe. We are particularly enthusiastic about the European idea and the shared vision that together we can do things, no single university could do.

### The whole is more than the sum of its parts!

Also, new initiatives of ERCIS were presented in Viterbo: We started a Master Thesis Series with outstanding master theses published as an official publication with DOI. The ERCIS Steering Board with representatives from the regions north, south, and east, together with the Münster office will form the future strategy of ERCIS. Microcredentials will be offered, as well as a Master's Certificate given to students who study at least one semester at an ERCIS location outside their home university, participate at an ERCIS summer school or winter school, and are proposed by their



supervisor to publish the master thesis in the ERCIS Master Thesis Series. And even more than that: On occasion of its 20<sup>th</sup> anniversary in 2024, ERCIS initiated the Fellowship Award, to recognize individuals who have made outstanding contributions to the European Information Systems community. We feel very proud to have had the opportunity to honor Alan Hevner as the first recipient of the award and to welcome him as an ERCIS Fellow. Alan Hevner gave an impressive presentation during his visit to Münster Castle and found touching words on receiving the recognition. We are delighted to have you in the ERCIS family, AI, and we are very much looking forward to further expanding our collaboration.

A particular highlight was once again the ERCIS Winter School on Business Process Management, which took place at the University of Liechtenstein. We had a great visit to the Hilti Headquarters and had a deep dive into the topic of process science, in-

teracted with practitioners and enjoyed the beautiful nature in Liechtenstein during our traditional fondue trip and sleigh ride. Next year the BPM Winter School, will – for the first time – take place at the University of Seville in Spain. This will be an awesome new experience for everyone. Stay tuned!

This ERCIS Annual Report underscores the impressive quantity and quality of activities and achievements, ranging from recently published research to newly launched and successfully acquired projects. Across Europe, approximately 20,000 students are being educated at ERCIS sites in the field of digital transformation, and they are taking on crucial leadership roles in shaping a bright digital future.

Together with partners from academia, industry and society, we are actively addressing highly topical issues, which we are working on in our five thematic clusters: Process Science, Data Science, Knowledge and Learning, Smart Manufacturing/ Logistics and Digital Public Services. Many exciting projects have been carried out in the clusters and original research has been published.

We extend our heartfelt gratitude to all members for their unwavering commitment and high motivation in building ERCIS together. We value not only their professional expertise and excellence but also their collegiality, friendship, and shared enthusiasm for our work. We would especially like to thank our coordination team, Armin Stein and Katrin Bergener – our highly valued Managing Directors – as well as Julia Seither together with many assistants, who make the ERCIS possible after all.

We invite you to enjoy this report, which may serve as inspiration for numerous joint activities in the years to come.

Jan and Jörg



# TABLE OF CONTENTS

<b>ERCIS NETWORK</b>	2
<b>PREFACE</b>	3
<b>15<sup>TH</sup> ANNUAL ERCIS WORKSHOP</b>	6
<b>20 YEARS CELEBRATION</b>	8
<b>NETWORK ACTIVITIES</b>	10
<b>RESEARCH CLUSTER</b>	38
<i>Data Science and Artificial Intelligence</i>	41
<i>Knowledge and Learning</i>	42
<i>Process Science</i>	43
<i>Smart Manufacturing</i>	44
<b>UNIVERSITY OF MÜNSTER – GERMANY (HEADQUARTERS)</b>	46
<i>Information Systems and Information Management</i>	48
<i>Digital Innovation and the Public Sector</i>	49
<i>Information Systems and Business Process Management</i>	50
<i>Machine Learning and Data Engineering</i>	51
<i>Information Systems and Supply Chain Management</i>	52
<i>Institute of Medical Informatics</i>	53

<b>ERCIS LOCATIONS</b>	54
<b>AUSTRALIA – BRISBANE</b>	56
<i>Queensland University of Technology</i>	
<b>AUSTRIA – VIENNA</b>	57
<i>Vienna University of Economics and Business (WU WIEN)</i>	
<b>BELGIUM – LEUVEN</b>	58
<i>KU Leuven</i>	
<b>BRAZIL – SÃO PAULO</b>	59
<i>University of São Paulo (USP)</i>	
<b>CZECH REPUBLIC – PRAGUE</b>	60
<i>Charles University in Prague</i>	

<b>DENMARK – COPENHAGEN</b>	61
<i>Copenhagen Business School</i>	
<b>FINLAND – TURKU</b>	62
<i>University of Turku</i>	
<b>FRANCE – BORDEAUX</b>	63
<i>Kedge Business School</i>	
<b>HUNGARY – BUDAPEST</b>	64
<i>Corvinus University of Budapest</i>	
<b>IRELAND – GALWAY</b>	65
<i>University of Galway</i>	
<b>ITALY – VITERBO</b>	66
<i>University of Tuscia</i>	
<b>PRINCIPALITY OF LIECHTENSTEIN – VADUZ</b>	67
<i>University of Liechtenstein</i>	
<b>LITHUANIA – KAUNAS</b>	68
<i>Kaunas University of Technology</i>	
<b>NORWAY – KRISTIANSAND</b>	69
<i>University of Agder</i>	
<b>POLAND – SOPOT</b>	70
<i>University of Gdańsk</i>	
<b>POLAND – WROCŁAW</b>	71
<i>Wroclaw University of Science and Technology (WUST)</i>	
<b>PORTUGAL – GUIMARÃES</b>	72
<i>University of Minho</i>	
<b>SLOVENIA – MARIBOR</b>	73
<i>University of Maribor</i>	
<b>SOUTH KOREA – POHANG</b>	74
<i>Pohang University of Science and Technology (POSTECH)</i>	
<b>SPAIN – MADRID</b>	75
<i>IE Business School, IE University</i>	
<b>SPAIN – SEVILLA</b>	76
<i>Universidad de Sevilla</i>	
<b>SWEDEN – LULEÅ</b>	77
<i>Luleå University of Technology (LTU)</i>	
<b>SWITZERLAND – ST. GALLEN</b>	78
<i>University of St. Gallen</i>	
<b>THE NETHERLANDS – ENSCHEDE</b>	79
<i>University of Twente</i>	
<b>THE NETHERLANDS – LEIDEN</b>	80
<i>Leiden University</i>	
<b>UKRAINE – KHARKIV</b>	81
<i>Simon Kuznets Kharkiv National University of Economics (KhNUE)</i>	
<b>UNITED KINGDOM – LOUGHBOROUGH</b>	82
<i>Loughborough University</i>	
<b>USA – HOBOKEN/NEW JERSEY</b>	83
<i>Stevens Institute of Technology</i>	

<b>ERCIS PARTNERS</b>	84
<b>ADVISORY BOARD</b>	90
<i>adesso</i>	93
<i>BISON</i>	94
<i>CLAAS</i>	95
<i>cronos</i>	96
<i>d.velop</i>	97
<i>DMI Archivierung</i>	98
<i>Eucon</i>	99
<i>HILTI</i>	100
<i>PICTURE GmbH</i>	101
<i>Provinzial Group</i>	102
<i>SAP</i>	103
<i>viadee Unternehmensberatung AG</i>	104
<i>Westfalen Group</i>	105
<i>zeb</i>	106
<b>COMPETENCE CENTERS</b>	108
<i>Crisis Management (C<sup>3</sup>M)</i>	110
<i>Digital Transformation for SMEs</i>	112
<i>Smarter Work</i>	114
<i>Social Media Analytics (C<sup>2</sup>SMA)</i>	116
<b>IMPRINT</b>	120





## 15<sup>TH</sup> ERCIS ANNUAL WORKSHOP

### 15<sup>TH</sup> ERCIS ANNUAL WORKSHOP IN VITERBO, ITALY

This year, the ERCIS network gathered in the beautiful city of Viterbo, Italy, at the Università degli Studi della Tuscia for the annual workshop. Spanning, as always, three days, the event provided an excellent opportunity for collaboration, exchange of ideas, and building stronger ties within our network. Hosted by Alessio Braccini and his team, the workshop was impeccably organized and filled with insightful discussions, interactive sessions, and memorable experiences.

The event kicked off on the first day with the arrival of participants and a relaxed welcome reception. Old friends reconnect-

ed, and new members of the ERCIS community were welcomed in a friendly atmosphere, setting the tone for the days ahead. Day two was packed with inspiring talks and interactive sessions. A special highlight was welcoming our new member Corvinus University of Budapest into the ERCIS family. In the afternoon, participants engaged in dynamic discussions in three World Café sessions, where we dove into the pressing topic of “Safer AI.” This session sparked deep discussions about the ethical, societal, and technical aspects of AI, encouraging participants to consider how the ERCIS community can contribute to ensuring safer AI developments and applications. Thank you, Alessandra Lazazzara, Leonardo Caporarello, and Alessio

#### SAVE THE DATE

The 2025 Annual Workshop will take place in St. Gallen, Switzerland, in July!

Maria Braccini for supporting us and guiding us through the sessions. The day concluded with a delightful workshop dinner, where everyone enjoyed further discussions, new ideas for collaborations and, of course, an exceptionally delicious Italian meal.

On the final day, we continued with a series of sessions and presentations from various ERCIS partners, showcasing the latest research and projects across the network. These talks provided valuable insights into the innovative work being done by our members and sparked further discussions on future collaborations.

As a fitting close to the workshop, participants were treated to a guided historical city tour of Viterbo in the afternoon. The tour offered fascinating insights into the city’s rich heritage and allowed everyone to unwind and enjoy the beauty of this historic location.

A huge thank you to Alessio Braccini for his outstanding organization of this year’s workshop. His efforts ensured a smooth and enriching experience for all attendees. We are already looking forward to the next ERCIS workshop in St. Gallen next year and to continuing the tradition of knowledge sharing, collaboration, and community building. Save the date: Robert Winter will be so kind to host us from 7<sup>th</sup> of July to 9<sup>th</sup> of July 2025.





20 YEARS OF ERCIS

20 YEARS OF ERCIS 2004-2024

20 YEARS OF ERCIS 2004-2024

ERCIS

CELEBRATING 20 YEARS OF ERCIS

In June, we celebrated the 20th anniversary of our network with a memorable event at the picturesque Schlossgarten Café. Blessed with beautiful weather, more than 100 enthusiastic participants gathered for an afternoon of thought-provoking discussions, exciting activities, and refreshing drinks—all expertly moderated by Katrin Bergener and Armin Stein.

The event truly embodied the vibrant spirit and dedication of the ERCIS community. From forward-thinking conversations during our World Café to the creativity and innovation showcased in the Design Thinking sessions, participants demonstrated the essence of collaboration and engagement. A heartfelt thank you to our fantastic hosts at the World Café tables and the Design Thinking workshop—you made these sessions a great success!

Our students also had the chance to engage with our partners from both research and industry, delving into their career journeys, work experiences, and reflections on their studies. A big thank you to all the partners who generously shared their time and insights, providing invaluable guidance to the next generation of scholars.

The afternoon concluded with brief presentations on the latest research from several of our department's researchers, highlighting the cutting-edge work happening at the Department of Information Systems in Münster.

As the day transitioned into evening, we were treated to inspiring opening speeches from Thomas Langer, Dean of the Business School at the University of Münster, as well as Jörg Becker and Jan vom Brocke. The evening reception offered a fun opportunity for participants to test their ERCIS knowledge—congratulations to Michael Räckers, who correctly remembered the co-authors of the first ERCIS Working Paper and took home a special prize: a coveted piece of ERCIS merchandise (have you checked out our collection at <https://ercis.myspreadshop.de/> yet?).

A huge thank you to everyone who joined us and helped make this celebration truly unforgettable—especially to Helene Müller and Tobias Zimmermann for their exceptional work behind the scenes and throughout the day. It was a brilliant and lively celebration, perfectly reflecting the energy and dynamism of our remarkable network!





# NETWORK ACTIVITIES

The ERCIS Network represents a dynamic community comprising researchers and practitioners who, in addition to their individual contributions at their respective institutions, foster a spirit of collaboration.

In this section, we present an overview of the ongoing initiatives within the network, highlighting key accomplishments from the past year.



## ERCIS STEERING COMMITTEE

The ERCIS network thrives on collaboration and actively depends on the engagement of its partners. Since its inception in 2004, the network has been headquartered in the Department of Information Systems at the University of Münster in Germany. The Annual Workshops provide a vital platform for connecting with partners and discussing future initiatives.

To further strengthen ties with the community, the network is establishing a Steering Committee (SC) that will engage various regions more directly in shaping its future. In its inaugural iteration, the SC will comprise two academic directors, the managing directors, and representatives from different ERCIS regions, meeting four times a year. SC members will monitor their respective regional activities, stimulate engagement among regional members, and actively develop ideas to enhance the network's output.

We are pleased to announce the formation of the inaugural ERCIS Steering Committee with the following esteemed partners, alongside members from the headquarters:

- **Regional Representative North:**  
*Leona Chandra Kruse,*  
University of Agder, Norway
- **Regional Representative East:**  
*Dariusz Krol,*  
Wrocław University of Science and Technology, Poland
- **Regional Representative South:**  
*Isabel Ramos,*  
University of Minho, Portugal
- **Regional Representative World:**  
*Michael Rosemann,*  
Queensland University of Technology, Australia
- **Academic Directors (University of Münster):**  
*Jörg Becker, Jan vom Brocke*
- **Managing Directors (University of Münster):**  
*Katrin Bergener, Armin Stein*



## ERCIS MASTER'S CERTIFICATE

The ERCIS network includes some of the most renowned researchers in the field of Information Systems from universities across Europe and beyond, ensuring an education that cultivates exceptional graduates at all levels.

With its inherently international orientation, ERCIS offers students the chance to broaden their global experience and showcase their excellence by earning the ERCIS Master's Certificate. This certificate can be awarded during the local graduation ceremony alongside the Master's Programme Diploma. To qualify, students must engage with the following innovative concepts we have established:

- **Attending a focused Summer or Winter School, either virtually or on-site, offered by an ERCIS network partner**
- **Participating in an exchange semester at one of the ERCIS network partners**
- **Being nominated to submit the master's thesis in the ERCIS Master Theses Series**

Students will earn micro credentials for each of these achievements and will automatically receive the Master's Certificate upon collecting all three. This recognition not only celebrates the graduate's outstanding work but also acknowledges their extra efforts in internationalization, supporting the development of future researchers and practitioners!



## INTRODUCING ERCIS MICROCREDENTIALS

Starting in 2024, all ERCIS partners will have the opportunity to issue **ERCIS Microcredentials** for a wide range of academic activities, such as seminars, workshops, and other educational formats. These microcredentials are designed to formally recognize participants' achievements and contributions across various learning experiences.

## KEY HIGHLIGHTS

- **Microcredentials for study programs:** These will be awarded for specific academic achievements, and can be recognized as part of official study programs.
- **Digital badges:** Participants can earn digital badges for activities such as successfully completing a PhD colloquium or other specialized events. These badges serve as verifiable proof of skills and accomplishments.
- **ERCIS Masters' Certificate:** Master's students who collect a series of relevant microcredentials can qualify for the ERCIS Masters' Certificate, further highlighting their academic excellence and involvement in the ERCIS network.

With this initiative, we aim to enhance the visibility and recognition of our members' academic efforts, fostering a culture of continuous learning and achievement across the network.

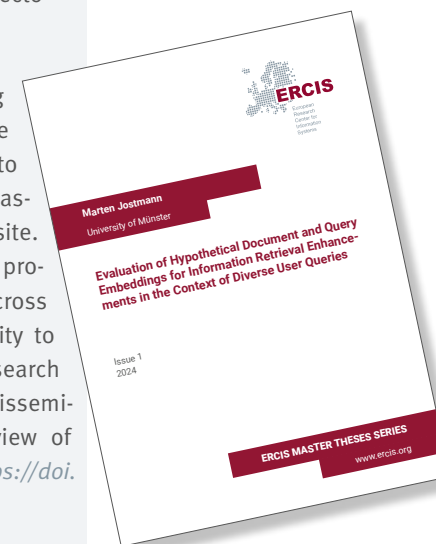
## ERCIS MASTER THESIS SERIES

In 2024, we introduced a new publication platform for outstanding master's theses within the network: the ERCIS Master Theses Series.

Each thesis published as part of the ERCIS Master Theses Series:

- is an excellent piece of work, nominated by the supervising professor,
- addresses a relevant topic in the field of Information Systems,
- is assigned a unique DOI, granting it official publication status,
- is eventually indexed in key directories, such as Google Scholar.

If you know of an outstanding master's thesis that meets the criteria, we encourage you to nominate it. Submissions are easily possible via the ERCIS website. Through this series, we aim to provide our exceptional students across the network with the opportunity to publish their outstanding research and contribute to its broader dissemination. You can find an overview of all published theses here: <https://doi.org/10.17879/86928653283>





## NETWORK ACTIVITIES



Concentrated work during the sessions

### CONTINUED EFFORTS ON UNDERSTANDING SCHOOLCHILDREN'S USE OF CONVERSATIONAL AGENTS (AI-BILITY PROJECT)

After having successfully completed the ERASMUS funded Project AI-Bility (<https://www.ai-bility.eu>), the project team from our partners at France, Liechtenstein, Norway and Germany continues to work on the topic: We still do not know much about how schoolchildren harness the power of AI-based conversational agents for their benefits. Because of the way they are designed (i.e., real touchable physique versus digital character), schoolchildren may have different kinds of interaction and experience with them. Moreover, they may be perceived differently because of their appearances (i.e., pet-like and human-like characteristics).

The team refined their experiment, making it easier to implement it in schools. The whole experimental setup is now entirely virtual and can be carried out with only a tablet, headphones, and a Wi-Fi connection. It was again applied successfully at four schools in Austria and Germany, providing new and deeper insights.



### REMIT RESEARCH CONFERENCE NEW PERSPECTIVES FOR TECHNOLOGY AND MULTILATERALISM

In the context of the EU Horizon project CL2-2022-DEMOCRACY-01 REMIT – Reignite Multilateralism via Technology, a leading-edge event took place in Leuven on 16 and 17 May 2024. It convened leading experts and stakeholders to explore the intersection of global governance, strategic technologies, and the evolving geopolitical landscape. The conference aimed to explore the dynamics shaping international relations amidst unprecedented rivalries and unprecedented advancements in strategic technologies. With a focus on digital governance, emerging technologies, and the ethical dimensions of artificial, the more than 150 participants gained valuable insights. It appears that technology and multilateralism bring many perspectives to the table. Sometimes they seem to be from different universes. Or even contradictory. We are challenged to do a deep dive into these perspectives, transcend differences, join up insights, push the boundaries of scientific understanding and come forward with wise policy advice to the EU.

# d.velop

### SUCCESSFUL ERCIS PARTNERSHIP IN TRENDING IT-PROJECTS

Software-company d.velop from Gescher and the Department of Information Systems at the University of Münster enter the next chapter of their collaboration. In 2023, Alexander Zirl, Chief Digital Officer of d.velop, and Prof. Benedikt Berger, Junior Professorship for Digital Transformation and Society, held a joint project seminar focusing on the subscription economy. Three groups of Bachelor students worked on challenges and requirements of a successful introduction of an IT-system supporting the subscription management, which is an important part of d.velop's digital transformation. Requirements engineering, several end-to-end process designs for customer journeys and optimizing d.velop's pricing and packaging strategies for its product portfolio were the core topics of this project seminar. The impressive results provided important insights for d.velop's next transformation steps. Therefore, it was straightforward for both parties to extend this ERCIS collaboration and launch a second project seminar at the Master level in October 2024. This project seminar focusses on the use of robotic process automation (RPA) to automate tests and use cases that originate from daily business operations of d.velop's quote-to-cash processes. The results should help in speeding up test cycles before go-live phases by automating recurring tasks. Additionally, the teams are looking into re-using these automated tests to ensure SLAs by running them on a daily basis.



Above: Projectseminar WS2023–2024 – Below: projectseminar WS2024–2025

### BEST PAPER AWARD FOR JOURNAL ARTICLE ON VOICE COMMERCE

The editorial board of the journal The Data Base for Advances in Information Systems has selected a study co-authored by ERCIS member Benedikt Berger for the best paper award for 2023. In this study, Benedikt Berger and his co-authors Christine Rzepka, Anton Koslow, and Thomas Hess from Ludwig-Maximilians-Universität München investigated why consumers use or don't use voice assistants for shopping. Following a mixed-methods research design, the author team first interviewed 30 voice assistant users to identify perceived benefits and risks of voice commerce. Afterwards, they conducted a survey to vali-

date these determinants of consumers' shopping behavior. The results show that voice commerce, while being convenient and enjoyable, is hampered by a lack of reliability, transparency, and controllability. Accordingly, the most promising avenue for a wider diffusion of voice commerce is to enrich the interaction with visual displays as showcased by some smart speakers with screens (i.e., smart displays). The results of the study had appeared in the third issue of the The Data Base for Advances in Information Systems in 2023. The journal is published by the Association of Computing Machinery (ACM) Special Interest Group on Management Information Systems (SIGMIS) and one of the longest-established journals in the information systems discipline.



# NETWORK ACTIVITIES



## EXPLORING AND REFINING RESEARCH IN INFORMATION SYSTEMS AMIDST THE UNIQUE WILDERNESS OF LAPLAND: KISS SEMINAR 2024 IN KILPISJÄRVI, FINLAND

This year, Andre Coners and several doctoral students of the South Westphalia University of Applied Sciences had the unique opportunity to attend the KISS Seminar 2024 in Kilpisjärvi.

The essential function of this seminar is to discuss research, mainly the work of doctoral students at various phases, in detail in a relaxed environment. The setting also supports all kinds of networking very well. The KISS seminar is one of the oldest in Finland and has been held consistently since the 1990s. The idea is also to bind the Lapland way of life and myths to the study of information systems.

This year's seminar in Kilpisjärvi offered a precious academic exchange and an unforgettable immersion into the breathtaking nature of Lapland. The participants were fortunate to experience the unique culture and surroundings, which provided renewed perspectives on their research and the future directions of their research projects. The relaxed atmosphere fostered deep reflection and productive discussions about ongoing and future research perspectives between the senior researchers and students who attended. A big thanks to Reima Suomi, the participants from Turku University, and the senior researchers for their warm hospitality and knowledge sharing. Their efforts in organizing the event and the opportunities to explore the culture and wilderness of Lapland have left a lasting impression.



## WINTERBERG WORKSHOP OF CHAIRS FROM THE UNIVERSITY OF MÜNSTER

Last winter, the chair of machine learning and data engineering and the research group computational social science and systems analysis from the University of Münster gathered in the charming setting of Winterberg, a small town in the Sauerland region. The participants shared latest research and exchanged valuable insights into each team's work, fostering potential collaborations. Alongside productive discussions, everyone enjoyed cooking together, visiting a historic mine, and having fun bowling.



## ALAN HEVNER – FIRST ERCIS FELLOW

As part of its 20<sup>th</sup> anniversary celebrations in 2024, ERCIS has introduced the Fellowship Award to honor individuals who have made exceptional contributions to the European Information Systems community. ERCIS Fellows are distinguished for their ability to inspire generations of scholars across Europe, not only through their academic work but also by serving as role models for courageous, responsible, and impactful research that benefits society. The fellowship recognizes those who have made fundamental contributions to the Information Systems field, fostering innovation, encouraging early-career academics, and promoting diversity and inclusion through their actions.

The inaugural recipient of the ERCIS Fellowship Award is Professor Alan Hevner. Alan R. Hevner is a Distinguished University Professor and Eminent Scholar at the School of Information Systems and Management, Muma College of Business, University of South Florida, where he holds the Citigroup/Hidden River Chair of Distributed Technology.

Professor Hevner is celebrated for his lifetime contributions to design-oriented research in Europe. His seminal co-authored paper on Design Science Research (DSR), published in *Management Information Systems Quarterly* and cited over 20,000 times, has provided crucial inspiration and guidance to generations of Information Systems students and scholars.

In his laudation, Professor Jan vom Brocke, Director of ERCIS, highlighted Alan Hevner's role as a model of courageous, responsible, and impactful research, making him a fitting and deserving recipient of this first ERCIS fellowship award.



Janna Louise Bräuer

## ERCIS WELCOMES NEW GENERATION OF RESEARCHERS

The ERCIS network has grown once again! We are excited to welcome several earliest stage researchers, born in 2024: Welcome, **Lou Mirabel**, **Arthur**, **Janna Louise**, and **Jonte**! Congratulations to the proud parents, and a warm welcome to the newest ERCIS members!







• **Anna Davydova (University of Münster):** Negotiating journalistic authority

• **Konstantin Dietrich (TU Dresden):** Feature Driven Generation of Continuous Problems for Real World Benchmarks

• **Marlon Kampmann (South Westphalian University of Applied Sciences):** Construction and evaluation of reference models and modules for AI-supported automation of processes

• **Johanna Klapproth (University of Münster):** Dynamics of (dis)information flow in crisis situations: The process of hijacking information flow in crisis situations through narrative drifts

• **Markus Leyser (TU Desden):** Automated and Interpretable Modelling of the Energy Market using Machine Learning

• **Oliver Preuß (University of Paderborn):** Automated Algorithm Configuration and Selection for Multi-Objective Optimisation

• **Jeroen G. Rook (University of Twente):** Multi-Objective Approaches for Automated Algorithm Configuration and Selection

• **Carolin Vollenberg (South Westphalian University of Applied Sciences):** Enhancing Process Management in Organizations of General Interest with an Emphasis on Information Systems

## ERCIS DOCTORAL CONSORTIUM ON DATA SCIENCE

After years of hosting the seminar in sunny and coastal locales, the ERCIS PhD Seminar on Data Science took a refreshing turn, moving from Spain to the picturesque Pitztal in Austria. Not only was the location new, but the content and timing shifted as well—traditionally held in June, the seminar was moved to January. In previous years, the seminar had an open-topic format, allowing students to receive feedback on any aspect within the diverse field of Information Systems.

This year, focusing specifically on Data Science led to an intriguing mix of perspectives, encompassing Information Systems, Computer Science, and Communication

Science. Ten students from various ERCIS partner institutions presented their work to each other and to six faculty members from different institutions. Following the successful format of past ERCIS Doctoral Consortia, participants were encouraged to forego digital aids and instead develop their presentations using a whiteboard, pen, and paper.

The topics submitted and discussed were:

• **Sofie Beisemann (University of Münster):** Activism on Social Media: The Role of Networked Social Support

• **Katharina Brenning (University of Paderborn):** From Data to Decisions: A Dual Perspective on Predictive Process Monitoring to increase Process Transparency



The board of faculty was as follows: Fabian Gieseke, University of Münster; Ilias Papas, University of Agder; Mike Preuss, Leiden University; Thorsten Quandt, University of Münster; Armin Stein, University of Münster; Heike Trautmann, University of Paderborn

In addition to the presentations, attendees had ample time to enjoy the perfectly groomed ski slopes, benefiting both their enjoyment and the continuation of scholarly discussions.

In 2025, the Doctoral Consortium will return to its summer schedule in Puerto Pollensa, Mallorca, Spain. Mark your calendars: **May 31–June 7, 2025**



## SYMPOSIUM ON “ARTIFICIAL INTELLIGENCE AND DIGITAL INNOVATION” AT THE UNIVERSITY OF ST. GALLEN

On March 5, 2024, the Institute of Information Systems and Digital Business hosted the “Symposium on Artificial Intelligence and Digital Innovation.” Speakers were Prof. Nicholas Berente (University of Notre Dame, US), Prof. Stefan Seidel (University of Cologne), Prof. Vивиanna Fang He (University of St. Gallen), and Prof. Ivo Blohm (University of St. Gallen, Institute of Information Systems and Digital Business). The event was organized by Thomas Grisold, Assistant Professor for BPM at the Institute of Information Systems and Digital Business.

One theme of the symposium was the ethical challenges and regulatory needs associated with AI. It was highlighted that AI technologies should be developed and used responsibly. There is a recognized need for adaptable regulatory frameworks to keep pace with and account for rapidly advancing technological innovations. Another theme was the role of AI in enhancing human creativity. It was discussed how generative AI can boost individuals’ creative capacities. Human involvement was considered essential to ensure the applicability of AI-generated ideas. The symposium was closed with an interactive panel discussion where the four speakers exchanged ideas on how AI should be studied in the future.



# NETWORK ACTIVITIES

## ERCIS WINTER SCHOOL ON ADVANCED BPM TOPICS

Since 2011, the ERCIS has been organizing the ERCIS Winter School on Advanced BPM Topics (BPMWS). During this one-week seminar, open to students from ERCIS members institutions, ~20 undergraduate students from all over the world come together to learn about and discuss current and future Business Process Management (BPM) topics with some of the most renowned BPM researchers.

As in previous years – briefly interrupted by the pandemic – the ‘ERCIS Winter School on Advanced Business Process Management Topics’ took place in January in Vaduz at the University of Liechtenstein.

25 students from the universities of Paderborn, Dortmund, Seville, Münster, and Erlangen-Nuremberg participated. They worked together with Professors such as *Jan vom Brocke, Daniel Beverungen, Christian Bartelheimer, Adela del Río Ortega, Manuel Resinas, Thomas Grisold, Hajo Reijers, Martin Matzner, and Christian Janiesch*, who gave them insights into the various aspects of BPM. The lectures impart advanced concepts of business process management in a seminar-style format. In addition to the lectures, students had the opportunity to visit the Hilti Headquarters in Schaan and learn how BPM is applied in a large company.



The event was held for the first time as a Blended Intensive Programme, a funding format by the European Commission that financially supports students for shorter stays. The Winter School 2024/25 will change the climate and move to Seville, Spain, hosted by Adela del Río Ortega and Manuel Resinas in January 2025.

For more information, check <https://www.ercis.org/bpmws>



# 01001001 01000011 01001001 01010011 01010100 ICIST 2024

## THE 30<sup>TH</sup> INTERNATIONAL CONFERENCE ON INFORMATION AND SOFTWARE TECHNOLOGIES – ICIST 2024

One of the longest running international IT research conferences in Lithuania appears to have settled and was once again hosted by its organizer, Kaunas University of Technology. As usual, two full days were devoted to paper presentations, even though the event only accepts about 25–30 papers. This means that no two presentations are delivered at the same time, and nobody needs to pick which of several intriguing talks to go listen to. Thematically, the 30<sup>th</sup> anniversary iteration stayed on the traditional track with added emphasis on AI and cyber security. Four major areas were covered during the conference, namely,

- Intelligent Methods for Data Analysis and Computer Aided Software Engineering,
- Intelligent Systems and Software Engineering Advances,
- Smart e-Learning Technologies and Applications,
- Cyber Security.

The proceedings of the event were published by Springer as a part of Communications in Computer and Information Science (CCIS) series.

<https://icist.ktu.edu/>



## RESEARCH COLLABORATION IE BUSINESS SCHOOL – UNIVERSITY “G. D’ANNUNZIO” OF CHIETI-PESCARA

Prof. Alvaro Arenas from IE Business School continued his research collaboration with Prof. Stefano Za from the University “G. d’Annunzio” of Chieti-Pescara. We continue the collaboration on bias in artificial intelligence, and this year we extended it to cover the topics of digital leadership and governance in Blockchain platforms. As part of this collaboration, Rebecca Trivelli, PhD student from the University of Chieti-Pescara, visited IE Business School from April until September 2024. Initial results of this collaboration included an article on governance and value creation in Blockchain platforms presented at MCIS 2024, the 16<sup>th</sup> Mediterranean Conference on Information Systems held in Porto, Portugal.





## NEW INFORMATION SYSTEMS STUDY PROGRAM AT TU DORTMUND UNIVERSITY

Why choose between computer science and business? The new Information Systems program at TU Dortmund University combines both fields. The Bachelor's degree program launched in the winter term 2024/25, with a Master's program planned for next year. It is a joint effort of the Department of Computer Science and the Department of Business and Economics spearheaded by Prof. Dr. Christian Janiesch and Prof. Dr. Manuel Wiesche, both University of Münster alumni.

The program provides a foundation in software engineering, machine learning, and business information systems, along with business skills. It focuses on socio-technical design to address relationships between people, tasks, and technology. The curriculum emphasizes data management & artificial intelligence, business engineering & process automation, and digital transformation. Practical projects and industry collaborations with companies like DB Schenker, adesso SE, and Evonik Industries AG prepare students for the job market. The program has attracted more than 200 students in its first year, providing a strong start. We look forward to building a hub of Information Systems in Dortmund.



## NATIONAL YOUNG RESEARCH AWARDS FOR KEDGE: CHALLENGING IS AND LOGISTICS

In 2024, two KEDGE BS young researchers received grants from the famous French National Research Agency (ANR). Amir Pirayesh's project SOECOVAC aims to support public health by providing improved decision-making tools for pandemic management, integrating critical socio-economic factors and uncertainties. Seyyed-Ehsan Hashemi-Petroodi's project REALISTIC focuses on the reconfiguration and adaptation of production lines while promoting sustainability and provide an integrated tool to support decision-making related to resource selection and assembly line reconfiguration and assembly line configuration for evolving product families.

**Contact:** [amir.pirayesh@kedgubs.com](mailto:amir.pirayesh@kedgubs.com) and [seyyed-ehsan.hashemi-petroodi@kedgubs.com](mailto:seyyed-ehsan.hashemi-petroodi@kedgubs.com)

## SUSTAINABILITY IN SERVICE MANAGEMENT WITH NEW TECHNOLOGIES

In June 2024, KEDGE BS hosted the 13<sup>th</sup> AMA SERVSIG Conference in Bordeaux with the theme "Service for Humanity." The event welcomed over 450 participants from around the world. The theme emphasized the role of service research in addressing global challenges, including climate change. In line with KEDGE's commitment to sustainability, the conference highlighted sustainable service practices and explored how digitalization and information systems can support greater engagement in these efforts. Discussions focused on how technology can enhance sustainable practices across various service industries.

## ARTIFICIAL INTELLIGENCE (AI): A REVOLUTION FOR EDUCATION SEEN AT KEDGE

At KEDGE BS the focus is on how AI technology can personalize students' learning to meet the unique needs of each one. It is achieved through **personalized learning** (with AI, we start analyzing students' learning styles and performance to offer tailored recommendations and educational pathways), **24/7 support** (virtual assistantship is foreseen to provide continuous support to our students, whether it's advice on course selection, study strategies, or mental health resources) through **administrative efficiency** (reallocating time to more strategic and human-centered initiatives; implementing **predictive analysis** (with an objective to identify at-risk students early on, and intervene proactively). AI will definitely play a central role in the professional lives of our students and we start preparing them to that!

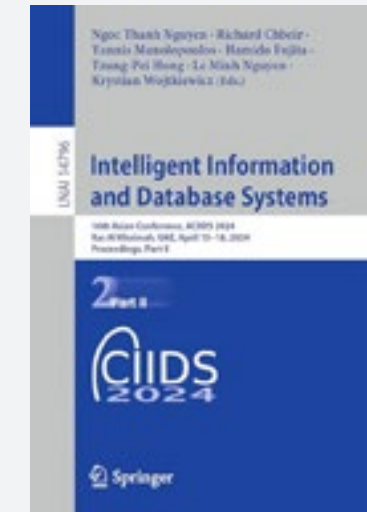
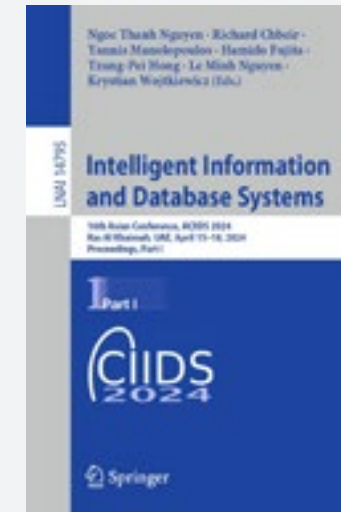


## Wrocław University of Science and Technology

## 16<sup>TH</sup> ASIAN CONFERENCE ON INTELLIGENT INFORMATION AND DATABASE SYSTEMS

ACIIDS 2024 was an international scientific conference for research in intelligent information and database systems, held on 15–18 April 2024 in Ras Al Khaimah, the United Arab Emirates. The conference aimed to provide an internationally respected forum for scientific research in the technologies and applications of intelligent information and database systems.

The conference was hosted by the French SIGAPP Chapter, the American University of Ras Al Khaimah and jointly organized by Wrocław University of Science and Technology, Poland, in cooperation with IEEE SMC Technical Committee on Computational Collective Intelligence, European Research Center for Information Systems (ERCIS), University of Newcastle (Australia), Yeungnam University (Korea), Quang Binh University (Vietnam), Leiden University (The Netherlands), Universiti Teknologi Malaysia (Malaysia), Ton Duc Thang University (Vietnam), BINUS University (Indonesia), and Vietnam National University, Hanoi (Vietnam). The proceedings of ACIIDS 2024 have been published by Springer in a series Lecture Notes in Artificial Intelligence LNCS/LNAI. The conference was organized hybrid, allowing on-site papers and online presentations.



## OUTLOOK

April 2025

## 17<sup>TH</sup> ASIAN CONFERENCE ON INTELLIGENT INFORMATION AND DATABASE SYSTEMS

23–25 April 2025, Kitakyushu, Japan, Category B in the 2023 CORE conference rankings

<https://aciids.pwr.edu.pl/2025/>

November 2025

## 17<sup>TH</sup> INTERNATIONAL CONFERENCE ON COMPUTATIONAL COLLECTIVE INTELLIGENCE

12–15 November 2025, Ho Chi Minh City, Vietnam, Category B in the 2023 CORE conference rankings

<https://iccci.pwr.edu.pl/2025/>



Professor Ngoc Thanh Nguyen



Professor Dariusz Krol



# itAIS2024

## THE 21ST CONFERENCE OF THE ITALIAN CHAPTER OF AIS (ItAIS2024)

The XXI edition of the annual conference of the Italian chapter of the Association for Information Systems (AIS) took place on October 11<sup>th</sup>–12<sup>th</sup> 2024 at the Cattolica University, Piacenza, and focused on the theme "Growing in a Digital and Sustainable Society." As the premier Information Systems (IS) conference in Italy, the event has gained international recognition, attracting a diverse range of scholars from around the world. In recent years, the participation of many ERCIS members as authors, presenters, reviewers, and track chairs has notably increased, further enhancing the visibility and impact of the ItAIS conference while strengthening its ties to the ERCIS network. Moreover, a highlight of the conference was the "Sandro D'Atri" Best Paper Award, which was assigned to young scholars Daria Höhener and Benedict Lösler from the University of St. Gallen. Their award-winning paper, titled "Driving Factors in the Technology Acceptance of Generative Artificial Intelligence – Insights from an Exploratory Interview Study with Digital Leaders," offered valuable perspectives on the factors influencing the adoption of generative AI in the digital landscape.



(Clockwise): Keynote, beautiful Piacenza at Itais 2024, board, award ceremony



### DO AI YOURSELF – BMBF-FUNDED PROJECT ON AIAAS ENABLEMENT

The project "Do AI Yourself – Development of a toolbox for the successful integration of AI-as-a-Service in SME business models (D-AI-Y)", funded by the German Federal Ministry of Education and Research (BMBF), aims to help small and medium-sized enterprises (SMEs) adopt AI-as-a-Service (AlaaS) to design own service offerings. D-AI-Y focuses on developing archetypical implementation patterns and business models to integrate AlaaS into SME operations providing tools for independent use. It aims to deliver a toolbox with business model templates, concepts, practical examples, and knowledge transfer through workshops, guidelines, and an online portal to guide SMEs in adopting and implementing AlaaS.

The goal of D-AI-Y is to lower barriers for SMEs to access AlaaS, foster innovation and enhance competitiveness in the digital economy. The project is a collaboration between Jens Poeppelbuss, Chair of Industrial Sales and Service Engineering at Ruhr University Bochum, and Christian Janiesch, Chair of Enterprise Computing at TU Dortmund University, with other partners. It is part of the BMBF call "DigiLeistDAT" on the development of new digital services for data-oriented value creation. The project runs for 36 months from January 2024 to December 2026. The total funding volume is about 2.5 million euros.



### AWARD-O-RAMA AT TU DORTMUND UNIVERSITY – TWO AWARDS FOR JOURNAL ARTICLES

- The article "Machine Learning and Deep Learning", authored by Prof. Christian Janiesch, Patrick Zschech, and Kai Heinrich, was recognized as the most-cited paper of 2023 that was published in 2021 in the journal Electronic Markets. The fundamentals paper provides a comprehensive overview of machine learning and deep learning, focusing on their applications in electronic markets. According to Web of Science, it was cited 304 times in 2023. Google Scholar indicates 848 citations. In 2025 it will likely become the most cited article in Electronic Markets of the last 10 years.

**Reference:** *Janiesch et al. (2021)*. Machine learning and deep learning. *Electronic Markets*, 31, pp. 685–695.

- The Operational Research Society (ORS) awarded the Ranyard Medal to Prof. Dr. Christian Janiesch and his co-authors Jonas Wanner, Lukas-Valentin Herm, and Kai Heinrich for their article "A Social Evaluation of the Perceived Goodness of Explainability in Machine Learning", published in the *Journal of Business Analytics*. This award recognizes outstanding contributions to business analytics and is awarded every two years. The article focuses on explainable artificial intelligence (XAI) and how end users perceive explainability in machine learning models.

**Reference:** *Wanner et al. (2021)*. A social evaluation of the perceived goodness of explainability in machine learning. *Journal of Business Analytics*, 5(1), pp. 29–50.





# NETWORK ACTIVITIES

## RESEARCH COLLABORATION UNIVERSITY OF ST. GALLEN – UNIVERSITY “G. D’ANNUNZIO” OF CHIETI-PESCARA

In 2024, Prof. Stefano Za from the University “G. d’Annunzio” of Chieti-Pescara (Italy) continued his research collaboration with Prof. Robert Winter at the University of St. Gallen. Specifically, Prof. Za was appointed as a Visiting Professor of Information Systems for the spring semester of 2024 at the University of St. Gallen, where he taught the Enterprise Modelling course as part of the Master in Business Innovation (MBI-HSG) program. The course emphasised three key dimensions of enterprise modelling: business processes, decisions, and data. During his visit, Stefano Za and Rober Winter took the opportunity to discuss ongoing research activities and explore potential future collaborations. Moreover, Prof. Za served as AE in the ICIS2024 track on “Enterprise Systems”, where Prof. Winter was one of the track co-chairs.



## HEIDELBERG SPRING SYMPOSIUM ON MEDICAL INFORMATICS – MEDICAL INFORMATION SYSTEMS FOR INNOVATIVE RESEARCH AND CARE

In medicine, information systems are an important basis for excellent patient care and research. Digital medicine can only be successfully implemented if very good information systems are available. Today, however, efficient use is often still hampered by insufficient high-quality structured data. In 2021, the Institute for Medical Informatics (IMI) was founded at Heidelberg University Hospital. The research focus of the institute is information systems in medicine, especially the topic of structured patient data. Collaboration with European experts in this field shall be fostered, in particular through the ERCIS network. The main topic of the event were information systems for the digitalization of medicine. The event took place on May 8, 2024 from 12.00–16.00 as a hybrid event in the Marsilius-Arkaden at Heidelberg University Hospital. May 28, 2025 the next Heidelberg Spring Symposium on Medical Informatics is planned with strong participation from ERCIS.

[ukhd.de/mi-symposium-en](http://ukhd.de/mi-symposium-en)



## PROJECT SEMINAR EDUPLAYHUB: DEVELOPING THE FUTURE LEARNING ENVIRONMENT

How do people learn? What will the learning platform of the future look like? And what can AI contribute to this? These are the questions that 9 bachelor students are addressing in the EduplayHub project seminar, which is offered in the winter semester in collaboration with Provinzial.

With the help of the students, Provinzial aims to determine how to provide its 12,000 employees with an even more targeted learning and development offering in the future.

For the kick-off in October, the students delved into individual specializations and presented their findings. A wide range of topics were covered, including different learning types, gamification, artificial intelligence, front-end development, and project management.

Over the course of the semester, a software prototype is to be developed using an agile approach. The goal is to combine existing knowledge with innovative ideas to showcase a vision of the learning environment of tomorrow. We are very excited about the results!



> Network Activities [www.ercis.org](http://www.ercis.org)

## ERCIS MERCHANDISE

We're excited to announce that our international research network now offers exclusive merchandise! Show your support – just as Jörg and his family – and connect with our vibrant community by checking out our ERCIS collection!

We dare say there's something for everyone in our collection – even for dogs 🐾!

Check our store at:

<https://ercis.myspreadshop.de/>





# NETWORK ACTIVITIES

## POSTECH LAUNCHES THE WIL VAN DER AALST DATA & PROCESS SCIENCE RESEARCH CENTER

POSTECH held an opening ceremony and commemorative workshop for the van der Aalst Data and Process Science Research Center (Aalst Center) on October 24–25. The Aalst Center, named after process mining pioneer Professor Wil van der Aalst, focused on solving industrial challenges by integrating data and process science to promote innovative research. Professor van der Aalst, ranked among the top 10 computer scientists globally, delivered a keynote on object-centric process mining. Supported by POSTECH's Industrial &

Management Engineering Department and other programs, the workshop featured presentations from academic and industry leaders, including representatives from Celonis Korea, Samsung Fire & Marine Insurance, Hallym University Medical Center, and LG Electronics.



**POSTECH**

### Opening Ceremony and Workshop

**Prof. Wil van der Aalst**  
RWTH Aachen University

Using Object - Centric  
Process Mining to  
Unravel Complexity  
and Enable  
Enterprise-Level  
AI/ML



## DIGITAL DECARBONISATION IN AN INCREASINGLY DIGITAL WORLD

The team at Loughborough University, led by Professors Tom Jackson and Ian Hodgkinson, aims to reduce the environmental impact of data, a concept they call digital decarbonisation. Their work focuses on raising awareness of the often overlooked carbon footprint associated with data creation, processing and storage, including the problem of “plastic knowledge” – data that is used once and then discarded, continuing to consume energy in storage.

The team's achievements include:

- **Influencing policy:** They have submitted policy briefs to international bodies like the Academy of Social Sciences, highlighting the environmental impact of “dark data” – unanalysed and underutilised information assets that still consume energy.
- **Leading global standard development:** They are inaugural members of the IEEE P7100 Environmental Impact Assessment of AI Systems (EIAI) Working Group, developing a global standard to measure the environmental impacts of AI systems, including water usage and carbon emissions.
- **International recognition and collaboration:** They have been invited to join influential groups such as the World Economic Forum's 'ICT Roundtable Series: The Industry's Energy Transition' and the OECD.AI Policy Observatory Network of Experts.

Through these initiatives, the team at Loughborough is making significant contributions to understanding and mitigating the environmental impact of data in an increasingly digital world.



## SUCCESSFUL PARTNERSHIP ADVANCES GLOBAL GREEN HYDROGEN SUPPLY CHAIN PROJECT

In 2024, the QUT partnered successfully with Prof Jens Pöppelbuss and his team, Industrial Sales and Service Engineering, Ruhr University Bochum, in further progressing the DAAD-funded project called “A trust platform for global green hydrogen supply chains.” In this project, the researchers jointly identified and clustered existing trust concerns affiliated with hydro supply chains like the one currently proposed between Australia and Germany. By mapping these against trust techniques and higher order trust mechanisms, they provide advice to private and public stakeholders on how to mitigate these. An even larger BMBF-supported research project has been approved this year and will allow both universities to scale up this research and facilitate ongoing staff exchange between Bochum and Brisbane for the years to come. In 2024, Nadine Ostern visited the Ruhr-University Bochum, and four members from Bochum spent time at the CFE in Brisbane.



## JOINT EDITING OF ISEB SPECIAL EDITION

Michael Rosemann co-edited together with ERCIS Director Jan vom Brocke as well as Amy Van Looy and Flavia Santoro a Special Issue on 'Next-Generation Business Process Management' for the journal Information Systems and e-Business Management (ISeB), published September 2024. The editorial proposes three drifts for future BPM: conversational BPM, process automation, process sophistication.



## DATA-DRIVEN BUSINESS MODELS

This project studies data-driven business models, which are business models that include data as their key resource. With the integration of data, companies can innovate their business models. However, the development and implementation of data-driven business models has proven to be a complex and challenging endeavour, requiring collaboration among various types of actors in the ecosystem, in particular data providers, data facilitators, and data users.

This project is a collaboration between Dr Erwin Fielt, Senior Lecturer at QUT's School of Information Systems and Chief Investigator at the Centre for Future Enterprise, and Prof. Dr. Martin Matzner, Chair of Digital Industrial Service Systems at the FAU. It also involves two researchers at the chair: Pepe Bellin and Norbert Homner.

## SELECTED PUBLICATIONS

*Bellin, P., Homner, N. M., Mertes, D., Fielt, E., & Matzner, M. (2024). Data Facilitator in a Squeeze? Patterns of Dependence in Data-driven Business Models. In Proceedings of the 32nd European Conference on Information Systems (ECIS 2024), Paphos, Cyprus. [https://aisel.aisnet.org/ecis2024/track11\\_dss/track11\\_dss/1/](https://aisel.aisnet.org/ecis2024/track11_dss/track11_dss/1/)*

*Homner, N. M., Bellin, P., Fielt, E., & Matzner, M. (2024). Data-Driven Business Models. In Reference Module in Social Sciences. Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-443-13701-3.00310-8>*



# NETWORK ACTIVITIES



## CHANGE.WORKAROUND: METHODOLOGICALLY MANAGING PROCESS EVOLUTION WITH WORKAROUNDS AND CONTINUOUS IMPROVEMENT

The Change.WorkAROUND project is dedicated to the investigation and utilisation of workarounds in industrial companies. The aim is to identify and evaluate workarounds, which are goal-driven deviations from standard processes that employees develop to overcome obstacles in everyday work. These often unconventional approaches harbour great potential for innovation.

In the second year of the project, the focus was on developing a toolkit of methods. Various methods from the fields of Business Process Management, Artificial Intelligence and Organizational Theory were examined. Together with our practice partners Westfalen, REMBE and our new consortium member KRONE, several workarounds were identified.

Scientific findings were shared through the publication of papers and presentations at conferences such as Navigate, BPM, ECIS and AMCIS. These results were elaborated by the consortium partners Paderborn University (ERCIS member) and viadee (ERCIS advisory board member).

In the coming months, the project team will focus on the continuation of the identified workarounds to integrate them into sustainable process innovations. For example, a chatbot is currently being developed and organizational concepts such as a workaround circle are being trialled. The BMBF-funded project will run until the end of 2025.



## JOINT COORDINATION OF THE COMPETENCE CENTER “DIGITAL TRANSFORMATION IN SMALL AND MEDIUM ENTERPRISES”

In collaboration with the University of Agder, the University of Minho has overseen the annual activities of the Competence Center for Digital Transformation in SMEs (CCDTSME). The key outcomes of these activities are summarized in a dedicated report, highlighting several notable initiatives.

Firstly, the CoDeAI project, funded by ERASMUS+ KA220-HED, is set to conclude in 2024. This initiative has focused on developing AI capabilities within SMEs, leveraging the VOIL platform. Key partners from the European Research Center for Information Systems (ERCIS) involved in this project include Westfaelische Wilhelms-Universitaet Muenster (Germany) and the University of Minho (Portugal).

In July 2024, the summer school “The Digital Transformation of the Wine Industry and Wine Tourism” was held in Guimarães, Portugal. Organized by ERCIS members, including the University of Minho, University of Agder, and other European institutions, the event featured workshops, fieldwork, and a hackathon.

Additionally, the collaborative paper “Starting the AI Transformation Bottom-Up!” was submitted to MISQ Executive, presenting findings from the CoDeAI project on AI adoption in SMEs through AutoML tools.

Finally, a project proposal to enhance AI literacy in the wine sector, addressing climate change and consumer behavior challenges, is being prepared, extending the ERCIS partnership.



## ORGANIZATION OF THE MEDITERRANEAN CONFERENCE ON INFORMATION SYSTEMS IN PORTO, PORTUGAL (OCT 2-5, 2024)

The 16<sup>th</sup> Mediterranean Conference on Information Systems (MCIS) was held jointly with CAPSI 2024, the 24<sup>th</sup> Conference of the Portuguese Association for Information Systems (APSI), from October 3-5, 2024, in Porto, Portugal. Hosted by the Porto Accounting and Business School, the conference theme was “Navigating Digital Landscapes: Bridging Technology, People, and Processes.” It fostered discussions on the intersection of information systems, organizational practices, and societal impact. The Doctoral and Junior Faculty Consortium took place on October 2, 2024. The event’s organization brought together the following institutions, members of ERCIS: University of Minho, IE Business School, University of Agder, and University of Maribor.



## UNIVERSITY OF HAMBURG ACADEMIA MEETS INDUSTRY ROUNDTABLE ON AI

On September 12, 2024, Jan Recker and his team invited academics and practitioners to a joint event with the title “Stepping into the AI-driven Future”. The roundtable featured presentations and debates from researchers and AI leaders from industries such as automotive, media, retail, medical technology, and consultancy. Topics of discussion included both the opportunities and risks that AI pose to industry and the day ended with a discussion of what universities can do to educate future leaders about the capabilities they need in an age of AI.





# NETWORK ACTIVITIES



## 'RISE\_SMA' PROJECT

The 'RISE\_SMA' project (funded by the EU Horizon 2020 research and innovation program), coordinated by Stefan Stieglitz, aims at developing solutions for contemporary challenges for Social Media Analytics in the context of society and crisis communication. The interdisciplinary network involves partners from the University of Potsdam (Stefan Stieglitz), the University of Agder (Tim A. Majchrzak), the Queensland University of Technology (Axel Bruns), the University of Leiden (Suzan Verberne) and from the municipality of Kristiansand, Norway (Sigurd Paulsen).



Recent secondments focused on practical applications of developed tools within the RISE\_SMA project such as topic modeling approaches, network analysis tools, and chatbots to combat misinformation during crises. In July 2024, PhD candidate Vivian Mantz from the University of Potsdam visited colleagues at the QUT in Australia. In September 2024, PhD candidate Kevin Kintzel from the University of Potsdam visited the University of Agder in Kristiansand as well as the Municipality of Kristiansand. Both participated in knowledge exchange workshops on site. The workshops addressed topics such as disinformation and how to create a resilient community.

Even though the RISE\_SMA officially ends in October 2024, its achievements set the stage for future research in international and interdisciplinary collaborations. RISE\_SMA is a great example of the successful cooperation within the ERCIS network.

## ECIS 2023 PUBLICATION: FIGHTING FALSE INFORMATION – DESIGNING A CONVERSATIONAL AGENT FOR PUBLIC SECTOR ORGANIZATIONS

As part of the RISE\_SMA project partners from the University of Potsdam and the University of Duisburg-Essen utilized design science research to examine how conversational agents could be designed in order to assist public sector organizations in fighting the spread of false information online. For this purpose, a workshop with RISE\_SMA partners from the municipality of Kristiansand, Norway was conducted to define objectives that a conversational agent would have to meet to address the challenges of false information to public sector organizations. Such challenges stem from digital transformation and could be for example posed by the dissemination of false information in social media which leads to uncertainty among citizens and decreases trust in the public sector. Conversational agents are already being successfully deployed by public sector organizations for tasks such as communication with citizens and supporting the delivery of digital services. Therefore, in order to identify these challenges within this workshop a conversational agent prototype was developed which was evaluated in two iterations with the municipality and students from the RISE\_SMA partner the University of Agder, Norway. The results of this research are published as a research-in-progress paper and were presented to a scientific audience at the European Conference on Information Systems (ECIS) in Kristiansand, Norway in 2023.

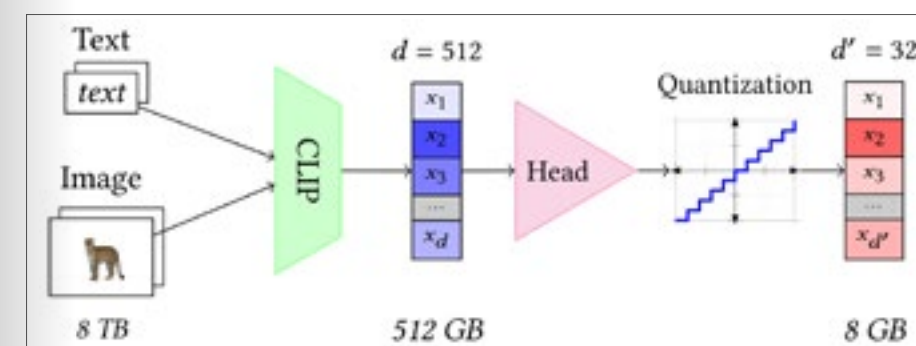
## PUBLICATIONS

Kocur, Alexander; Clausen, Sünje; Hofeditz, Lennart; Brünker, Felix; Fromm, Jennifer; and Stieglitz, Stefan, "FIGHTING FALSE INFORMATION – DESIGNING A CONVERSATIONAL AGENT FOR PUBLIC SECTOR ORGANIZATIONS" (2023). ECIS 2023 Research-in-Progress Papers. 65. [https://aisel.aisnet.org/ecis2023\\_rip/65](https://aisel.aisnet.org/ecis2023_rip/65)



## CONFERENCE PRESENTATIONS AT SIGIR'24 AND ICML'24 CONFERENCE

Christian Lülff from the University of Münster presented the paper "CLIP-Branches: Interactive Fine-Tuning for Text-Image Retrieval" at this year's SIGIR conference in Washington, DC. This work improves text-image search by incorporating interactive user feedback, enabling more relevant and precise search results through an iterative refinement process. Jan Pauls, also from the University of Münster, presented the paper "Estimating Canopy Height at Scale," at this year's ICML conference in Vienna. Understanding global forest ecosystems is essential for informed decision-making in ecosystem management, conservation policies, and climate initiatives. In this study, we introduced a high-resolution global canopy height map that enables detailed analysis across all forest types. This advancement is expected to play a key role in improving the accuracy and consistency of global forest biomass estimates, contributing significantly to environmental research and resource management.





# NETWORK ACTIVITIES



COSEAL-Group

## COSEAL WORKSHOP 2024 IN DRESDEN

From May 21 to 23, 2024, around 100 of the leading international researchers in the field of algorithm selection and configuration were guests in Dresden to participate in the 11<sup>th</sup> edition of the annual workshop of the research network COSEAL (Configuration and Selection of Algorithms).

The COSEAL Workshop 2024 was organized by the Chair of Big Data Analytics in Transportation under the direction of (ERCIS personal member) Pascal Kerschke. This year's workshop once again provided an excellent platform for the exchange of the latest research results and innovative ideas in the fields of automated machine learning (AutoML), benchmarking, configuration and selection of efficient optimization algorithms and search heuristics, landscape analysis, and much more.



Participants from all over the world – including ERCIS partners from Leiden and Paderborn – presented their work in over 40 stimulating poster presentations, various entertaining oral presentations and engaged in in-depth discussions. New approaches in the areas of AutoML, reinforcement learning and their application in various domains were particularly emphasized. The positive response and lively participation underlined the importance of this workshop for the international research community.



## ERCIS@PPSN 2024

This year, hundreds of scientists worldwide defied the heavy rain and flooding in Central Europe and traveled to the rural countryside of Upper Austria. There, they attended this year's edition of the biannual "International Conference on Parallel Problem Solving from Nature" (PPSN), one of the world's premier conferences in the field of evolutionary computation, which was held between September 14 and 18 at the Softwarepark in Hagenberg im Mühl-kreis.

The organizing committee, including ERCIS members Thomas Bäck and Heike Trautmann as program chairs, composed a very attractive schedule with three inspiring keynotes, four interactive workshops (half of them co-organized by ERCIS members), 16 tutorials, and 101 poster presentations – according to the PPSN tradition all accepted (peer-reviewed) publications are presented as posters. The presented works also contained contributions of ERCIS partners from the Universities of Leiden, Paderborn and Dresden. These scientific highlights were complemented by two social events: a Welcome Reception and a Conference Dinner.

As icing on the cake, Lennart Schäpermeier (an alumni of the ERCIS headquarter, who is currently pursuing his PhD at the TU Dresden) and his supervisor Pascal Kerschke received the best paper award for their work entitled "Reinvestigating the R2 Indicator: Achieving Pareto Compliance By Integration".



## ERCIS@ECIS IN CYPRUS

An important part of our work culture is combining professional activities with unique experiences. In 2024, we organized our traditional informal meeting at the European Conference on Information Systems (ECIS) in Paphos, Cyprus. Gathering with fellow members and friends at the beach during sunset, the community enjoyed meaningful conversations, reflected on past achievements, and planned future endeavors. This event once more showcased that being part of the networks brings in fun and some unconventional perks!



## TEAMWORK IN ACTION

ERCIS is an active network and in September, some of us were really active! Instead of managing the network, Armin Stein and Katrin Bergener ran the Münster relay marathon together with former colleagues and now advisory board members Lukasz Lis from viadee Unternehmensberatung AG and Philipp Bergener from Provinzial Konzern. Great network performance! Here's to an active and dynamic future!

*#StrongerTogether*



Relay Marathon





BPM2025-presentation

**23<sup>rd</sup> INTERNATIONAL CONFERENCE ON BUSINESS PROCESS MANAGEMENT (BPM 2025)**

We are delighted to invite you to the 23<sup>rd</sup> edition of the International Conference on Business Process Management (BPM 2025), taking place in Seville from August 31 to September 5, 2025. Five years ago, we hosted a previous edition online due to the global pandemic, and now we are thrilled to welcome you back in person to Seville, a city renowned for its rich cultural heritage, vibrant atmosphere, and stunning architecture. From the iconic Plaza de España to the charming old town, Seville provides a perfect setting for this inspiring event.

BPM 2025 continues its tradition as the premier forum for researchers and practitioners in Business Process Management. For over two decades, the BPM conference series has driven forward-thinking research and practical insights. This prestigious event brings together leading thinkers, pioneering researchers, and industry leaders for insightful talks, hands-on tutorials, and engaging discussions. The BPM series celebrates the diversity of the field, serving as a hub for experts from disciplines like Computer Science, Information Systems Engineering, and Management.

We look forward to welcoming you to Seville for an unforgettable week of knowledge exchange, networking, and cultural exploration.

*Adela del Río Ortega, Manuel Resinas*  
(BPM 2025 General Chairs)



DagstuhlSeminar

**DAGSTUHL SEMINAR 24292: IMPROVING TRUST BETWEEN HUMANS AND SOFTWARE ROBOTS IN RPA**

From July 14 to 19, 2024, Adela del Río Ortega (University of Seville), Andrea Marella (Sapienza University of Rome), Hajo A. Reijers (Utrecht University), and Adriana Wilde (University of Southampton) organized a Dagstuhl Seminar on Improving Trust between Humans and Software Robots in Robotic Process Automation as part of the prestigious Dagstuhl Seminar Series, that take place in beautiful Dagstuhl Schloss in Saarland, Germany.

The event brought together 27 professors, PhD students, and researchers from all over the world coming from various fields, including Business Process Management (BPM) and Human-Computer Interaction (HCI). The seminar featured plenary sessions, scientific presentations, and group discussions, focusing on trust between humans and software robots in Robotic Process Automation (RPA). This interdisciplinary event fostered collaboration and knowledge exchange, leveraging the expertise of participants from diverse backgrounds such as philosophy, psychology, information systems, and computer science.

Through a combination of talks and collaborative group work, attendees identified key challenges and areas of interest within the seminar's theme. The event provided an excellent opportunity for networking and pushing the boundaries of understanding in RPA, emphasizing the importance of diversity and interdisciplinary approaches in advancing research.



**FORGING THE LONGSWORD – PRESENTATION AT THE BPM WORKSHOP: PRODY 2024**

In collaboration with the viadee GmbH and the Business Information Systems group at Paderborn University, a data-driven method to identify workarounds was developed, which was presented at the Business Process Management Conference 2024 in Kraków 🇵🇱.

Workarounds are deliberate deviations from standard processes to improve speed, efficiency, or outcomes. For example, an employee in a furniture factory might use a different tool to work faster and more comfortably, while digitally recording their steps.

The paper focuses on using digital traces to detect workarounds through patterns. Since data alone doesn't reveal employee intentions, interviews for deeper insights were also conducted.

The methodology is based on the SWORD method by van der Waal et al. (2024) and extended to LongSWORD. This iterative approach allows to extract data, refine process models, and use directed acyclic graphs (DAGs) to analyze workaround effects.





# RESEARCH CLUSTERS

In 2021, the ERCIS network defined five network clusters that serve as umbrella for its members to join forces. They span from method-orientation to domain-orientation, providing homes to the members' various research interests. They serve as incubators for project proposals, joint research and teaching activities, and joint policy-making in the respective areas.



## RESEARCH CLUSTER

DATA SCIENCE AND  
ARTIFICIAL INTELLIGENCE

DIGITAL  
PUBLIC SERVICES

KNOWLEDGE  
AND LEARNING

PROCESS  
SCIENCE

SMART  
MANUFACTURING

# ERCIS

### DATA SCIENCE AND ARTIFICIAL INTELLIGENCE CLUSTER

In our networked world, data is collected in ways never seen before. Extracting knowledge from this data and leveraging it to build intelligent systems will transform how business, government, and science are carried out. Many people believe that AI will bring forth changes that will be much more profound than any other technological revolution in human history.

In Information Systems research, humans and their interaction with technology are traditionally important. We believe this angle is also relevant for enabling real-world use of Artificial Intelligence, especially regarding AI safety aspects or ethical problems. Therefore, the mission of the ERCIS “Data Science & AI” cluster is to advance research, education, and practice on human-centered data science and AI to augment human capabilities and improve societal well-being. We explicitly take a socio-technical perspective on data science & AI, focusing on the intersection of technologies, humans, and tasks.

In the past year, cluster members organized several conferences and workshops on data science, AI, and related themes, ranging from international events with hundreds of participants to smaller regional or domain-specific gatherings. A particular highlight was the first ERCIS Data Science Winter School in Pitztal, Austria with 16 participants from five ERCIS partners.



DATA SCIENCE AND  
ARTIFICIAL INTELLIGENCE

The cluster Data Science and Artificial Intelligence is headed by:

**HEIKE TRAUTMANN** is Professor of Machine Learning and Optimisation at Paderborn University. Her research mainly focuses on (Trustworthy) Artificial Intelligence, Machine Learning, Data Science, Automated Algorithm Selection and Configuration, Exploratory Landscape Analysis, (Multiobjective) Evolutionary Optimisation and Data Stream Mining. She is also (Guest) Professor of Data Science in the Data Management and Biometrics group at the University of Twente (NL).

**OLIVER MÜLLER** is Professor of Management Information Systems and Data Analytics at Paderborn University. His research interests focus on data-driven judgment and decision-making. This includes the design and use of machine learning solutions for supporting human judgment and decision-making, with a particular focus on the computational analysis of unstructured data (e.g., texts, images), as well as studying the acceptance and implications of data-driven decision-making in organizations.

**MIKE PREUSS** is an associate professor at LIACS, the Computer Science department of Leiden University. He works in AI, namely game AI, natural computing, and social media computing. He is well known for his works in evolutionary optimization, experimental methodology, and the pioneering drug discovery by means of an AlphaGo-inspired method.



# RESEARCH CLUSTER

## KNOWLEDGE AND LEARNING CLUSTER

The Knowledge and Learning (K&L) cluster within ERCIS encompasses a diverse spectrum of academic interests, spanning the domains of Knowledge Management, Teaching, Learning, Education, and related areas. Initially, this cluster was positioned “between” the other four clusters, reflecting its comprehensive scope. In a similar vein, when ERCIS members were asked to align their research interests with clusters, each member invariably included the K&L cluster.

The K&L cluster represents a unique entity within the ERCIS clusters, presenting a distinctive challenge in terms of its contribution to the ERCIS community. Given the malleable and evolving nature of cluster roles, it is prudent to approach its definition with circumspection. Thus, it is advisable to avoid articulating a stringent vision that might unduly favor perspectives on the meaning of knowledge and learning within the ERCIS community.

Hence, the initial vision for the K&L cluster is conceived as a navigational tool, akin to a “rose of the winds,” for those venturing into the vast ocean of knowledge and learning. Positioned at the core of this metaphorical compass is knowledge and learning, which guides explorations in diverse directions within the academic landscape.

Additionally, the cluster aspires to evolve into a platform for knowledge exchange, where participants converge for mutual learning, whether in physical or virtual spaces. The cluster is envisioned as a catalyst for informal initiatives that require coordination, facilitation, cultivation, and nurturing. Its members will collectively determine pertinent subjects that warrant attention, aligning with their research interests.

### THE PROPOSED ACTIVITIES OF THE CLUSTER INCLUDE:

- **Mapping of research interests:** The primary endeavor of the K&L cluster involves collaboratively constructing a map of academic interests centered around knowledge and learning. This mapping exercise will visually depict the extensive array of academic pursuits related to knowledge and learning. The process will encourage creativity through collaborative activities, such as knowledge cafes, with active engagement from the ERCIS community.
- **Expanding knowledge:** The cluster intends to encourage its members to orchestrate mini-tracks within selected conferences, focusing on K&L-related topics. These mini-tracks aim to contribute to a comprehensive understanding of knowledge and learning in the realm of information systems research.

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## KNOWLEDGE AND LEARNING



## PROCESS SCIENCE

builds on digital trace data as well as other data.

With the involvement of the ERCIS cluster, a new journal called Process Science was established. Process Science is a joint effort of the steering committee of the BPM Conference and the IEEE Task Force on Process Mining. The aim of the journal is to publish high-quality scientific contributions that advance our understanding of processes and corresponding information systems. The journal is unique in its scope of equally embracing contributions that build on 1) formal and theoretical analysis, 2) engineering research, or 3) empirical research methods. We offer a high-quality and well-managed single-blind peer review process with quick cycle times. Our ambition is to complete the first review round within one month. To this end, we work with bimonthly submission deadlines. Furthermore, we operate as a fully open access journal with transparent fees and opportunities for waivers. Boudewijn van Dongen and Jan Mendling serve as editors-in-chief.

### KEY SOURCES

- The inaugural editorial of the process science journal on “Process science: the interdisciplinary study of socio-technical change”
- The website of the new journal is here: <https://www.springer.com/journal/44311>
- Please also check out the keynotes and presentations and join the community on: <https://process-science.net>

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 jan.vom.brocke@uni-muenster.de

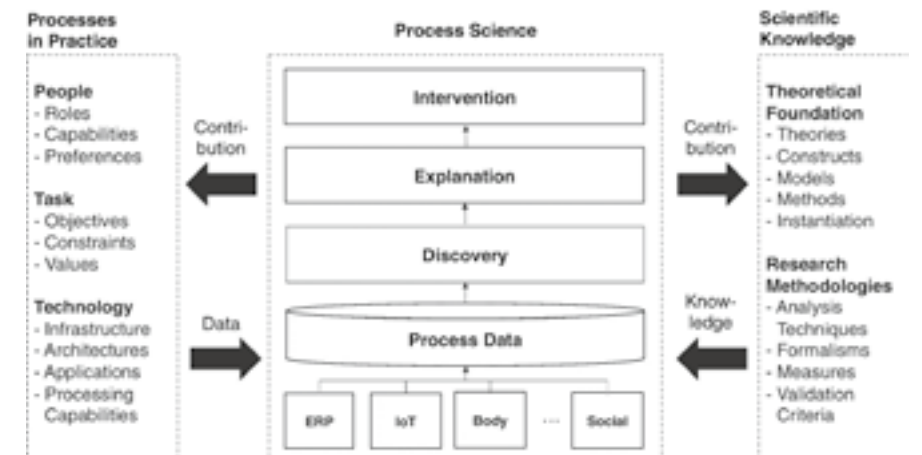
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### PROCESS SCIENCE CLUSTER

Process science is the interdisciplinary study of socio-technical processes. Socio-technical processes involve coherent series of changes over time, entailing actions and events that include humans and digital technologies. We like to think of process science also as a post-disciplinary field, since it puts the phenomenon first – processes – and disciplines second, such as computer science, management science and information systems.

The ubiquitous availability of digital trace data, combined with advanced data analytics capabilities, offer new and unprecedented opportunities to study such processes through multiple data sources. Process science is concerned with describing, explaining, and intervening in socio-technical change. It is based on four key principles; it (1) puts socio-technical processes at the center of attention, (2) investigates socio-technical processes scientifically, (3) embraces perspectives of multiple disciplines, and (4) aims to create impact by actively shaping the unfolding of socio-technical processes.

The figure depicts the process science research framework. Process science connects socio-technical processes in practice and scientific knowledge production. Socio-technical processes in practice are characterized by humans and technologies performing certain activities in a given context. Scientific knowledge production builds on observations from practice and integrates both theoretical foundations as well as methodologies. Process science



- The first community paper on “Process Science: The Interdisciplinary Study of Continuous Change” is available online.



### RECENT PUBLICATIONS

vom Brocke, J., van der Aalst, W.M.P., Berente, N., van Dongen, B., Grisold, T., Kremser, W., Mendling, J., Pentland, B., Roeglinger, M., Rosemann, M., Weber, B. (2024), Process science: the interdisciplinary study of socio-technical change. *Process Science* 2, 1 (2024). <https://doi.org/10.1007/s44311-024-00001-5>

Grisold, T., van der, A. H., Franzoi, S., Hartl, S., Mendling, J., & vom Brocke, J. (2024). A Context Framework for Sense-making of Process Mining Results. In IEEE, (Ed.), Proceedings of the 6<sup>th</sup> International Conference on Process Mining (ICPM) (pp. 1–8). Lyngby, Denmark: Wiley-IEEE Computer Society Press.

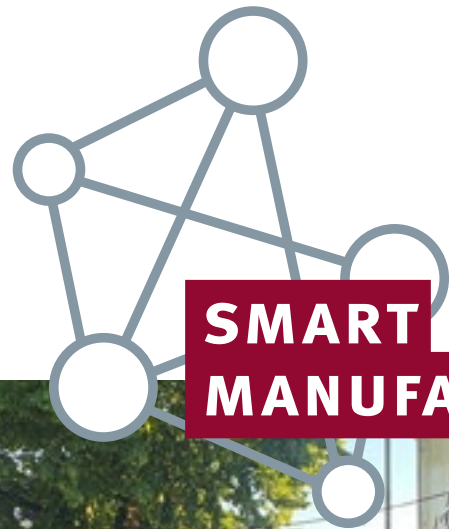
Franzoi, S., Hartl, S., Grisold, T., & vom Brocke, J. (2024). Effects of IT-based Changes on the Complexity of an Organizational Routine. In Taneja, S. (Ed.), *Academy of Management Proceedings* (pp. 1–40). Chicago: Academy of Management Proceedings.

Franzoi, S., Delwaille, M., Dyong, J., Schaffner, J., Burger, M., & vom Brocke, J. (2024). Using Large Language Models to Generate Process Knowledge from Enterprise Content. In Resinas, M., van der, A. H., del, R.-O. A., U., & Leopold, H. (Eds.), *Lecture Notes in Business Information Processing (LNBIP)* (pp. 1–12). Cham: Springer Publishing.



## RESEARCH CLUSTER

Research Cluster [www.ercis.org](http://www.ercis.org)



### SMART MANUFACTURING



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#### SMART MANUFACTURING CLUSTER

In the ERCIS cluster “Smart Manufacturing”, we exchange ideas on research on how firms can use digital technologies in manufacturing to create new ways of providing customer value. Our research topics cover smart products and Industry 4.0, data analytics in supply chains, as well as new smart service value propositions and business models. We intend to connect the information systems discipline, which is at the heart of the ERCIS network, with adjacent disciplines such as operations management, mechanical engineering, computer science, and service research, which are also represented in the network.

This way, we can benefit from the multiple perspectives that exist on the digital transformation of the manufacturing industry in Europe. Please contact Alessio Maria Braccini or Jens Poeppelbuss if you want to join this cluster.



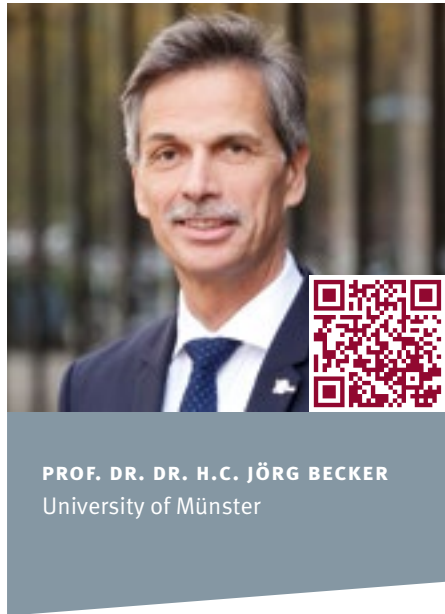
Image: AI generated



# HEAD- QUARTERS

The ERCIS headquarters is located in Münster, Germany. All full professors of the department of information systems at the University of Münster serve in the board of the network and are active in the fields of information systems, computer science, data science, supply chain management, medical informatics, and law. Additionally, the management team at the headquarters works with the board to organise regular meetings, joint teaching endeavours, and research proposals with the network partners.





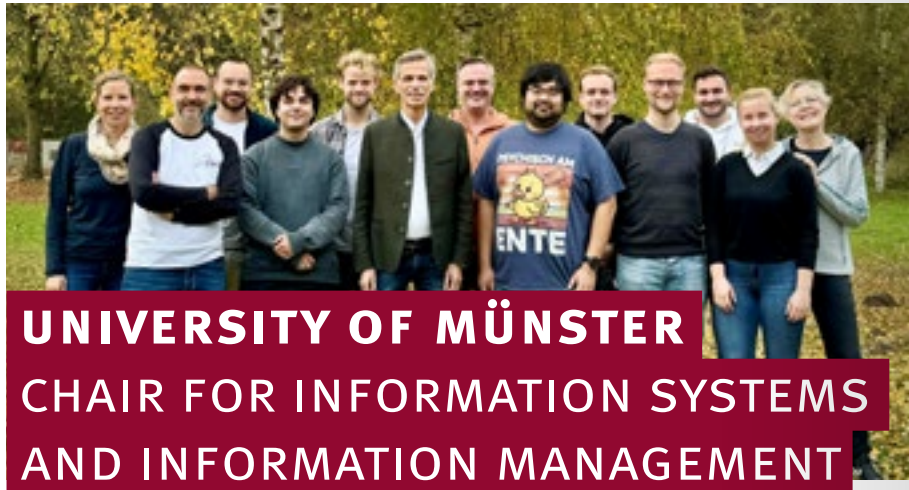
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The University of Münster's Chair for Information Systems and Information Management, under the direction of Prof. Dr. Dr. h.c. Jörg Becker, currently consists of five postdoctoral researchers, four research assistants and eight student assistants.

Members of the Chair actively participate in research projects, receiving funding at both national and international levels. For an overview of these projects, please visit: [https://www.erc.is/go/cis\\_proj](https://www.erc.is/go/cis_proj). Our research findings are disseminated in renowned journals such as BISE (Business & Information Systems Engineering), BPMJ (Business Process Management Journal), Electronic Markets, EMISA (Enterprise Modeling and Information Systems Architectures), ISeB (Information Systems and e-Business Management), and GIQ (Government Information Quarterly). We also present our research at esteemed conferences including ICIS (International Conference on Information Systems), ECIS (European Conference on Information Systems), ER (International Conference on Conceptual Modeling), and HICSS (Hawaii International Conference on System Sciences).

► <https://www.wi.uni-muenster.de/de/institut/is>



## UNIVERSITY OF MÜNSTER CHAIR FOR INFORMATION SYSTEMS AND INFORMATION MANAGEMENT

### RESEARCH FOCUS

Conceptual modeling, in recent years, has become a leading method for describing, designing, and restructuring Information Systems. It is widely adopted in large corporations for tasks such as business process improvement, software deployment, and compliance management.

Smart Cities research focuses on leveraging advances in information and communication technologies to enhance the efficiency, information sharing, and service quality within four core aspects of a city: Retail, government, mobility, and energy. Our key area of interest centers on the development of integrated and configurable reference models for these city constituents, advancing both scientific knowledge and practical value in the pursuit of smarter cities.

E-Government constitutes another pivotal area of our research, examining administrative processes and services within governmental and inter-governmental organizations. We explore the interactions between these entities, citizens, and businesses through Information and Communication Technology (ICT). Our work in E-Government combines strategic management with aspects of process management and economic sustainability, concentrating on both front-office and back-office operations. These topics are explored from content, technical, and conceptual perspectives.

### CURRENT RESEARCH PROJECT

The DFG research group "Digital Medium-

Sized City of the Future" (FOR 5393) investigates how medium-sized cities address the challenges of digitalization and develops digital tools to enhance their quality of life. This research group places a strong emphasis on four central structural areas in medium-sized cities: civil society and social services, government and administration, economy and energy, and education and culture. Prof. Becker and Michael Koddebusch from our Chair are actively involved in this project. To learn more about this research initiative, please visit:

<https://www.digitale-mittelstadt-der-zukunft.de>

### SELECTED PUBLICATIONS

Koddebusch, M., He, J., Hinrichs, J. A., & Becker, J. (2024). Design Requirements for Inclusive Assistive Technologies: Facilitating Communication Between the Deaf and the Hearing. In Bui, T. X. (Ed.), Proceedings of the 57<sup>th</sup> Annual Hawaii International Conference on System Sciences (pp. 7019–7028). Honolulu, HI: Hawaii International Conference on System Sciences.

Nguyen, B. A. P., & Scholta, H. (2024). From Text to Model to Execution: A Literature Review on Methods for Creating Conceptual Models from Legal Regulations. ECIS 2024 Proceedings. 7.

Reiners, S., Ostern, N., & Fischer, S. (2024). Decoding Ambivalence: The Potential of Cue-Based Design for Customer Facing Technologies. Electronic Commerce Research and Applications, 6.



## UNIVERSITY OF MÜNSTER DIGITAL INNOVATION AND THE PUBLIC SECTOR

The Digital Innovation and the Public Sector (DIPS) group at the Department of Information Systems focuses on the impact of the digital transformation at the intersection of the public and private sectors with the civil society. Closely affiliated with the REACH start-up center of the university, we place a particular emphasis on the role of innovation and entrepreneurship in this context. Major current research streams of the group include the digital transformation of the public sector, data-driven improvement of urban services, emerging platform ecosystems in healthcare, and the intersection of IT strategy and sustainability.

### PROJECTS

In 2024, we have been finalizing our work on the project **Digital Innovation for Sustainable Development (INNO4S)**, with the full set of six openly accessible teaching modules expected to be released by the end of the year. We have also continued our work on the Erasmus+ project **CURATE**, in which we develop an AI-focused incubator program with various European partners within the Ulysseus university alliance.

We have also launched several new projects throughout the year, including **MOTO**. Funded by the Federal Ministry of Educa-

tion and Research (BMBF), MOTO seeks to develop a coordination and organization tool for open all-day schools. We were also joined by team **Comuneo**, a spin-off project funded by the Start-up Transfer.NRW program seeking to support the management of public sector organizations, particularly as it relates to sustainability.

We also initialized various international research collaborations. In March and April, Ann-Kathrin Meyer visited Konstantina Valogianni at IE Madrid to work on a joint project exploring the use of agent-based modelling to understand causal mechanisms in urban systems. Since August, Shariga Sivanathan has been a visiting researcher at Virginia Tech where she collaborates with Viswanath Venkatesh, one of the most renowned IS scholars in the world.



### CONFERENCES

Members of the DIPS group presented our work at various conferences and workshops in 2024. This includes Shariga Sivanathan presenting her dissertation work on early-stage platform ventures at the EUDPRN Summit in London and the



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AOM Annual Meeting in Chicago, as well as Ann-Kathrin Meyer presenting results of her project on causal agent-based models at the INFORMS Annual Meeting in Seattle and the Workshop on Information Technology and Systems in Bangkok. Furthermore, Lea Püchel discussed her work at the intersection of digital and sustainability strategy at the IS for Green workshop at TBS Education in Paris. She also presented one of the teaching cases developed within the INNO4S project at ICIS 2024 in Bangkok.

### JOURNAL PUBLICATIONS

Abdelwahed, A., van den Berg, P. L., Brandt, T., & Ketter, W. (2024). "Real-time Decision Support System to Improve Operations in Electric Bus Networks." Decision Sciences, online first.

Ernst, F., Bendig, D., & Püchel, L. (2024). "Religion in Family Firms: A Socioemotional Wealth Perspective on Top-Level Executives with Perceived Religiosity." Journal of Business Ethics, 194, pp. 707-730.

Püchel, L., Wang, C., Buhmann, K., Brandt, T., von Schweinitz, F., Edinger-Schons, L. M., vom Brocke, J., Legner, C., Teracino, E. & Mardahl, T. D. (2024). "On the Pivotal Role of Data in Sustainability Transformations: Challenges and Opportunities." Business & Information Systems Engineering, online first.

► <https://www.wi.uni-muenster.de/departement/dips>





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## UNIVERSITY OF MÜNSTER CHAIR OF INFORMATION SYSTEMS AND BUSINESS PROCESS MANAGEMENT

Robert Winter (St.Gallen). The echelonized DSR method (eDSR) allows for decomposing projects into smaller logically coherent self-contained parts, as well as to publish them along the way as the DSR journey unfolds, to receive early feedback and more collaboratively generate design knowledge.

**REGULATING EMERGING TECHNOLOGIES**  
New MISQ paper on regulating emerging technologies. Emerging technologies demand regulations that mitigate risks while encouraging innovation. Together with Stefan Seidel (ex Münster and Liechtenstein, now Cologne) and Christoph Frick (Liechtenstein) we present how diverse stakeholders collaborate to create a law on trustworthy technology in the Principality of Liechtenstein. Through collective prospective sensemaking, involving abstraction and elaboration, the actors redefined and balanced innovation with legal certainty, ultimately crafting a framework that aligns diverse viewpoints. Through this case study, a theory of collective prospective sensemaking in regulating emerging technologies was developed.

**FUTURE MOBILITY LABS**  
New Lab at ERCIS. In collaboration with transdev, a leading international mobility service provider within the Rethmann Group, we focus on shaping the the future of mobility in our Future Mobility Labs. Using current data and innovative approaches from Design Science Research, we develop forward-looking solutions. Together with transdev, we have already explored fraud detection using customer data from the Deutschlandticket to identify potential fraud cases and to prevent revenue losses. Another project within the lab

supports employees in crisis management, enabling faster decision-making through the utilization of new technologies.

**SELECTED PUBLICATIONS**  
*Seidel, S., Frick, C. J., & vom Brocke, J. (2024).* Regulating Emerging Technologies: Prospective Sensemaking through Abstraction and Elaboration. *MIS Quarterly (MISQ).*

*vom Brocke, J., van der Aalst, W.M.P., Berente, N., van Dongen, B., Grisold, T., Kremser, W., Mendling, J., Pentland, B., Roeglinger, M., Rosemann, M., Weber, B. (2024).* Process science: the interdisciplinary study of socio-technical change. *Process Science* 1, 1 (2024).

*Tuunanen, T., Winter, R., & vom Brocke, J. (2024).* Dealing with Complexity in Design Science Research: Using Design Echelons to Support Planning, Conducting, and Communicating Design Knowledge Contributions. *MIS Quarterly (MISQ)*, 48(2), 427–458.

*Hevner, A. R., Parsons, J., Brendel, A. B., Lukyanenko, R., Tiefenbeck, V., Tremblay, M. C., & vom Brocke, J. (2024).* Transparency in design science research. *Decision Support Systems*, 182.

*Bokstaller, J., Schneider, J., Lux, S., & vom Brocke, J. (2024).* Battery Health Index: Combination of Physical and ML-Based SoH for Continuous Health Tracking. *IEEE Internet of Things Journal*, 1–1.

*Kipping, G., Gau, M., & vom Brocke, J. (2024).* Towards a Reference Model for Designing Micro-Credentials in Higher Education. In Cheung, C., Thatcher, J., & Laumer, S. (Eds.), *Proceedings of the 45<sup>th</sup> International Conference on Information Systems* (pp. 1–9). United States: AIS eLibrary.

The Chair of Information Systems and Business Process Management takes a distinct process view on the design, use and impact of information technology in organizations. We analyze processes based on digital trace data, understand processes applying large scale empirical investigations and design new processes applying innovative design science research approaches. We are committed to make processes run better both in industry and society. We enable more resilient and more sustainable processes as well as much more exciting customer and employee experiences. We are excited to engage with our wonderful students and many colleagues and friends both from academia and industry.



**DEALING WITH COMPLEXITY IN DESIGN SCIENCE RESEARCH**  
New MISQ paper proposing an innovative Design Science Research Methodology. Designing innovative solutions to real world problems does not follow straight forward processes. The same is with Design Science Research (DSR). A paper, very close to our heart, proposes an innovative method to deal with complexity in DSR, published together with our ERCIS partners Tuure Tuunanen (Jyväskylä) and



## UNIVERSITY OF MÜNSTER CHAIR OF MACHINE LEARNING AND DATA ENGINEERING



PROF. DR. FABIAN GIESEKE  
University of Münster



**PUBLICATIONS**  
*Herrmann, N., Dieckmann, J., & Kuchen, H. (2024).* Optimizing Three-Dimensional Stencil-Operations on Heterogeneous Computing Environments. *International Journal of Parallel Programming*, 52(4), 274–297.

*Lülf, C., Lima Martins, D. M., Vaz, S. M. A., Zhou, Y., & Gieseke, F. (2024).* CLIP-Branches: Interactive Fine-Tuning for Text-Image Retrieval. In *Proceedings of the ACM SIGIR Conference on Research and Development in Information Retrieval (Demo Track)*, Washington, D.C.

*Pauls, J., Zimmer, M., Kelly, U. M., Schwartz, M., Saatchi, S., Ciaia, P., Pokutta, S., Brandt, M., & Gieseke, F. (2024).* Estimating Canopy Height at Scale. In *Proceedings of the International Conference on Machine Learning (ICML)*, Wien.

*Oehmcke, S., Li, L., Trepekli, K., Revenga, J. C., Nord-Larsen, T., Gieseke, F., & Igel, C. (2024).* Deep point cloud regression for above-ground forest biomass estimation from airborne LiDAR. *Remote Sensing of Environment*, 302.

**RESEARCH**  
The Machine Learning and Data Engineering group is dedicated to developing efficient algorithms and scalable implementations for modern machine learning models. We prioritize high-performance and distributed computing to reduce the runtime of large-scale data analyses. A core part of our research involves adapting existing algorithms and creating new methods that can efficiently handle massive datasets, particularly when existing techniques are not optimized for modern hardware. Additionally, we focus on bringing machine learning to edge devices such as IoT, enabling real-time data processing in resource-constrained environments.

**PROJECTS**  
One of our standout projects is the AI4Forest initiative, a collaboration among universities in France, Denmark, and Germany, which plays a critical role in climate research. Forests are vital for carbon sequestration, making their study essential in the context of climate change. In 2024, AI4Forest organized three workshops across Europe—from Münster to Paris to Munich—bringing together experts in deep learning, applied mathematics, forestry, ecology, and remote sensing. These workshops provided a platform for knowledge exchange and strengthened collaborations on various research efforts.





PROF. DR.-ING.  
BERND HELINGRATH  
University of Münster

Our research group addresses challenges arising from increasingly complex and unpredictable modern supply chains. We contribute to research by closely examining current trends in digital supply chains and exploring how new technologies can be applied alongside opportunities created by digital transformation.

**CURRENT RESEARCH PROJECTS**

Our research activities are split into three main research areas: **Supply Chain Digitalization**, **Supply Chain Integration**, and **Supply Chain Security and Crisis Management**.

Within the research area **Supply Chain Digitalization**, we developed KPIs to measure different views of the resilience of a supply chain's structure and a method that adapts the structure of a supply chain with regard to increased resilience. We have also created a guideline for improving structural resilience to enable the practical application of the research results.

In the area of **Supply Chain Integration**, we looked at the use of business analytics in the context of Sales & Operations Planning. A Business Analytics-S&OP framework enables the selection of suitable business analytics applications for each phase of the S&OP process. Further, a data-driven S&OP design method answers the ques-



**UNIVERSITY OF MÜNSTER  
INFORMATION SYSTEMS  
AND SUPPLY CHAIN MANAGEMENT**

tion of how an S&OP process can be designed for improved decision-making.

Two research projects relate to the third research area **Supply Chain Security and Crisis Management**. In the **OptimAgent** project, we lead the development of the German Epidemic Microsimulation System (GEMS), which is a versatile, high-performance infectious disease modelling framework tailored to support decision-making during public health crises. In the **PROGNOSIS** project, we establish an agent-based simulation testbed for allocating medical material in a hospital network. The testbed enables comparative analyses of diverse allocation strategies and stress tests of the network resilience against various epidemic scenarios provided by our research partners.

Alongside our research projects, we hosted the **International Conference on Information Systems for Crisis Response and Management (ISCRAM) 2024** in May. This influential event, organized in partnership with the State Fire Service Institute NRW (IdF), was a vital platform for synergizing cutting-edge academic research with practical crisis management expertise.

**SELECTED PUBLICATIONS**

Wesendrup, K., Hellingrath, B., & Nikolarakis, Z. (2024). A framework for conceptualizing integrated prescriptive maintenance and production planning and control models. *Brazilian Journal of Operations & Production Management*, 21(3), 2172. <https://doi.org/10.14488/BJOPM.2172.2024>

Kalla, C., Scavarda, L.F. & Hellingrath, B. (2024). Integrating supply chain risk management activities into sales and operations planning. *Review of Managerial Science*, in press, <https://doi.org/10.1007/s11846-024-00756-y>

Wesendrup, K., Hellingrath, B. (2024). Joint Prescriptive Maintenance and Production Planning and Control Process Simulation for Extrusion System, *International Journal of Prognostics and Health Management*, 15(2). <https://doi.org/10.36001/ijphm.2024.v15i2.3839>

**DISSERTATIONS**

Automated Generation of Heuristic Methods for the Multi-Level Capacitated Lot-Sizing Problem, *Luís Filipe de Araújo Pessoa*, November 2023

Guiding the Digital Transformation of Supply Chains – Development of a Prescriptive Maturity Model, *Frauke Hellweg*, January 2024

Data-Driven Sales and Operations Planning, *Frédéric Niko Patrice Nicolas*, January 2024

Supply Chain Network Resilience – A Guideline for Investigating and Adapting the Structure of Supply Chain Networks for Resilience, *Till Sahlmüller*, June 2024

Integrating Prescriptive Maintenance into Production Planning and Control, *Kevin Wesendrup*, June 2024



**UNIVERSITY OF MÜNSTER  
INSTITUTE OF MEDICAL INFORMATICS**

The Institute of Medical Informatics (IMI) is dedicated to research and teaching the full range of informatics applications in medicine. It was founded in 1973 and belongs to the Medical Faculty. The IMI provides lectures, seminars and courses in small groups regarding Medical Informatics for medical as well as informatics students. The IMI has established the Medical Data Integration Centre of the University of Münster. The research focus is on interoperable medical data integration, data mining and pattern recognition techniques for clinical and genomic data.



**CURRENT RESEARCH PROJECTS**

**New Use Cases within the Medical Informatics Initiative**

The IMI participates in several use cases to show scientific and clinical impact by the activity of our Medical Data Integration Centre funded by the BMBF. These include cardiovascular diseases, involvement of patient reported outcomes, cancer research, semantic annotation for natural language processing, medical device consultation. A large 4-years use case, which is coordinated by us (Prof. Nicole Eter and Prof. Julian Varghese) across 6 hos-

pital sites in Germany is called EyeMatics (<https://eyematics.uni-muenster.de/>) and has been started from April 2024. It integrates eye examination data and novel imaging sources such as high resolution OCT-scans to unravel new biomarkers to optimize treatment of retinal diseases, which are among the main causes of blindness in Germany.

**Biomedical Informatics**

The IMI participates in the DFG clinical research group “Male Germ Cells: from Genes to Function” (CRU 326), taking care of all OMICs data analyses. The project studies male infertility by means of genomics and transcriptomics analyses, including humans as well as model organisms like zebrafish or marmoset. A further project grant for an extended DFG collaborative research center, called Reproduction, is under way. A new professorship for biomedical informatics has been appointed, who will be heading the institute from September 2024.



► <https://imi.uni-muenster.de/>



PROF. DR. JULIAN VARGHESE  
University of Münster

**KEY PUBLICATIONS**

Sandmann S, Riepenhausen S, Plagwitz L, Varghese J. Systematic analysis of ChatGPT, Google search and Llama 2 for clinical decision support tasks. *Nature Communications*. 2024;15(1):2050.

Varghese J, Brenner A, Fujarski M, van Aalen CM, Plagwitz L, Warnecke T. Machine Learning in the Parkinson's disease smartwatch (PADS) dataset. *npj Parkinsons Dis*. 2024 Jan 5;10(1):1–11.

Oehm JB, Riepenhausen SL, Storck M, Dugas M, Pryss R, Varghese J. Integration of Patient-Reported Outcome Data Collected Via Web Applications and Mobile Apps Into a Nation-Wide COVID-19 Research Platform Using Fast Healthcare Interoperability Resources: Development Study. *Journal of Medical Internet Research*. 2024 Feb 27;26(1):e47846.

Henke V, Hülsken G, Schneider H, Varghese J. Health Data Management. Springer; 2024 [cited 2023 Oct 13]. (Springer). Available from: <https://link.springer.com/book/9783658432355>

Varghese, J.; Chapiro, J. ChatGPT: The Transformative Influence of Generative AI on Science and Healthcare. *Journal of Hepatology* 2023. <https://doi.org/10.1016/j.jhep.2023.07.028>

► <https://www.wi.uni-muenster.de/departments/logistik>



# ERCIS LOCATIONS

ERCIS locations are research institutions mainly from Europe, but also from around the world, that have long-standing connections with the network. All ERCIS locations are outstanding Information Systems institutions, and, more importantly, the personal relations and close ties between the researchers lead to short communication lines and reliable structures for joint research endeavours.





PROF. DR. MICHAEL ROSEMANN  
Queensland University of Technology,  
Australia

## QUEENSLAND UNIVERSITY OF TECHNOLOGY CENTRE FOR FUTURE ENTERPRISE

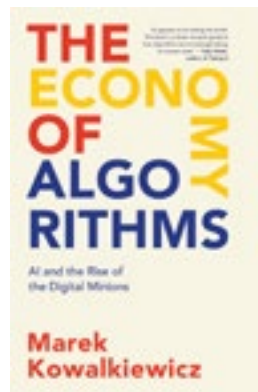


### RESEARCH PROJECTS

*Navigating Tomorrow's Business Opportunities* is the purpose of QUT's Centre for Future Enterprise (CFE). Our research aims to shape new and identify emerging opportunities for future leaders and their organisations. Our pursuit of this aim is guided by three missions: co-create impact, shape the global discourse and empower Next-Gen leaders. This requires a sharp focus of our research attention and for this CFE is structured in four research themes. We aim to ensure future enterprises can anticipate and withstand changes (the robust enterprise), can manage, govern and ultimately benefit from the co-existence of humans and machines (the algorithmic enterprise), can explicitly design and capitalise on trusted solutions (the trusted enterprise), and define and use tensions for a thriving future (the paradoxical enterprise). Our Centre is has 24 Chief Investigators on all levels of academic seniority, a vibrant group of dedicated postdoctoral fellows and more than 40 research students (PhD and Masters by Research). We work closely with international academic (e.g., MIT, TU Munich, ERCIS members) and corporate partners (e.g., Cisco, SAP, IBM, Edeka), and regularly welcome and host visitors at our state-of-the-art facilities at Gardens Point campus.

### KEY PUBLICATIONS

Shaping the global discourse is one of our three missions, and this book truly has done this in 2024. *'The Economy of Algorithms. AI and the Rise of Digital Minions'* by Marek Kowalkiewicz, Leader of the algorithmic enterprise theme, is an insider's guide to the invisible economy that is reshaping our lives. Based on an optimistic future outlook, which is characteristic to CFE's research, Marek provides nine rules for flourishing in the new economy of algorithms. The book attracted substantial interest around the world and saw Marek conducting keynotes at conferences globally. His article 'How CEOs are Using Gen AI for Strategic Planning' in the Harvard Business Review, September 2024, co-authored with Graham Kenny and Kim Oosthuizen, presents guidance on how to use latest AI solutions in a strategic context.



One technique described in this book, six week research innovation sprints, got recognised this year with the 2024 Australian Good Design Award.

In addition to a variety of academic publications in the management and information systems literature, CFE members were also authors of high impact reports of global significance.

*'Realising Trustworthy and Inclusive Artificial Intelligence for Indonesia'* is the title of an IBM-funded report by Kevin Descouza and Marc Picavet in which the two CFE members outline the steps required for AI to be developed and deployed in a manner that benefits all segments of Indonesia's society.

Professional TX (trust experience) design is the ambition of CFE's trusted enterprise theme. In this context, we host a TX thought leadership series during which we launched the *Trust Trend Report 2024: Consumer Perception of Trusted Retail*, authored by Nadine Ostern, Cisco Chair in Trusted Retail, Shannon Colville and Scott Murray. Nadine closely collaborates with ERCIS member Assistant Professor Marlene Voss on building trust in human-GenAI interactions, as highlighted in their ICIS 2024 conference paper, *'Human-GAI Collaboration: Using a Process Theory Lens to Understand Human-GAI Interaction in Creative Problem-Solving,'* together with further co-authors.



## VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS (WU WIEN) INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT (ISOM)



DJORDJE DJURICA, PHD  
Vienna University of Economics  
and Business (WU Wien),  
Austria

### ABOUT WU VIENNA

Since 2015, Vienna University of Economics and Business (WU Vienna) has held prestigious triple accreditation (EQUIS, AACSB, AMBA), a distinction held by less than 1% of universities worldwide. To enhance its global profile, WU Vienna offers English-taught programs and prioritizes internationalization in research.

### ISOM

The Department of Information Systems and Operations Management (ISOM) at WU Vienna has ten specialized chairs, including an endowment chair focused on "Data Ecosystems for Environmental Accountability." The ISOM faculty includes ten associate professors and over 90 researchers and lecturers who cover various Information Systems (IS) and Operations Management (OM) topics.

The ISOM department supports WU's bachelor's program with a major in Information Systems and various IS specializations. Since the 2023/2024 study reform, ISOM has been part of STEOP, providing foundational orientation for all students. The ISOM department also leads two master's programs:

1. The interdisciplinary **Digital Economy** program prepares students with the skills needed to drive digital transformation, excel at creating digital ecosystems, develop digital business models, and foster digitalization-led social change.
2. The transdisciplinary program in **Supply Chain Management**, recognized by the QS ranking, has been ranked 1<sup>st</sup> in Europe and 2<sup>nd</sup> globally for 2025, marking the fourth

consecutive year it has achieved this distinction.

### ISOM RESEARCH TOPICS

The ISOM chairs are incorporated in eight institutes:

1. **Institute for Data, Process, and Knowledge Management** (lead: *Marta Sabou; Axel Polleres*) – Focuses on business- and technology-driven innovations, particularly in data and knowledge management. It also develops AI-powered information systems, especially neuro-symbolic systems.
2. **Institute for Data, Energy, and Sustainability** (*Kavita Surana*) – Studies innovation and technology in digital and green energy transitions, focusing on energy security, affordability, and sustainability.
3. **Institute for Digital Ecosystems** (*Verena Dorner*) – Studies digital decision-making within ecosystems and algorithm development to support decision-makers.
4. **Institute for Distributed Ledgers and Token Economy** (currently vacant) – Founded in 2022, this institute conducts research on the fundamentals of blockchain technology and its applications in economics, law, business, and the social sciences.
5. **Institute for Complex Networks** (*Mark Strembeck*) – Focuses on analyzing and advancing complex networked systems, such as social networks, power grids, and software supply chains, by studying their data and interactions.
6. **Institute for Information Management**

and Control (*Edward Bernroider*) – This institute concentrates on managing digital transformation in organizations and weighing its opportunities and risks.

7. **Institute for Information Systems and Society** (*Sarah Spiekermann*) – Studies technologies in a social context and develops methods to improve their social acceptability and sustainability.

8. **Institute for Production Management** (lead: *Gerald Reiner; Alfred Taudes, Miriam Wilhelm*) – Focuses on research in supply chain management, with a particular emphasis on developing strategies and practices for effective and efficient operations.

Additionally, ISOM professors Verena Dorner, Axel Polleres, and Marta Sabou contribute to the **Applied AI Network**, which connects AI researchers and practitioners at WU.

### HIGHLIGHTED RESEARCH PROJECT

**COE 12 – FWF Cluster of Excellence Billateral AI** (lead: Axel Polleres; 2024–2029; FWF): This project unites the two main AI research strands: sub-symbolic AI (machine learning) and symbolic AI (knowledge representation and reasoning), aiming to build the foundations of "Broad AI" capable of independent reasoning and comprehensive cognitive abilities.





## KU LEUVEN PUBLIC GOVERNANCE INSTITUTE

**PROF. DR. JOEP CROMPTVOETS**  
KU Leuven, Public Governance  
Institute, Belgium

Situated in Belgium, in the heart of Western Europe, KU Leuven has been a centre of learning for nearly six centuries. Today, it is Belgium's largest university and, founded in 1425, one of the oldest and most renowned universities in Europe. KU Leuven is a research-intensive, internationally oriented university that carries out both fundamental and applied research. It is strongly inter- and multidisciplinary in focus and strives for international excellence. Following the integration of the university colleges, the 'entire' KU Leuven counted more than 65,000 students (2022). The largest student populations are found in the faculties of Economics and Business, Medicine, Engineering Technology, Arts, and Law. Students from approximately 165 countries study at KU Leuven.

**KU LEUVEN**

► <https://soc.kuleuven.be/io/english>

The KU Leuven Public Governance Institute has as the mission to gain knowledge and insight regarding politics, administration and public policies on local, regional, federal, European and international levels. We intend to make scientific contributions to an improvement in the policy-making, organization and management of public administrations. The KU Leuven Public Governance Institute is an internationally oriented and interdisciplinary research institute that focusses on different aspects of public governance. Both fundamental and applied research are part of our activities, with special attention on theory, empirical research and practice. Comparative research in particular is one of our core competencies.

**Public Governance Institute** focuses on three distinguishable but partly overlapping clusters within the public governance domain: 1) Politics, citizens and policies: this research cluster focuses on the understanding of the relationship between governments, citizens and policy practices; 2) Administrative organization and HRM: this cluster focuses on the changes in the governmental landscape and the way in which the government handles its human capital; 3) Management of information, performance and finance: this cluster focuses on research about methods and approaches to manage, use and exchange information by governments in the policy, management and financial cycles. This may be within as well as between administrative organizations, but also across and between governments.

**KU Leuven Public Governance Institute hosted two important network events:**

- On the 11<sup>th</sup> and 12<sup>th</sup> of April 2024, Leuven was the stage of **Interoperable Europe Academy 2024 of the European Commission**: a two-day for advanced digital skills in the field of digital government and interoperability. This year, public servants from all levels of the government, policy makers and students had the chance to get all the ins and outs of the Interoperable Europe Act, its implications for public administrations in the EU, and practical ways and tools to unfold its full potential. From governance, interoperability assessments and regulatory sandboxes, to exploring how emerging technologies like AI play into the story, the more than 200 participants found approaches to implementing the Interoperable Europe Act and found how other initiatives in the field of digital government are perfectly aligned to the Interoperable Europe Act.
- From 3<sup>th</sup> until 5<sup>th</sup> of September 2024, Leuven was also the stage of the **IFIPEGOV2024 conference** (with around 150 participants). An event that was dedicated to the broader areas of e-Government and e-Democracy, including facets like Digital Government, e-Participation, Open Government, Smart Government, AI government, GovTech, Algorithmic Governance, and related topics to digitalization and government.

## UNIVERSITY OF SÃO PAULO SCHOOL OF ARTS, SCIENCES AND HUMANITIES

The University of São Paulo (USP), established in 1934, is Brazil's premier institution for higher education and research, representing over 20% of the nation's research output. Operating across seven campuses, USP offers more than 250 undergraduate and graduate programs to nearly 100,000 students. The School of Arts, Sciences and Humanities (EACH), established in 2005, hosts interdisciplinary programs, including Information Systems. USP has two other notable units focusing on information systems: the Institute of Mathematical and Computer Sciences (ICMC) in São Carlos and the School of Philosophy, Science, and Literature (FFCLRP) in Ribeirão Preto. With a combined faculty of over 100 researchers, USP contributes significantly to diverse computing fields, from artificial intelligence and big data to robotics and web systems. The university is at the forefront of impactful research, producing almost 50 research papers daily, with a particular emphasis on applied computing, including areas like bioinformatics, machine learning, and social networks.



► <http://ppgsi.each.usp.br/?lang=en>

### RESEARCH PROJECTS

- **Process Mining**: Optimizing business processes is vital for achieving organizational strategic goals. This project explores advanced process knowledge using machine learning and computational intelligence. Ongoing works focus on process discovery, quality metrics, concept drift, interpretability and explainability, prediction and prescription, bias and fairness, LLMs, trace clustering, graph embeddings, sequential association rules, semantic parsing, plain language, and OCEL, aiming at process and organizational improvement across both private and public organizations, including governmental entities.
- **Social Robotics**: Social robots are designed to enhance human activities by providing interactive support. This project explores their role in assisting specific groups across diverse contexts. Key applications include diagnosing depression in older adults, promoting activities that support mental well-being, improving cognitive engagement, and serving as mentors for digital literacy. The project focuses on leveraging social robotics to address unique needs and foster meaningful social interactions, ultimately aiming to improve quality of life.

### SELECTED PUBLICATIONS

Sousa, R. G., Meira Neto, A. C., Fantinato, M., Peres, S. M., Reijers, H. A. Integrated detection and localization of concept drifts in process mining with batch and stream trace clustering support. *Data & Knowledge Engineering* 149, pp. 102253.1-102253.33, 2024.



**PROF. DR. MARCELO FANTINATO**  
University of São Paulo, School of  
Arts, Sciences and Humanities,  
Brazil

*Meira Neto, A. C., Sousa, R. G., Fantinato, M., Peres, S. M.* Revisiting the transition matrix-based concept drift approach: Improving the detection task reliability through additional experimentation. *SN Computer Science* 5(1), pp. 188, 2024.

*Ávila, D. T., Sanchez, M. E. S., Fantinato, M., Polanč, G., Thom, L. H.* Investigating business process changes: A framework for identifying outdated process models. *BUSINESS PROCESS MANAGEMENT JOURNAL*, ahead-of-print, pp. 1–24, 2024.

*Albuquerque, O. P., Iqbal, F. Hung, P. C. K., Fantinato, M., Peres, S. M.* A preliminary design of privacy ontology for smart toys. *Proceedings of the 57<sup>th</sup> Hawaii International Conference on System Sciences*, pp. 1732–1741, 2024.

*Araujo, B. S., Fantinato, M., Cachioni, M., Yassuda, M. S., Melo, R. C., Peres, S. M., Hung, P. C. K.* Social robot-based depression screening in older adults: A pilot study. *Gerontechnology*, to be published, 2024.

*Fantinato, M., Cachioni, M., Yassuda, M. S., Bet, P., Melo, R. C., Peres, S. M.* Enhancing older adults care through social robots: Addressing aspects of well-being with innovative solutions. *Estudos Interdisciplinares sobre Envelhecimento*, to be published, 2024.





## CHARLES UNIVERSITY DEPARTMENT OF SOFTWARE ENGINEERING

**PROF. RNDR. JAROSLAV POKORNÝ, CSC**  
Charles University,  
Czech Republic

### RESEARCH PROJECTS

The Department of Software Engineering focuses on teaching and research in the field of software and database systems and their applications. The department has several research groups working on topics ranging from multimedia retrieval, recommender systems, semantic web and linked data technologies, knowledge graphs, data integration, big data, bioinformatics applications, to cloud computing and high-performance parallel systems. Research is conducted within national and European basic research, applied and contract research projects. The department provides courses for undergraduate and graduate students in software and data engineering programs.

#### • Multimedia Retrieval

Includes multimedia data in social media applications, video streaming services, digital libraries as well as in specialized medical or industrial fields. Their primary representation is semantically unstructured. Many of these techniques are based on machine-learning models.

#### • Data on the Web

Working with data on the Web is difficult due to numerous issues which an interested data consumer can come across, the main ones being data interoperability issues on various levels of abstraction. The research is focused on a set of techniques

and tools for proper publishing and consumption of data on the Web.

#### • Multi-model databases

Relatively recently emerged NoSQL and other modern DBMS allow to deploy databases based on other logical models than just the traditional relational ones. Therefore, the research is focused on various aspects of efficient and unified management of multi-model data, including conceptual modelling, schema inference, unified querying, or evolution management.

#### • Bioinformatics

The research in bioinformatics focuses on the development of software tools applicable mainly in the domain of structural bioinformatics and visualization. These include tools for protein binding site detection, with the application in computational drug discovery, or tools for visualization of the structure of macromolecules.

#### • Compilers

Compiler technology has enabled to make it easier for software developers to write correct and performant code. Our research activities include: specialized code generators for performance-critical code, Compiler support for dynamic languages, Languages for big-data, and translation between domain-specific languages.

#### • High performance computing (HPC)

HPC research activities and topics of interest include multi-core CPUs and NUMA servers, many-core GPUs and GPGPU computing, emerging parallel architectures, distributed computing.

#### • Research Software Engineering (RSE)

RSE helps scientists improve and speed up their code by up to several orders of magnitude, making it possible to process much larger volumes of data in the same amount of time.

#### PUBLICATIONS

*S. Kwon, J. Safer, D.T. Nguyen, D. Hoksza, P. May, J. A. Arbesfeld, A. F. Rubin, A. J. Campbell, A. Burgin, S. Iqbal:* Genomics 2 Proteins portal: a resource and discovery tool for linking genetic screening outputs to protein sequences and structures. *Nature methods* 21, pp. 1947–1957, 2024.

*Ch.P. Feidakis, R. Krivak, D. Hoksza, M. Novotny:* AHoj-DB: A PDB-wide Assignment of apo & holo Relationships Based on Individual Protein–Ligand Interactions. *Journal of Molecular Biology*. Vol. 436, Issue 17, pp. 1–9, 2024.

*P. Koupil, D. Crha, I. Holubová:* A universal approach for simplified redundancy-aware cross-model querying. *Information Systems*, Vol. 127, January 2025, pp. 52–56.

*P. Dokoupil, L. Boratto, L. Peška:* User Perceptions of Diversity in Recommender Systems. *UMAP '24: Proc. of the 32<sup>nd</sup> ACM Conference on User Modeling, Adaptation and Personalization*, pp. 212–222, 2024.

*L. Joos, B. Jäckl, D.A. Keim, M.T. Fischer, L. Peška, J. Lokoč:* Known-Item Search in Video: An Eye Tracking-Based Study. In: *ICMR '24: Proc. of the 2024 International Conference on Multimedia Retrieval*, pp. 311–319, 2024.

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## COPENHAGEN BUSINESS SCHOOL DEPARTMENT OF DIGITALIZATION (DIGI)





**PROF. MATTI MÄNTYMÄKI**  
University of Turku,  
Finland

## UNIVERSITY OF TURKU TURKU SCHOOL OF ECONOMICS – INSTITUTE OF INFORMATION SYSTEMS SCIENCE

on building on foundational knowledge of the governance of generative AI with a specific emphasis on understanding the micro-foundations of AI governance.

### DOCTORAL THESES

*Birkstedt, T. (2024).* Governing Artificial Intelligence: From ethical principles toward organization AI governance. *Annales Universitatis Turkuensis, Ser E, Tom. 124, Oeconomica, Turku 2024*

*Suominen J. (2024).* Process of the crisis management operation: The complexity of the management process and process management in the expansion of the UNIFIL-operation. *Annales Universitatis Turkuensis, Ser E, Tom. 119, Oeconomica, Turku 2024*

### SELECTED PUBLICATIONS

*Baiyere, A., Salmela, H., Nieminen, H., & Kankainen, T. (2024).* Assessing digital capabilities for digital transformation – The MIND framework. *Information Systems Journal.*

*Söderlund, R. (2024).* Digital national waiting time information system-View of Finnish public oral healthcare managers. *Health Policy and Technology, 13(4), 100900.*

*Jafarzadeh, P., Vähämäki, T., Nevalainen, P., Tuomisto, A., & Heikkonen, J. (2024).* Supporting SME companies in mapping out AI potential: a Finnish AI development case. *The Journal of Technology Transfer, 1–20.*

*Westerstrand, S., Westerstrand, R., & Koskinen, J. (2024).* Talking existential risk into being: a Habermasian critical discourse perspective to AI hype. *AI and Ethics, 1–14.*

*Koskinen, J., Kimppa, K. K., Lahtiranta, J., & Hyrynsalmi, S. (2024).* Quantified academics: Heideggerian technology critical analysis of the academic ranking competition. *Information Technology & People, 37(8), 25–42.*

*Laato, S., Minkkinen, M., Mäntymäki, M., & Dennehy, D. (2024).* Machine Learning System Development in Information Systems Development Praxis. *Communications of the Association for Information Systems, 54(1), 10.*

*Laine, J., Minkkinen, M., & Mäntymäki, M. (2024).* Ethics-based AI auditing: A systematic literature review on conceptualizations of ethical principles and knowledge contributions to stakeholders. *Information & Management, 103969.*

*Minkkinen, M., Niukkanen, A., & Mäntymäki, M. (2024).* What about investors? ESG analyses as tools for ethics-based AI auditing. *AI & society, 39(1), 329–343.*

*Long, Ting – Suomi, Reima (2024).* Perceived Value and User Features in Continuance Intention to Use Theme Park Apps. *Pacific Asia Journal of the Association for Information Systems.*

*Vepsäläinen, Tapio – Li, Hongxiu – Suomi, Reima (2024).* The Role of Social Media Platforms in Forecasting Elections: A Comparison of Twitter and Facebook. *Digital Government: Research and Practice, 5(3), article 19.*

*Heikkilä, M., Himmanen, H., Soininen, O., Sonninen, S., & Heikkilä, J. (2024).* Navigating the future: developing smart fairways for enhanced maritime safety and efficiency. *Journal of Marine Science and Engineering, 12(2), 324.*

### ABOUT THE INSTITUTION

The history of the Institute for Information Systems Science at the University of Turku dates back to 1971. Today the Institute is a part of the Department of Management and Entrepreneurship at the Turku School of Economics.



### RESEARCH TOPICS

The IS research at the University of Turku covers a wide spectrum of IS research themes with a focus on governance and management of ICT, ICT ethics, consumer behavior in digital environments, and ICT adoption and use by organizations and individuals. In recent years, artificial intelligence has become a focal research area of the Institute.

### SELECTED RESEARCH PROJECTS

• **Forward-looking AI governance FLAIG (2024–2026).** The Business Finland Co-Research project focuses on AI governance and explainability in banking and insurance and the governance needs related to generative AI.

• **Responsible AI through governance RAITGO (2024–2026).** The project focuses

► <https://www.utu.fi/en/people/matti-mantymaki>

## KEDGE BUSINESS SCHOOL DEPARTMENT OF OPERATIONS MANAGEMENT AND INFORMATION SYSTEMS (MOSI)



### CURRENT RESEARCH PROJECTS

#### 1) Ethics and Artificial Intelligence

This project, initiated in 2016, has tackled the ethics of digital trust and Artificial Intelligence (AI), especially as AI expands into healthcare, defense, and social sectors, raising new ethical and societal concerns. The current phase of the project focuses on advancing Explainable Artificial Intelligence by developing Machine Learning and Deep Learning models that achieve both high predictive accuracy and enhanced interpretability. The study focuses on predicting hospital length of stay using structured data, unstructured clinical text, and a combination of both, applying a BERT Transformer for text analysis. The results show promise for a responsible, human-centered approach to AI implementation.

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#### 2) Virtual reality, digital consumer experiences and consumer réponses in online service

This research project which is a part of the VitiREV program examines how the sensory integration in online services can shape consumer responses, improve service quality and understand the consumer behavior in online contexts.

A 360° degrees virtual tour of a winery and a fully immersive VR setting for a pub tour have been created for this research. Both studies incorporated sensory inputs, as a choice of sounds, texts and music pieces, the second one accounted also scent and touch in the participant's physical space. Aligning vision and sound significantly enhances consumer behaviors, increase positive perceptions of the provider's warmth. This project is pioneering in its integration of multi-modal congruency and stereotype-content perspectives to under-

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stand consumer responses in online service contexts.

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#### 3) Trust in Human-AI Teams

A PhD project that started this year with the student Jian Lee seeks to contribute to 1) studying the effect of AI on Teams performance and dynamics when different roles are assigned to it. In particular, we will distinguish the case when tasks are delegated to AI and cases where AI are truly autonomous agents then considered as partners. 2) investigate more specifically the role of social and relational norms in the construction of trust in human-AI teams. 3) How does co-creation takes place in a system made of a provider, a customer and AI? To that end, we will collaborate with Engie, an energy provider that develops AI monitored micro-grids to be implemented and used by energy communities.

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#### 4) Developing a measure scale for human trust in AI

This on-going work relies on survey data gathering about 800 respondents to build a measure scale of trust. Using Structural Equation Modelling, we built a scale that distinguishes and combines cognitive trust (i.e. trust in the functionalities of the system) and emotional trust (i.e. trust that the system will behave as an empathic human). Although many scales of this sort are currently proposed, our data includes specific information about the supplier and items, enabling to estimate the contribution of trust in the supplier to the overall trust a user can have in its AI system.

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Kedge Business School,  
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### SELECTED PUBLICATIONS

*COHENDET, P., O. DUPOUËT, R. RAMPA, R. NAGGAR,* “Orchestrating orphan ideas in the fuzzy front end of a large firm’s R&D department”, *R&D Management, 2024, vol. 54(3), pp. 558–573*

*DUPOUËT, O., Y. PITARCH, M. FERRU, B. BARNELA,* “Community dynamics and knowledge production: Forty years of research in quantum computing”, *Journal of Knowledge Management, 2024, vol. 28, pp. 651–672*

*EL MOUSSAOUI, A. E., T. EL MOUSSAOUI, B. BENBBA, L. C. CHAKIR, A. JAEGLER, Z. EL ANDALOUSSI,* “Sustainable effects of information sharing between distribution logistics actors: a qualitative case study”, *Environment, Development and Sustainability, 2024*

*HERRERA, A., M. ACQUAAH, R. ASIAMA, J. HOFSTETTER,* Skills development for fair production and sustainable supply chains, White paper, United Nations Industrial Development Organisation, Autriche, 2024

*JAOTOMBO, F., L. ADORNI, O. ALLAL-CHERIF, E. LOMBARDO,* “Improving Healthcare by Optimizing Hospital Length of Stay with Explainable Artificial Intelligence” *Annals of Operations Research*





PROF. DR. ANDREA KŐ  
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## CORVINUS UNIVERSITY OF BUDAPEST INSTITUTE OF DATA ANALYTICS AND INFORMATION SYSTEMS

The Institute of Data Analytics and Information Systems (IDAIS)'s vision is to become a leading knowledge centre in the field of data science, theoretical and applied mathematics, business informatics and statistics in Hungary and an outstanding knowledge centre in the region. The Institute consists of six departments: Department of Computer Science, Department of Infocommunication, Department of Information Systems, Department of Mathematics, Department of Network Science and Department of Statistics. We have a close cooperation with the Doctoral School of Economics, Business and Informatics. Eleven research teams support the Institute's research projects amongst others the Center for Cognitive Infocommunications, Corvinus FinTech Center, Digital Transformation Center and Network Science Center.

### RESEARCH PROJECTS

• **COLINE** – Complex Links of Neighbourhoods (Driving Urban Transition (HORIZON-CL5-2021-D2-01-16) grant) project starts in 2025 and aims to reshape urban living by integrating architecture, mobility, and economics for sustainable cities. Utilising mobile data and AI, it seeks to enhance neighbourhood amenities, reduce segregation, and support climate goals.

• The research project „Building Blocks of the Digital Economy”, (starts in 2024, Funding organisation: Ministry of Culture and Innovation, Hungary, Source: NRD Fund) studies the creation, combination, and spread of technological building blocks of the digital economy using large-scale datasets on software library and language use.

• The Hungarian Association of CIO and the Institute of Data Analysis and Informatics at Corvinus University of Budapest jointly conduct an annual survey on the state of corporate IT, IT budgets, IT development, IT strategy planning, digitalisation, the relationship between technologies and the competencies required within organisations, and the challenges they face.

• The research project „Measuring the readiness of construction organizations for technology adaptation with using artificial intelligence” (starts in 2024, Funding organisation: Ministry of Culture and Innovation, Hungary, Source: NRD Fund) deals with technology readiness and digital transformation in the construction industry.

• In the **Digimeter 2024** project, we measure every year the level of digitalisation of Hungarian small and medium-sized enterprises (SMEs).



### SELECTED PUBLICATIONS

*AlShafeey, M., & Saleh Saleh, M. A. (2024).* Assessing inflation and greenhouse gas emissions interplay via neural network analysis: a comparative study of energy use in the USA, EU, and China. *Environmental Sciences Europe*, 36(1), 73.

*Baranyi, P. (2024).* Relaxed TS Fuzzy model transformation to improve the approximation accuracy/complexity trade-off and relax the computation complexity. *IEEE Transactions on Fuzzy Systems*.

*Cavalcanti, J. H., Kovacs, T., Ko, A., & Pocsarovszky, K. (2024).* Production system efficiency optimization through application of a hybrid artificial intelligence solution. *International Journal of Computer Integrated Manufacturing*, 37(6), 790-807.

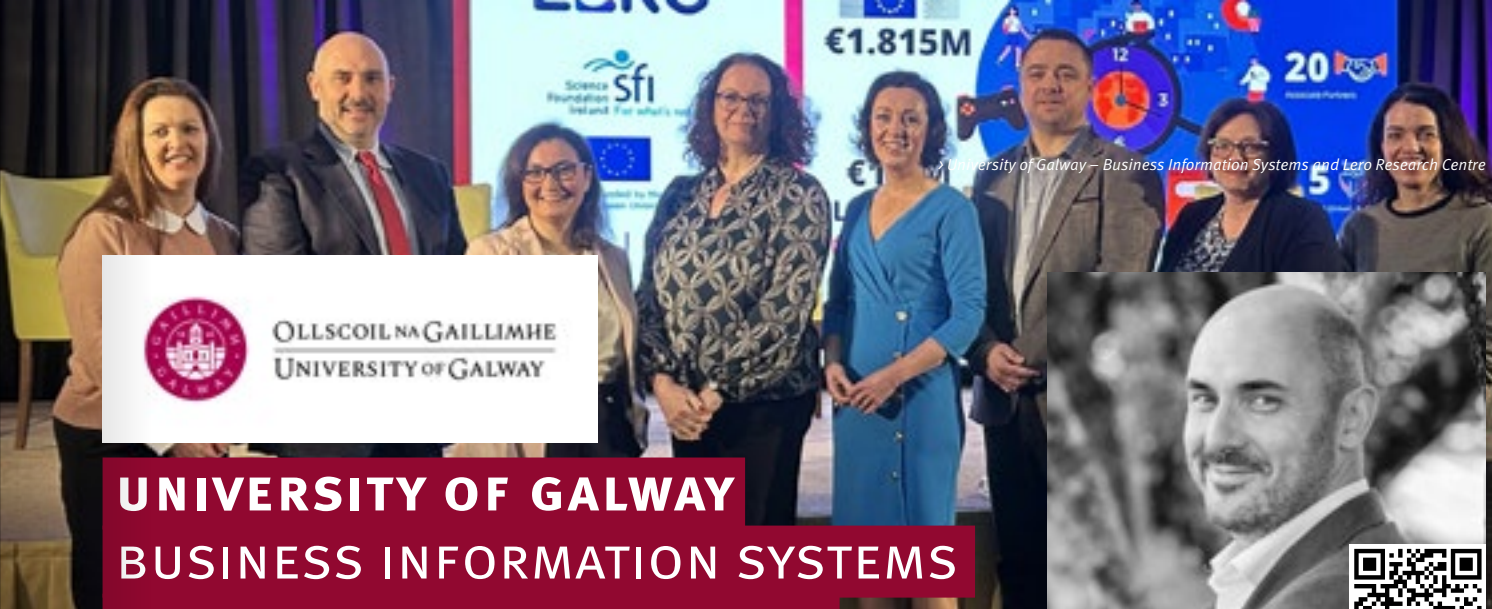
*del Rio-Chanona, R. M., Laurentsyeva, N., & Wachs, J. (2024).* Large language models reduce public knowledge sharing on online Q&A platforms. *PNAS nexus*, 3(9), pgae400.

*Jakovác, A., Kurucz, M. T., & Telcs, A. (2024).* State space reconstruction of Markov chains via autocorrelation structure. *Journal of Physics A: Mathematical and Theoretical*, 57(31), 315701.

*Óri, D., Szabó, I., Kő, A., & Kovács, T. (2024).* Digitalizing in crisis: the role of organizational resilience in SMEs' digitalization. *Journal of Enterprise Information Management*.

*Schueller, W., & Wachs, J. (2024).* Modeling interconnected social and technical risks in open source software ecosystems. *Collective Intelligence*, 3(1), 26339137241231912.

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## UNIVERSITY OF GALWAY BUSINESS INFORMATION SYSTEMS AND LERO RESEARCH CENTRE



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### ABOUT THE INSTITUTION

The Lero group in Galway explore how the proliferation of continually emerging, disruptive digital technologies positively and negatively influence the future of work and society. A lot of our work takes a critical stance examining society's over-reliance on tech in an increasingly digital and accelerated and dynamic world, and focusing on the responsible use of technology for the public good. We critically examine emerging concepts such as responsible tech and digital transformation, and how emerging tech such as AI, blockchain, online platforms and emerging methods such as agile and flow all impact work and society. The group currently includes 9 core staff from SBE, 2 postdocs and 11 current Ph.Ds. We have many existing projects with over 40 industry partners including Intel, SINTEF Norway, Fidelity Investments, as well as academic partners such as Toulouse Business School, Uppsala University, University of Sydney, MIT, NTNU, Athens University of Economics and Business.

### HIGHLIGHT PROJECT: ROSETTA

In March 2024, Lero and University of Galway launched a €3.5m fellowship programme to probe technology's influence on time. The prestigious programme, ROSETTA (Responsible Time and Tech in an Accelerated Digitised World) is an innovative fellowship opportunity co-funded by LERO, the Science Foundation Ireland Research Centre for Software, the European Commission's Marie Skłodowska Curie Actions (MSCA) COFUND scheme and the University of Galway. ROSETTA will be recruiting 19 fellowships, each with a duration of 2 years, providing an unparalleled opportunity for

postdoctoral researchers to delve into the critical intersection of time and technology in our rapidly evolving digital landscape. ROSETTA fellows will be provided with the highest quality research environment and a training programme where they will critically examine the development, use and regulation of technology from a time perspective across all aspects of life from children, people with disabilities, people in the workplace, to healthcare and social inclusion for older people.



ROSETTA is co-ordinated by University of Galway in collaboration with four other Irish Universities; University College Cork, University College Dublin, University of Limerick and Trinity College Dublin. Applicants have the freedom to choose their research project within ROSETTA's research themes and all fellowships will include a secondment period to allow fellows to carry out their research in different sectors or academic institutions, fostering skill development, knowledge exchange, career development initiatives, and collaboration across diverse fields.

The research conducted by the ROSETTA fellows will enhance the development and application of technology, while also shaping new policies and regulations for responsible technology at both national and European levels.

### SELECTED PUBLICATIONS

*Gleasure, R.; Conboy, K.; Jiang, Q. (2024).* Techno-Cognitive Structuration: Modelling

the Role of Cognitive Structures in Technology Adaptation, *Journal of the AIS* (forthcoming)

*Griva A., Chandra Kruse L., Hattinger M., Högberge K., Pappas I., Conboy K., (2024).* Making Space for Time: Strategies for the Design of Time-aware Hybrid Work. *Information Systems Journal*

*Haj-Bolouri, A.; Conboy, K., and Gregor, S. (2024).* 'Research Perspectives: An Encompassing Framework for Conceptualizing Space in Information Systems: Philosophical Perspectives, Themes, and Concepts'. *Journal of the Association for Information Systems*, 25 (2):407-441

*Baygi, R. M., Introna, L. D., & Ostovar, M. (2024).* Beyond categories: a flow-oriented approach to social justice on online labour platforms. *MIS Quarterly*.

*Ostovar, M., Schultze, U. (Forthcoming).* Producing the "We" in High-Risk Online Activism: Identity Configurations in My Stealthy Freedom. *MIS Quarterly* (forthcoming)

*Wang B., Schlagwein D., Cecez-Kecmanovic D., & Cahalane M.C., 2024.* "Emancipation" in Digital Nomadism vs in the Nation-State: A Comparative Analysis of Idealtypes', *Journal of Business Ethics*, doi:10.1007/s10551-024-05699-8.





**PROF. DR. ALESSIO MARIA BRACCINI**  
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**UNIVERSITY OF TUSCIA  
DEPARTMENT OF ECONOMICS,  
ENGINEERING, SOCIETY AND  
BUSINESS ORGANIZATION (DEIM)**



**NETWORK EXCHANGES**

The year 2024 saw the University of Tuscia host the annual workshop of the ERCIS network. A group of 40 participants gathered in Viterbo, including delegates from many universities within the network. The annual meeting served as an opportunity to bring together key figures in the history of the relationship between Italy and the ERCIS network, such as Prof. Marco De Marco, the first Italian institutional member for the ERCIS network. Participants also included ERCIS personal members like Stefano Za and Paolo Spagnoletti, as well as representatives from the ItAIS community, including Alessandra Lazazzara and Leonardo Caporarello. Attendees collaborated during the "Safer AI Workshop" to identify reconciliation strategies for generative AI applications.

Alongside the annual workshop, collaboration between the University of Tuscia and ERCIS network partners continued throughout 2023, particularly in research endeavors with Øystein Sæbbø (University of Agder).

**CURRENT RESEARCH PROJECTS**

The University of Tuscia remains actively engaged in various research projects centered around digital transformation, digital twin transition, and sustainability. Noteworthy projects undertaken in 2024 are as follows:

• **Frontsh1p:** a FRONTrunner approach to Systemic circular, Holistic and inclusive solutions for a new Paradigm of territorial circular economy. The FRONTSH1P project aimed to facilitate the green transition of the Polish Lodzkie region, promoting decarbonization and territorial regeneration by demonstrating highly replicable circular systemic models (<https://frontsh1p.eu>).

• **CLOSER:** Circular raw materials for European Open Strategic autonomy on chips and microelectronics production is a project selected for funding under the call Interregional Innovation Investments (I3) Instrument by the European Commission, for a total of 14 million euro. CLOSER has the objective of contributing to the Chips Act Pillar 2 (the European Union's regulation on semiconductors) through the recovery/recycling of raw materials for semiconductors and the recycling/reprocessing of critical components and raw materials coming from the microelectronics industry in Europe. The complex Consortium comprises 31 key European actors (SMEs, big companies, clusters, research centres, and universities) from 8 European countries (plus Switzerland). It is led by the University of Rome Tor Vergata, and participated by the University of Tuscia.

• **CybersecH:** Cybersecurity hardening for AI solutions (funding agency: National Competence Center Cyber 4.0) coordinated by 3<sup>rd</sup>Place, Datrix | AI Solutions Group, in collaboration with the University of Tuscia. The project sought to design, develop, and validate a software solution to combat Artificial Intelligence Attacks by automating the hardening of AI-based systems. The project introduced the AIA Guard platform, which is currently available for trial at <https://www.aiaguard.com>.

**SELECTED PUBLICATIONS**

*Margherita, E. G., & Braccini, A. M. (2024).* Exploring tensions of Industry 4.0 adoption in lean production systems from a dialectical perspective. *International Journal of Operations & Production Management*, 44(6), 1127–1157. <https://doi.org/10.1108/IJOPM-05-2023-0354>

*Rydén, H. S. M. H., Melchiori, C. E., Braccini, A. M., Cunha, M. A., & Sæbbø, Ø. (2024).* Citizenship in a Digitalized Society: Exploring Administrative Evil in Digital Government. *CEUR Workshop Proceedings*, 3737.

*Bianchini, F., Braccini, A. M., De Luzi, F., Macrì, M., Mecella, M., Ruggiero, R. A. (2024).* Exploring Chatbot Adoption in the Italian Legal Domain: a Fuzzy-set Qualitative Comparative Analysis. *Proceedings of ItAIS 2024*, Forthcoming

**UNIVERSITY OF LIECHTENSTEIN  
DEPARTMENT INFORMATION  
SYSTEMS & COMPUTER SCIENCE**

The Department of Information Systems and Computer Science (DISCS) at the Liechtenstein Business School (LBS) is shaping Liechtenstein's IT landscape through cutting-edge research and excellent education. The DISCS academic portfolio includes the technical and economic foundations of business information systems. On the technical side, the department specializes in digital innovation, data science, artificial intelligence, security, and distributed systems. Economically, its research focuses on novel business processes, digital transformation, sustainability, and human-centric computing. Collaboration with other LBS departments and research groups across Switzerland, Europe, and beyond fosters synergies in digital finance, entrepreneurship, innovation, and technology.

**SELECTED HIGHLIGHTS**

**Awards.** The ERCIS Chapter Liechtenstein is pleased to report highlights for 2024, including Johannes Schneider receiving the Best Paper Award at ICAART for his research on efficient topic modeling and Gregor Kipping being honored with the Outstanding Associated Editor Award at the WI-Conference in Würzburg.

**Design Thinking for Artificial Intelligence:** Launched by Benjamin van Giffen at the ERCIS meeting in Viterbo, this initiative aims to develop innovative teaching formats that integrate human-centered design and AI-driven digital innovation, fostering international cooperation to enhance teaching methodologies.

**Case study-based learning with VR.** In the winter semester 2024/25, the IS Department of the University of Liechtenstein, enabled by Béatrice Hasler, Simon Liegl, and Bernd Schenk, used VR in various courses to improve learning and engage-

ment through immersive experiences, with results expected to be evaluated and published in 2025.



**SELECTED RESEARCH PROJECTS**

• **Design Science Research Academy (Erasmus+):** This project aims to create a "DSR Academy" that simplifies learning Design Science Research (DSR) by offering curated resources such as interviews, interactive videos, and hands-on projects. By practical support for real-world design issues, this initiative empowers learners to translate theoretical concepts into practice.

• **BREVET – Broadening the Recognition Ecosystem in Vocational Education with Micro-Credentials (Erasmus+):** The BREVET project aims to enhance skills recognition and accreditation by integrating micro-credentials, the multilingual classification of European Skills, Competences, Qualifications, and Occupations (ESCO), and the Europass CV infrastructure. The project will develop middleware to automatically link skills to Europass CVs, enhancing the visibility and recognition of qualifications in the job market and educational institutions, thereby fostering greater transparency and opportunities for skill certification.

**PUBLICATIONS**

*Schneider, J. (2024).* Efficient and Flexible Topic Modeling Using Pretrained Embeddings and Bag of Sentences. In *Proceedings of the 16<sup>th</sup> International Conference on Agents and Artificial Intelligence – Volume 2*, 407–418.

*Hacker, J., Trier, M., & Richter, A. (2024).* Unfolding the contextual nature of enterprise social media use—a morphogenetic approach. *European Journal of Information Systems*, 1–32.



**ASSOC.-PROF. DR. BENJAMIN VAN GIFFEN**  
University of Liechtenstein,  
Principality of Liechtenstein

*Kipping, G., Gau, M., & vom Brocke, J. (2024).* Towards a Reference Model for Designing Micro-Credentials in Higher Education. *International Conference on Information Systems*, Bangkok, Thailand.

*Sagodi A., van Giffen, B., Schniertshauer J., Niehues, K., vom Brocke, J. (2024).* How Audi Scales Artificial Intelligence in Manufacturing; *MIS Quarterly Executive* 23 (2), 167–186.

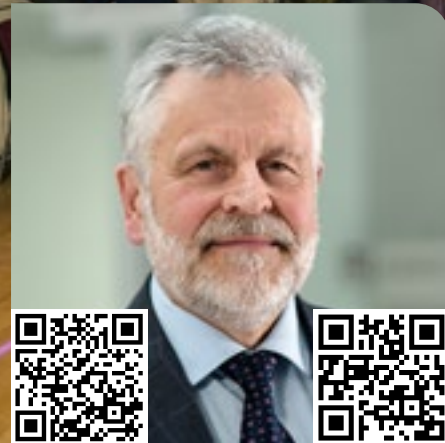
*Eisele, L., & Apruzzese, G. (2024).* Are Crowdsourcing Platforms Reliable for Video Game-related Research? A Case Study on Amazon Mechanical Turk. In *Companion Proceedings of the 2024 Annual Symposium on Computer-Human Interaction in Play* (pp. 56-63).

*Ziche, C., & Apruzzese, G. (2024).* LLM4PM: A case study on using Large Language Models for Process Modeling in Enterprise Organizations. *International Conference on Business Process Management* (pp. 472–483). Cham: Springer Nature Switzerland.

**DISSERTATIONS**

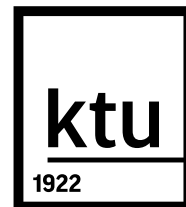
*Manuel Weber:* "On the Role of Change in Business Process Management" (Supervisor: Jan vom Brocke)





**PROF. DR. RIMANTAS BUTLERIS**  
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## KAUNAS UNIVERSITY OF TECHNOLOGY DEPARTMENT OF INFORMATION SYSTEMS / CENTRE OF INFORMATION SYSTEMS DESIGN TECHNOLOGIES



kaunas  
university of  
technology

In late 2023, the Department of Information Systems of the Faculty of Informatics celebrated its 30th anniversary. The Centre of Information Systems Design Technologies has been established 12 years ago and has since significantly increased our research and development capabilities. Besides doing research, the Department is curating two study programmes: Information Systems (1<sup>st</sup> cycle) and Digital Transformation and System Architectures (2nd cycle). Key R&D areas are as follows:

- Model driven development, model-to-model transformations
- Computer-aided software engineering (CASE) technologies
- Conceptual modelling and databases
- Modelling of business processes, business vocabularies, and business rules
- User needs analysis and requirements modelling
- Ontologies and solutions for the Semantic Web
- Big data and business intelligence
- Knowledge based systems
- Model-driven testing of information systems
- Gamified information systems
- Information systems user interface and usability
- Machine learning
- Blockchain technologies

### SELECTED PROJECTS

- Hybrid, Information, Psychological, Societal Threats Handling System for Public Security Domain Practitioners, Businesses, and Education – HIPSTER (2024–2026); AI-Driven Cloud Platform to Counter Foreign Influence and Manipulation of Information During Elections and Early Warning Service for Identification of Social Media Bots and Troll Farms – AICP-FIMI (2024–2026). Both within KTU led industrial / academic consortium DIGI-DEFENSE, funded by Next-Generation EU Fund.
- Data Fiduciary Platform and Service – DUOMUO (2024–2026). Co-funded by EU Funds and coordinated by JSC ICYBIT.
- Creating Economic Ecosystems Through Next Generation Internet Deployment – Local for Local (2023–2026). Funded by Horizon Europe and coordinated by Centric Netherlands B. V.
- Challenge Based Learning in AI Enhanced Digital Transformation Curricular – ASSIS-TANT (2022–2024). Funded by Erasmus+ and coordinated by KTU.

- Developing and Implementing Technology-Enhanced Teaching and Learning at Georgian HEIs – DITECH (2021-2024). Funded by Erasmus+ and coordinated by Tallinn University of Technology.

### SELECTED PUBLICATIONS

- Jaruševičius, P., Paulauskas, L., Drungilas, V., Jurgelaitis, M., Blažauskas, T. (2024).* Transforming interactive educational content into immersive virtual reality learning objects. Applied Sciences. MDPI, 14(14), 1–19.
- Žitkus, V., Butkienė, R., Butleris, R. (2024).* Linguistically aware evaluation of coreference resolution from the perspective of higher-level applications. Natural Language Engineering. Cambridge University Press, 30(4), 821–850.
- Razvadauskas, H., Vaičiukynas, E., Buškus, K., Arlauskas, L., Nowaczyk, S., Sadauskas, S., Naudžiūnas, A. (2023).* Exploring classical machine learning for identification of pathological lung auscultations. Computers in Biology and Medicine. Elsevier, 168, 1–15.
- Bisikirskienė, L., Čeponienė, L., Jurgelaitis, M., Ablonskis, L., Grigonytė, E. (2023).* Compiling requirements from models for early phase scope estimation in agile software development projects. Applied sciences. MDPI, 13(22), 1–24.



## UNIVERSITY OF AGDER DEPARTMENT OF INFORMATION SYSTEMS

The Department of Information Systems (IS) is one of four departments within the Faculty of Social Sciences at the University of Agder (UiA) and is one of the largest IS departments in Norway.

The department offers study programmes in IT and Information Systems at bachelor, master and PhD levels. We also provide a two-year master's programme in Management of Cybersecurity and an online master program in Responsible Digitalization.

### RESEARCH TOPICS

The research in the Department of IS is organized in three interdisciplinary centres: Centre for Digital Transformation (CeDiT) conducts advanced social science research on the relationships between digital technologies and societies, organizations, and individuals.

Centre for eHealth focuses on digital solutions that contribute to prevention, health promotion and coping in relation to health issues. New digital solutions are developed through collaboration between users, the health service, business partners and academia.

Centre for Integrated Emergency Management (CIEM) conducts research in collaboration with emergency responders in the areas of community resilience and crisis communication, information sharing for situational awareness, technological advancements to support humanitarian aid, cybersecurity, and new technologies for emergency management operations.

In addition, the department has research groups on Human Centered Ai and Systems Development. Two new research groups were established in 2024, one on Information Systems and development (ICT4D) and one on Socio-technical digital design for human flourishing (CHERISH)

### CURRENT RESEARCH PROJECTS

Selected research projects includes:

- **Responsible Digitalization of social welfare services** (2023–2027) is funded by the Norwegian Labour and Welfare Administration – NAV. The project focuses on what public services are suitable for digital communication channels by conducting research in three areas: responsible use of AI in public sector, channel choice strategies, and citizenship in a digitalized society.
- **AutoTRUST:** Autonomous self-adaptive services for TRansformational personalized inClusiveness & resilience in mobility (2024–2027) is a Horizon project aiming to develop and demonstrate a novel AI-leveraged self-adaptive framework of advanced vehicle technologies and solutions,
- **FAME – Federated decentralized trusted dAta Marketplace for Embedded finance**, also funded by EU and Horizon is a joint effort of world-class experts in data management, data technologies, the data economy, and digital finance to develop, deploy and launch to the global market a unique, trustworthy, energy-efficient, and secure federated data marketplace for Embedded Finance (EmFi).

### SELECTED PUBLICATIONS

*S. Hofmann, Ø. Sæbø, H.H. Rydén (2024).* Implications of digitalized welfare services



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from a vulnerable citizens' perspective, Nordisk velfærdsforskning, 127–141

*A. Griva, L. Chandra Kruse, M. Hattinger, K. Högberg, I.O. Pappas, K. Conboy (2024).* Making space for time: Strategies for the design of time-aware hybrid work, Information Systems Journal, <https://doi.org/10.1111/isj.12552>

*M. Niemimaa (2024).* Incorrect compliance and correct noncompliance with information security policies: A framework of rule-related information security behaviour, Computers & Security 145, 103986

*Schmager, S., Grøder, C. H., Parmiggiani, E., Pappas, I., & Vassilakopoulou, P. (2024).* Exploring citizens' stances on AI in public services: A social contract perspective. Data & Policy, 6, e19.

*W. Soliman, T. Rinta-Kahila (2024).* Unethical but not illegal! A critical look at two-sided disinformation platforms: Justifications, critique and a way forward, Journal of Information Technology 39 (3), 441–476

*K. Steen-Tveit, B.E. Munkvold, K. Rustenberg (2024).* Enhancing cross-organizational collaboration in crisis-management: Outcomes from a full-scale exercise in Norway, Journal of Contingencies and Crisis Management 32 (4), e70000





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University of Gdańsk,  
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## UNIVERSITY OF GDAŃSK DEPARTMENT OF BUSINESS INFORMATICS

Informatics Research (BIR 2008), the 8th International Conference of the European Distance and E-learning Network (EDEN 2009), and a series of events now re-branded as the EuroSymposium on Digital Transformation. Since 2004, the Department has been an associate partner of the European Research Center for Information Systems (ERCIS) consortium.



### HIGHLIGHT PROJECTS

The EuroSymposium 2024 on Digital Transformation was organized as a track of ISD 2024. Thanks to the cooperation within ERCIS, we had the opportunity to co-chair Track T5: Digital Transformation with Prof. Jörg Becker and Jacek Maślankowski.

ISD 2024 was hosted by the University of Gdańsk from August 26–28, 2024. The 32<sup>nd</sup> International Conference on Information Systems Development (ISD 2024) provided a forum for research and developments in the field of information systems. The theme of ISD 2024 was "Harnessing Opportunities: Reshaping ISD in the Post-COVID-19 and Generative AI Era." New trends in information systems development emphasize continuous collaboration between developers and operators to optimize software delivery time. The conference promoted research on methodological and technological issues, focusing on how IS developers and operators are trans-

forming organizations and society through information systems. ISD 2024 also offered an opportunity for researchers and practitioners to showcase their research and practical experience, as well as to discuss issues related to information systems through papers, posters, and journal-first paper presentations. Jörg Becker and Jacek Maślankowski from ERCIS served as track chairs for the Digital Transformation track. EuroSymposium'2025 conference will be held as a track of ISD'2025 conference, hosted in Serbia.

### KEY PUBLICATIONS

Marcinkowski, B., Przybyłek, A., Aleksander A. [et al.] (eds.): *Harnessing opportunities: reshaping ISD in the post-COVID-19 and generative AI era* (ISD2024 proceedings) Proceedings of the International Conference on Information Systems Development, 2024, Gdańsk, Uniwersytet Gdański, ISBN 978-83-972632-0-8. DOI:10.62036/ISD.2024

Krauze-Maślankowska, P., Wojewnik-Filipkowska, A. & Gierusz-Matkowska, A. (2024). *Business Intelligence Dashboard for Smart, Sustainable and Resilient Cities Based on the City's Fundamental Power Index*. In ISD2024 Proceedings. Gdańsk, Poland: University of Gdańsk. ISBN: 978-83-972632-0-8. <https://doi.org/10.62036/ISD.2024.21>

Wojewnik-Filipkowska, A., Gierusz-Matkowska, A., Krauze-Maślankowska, P., *Fundamental power of the city – A proposition of a new paradigm and index for city development*, Cities, Volume 144, 2024, 104630, ISSN 0264-2751, <https://doi.org/10.1016/j.cities.2023.104630>

With more than 20,000 students, 11 faculties, and 1,800 academic staff members, the University of Gdańsk is the largest institution of higher education in the Pomeranian region of Poland. It offers opportunities to study in 89 different fields, with more than 270 specializations.

The Department of Business Informatics (BI) at the University of Gdańsk conducts research and provides education in Business Informatics at the Bachelor's, Master's, Post-Diploma, and Doctoral levels. For 20 years, the Department has been running the Pomeranian Regional Academy Cisco, training hundreds of computer network administrators whose professional skills are recognized through international Cisco certifications.

In terms of teaching, some of the Department's academic manuals are bestsellers in Poland, such as the 896-page book *Business Informatics: Theory and Applications* (PWN, 2019, in Polish). This book was awarded the prize for the best informatics book of 2019 by the Polish Society for Informatics. The Department is also active internationally, organizing conferences such as the 10<sup>th</sup> European Conference on Information Systems (ECIS 2002), titled "Information Systems and the Future of the Digital Economy," the 7<sup>th</sup> International Conference on Perspectives in Business



## WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF APPLIED INFORMATICS

The Department of Applied Informatics (DAI), chaired by Professor Ngoc Thanh Nguyen, is a part of the Faculty of Information and Communication Technology at the Wrocław University of Science and Technology. The Faculty of Information and Communication Technology (FICT) comprises 12 fields of study, nearly 4500 students, eight departments, 300 academic teachers, and more than 100 scientists. Our department employs ten professors, 27 assistant professors, ten assistants, and 11 Ph.D. students. We regularly co-organize two international scientific conferences: the Asian Conference on Intelligent Information and Database Systems (ACIIDS) and the International Conference on Computational Collective Intelligence (ICCCI).

### NEWS

• IEEE Systems, Man, and Cybernetics Society awarded Prof. Ngoc Thanh Nguyen. This year, in the category of "IEEE Most Active SMC Technical Committee Award" IEEE awards Prof. Ngoc Thanh Nguyen as the Chair of the Technical Committee on Computational Collective Intelligence and Co-chairs Prof. David Camacho (Spain) and Prof. Costin Badica (Romania), for outstanding technical achievements.

• We offer the following research in our Biometric Laboratory: (1) Biometric Security – leveraging multimodal data for identity verification and fraud detection by analyzing eye movements, facial expressions, and physiological responses during authentication processes; (2) Human-Computer Interaction (HCI) explores how users interact with systems, using gaze tracking,

facial expressions, and physiological data to improve user interface design and user experience; (3) Healthcare and Rehabilitation – using EEG and physiological data to monitor neurological conditions, such as epilepsy or PTSD, and to support biofeedback therapy for stress management and mental health interventions; (4) Emotional Response Analysis aims to study emotional reactions to stimuli by correlating facial expressions, eye movements, and physiological signals with emotional states.

• Currently, we cooperate with Nokia, Lancaster University, Keele University, Capgemini, International University – Vietnam National University.

### PUBLICATIONS

Hoang Nam, Do, Huyen Trang, Phan, Ngoc Thanh, Nguyen: *Multimodal sentiment analysis using deep learning and fuzzy logic: A comprehensive survey*. Applied Soft Computing. 2024, vol. 167, Part A, art. 112279, s. 1–32.

Marcin Hernes, Jerzy Korczak, Dariusz Król, Maciej Pondel, Jörg Becker: *Multi-agent platform to support trading decisions in the FOREX market*. Applied Intelligence. 2024, s. 1–19.

Jakub Mazguła, Dariusz Król, Ireneusz Jabłoński: *Temporal and Multivariate Similarity Clustering of 5G performance data*. IEEE Access. 2024, vol. 12, s. 114137–114145.

Rafał P. Palak, Krystian Wojtkiewicz: *A centralization measure for social networks assessment*. Cybernetics and Systems. 2024, vol. 55, nr 3, s. 654–667.



**PROF. NGOC THANH NGUYEN**



**PROF. DARIUSZ KRÓL**  
Wrocław University of Science and  
Technology, Poland

Barbara Kitchenham, Lech Madeyski: *Recommendations for analysing and meta-analysing small sample size software engineering experiments*. Empirical Software Engineering. 2024, vol. 29, art. nr 137, s. 1–46.

Huyen Trang, Phan, Ngoc Thanh, Nguyen: *A fuzzy graph convolutional network model for sentence-level sentiment analysis*. IEEE Transactions on Fuzzy Systems. 2024, vol. 32, nr 5, s. 2953–2965.

Marcin Kutrzyński, Dariusz Król: *Deep learning-based human pose estimation towards artworks classification*. Journal of Information and Telecommunication. 2024, s. 1–21.

Anh Nguyen, Ngoc Thanh, Nguyen, Loan T. T. Nguyen, Bay Vo: *An efficient pruning method for mining inter-sequence patterns based on pseudo-IDlist*. Expert Systems with Applications. 2024, vol. 238, pt. B, art. 121738, s. 1–19.





DR. ISABEL RAMOS  
University of Minho,  
Portugal



## UNIVERSITY OF MINHO DEPARTMENT OF INFORMATION SYSTEMS

### HIGHLIGHT PROJECT

In 2024, the educational offerings were expanded to include three 15-credit courses aimed at industry, as part of the project “Graduate Alliance – Skills for the Future” (funded by PRR/NextGenerationEU). The course on Innovation and Digital Transition in Enterprises is currently underway, and the Cybersecurity and Digital Business Solutions courses will open soon.

The Master’s program in International Cybersecurity and Cyberintelligence also started this year, the first joint degree course in the area, based on the ARQUS alliance together with the Universities of Granada, Minho, Padova and Vilnius and where the DSI takes on coordination and teaching tasks. Next academic year, a Master’s in Data Science and Engineering is expected to launch, coordinated by the Departments of Information Systems, Informatics, and Production and Systems at the School of Engineering, University of Minho.

### KEY PUBLICATIONS

*Buchmann, R., Eder, J., Fill, H. G., Frank, U., Karagiannis, D., Laurenzi, E., ... & Santos, M. Y. (2024).* Large language models: Expectations for semantics-driven systems engineering. *Data & Knowledge Engineering*, 102324.

*Carvalho, A. M., Sampaio, P., Rebentisch, E., Conceição, L., McManus, H., Carvalho, J. Á., & Saraiva, P. (2024).* In pursuit of the agile organisation: a review and framework development on assessing organisational agility. *International Journal of Agile Systems and Management*.

*de Moraes, C. R., Rupino da Cunha, P., & Ramos, I. (2024).* Designing Digital Workplaces: A Four-Phase Iterative Approach with Guidelines Concerning Virtuality and Enterprise Integration. *Pacific Asia Journal of the Association for Information Systems*, 16(1), 4.

*e Sá, J. O., Kaldeich, C., & Silva, M. J. (2024).* Digital Transformation: A Case Study in the Context of Insurance Companies. *Procedia Computer Science*, 239, 1165–1172.

*José, R., & Rodrigues, H. (2024).* A review on key innovation challenges for smart city initiatives. *Smart Cities*, 7(1), 141–162.

*Kawashita, I., Baptista, A. A., Soares, D., & Andrade, M. (2024).* Open government data use: The Brazilian states and federal district cases. *Plos one*, 19(3), e0298157.

*Leligou, H. C., Lakka, A., Karkazis, P. A., Costa, J. P., Tordera, E. M., Santos, H. M. D., & Romero, A. A. (2024).* Cybersecurity in Supply Chain Systems: The Farm-to-Fork Use Case. *Electronics*, 13(1), 215.

*Lopes, J., Faria, M., & Santos, M. F. (2024).* Exploring trends and autonomy levels of adaptive business intelligence in health-care: A systematic review. *Plos one*, 19(5), e0302697.

*Mourão, L. P., Noce, I., & Carvalho, J. Á. (2024).* The use of business and technology management (BTM) integrated practice in business development initiatives—an ADR cycle. *Business Process Management Journal*.

*Pereira, T. F., Soares, N., Pinto, M., Salgado, C. E., Lima, A., & Machado, R. J. (2024).* Normalized City Analytics Based on a Semantic Interoperability Process. In *Enterprise Interoperability X: Enterprise Interoperability Through Connected Digital Twins* (pp. 301–312). Cham: Springer International Publishing.

*Santos, H., Pereira, T., & Oliveira, A. (2024).* Information Security Metrics: Challenges and Models in an All-Digital World. In *Legal Developments on Cybersecurity and Related Fields* (pp. 93–114). Cham: Springer International Publishing.

*Strazzullo, S., Cortez, P., & Moro, S. (2024).* Data science approaches for sustainable development. *Expert Systems*, 41(7), e13613.

*Varajão, J., & Trigo, A. (2024).* Assessing IT Project Success: Perception vs. Reality: We would not be in the digital age if it were not for the recurrent success of IT projects. *ACM Queue*, 22(4), 34–53.



University of Maribor  
Faculty of Organizational Sciences

## UNIVERSITY OF MARIBOR FACULTY OF ORGANIZATIONAL SCIENCES







**PH.D. MINSEOK SONG**  
Pohang University of Science and Technology (POSTECH), Republic of Korea

## POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY (POSTECH) DEPARTMENT OF INDUSTRIAL AND MANAGEMENT ENGINEERING

Industrial and Management Engineering (IME) is an academic discipline dedicated to designing, developing, and managing integrated systems that combine people, materials, equipment, and information across diverse sectors. With a focus on driving innovation in today's dynamic global landscape, IME blends the strategic insights of business administration with the technical precision of industrial engineering. While traditional industrial engineering emphasizes the planning and optimization of complex industrial processes, IME broadens this focus to include service, information, and management sectors. The Department of Industrial and Management Engineering at Pohang University of Science and Technology is committed to cultivating visionary leaders for the era of convergence and innovation. Through specialized education, impactful research, and a strong emphasis on systems thinking, passion, and humanity, the department aims to foster young talents equipped to tackle the challenges of a rapidly evolving world.

### POSTECH

#### CURRENT RESEARCH PROJECTS (SELECTED)

- Basic Research Lab for Smart Signal System Operation in the Era of Transition to Autonomous Vehicle (National Research

► <https://ime.postech.ac.kr/en>

**Foundation of Korea, Jun. 2022 – May 2025)** This research aims to develop foundational technologies for optimizing traffic signal operations across city-wide intersections in environments where autonomous and conventional vehicles coexist. Key objectives include defining strategies and identifying control challenges for intersection signal management, constructing digital twin models, advancing data engineering methodologies, creating big data analysis techniques, and developing and applying optimization algorithms. Together, these efforts will enable a more efficient and adaptive traffic signal system, enhancing flow and safety in mixed-traffic urban settings.

- **Fashion Item Recommendation Systems using Bandit Algorithms. (Samsung Fashion, Jan. 2024 – Nov. 2024)**

The Bandit Algorithm is a reinforcement learning technique widely used in machine learning and artificial intelligence to learn adaptive strategies for maximizing rewards across multiple choices. In this study, we aim to leverage the Bandit Algorithm to develop a system that dynamically recommends fashion items, tailoring suggestions to maximize user engagement and satisfaction.

- **Modeling, Simulation & Optimization based on Object-Centric Process Mining (National Research Foundation of Korea, May. 2024 – Feb. 2025)**

This study aims to develop methods for process modeling, simulation, and optimization based on object-centric process

mining. The research focuses on utilizing object-centric event logs to derive process models that more accurately reflect real-world scenarios and to identify issues within these processes. By combining various process analysis results, the study seeks to create simulation models that represent complex process dynamics. Additionally, the research aims to propose a range of optimization alternatives and to develop advanced process optimization techniques by integrating industrial engineering methods with artificial intelligence.

#### SELECTED PUBLICATIONS

*Lim, J., Song, M.,* "A framework for understanding event abstraction problem solving: Current states of event abstraction studies.", *Data & Knowledge Engineering*, Vol. 154, pp. 102352, 2024.

*Cheon, H., Choi, D.G. Choi,* "Generalization of weighted-egalitarian Shapley values", *Operations Research Letters*, Vol. 54, pp. 107118, 2024.

*Kim, J., Lee, H. and Ko, Y. M.,* "Constrained Density-Based Spatial Clustering of Applications with Noise (DBSCAN) using Hyperparameter Optimization," *Knowledge-based Systems*, Vol. 303, pp. 112436, 2024.

*Lee, E., Ju, J., Byon, E. and Ko, Y. M.,* "Condition-based Selective Maintenance Optimization for Large-scale Systems Consisting of Many Homogeneous Units," *IEEE Transactions on Reliability*, Vol. 73, No. 2, pp. 1393-1406, 2024.



## IE BUSINESS SCHOOL, IE UNIVERSITY INFORMATION SYSTEMS AND TECHNOLOGY DEPARTMENT

IE Business School is one of Europe's top providers of management education. IE's Information Systems and Technology Department (ISTD) is responsible of all technology-related courses and pursues research on the transformative use and impact of digital technologies in today's world.

Research work within ISTD includes themes such as Digital Innovation, studying the interplay between organizational capabilities and digital innovation, as well as value co-creation in digital platforms; Business Intelligence, Analytics and Machine Learning, researching the application of AI and machine learning in key areas such as sustainability, Green IS, education and e-health; Economy of Information Systems, focusing on IT outsourcing and Cloud Computing, organizational networks and the Sharing Economy; and Information Security and Privacy, investigating topics such as cybersecurity behaviour of Spanish households, hacker behaviour analysis, and machine learning to improve security.



► <https://www.ie.edu/business-school>



**PROF. ALVARO ARENAS**  
IE Business School, IE University, Madrid, Spain

#### SELECTED RESEARCH PROJECTS

- Prof. Alvaro Arenas has initiated a project on **Governance, Value Creation and Regulatory Challenges in Blockchain-Based Platforms for Financial Inclusion**, as part of a collaboration with IE Ripple Virtual Asset Regulation Collider, investigating the interplay between governance, regulation and value creation in Blockchain platforms.

- Prof. Konstantina Valogianni is participating in the EU MSCA DIEM Doctoral Network on **Distributed Ledger Technology: Innovation & Ecosystem Management**, aiming at creating a platform for researchers to engage in the co-production of knowledge by investigating state-of-the-art challenges and societal implications of Blockchain technology across actors and industry boundaries.

- **DIGYMATEX** is an EU-funded project that aims to provide evidence-based tools to assist in understanding and determining children's digital maturity. This is our final year in the project, which main outputs include the Digital Youth Maturity Index (DYMI), an innovative tool that will precisely measure and predict harmful and beneficial ICT-related children behaviour and consequences for specific user groups.

#### SELECTED PUBLICATIONS

*Alibakhshi, R., Srivastava, S. C., & Mithas, S. (2023).* Does 'Emotional Variability'in

Social Media Video Ads Foster User Engagement?. In *Academy of Management Proceedings* (Vol. 2023, No. 1, p. 14729). Briarcliff Manor, NY 10510: Academy of Management.

*Arenas, Á., Ray, G., Hidalgo, A., & Urueña, A. (2024).* How to keep your information secure? Toward a better understanding of users security behavior. *Technological Forecasting and Social Change*, 198, 123028.

*Burtch, G., Greenwood, B. N., & Ravindran, K. (2024).* Lucy and the chocolate factory: warehouse robotics and worker safety. *Industrial Labor Relations Review*.

*Koch, T., Laaber, F., Arenas, A., Florack, A. (2024).* Socially (Dis)connected in a Connected World: The Role of Young People's Digital Maturity. *Computers in Human Behavior*, 108473, <https://doi.org/10.1016/j.chb.2024.108473>.

*MacCrory, F., Macharia, M., Ravindran, K., & Vithayathil, J. (2024).* Entrepreneurship in the Age of Social Media. *Entrepreneurship Research Journal*.

*Truong, M., Gupta, A., Ketter, W., & van Heck, E. (2023).* The Effect of Posted Prices on Auction Prices: An Empirical Investigation of a Multi-channel B2B Market. *MIS Quarterly*, 47(4), 1557-1584.



## UNIVERSIDAD DE SEVILLA SMART COMPUTER SYSTEMS RESEARCH AND ENGINEERING LAB



PROF. DR. ADELA DEL RÍO ORTEGA



PROF. DR. MANUEL RESINAS  
Universidad de Sevilla,  
Spain

The Smart Computer Systems Research and Engineering (SCORE) lab at Universidad de Sevilla focuses its research on the development and operation of intelligent systems applied to a wide variety of domains. Currently, it spans four major research areas, namely: Natural Computing, Neuromorphic Engineering, Software and Systems Engineering, and Information Systems. The research on Information Systems aims at developing and applying methods, techniques, and software tools to improve the performance and human resource management of business processes with a particular emphasis on unstructured knowledge-intensive processes.

### SELECTED RESEARCH PROJECTS

- **ORCHID:** Digital Transformation of the Public Administration Driven by Intelligent Contracts. This project seeks to contribute to the digital transformation of the public administration by improving the efficiency

► <https://score.us.es>

and tamper-proof monitoring of digital services regulated by intelligent contracts.

- **BUBO:** Bots and human collaboration for improving the development and operation of digital services. Our goal at BUBO is to develop techniques, models, and tools to increase the level of automation in the development and operation of digital services while supporting human interaction as a key part of their functioning.

- **STATUS:** Mashup-based Multi-Domain Compliance Management System. STATUS is a proof-of-concept project, whose goal is to develop an industry-ready compliance management system that advances the state of the art by providing a low-code solution to automatically monitor compliance in an organization from the data stored in its information systems

- **TAPIOCA:** Hybrid intelligence to develop advanced support for business process compliance. This project seeks to design and develop models, techniques, and tools that advance the support for business process compliance towards more autonomous systems that predict and reason upon compliance violations, and that are able to interact with the stakeholders in a humane manner.

### PUBLICATIONS

*Anti Alman, Alessio Arleo, Iris Beerepoot, Andrea Burattin, Claudio Di Ciccio, Manuel Resinas:* Tiramisù: making sense of multifaceted process information through time and space. *J Intell Inf Syst* (2024). <https://doi.org/10.1007/s10844-024-00875-8>

*Artur Modlinski, Damian Kedziora, Andrzej Hak, Jaroslaw Motylewski, Joanna Kedziora, Hajo A. Reijers, Adela del-Río-Ortega:* Techno-empowerment of Process Automation: Understanding Employee Accept-

ance of Autonomous AI in Business Processes. *BPM 2024:* 511–527. [https://doi.org/10.1007/978-3-031-70396-6\\_29](https://doi.org/10.1007/978-3-031-70396-6_29)

*Iris Beerepoot, Adela del-Río-Ortega, Manuel Resinas, Hajo A. Reijers:* Interruptibility during Scientific Research Collaborations: The Effect of Pressure, Proximity and Quiet Time. *CSCW Companion '24*. November 9–13, 2024, San José, Costa Rica. <https://doi.org/10.1145/3678884.3681848>

*Bedilia Estrada-Torres, Adela del-Río-Ortega, Manuel Resinas:* Mapping the Landscape: Exploring Large Language Model Applications in Business Process Management. *BPMDS/EMMSAD@CAiSE 2024:* 22–31. [https://doi.org/10.1007/978-3-031-61007-3\\_3](https://doi.org/10.1007/978-3-031-61007-3_3)

### EVENTS

Manuel Resinas together with Andrea Marrella, Mieke Jans, and Michael Rossman were PC chairs of the BPM 2024 conference that took place in Krakow, Poland.

Adela del Río Ortega together with Andrea Marrella, Hajo Reijers, and Adriana Wilde organized the Dagstuhl Seminar 24292: “Improving Trust between Humans and Software Robots in Robotic Process Automation” (July 14 – July 19, 2024).

Manuel Resinas and Adela del-Río-Ortega, together with Han van der Aa, and Henrik Leopold organized the Third Workshop on Natural Language Processing for Business Process Management (NLP4BPM) at the BPM 2024 conference in September 2024 in Krakow, Poland.



## LULEÅ UNIVERSITY OF TECHNOLOGY (LTU) DEPARTMENT OF SPACE AND SYSTEMS SCIENCE/DIVISION OF DIGITAL SERVICES AND SYSTEMS/INFORMATION SYSTEMS RESEARCH GROUP



PROF. DR. AHMED ELRAGAL  
Luleå University of Technology (LTU),  
Sweden



Luleå University of Technology’s Information Systems research subject focuses on the design and use of information technology concerning humans, organizations, and societies. Our vision is to design and develop knowledge about digital transformation for a sustainable society, taking our starting point in local conditions to make a global impact.

At our subject, we host the Botnia Living Lab. It is a founding member of the European Network of Living Labs ([www.enoll.org](http://www.enoll.org)). It has evolved from a test bed into a real-life living laboratory, actively participating in diverse innovation projects, from digitalization to climate and smart city initiatives.

In our education, we use our hybrid lab (HL). The HL is a learning facility that allows us to teach campus and distance students simultaneously, and we can use technology such as GatherTown, Mural, Miro, Padlet, etc.

### RESEARCH PROJECTS

- **RörLa:** Rural transport faces major challenges in accessibility, climate, and justice. Our research is based on digital platforms for data sharing which introduces competition-neutral coordination, promotes circular business models for balanced economic, environmental, and social benefits, highlights that organizational and regulatory barriers—more than technology—are key issues. There are organizational challenges, such as the integration of the platform, management of handovers/transfers, responsibility issues, and varying regulatory

frameworks. Additionally, there are economic challenges related to pricing and revenue distribution. A supportive regulatory framework is vital for effective coordination.

- **The SynAir-G:** investigates the health impact of indoor air pollutants in European schools. It utilizes sensors, eco-friendly purifiers, and AI analysis to protect sensitive groups like children with asthma, advancing EU clean air goals. LTU’s Information Systems via Botnia living lab is leading citizen science and user engagement efforts.

- **Generative AI and digital resilience:** 164 research articles on how generative AI may impact societal digital resilience were examined in the project. The study emphasizes the importance of understanding the dual nature of generative AI and its potential to enhance and threaten digital resilience. To promote safe digitalization, the study recommends more empirical research on the risks associated with generative AI applications, development of guidelines for organizations, and efforts to maintain trust in institutions. The study also suggests more interdisciplinary research in this area, to achieve a scenario where new technology and resilience are not in conflict, but rather key components of a robust democratic society. This project is funded by the Swedish Civil Contingencies Agency (MSB).

### PUBLICATIONS

*Elragal, A., Awad, A., Andersson, I., and Nilsson, J.* (2024). A Conversational AI Bot for Efficient Learning: A Prototypical Design. *IEEE Access*. <https://ieeexplore.ieee.org/document/10711196>

*Elragal, A. and Nada Elgendy.* (2024). A data-driven decision-making readiness assessment model: The case of a Swedish food manufacturer. *Decision Analytics Journal*, vol. 10, March 2024. <https://doi.org/10.1016/j.dajour.2024.100405>

*Große, C.* Envisioning sustainable rural development: A narrative on accessibility and infrastructure from a Swedish region, *Journal of Rural Studies*, Volume 109, 2024, 103319, ISSN 0743-0167, <https://doi.org/10.1016/j.jrurstud.2024.103319>

*Lindberg, J., Runardotter, M. and Ståhlbröst, A.* Bridging the Gap. Policies to Accelerate Social Change for an Inclusive Rural Digital Transformation in Sweden. *European Countryside, Sciendo*, Vol. 16 (Issue 1), (2024) pp. 26–42. <https://doi.org/10.2478/euco-2024-0003>

*Schuster, F., & Habibipour, A.* (2022). Users’ Privacy and Security Concerns that Affect IoT Adoption in the Home Domain. *International Journal of Human-Computer Interaction*, 40(7), 1632–1643. <https://doi.org/10.1080/10447318.2022.2147302>

► <https://www.ltu.se/research/subjects/information-systems?l=en>





PROF. DR. JAN MARCO LEIMEISTER



PROF. DR. ROBERT WINTER  
University of St. Gallen,  
Switzerland

#### CURRENT RESEARCH PROJECTS

For 30 years, IWI has been dedicated to applied and design-oriented research at the intersection between business and IT. Prof. Andrea Back, Prof. Ivo Blohm, Prof. Reinhard Jung, Prof. Jan Marco Leimeister, and Prof. Robert Winter lead five research groups. We are excited to share that, in addition to Prof. Thomas Grisold, also Prof. Andreas Hein and Prof. Ingrid Bauer-Haensel have joined as Assistant Professors.

#### CURRENT COMPETENCE CENTERS AND MULTI-YEAR RESEARCH PROJECTS

The institute pursues a mixed funding approach from both public and private sources. Industry funded research at IWI is mostly organized in the form of research consortia (“competence centers”), each having between four and eighteen corporate partners.

► <https://iwi.unisg.ch>

## UNIVERSITY OF ST. GALLEN INSTITUTE OF INFORMATION SYSTEMS AND DIGITAL MANAGEMENT (IWI)

• **Agile Transformation:** The Competence Center Agile Transformation offers a unique mix of exchange, collaboration, academic expertise, and advisory services to support the agile transformation of companies. Further information: <https://agile.iwi.unisg.ch/>

• **Cognitive Automation:** The Competence Center Cognitive Automation combines academic insights and advisory expertise in a platform of exchange and collaboration for practitioners. Members are enabled to seize the vast potential of cognitive automation to improve operational efficiency and effectiveness. <https://cognitive.iwi.unisg.ch/>

• **Data Management & Analytics Community:** The Data Management & Analytics Community establishes networking between data & analytics leaders from large financial institutions for discussing current issues and workable solutions. <https://iwi.unisg.ch/en/chairs/lehrstuhl-prof-dr-robert-winter/practice/data-management-analytics-community/>

• **Digital Service Innovation:** Research conducted in the context of Digital Service Innovation revolves around service and business innovation. It also seeks to understand the acceptance and usage of digital services by individuals and enhance their user experience through digital nudging. <https://iwi.unisg.ch/projects/dienstleistungssysteme/>

• **Generative AI in Business:** The competence center GenAI is a leading research-practice collaboration, which connects interdisciplinary researchers with partners from the private and public sectors to explore, analyze, and develop company-specific implementation recommendations for advanced generative models. <https://iwi.unisg.ch/de/competence-center-for-genai/>

#### SELECTED PUBLICATIONS

A complete list of recent publications is available at: <https://iwi.unisg.ch/en/research/> (filter by institute = IWI)

Elshan, E.; Ebel, P.; Söllner, M.; Leimeister, J. M.: (2023) Leveraging Low Code Development of Smart Personal Assistants: An Integrated Design Approach with the SPADE Method. *Journal of Management Information Systems*, 40, 1, pp. 96–129.

Engel, C.; Elshan, E.; Ebel, P.; and Leimeister, J. M.: (2024) Stairway to heaven or highway to hell: A model for assessing cognitive automation use cases, *Journal of Information Technology*, 39, 1.

Haki, K.; Blaschke, M; Aier, S.; Winter, R.; Tilson, D.: Dynamic Capabilities for Transitioning from Product Platform Ecosystem to Innovation Platform Ecosystem, in: *European Journal of Information Systems*, 33, 2, pp. 181–199.

Haki, K.; Tanriverdi, H.; Safaei, D.; Schmid, M.; Aier, S.; Winter, R.: Generativity and Profitability on B2B Innovation Platforms: A Simulation-based Theory Development, *MIS Quarterly*, 48, 2, pp. 583–612.

Tuunanen, T.; Winter, R.; vom Brocke, J.: Dealing with Complexity in Design Science Research: A Methodology Using Design Echelons, *MIS Quarterly*, 48, 2, pp. 427–458.

Wambsganss, T.; Janson, A.; Söllner, M; Koedinger, K., Leimeister J. M.: (2024) Improving Students’ Argumentation Skills Using Dynamic Machine-Learning-Based Modeling. *Information Svstems Research*.



## UNIVERSITY OF TWENTE DEPARTMENT OF INDUSTRIAL ENGINEERING AND BUSINESS INFORMATION SYSTEMS

#### • New Specialisation in Enterprise Security Management

The Business Information Technology (BIT) master’s program now offers a specialisation in Enterprise Security Management, designed to equip students with the skills necessary to manage and secure information in organisations. This specialisation covers a range of topics, including risk management, cybersecurity governance, and the implementation of security frameworks, preparing graduates to tackle upcoming managerial challenges in enterprise security. (<https://www.utwente.nl/en/education/master/programmes/business-information-technology/specialisations/enterprise-security-management/>)

#### OTHER RESEARCH FOCUS AREAS

In addition to the above initiatives, the BIS group also engages in research on:

- AI adoption in organizations
- Smart industry and organisational structures
- Inter-organisational systems and value chain governance
- AI and Finance
- Digital Transformation

The Business Information Systems team at the University of Twente consists of around 40 professors, researchers, and PhD candidates within the IEBIS department, part of the Faculty of Behavioural, Management, and Social Sciences. The group specialises in digital transformation management, enterprise architecture engineering, and cybersecurity, approaching these areas as interdependent and reinforcing aspects of organisational and market development. Leveraging expertise in these domains, the BIS team contributes to the university’s business administration, public administration, industrial engineering & management, and business & information technology programs.

The BIS group collaborates extensively across disciplines through the Digital Society Institute, employing a range of research methodologies to generate empirical and design science insights aimed at fostering business and organisational innovation.

#### HIGHLIGHTED PROJECTS AND NEW SPECIALISATION

##### • DReSC Project: Digital Resilience in Supply Chains

The DReSC (Digital Resilience in Supply Chains) project is a collaboration between the University of Twente (UT), Jheronimus Academy of Data Science (JADS), and over ten companies from the healthcare, high-tech, and logistics sectors. This project, with a budget of nearly €1.5 million, focuses on enhancing supply chain security and resilience by improving the visibility on digital dependencies and facilitating secure behaviour across supply chains.

#### SELECTED PUBLICATIONS

Meurs, T., Cartwright, E., Cartwright, A., Junger, M., & Abhishta, A. (2024). Deception in double extortion ransomware attacks: An analysis of profitability and credibility. *Computers and Security*, 138.

Berghuis, L., Abhishta, A., van Heeswijk, W., & Tursunbayeva, A. (2024). Group Work-



DR. A. ABHISHTA  
University of Twente,  
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shop as a “Human-Centered Approach” for Identification and Selection of Business Processes for Robotic Process Automation. In A. Lazazzara, R. Reina, & S. Za (Eds.), *Towards Digital and Sustainable Organisations – People, Platforms, and Ecosystems* (pp. 103–122). (Lecture Notes in Information Systems and Organisation; Vol. 65 LNISO). Springer.

Amato, A., Osterrieder, J. R., & Machado, M. R. (2024). How can artificial intelligence help customer intelligence for credit portfolio management? A systematic literature review. *International Journal of Information Management Data Insights*, 4(2).

Weritz, P., Braojos, J., Matute, J., & Benitez, J. (2024). Impact of strategic capabilities on digital transformation success and firm performance: theory and empirical evidence. *European journal of information systems*.

Spil, T., Kamis, A., & Bozan, K. (2024). Introduction to the Minitrack IT Adoption, Diffusion, and Evaluation in Healthcare. *Proceedings of the Annual Hawaii International Conference on System Sciences*, 57.

Hüllmann, J. A., Kimathi, K., & Weritz, P. (2024). Large-Scale Agile Project Management in Safety-Critical Industries: A Case Study on Challenges and Solutions. *Information systems management*, 1–23.

## UNIVERSITY OF TWENTE.

► <https://www.utwente.nl/en/bms/iebis/>





ASSIST. PROF.. MIKE PREUSS  
Universiteit Leiden,  
The Netherlands

## UNIVERSITEIT LEIDEN LEIDEN INSTITUTE OF ADVANCED COMPUTER SCIENCE (LIACS)

### ABOUT THE INSTITUTION

The Leiden Institute of Advanced Computer Science (LIACS) is a center of excellence for multidisciplinary research and education in computer science and artificial intelligence (AI). LIACS features a wide range of research, from theory to algorithms to applications, with a strong focus on artificial intelligence and data science. Within the Dutch university landscape in computer science, LIACS has positioned itself for AI4LIFE, basically meaning we use modern AI methods (from optimization, deep learning, reinforcement learning, quantum computing, machine learning) for solving real-world problems in the Life Sciences and beyond. This aim is pursued by LIACS researchers in leading roles in the SAILS program, the CCLS initiative, and the European initiative for excellence in AI research and innovation, CAIRNE. We also cooperate with knowledge institutes, governments and companies.

As a major institute for education in computer science we offer BSc, Master, and PhD programs in a broad variety of study tracks, some of which are in collaboration with other scientific domains such as Biology and Economics. The institute has rapidly grown in the last years and is continuing this trend. As of now, LIACS has around 90 staff members, 95 PhD students, and 40 non-scientific personnel. For the study

programs of the institute, more than 500 master students, and more than 780 bachelor students are registered, including our new bachelor on Data Science and AI.



Universiteit  
Leiden  
The Netherlands

### RESEARCH TOPICS AND COLLABORATIONS

Artificial Intelligence is the major focus of LIACS research. To accomplish a stronger momentum and to exploit synergies among fields, networking initiatives have been established across the faculty of science (center for computational life science, CCLS) and across the entire university (Society Artificial Intelligence and Life Science, SAILS). These instruments stimulate collaboration within the university on artificial intelligence topics and bring these topics to new application domains. Moreover, with its participation in European and International research networks ERCIS and CAIRNE, the research in LIACS is integrated in a wider community of researchers.

The main research branches of LIACS are: Theory, Natural Computing, Machine Learning, Data Science, Software & Business, Systems & Security, Media & Interaction, and Bio-Imaging.

We have a strong focus on providing Smart Computing for Science & Industry, which materializes in longstanding cooperations with industrial partners and governments. These help us to focus on the applicability of research results and at the same time generate new directions for our research in computer science. Our collaborations include partners such as Honda Research, Zorginstituut Nederland, Tata Steel, Greenchoice, BMW, KLM, General Electrics Aviation, Young Capital, Qualogy, Ministry of Foreign Affairs, National Police, Woonconnect, Stabiplan, Naturalis Museum, Royal Dutch Shell, Oncode Institute, Sanquin, and De Nederlandsche Bank.

### RECENT AND UPCOMING EVENTS

**January:** Marcello Bonsangue is the new scientific director of the institute

**March:** the whole institute has moved together into the new Gorlaeus science building

**September 2:** festive opening of the new building with Constantijn van Oranje

## SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY OF ECONOMICS (KHNUE) DEPARTMENT OF INFORMATION SYSTEMS

### CURRENT RESEARCH PROJECTS

• **BRIEDIS – Bridging Innovative Research and Digital Education in Applied Information Security for critical infrastructures and holistic digital transformation** with University of Technology Sydney, Australia. In response to the escalating threat of cyberattacks and the growing reliance on digital technologies, this international research project seeks to advance the field of information security within the context of critical infrastructures while promoting comprehensive digital transformation.

• **European University Alliance BAUHAUS4EU.** The project builds on the New European Bauhaus (NEB) initiative, embracing its core values of sustainability, aesthetics and participation.

• **Leveraging Information Technology for Modern Society.** The project outlines methodologies for utilizing digital technologies to analyze customer responses to marketing campaigns. A novel technology for designing web applications aimed at educating users about cyberstalking prevention techniques is proposed.

• **ERASMUS Jean Monnet 2024 The EU cyber standardization strategy for connectivity and digital infrastructure: Experience for Ukraine.** The project focuses on connectivity and resilient digital infrastructure across various sectors of the digital society, encouraging the adaptation of IT services development, academia, and the management of IT companies to align with modern European standards.



PROF. IRYNA ZOLOTARYOVA  
Simon Kuznets Kharkiv National  
University of Economics (KHNUE),  
Ukraine

• **ERASMUS 2023 DigiUni – Digital University – Open Ukrainian Initiative.** The project is initiated to create an inclusive digital educational ecosystem in Ukraine to ensure continuous, high-quality, inclusive, and transparent education, regardless of the student's location, with the use of existing digital innovations in the field of education and the understandable paradigm of involving future innovations.

• **ERASMUS 2022 AFID – Providing of Academic Freedom and Inclusion through Digitalization.** The AFID project aims to create an inclusive environment for students and teachers through an inclusive virtual campus that will be accessible to a wide range of consumers of educational services through digital tools.



### EVENTS

The International Scientific and Practical Conference “Modern information systems and technologies in the digital society”, April 18, 2024.

International Scientific Conference of Young Scientists and Students “Information technology in the modern world: the research of young scientists”, February 22, 2024.

### SELECTED PUBLICATIONS

Insights for Economic Security: Recovery Strategies from Cyber-Attacks. / I. Zolotaryova, I. Leroy (2024). The 13<sup>th</sup> IEEE International Conference on Dependable Systems, Services and Technologies, DESSERT'2024, Athens, Greece.

Hrabovskiy Ye., Bondarenko D., Kobzev I. (2024). Improving the technology for constructing a software tool to determine the similarity of raster graphic images. Eastern-European Journal of Enterprise Technologies, 2024, № 1(2-127), P. 16–25

Zadachyn V., Bebiya M. (2024). Combined Methods for Solving Degenerate Unconstrained Optimization Problems. Ukrains'kyi Matematychnyi Zhurnal, Vol. 76, no. 5, 2024, pp. 695–718, doi:10.3842/umzh.v76i5.7395.

Hrabovskiy, Y., Bondarenko, D., Starkova, O. (2024). Development of a methodology for creating a website for online healthcare services. EUREKA: Physics and Engineering, (5), 183–200. <https://doi.org/10.21303/2461-4262.2024.003440>





PROF. DR. CRISPIN COOMBS



PROF. DR. PETER KAWALEK  
Loughborough University,  
United Kingdom

The Centre for Information Management (CIM) conducts research on topics related to the digitalization of business and society. This is developed from multiple theoretical positions across Information Systems and wider Business research. CIM is committed to high social and business value. Our researchers develop relevant topics that address both academic and practical agendas.

A cluster of four doctoral studies address topics related to Web 3.0. The first addresses the utility of blockchain record systems in the art world. The second considers cryptocurrency policy as a semi-regulatable system. The third project focuses upon decentralised autonomous organisations (DAOs) and their impact on the transformation of current business models. The



fourth project in this cluster is concerned with questions of power in identity systems.

Another cluster of doctoral activity addresses questions of data, AI and decision-making in the railway industry. Focusing mainly on the issue of weather prediction and management, the cluster consists of three projects. The first focuses on the role of AI solutions themselves and their development. The second considers different modes of decision-making and the availability of data. The third focuses on organisational culture and change.

Another area of doctoral research proposes Anticipatory Design Thinking (ADT) as a form of participatory, future-focused change for all communities that confront technologically dynamic circumstances. This work concedes that innovations have multiple affordances that might be positive or negative, foreseen or unforeseen. Through ADT, communities and organisations are able to respond to alternative futures by designing shared outcomes. ADT therein problematises information itself, arguing that consultation and knowledge-sharing are not enough, and that in many circumstances it is best to mediate towards satisfactory organizational and technological arrangements through a focus upon collaboration in design. Shared design activity is thereby a socially intelligent response. In today's conflicted world of technological uncertainty, ADT is proposed as a significant return to a participa-

tory emphasis in technology.

Working on the issue of societal security in the digital era, CIM has a further cluster of important doctoral research projects. The first is focused upon issues associated with digital data in the security of communities. The risk environment of policing, for example, means that digital data must be managed in a very different way to ordinary businesses. CIM's research has shown circumstances of elevated demand due to the proliferation of digital data and yet that the same data leads to insecurity over evidence. A second, related project considers AI in particular and finds both utopian and dystopian claims about its potential in policing investigations and the criminal justice system. The third project investigates issues of digital technological developments related to child sexual exploitation and the risks and responses therein.

A further highlight is CIM's cutting-edge research on the role of language in social media platforms. With so much conflict in the world in recent years, some of our work on this topic has turned to address what is expressed on social media in relation to these conflicts and the part then played by actors and platforms. This builds upon a rich track-record of investigative studies on social media and public health, political discourse and customer experience management. Linked to this study area is CIM's famous work on social media analytics through EMOTIVE. This continues to advance.



PROF. DR. MICHAEL ZUR MUEHLEN  
Stevens Institute of Technology,  
United States of Amerika

Founded in 1870, Stevens Institute of Technology continues to strengthen its position as a premier technology-focused university. Located across the Hudson River from Manhattan in Hoboken, New Jersey, Stevens serves a growing population of 4,233 graduate and 4,236 undergraduate students, with the School of Business home to 895 undergraduate and 1,338 graduate students.

Under the leadership of new Dean GJ de Vreede, who joined in September 2024, the School of Business is accelerating its integration of artificial intelligence across all programs while maintaining focus on critical thinking and business fundamentals. The School offers distinctive undergraduate programs in Business & Technology and Quantitative Finance, 13 graduate programs that include an Analytics MBA, an MS in Information Systems and an MS in Business Analytics, as well as a PhD in Data Science.

The School's research portfolio reflects its commitment to technological innovation and its business applications. A cornerstone of this commitment is CRAFT (Center for Research toward Advancing Financial Technologies), established in 2021 as the first fintech-focused Industry University Cooperative Research center funded by NSF. CRAFT partners with industry to develop innovative solutions in decentralized finance, AI-enabled finance, and quantum

finance, while addressing climate-related impacts on investment.

In 2024, the School further strengthened its fintech leadership through NJ FAST (New Jersey Fintech Accelerator at Stevens Institute of Technology), a partnership with the New Jersey Economic Development Authority and Plug and Play. This initiative positions Stevens as a hub for fintech and insurtech innovation, supporting startups and fostering economic growth in the region.

Two additional research centers drive innovation: The Center for Decision Technologies (CDT), directed by Dr. Jeffrey Nickerson, focuses on collective intelligence and the future of work, while the Center for Business Process Innovation (CEBPI), under Dr. Michael zur Muehlen, explores process analytics and enterprise architecture. Faculty research regularly appears in premier journals, exemplified by recent publications such as "A Guide to Formulating Equity and Fairness in an Optimization Model" (Chen & Hooker, *Annals of Operations Research*, 2023), "Comparing Platform Owners' Early and Late Entry into Complementary Markets" (Shi et al., *MIS Quarterly*, 2023), and "Timely quality problem resolution in peer-production systems" (Mindel et al., *Information Systems Research*, 2024). Looking ahead, upcoming work includes "When Technology Assets Turn into Technology Debt: Evolution of

Process Automation Technology" (Behnam & zur Muehlen, *HICSS*, 2025), exploring how organizations manage their technology investments over time.

The School has secured major research funding, including an NSF grant for advancing fairness in infrastructure systems and an AACSB grant for developing management curriculum for the digital era. These grants support the School's mission to integrate cutting-edge research into its educational programs, ensuring students are prepared for the rapidly evolving business landscape.

Looking ahead, Dean de Vreede emphasizes the School's commitment to both cutting-edge technology and enduring business skills: "In the era of AI, critical thinking has become the most important skill. Our goal is to prepare students who can leverage the latest technologies while maintaining the ability to think critically and communicate effectively."



# ERCIS PARTNERS

Our partners seamlessly integrate with our structure. Many of them have already been part of our network for several years, initially associated with one of the ERCIS locations, before transitioning to a different Higher Education Institution. Nevertheless, they continue to contribute to the network with the same level of dedication exhibited by the ERCIS locations' researchers.



**ERCIS PARTNERS**






**PROF. DR. DANIEL BEVERUNGEN**  
Paderborn University





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South Westphalia University of Applied Sciences





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*Offen im Denken*

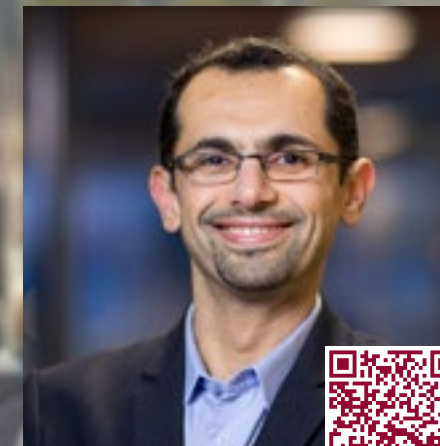
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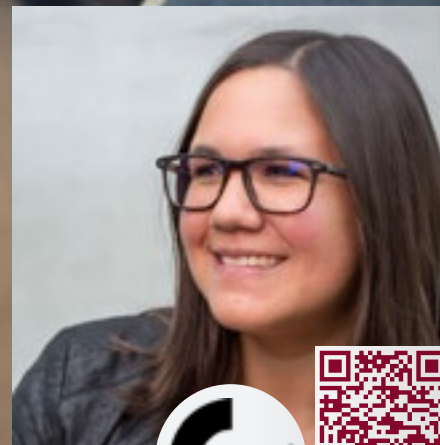
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University of Hamburg



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**PROF. TUURE TUUNANEN**  
University of Jyväskylä



**ASSOCIATE PROF. STEFANO ZA**  
University "G. d'Annunzio" of Chieti-Pescara



# ADVISO RY BOARD

The ERCIS network has strong connections to local, national, and international companies working with us on various fields of expertise. Aside from their financial support, the feedback of those companies during regular meetings, round tables, or during one-to-one talks, as well as their inclusion in research projects and studies, ensures that we work on practically relevant topics.



## ADVISORY BOARD



# ERICIS



### ABOUT THE COMPANY

#### Business. People. Technology.

Founded in 1997 at the heart of the Ruhr-area, adesso SE is one of the leading IT providers in the German-speaking market. With more than 10.000 employees on 63 sites within the adesso group, we strive to fulfill one simple mission: to help our customers make the most out of their business and the newest technologies. To optimize their core business processes by combining technological competence with sector-specific know-how. Our work is based on strong customer orientation, flexibility and proven methods when implementing software projects. adesso work from diverse fields of expertise in interdisciplinary teams – and they do it with heart and soul in an open, employee-oriented company culture.

We help shape tomorrow's solutions through our research activities. We deal with the latest technologies on behalf of and with our customers, covering the entire value chain. To do so, we rely on various forms of cooperation in terms of technology, science and research. Our research results benefit both us and our customers.

For further information, please visit [www.adesso.de](http://www.adesso.de)

# adesso



### TOPICS OF INTEREST

- Java
- Javascript
- Microsoft
- Cloud Technologies
- ServiceNow
- PHP
- Google
- Mobile
- SAP

For more information, please visit <https://www.adesso.de/de/technologien/weitere-technologie-plattformen/index.jsp>

### OUR SECTORS/INDUSTRIES

- Automotive
- Banks / Financial services
- Building and Living
- Utilities
- Healthcare
- Retail
- Life Sciences
- Lottery
- Manufacturing Industry
- Media and Entertainment
- Exhibition corporation
- Food and luxury food industry
- Sports
- Public authorities
- Public transportation
- Insurance

### JOB OPPORTUNITIES

At adesso we are looking for people who are enthusiastic about a job in the following areas:

- Software Development
- IT-Consulting
- Account Management
- Central Services
- User Experience
- Online Marketing

If you are interested in working with an ever-growing first-class employer, please check out our job offers: [www.adesso.de/de/jobs-karriere/unsere-stellenangebote](http://www.adesso.de/de/jobs-karriere/unsere-stellenangebote)



## ADVISORY BOARD



**BISON ERP Retail is being used by top retailers for over 20 years.**

### BISON – the reliable full-service provider for digital business solutions

BISON is the leading full-service provider for the digitalisation of core and support processes. Our focus is on the agriculture, retail, production and energy sectors.

We are your partner for the planning, development, implementation and operation of innovative ERP systems and smart software solutions for digital process optimisation – always tailored to the specific requirements of our target industries. As a full-service provider, we offer a portfolio that includes our own products as well as established applications (SAP, CRM, ServiceNow, middleware, etc.), and we cover the complete infrastructure (networks, hardware, workplace).

Medium-sized and large customers in Germany, Switzerland and Austria have put their trust in BISON's state-of-the-art solutions to optimise their value chain and strengthen their competitive position for more than 40 years.



*«As a full-service provider, our goal is to offer our customers solutions that are relevant both today and in the future.»*

**Florian Bernauer**  
CEO BISON Group

With its industry-specific ERP systems, business solutions and modular solutions, BISON offers time- and cost-saving advantages through the efficient digitalisation of all processes.

We also support the seamless connectivity of all customer-oriented business areas for a holistic customer experience – both online and offline.

BISON successfully develops and operates its own products in four clusters:

- Wholesale and goods procurement
- Retail and in-store trade
- Farming
- Complementary products like BI & Analytics, Digital Commerce, Services

### BISON ERP: industry-specific & future-proof

BISON ERP is particularly distinguished by its release capability: customer-specific requirements can be integrated into future versions with minimal effort. This guarantees companies long-term investment security and continual adaptation to their growing needs.

Another advantage is that individually developed solutions are – where appropriate – integrated into the standard version, helping to continually expand the range of features. The basic version of BISON ERP already includes all the key features.



For further informations visit [www.bison-group.com](http://www.bison-group.com) or contact us via [mail@bison-group.com](mailto:mail@bison-group.com)



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# High-tech meets Purpose

Become part of our team.

## CLAAS

### ABOUT THE COMPANY

What started in 1913 with the manufacture of powerful straw binders has become one of the world leaders in the production of agricultural technology. The company is well-known for its highest quality standards, leading technologies as well as their market leaderships in combines and self-propelled harvesters. Machine-to-machine communication, intelligent networking, the improvement of the harvesting process as a whole – industry 4.0 is already the company's reality and sustainability is its principle.

CLAAS products ensure efficiency in agricultural production and they go easy on natural resources as they continuously reduce energy consumption. Around 12.000 employees are engaged in this task in 140 countries; talented people from all professions, who make their daily contribution towards feeding the world.

### TOPICS OF INTEREST

- Connected machines
- Farming 4.0
- Omni-channel customer experience
- Precision Farming
- Data Management
- Big data & AI/ML Engineering
- Autonomy

Today the harvest chain is seeing many innovations coming through, especially in drive technology, machine intelligence and networking. "Efficient Agriculture

Systems", abbreviated as "EASY", is the CLAAS collective term, which encompasses machine control and performance optimization, steering systems, precision farming and monitoring, software solutions and services. However, digital transformation has changed much more than just the technology of our machines. New product features, different license models and data driven business models require our business unit for sales and service to reinvent our traditional way of doing business.

On 1 October 2024 the new digital platform CLAAS connect has gone live in over 30 countries around the world and. CLAAS connect offers our customers a host of digital solutions around Machine Management, Farm Management and Precision Farming on one platform. In addition, CLAAS connect provides a direct link to service offerings, dealerships and their digital specialists, who help to optimise machine performance, work processes including task planning and documentation, and to ensure the operational reliability of all CLAAS machines.

CLAAS connect provides unparalleled transparency when it comes to machine deployment and working processes – enabling workflows and machine performance to be analysed and improved in an even faster and more purposeful manner.

To further centralize sales processes, as well as dealer and customers systems we've created the CLAAS Campus Herzebrock. The well-known positive customer

experience from our physical dealer touchpoints will be ensured for our digital touchpoints through the integration of state-of-the-art systems e.g. Salesforce, SAP hana, Tableau and modern IT architectures. This modern IT landscape also enables us to generate new solutions for internal processes and our customers based on data and with the use of AI. These are intended to support us in improving our products and increasing availability. Our data analytics team works closely with all departments to find new opportunities for the use of AI.

### JOB OPPORTUNITIES

CLAAS is special because it is a family owned enterprise with a long-term, forward-looking approach which is based on the commitment of its employees. At CLAAS, you will face the challenging task of continuously improving harvesting performance through innovative technology.

### Selected vacancies for students:

- Internship Project Datenfabrik.NRW
- CLAAS Inside Corporate IT – Software Testing / Tracking
- CLAAS Inside Corporate IT – SAP Development
- CLAAS Inside Corporate IT – Application Integration

If you have any questions about our current international vacancies, our contacts at the respective locations are happy to help.



[www.claas.jobs](http://www.claas.jobs)  
Instagram: @claas\_careers



## welcome to cronos



### ABOUT THE COMPANY

Driven by innovative and creative people, together we accelerate digitalization and thus the development of new technologies and challenges. With us, there is not just ONE way, but above all YOUR way - let's go it together. Let's get started now. With 200+ customers and 30+ years of experience, cronos is the most successful industry-specialized IT consultancy in DACH.

Our focus: the digitalization of processes and the development of new business areas for our customers. In addition to many years of experience as a partner of SAP and with its products, we advise and develop on topics such as Robotic Process Automation, Process Mining, UI/UX Design, Custom Coding, Blockchain, (Generative) A.I., Web 3.0 and Machine Learning.

### FACTS

- Market leader as biggest independent IT consultancy for the utility sector
- 400+ consultants
- 10 locations
- 200+ active costumers
- 30 years of experience
- Kununu MOST WANTED EMPLOYER 2024
- SAP Partner Energy of the year 2020, 2021 and 2022
- UiPath Platinum Partner
- Celonis Partner

### TOPICS OF INTEREST

- Data Migration
- Digital Solutions
- IT-Strategy & IT-Management
- Robotic Process Automation
- Energy Management Processes
- SAP 4/HANA & Utilities
- SAP Customer Experience
- cronos Appstore
- Softwaretests

### JOB OPPORTUNITIES

Think outside the box - especially in IT! Driven by innovative and creative young people, digitalization is accelerating the development of new technologies and challenges. Giving young professionals the freedom to explore ideas and take on more responsibility is part of our credo. We maintain a strong academic network and offer attractive programs for students and graduates. Our regular workshops, graduate programs and comprehensive onboarding system help launch careers in IT development and consulting.

### WE ARE LOOKING FOR TALENTS

- Software tester
- CX developer
- IT consultant
- App developer
- Cloud developer
- Working Student
- Bachelor-/ Masterthesis

Find more job opportunities here:



## d.velop

### ABOUT THE COMPANY

The d.velop group has more than 30 years of experience in the field of enterprise content management and has grown to a leading provider of software and services for the end-to-end digitization of business processes and industry-specific specialist procedures in the market for content services platforms with more than 14,000 business customers. The product portfolio ranges from a compliance-ready document repository or archive and digital files to internal collaboration and external cooperation beyond organizational boundaries. The internationally operating network of around 400 partners makes d.velop platform products and excellent service available worldwide.

With d.velop, customers enjoy great flexibility in deciding whether to work with systems traditionally implemented on-premises, move their installation to the cloud, use encapsulated services as SaaS solutions via the d.velop platform, or prefer a hybrid operation. With the d.velop platform, d.velop has established its own app platform, where products and solutions for office automation, developed by d.velop, partners, and app builders, are available at the touch of a button. From electronic signatures to apps for expense reporting and employee communication, to a full ECM system with d.velop documents, the system can be scaled as needed, as the interoperability of the products is also guaranteed.

While the company is headquartered in Gescher in Münsterland, its more than 1,000 employees are also spread across other sites in Meppen, Kiel, Bocholt, Münster, Osnabrück, Paderborn, Salem as well as Baar in Switzerland and Vienna in Austria.

### TOPICS OF INTEREST

- Enterprise Content Management
- Process Digitalization and Workflow Management
- Software Engineering
- Data Analytics and Artificial Intelligence
- Quality and Risk Management
- Knowledge Management

### D.VELOP AS AN EMPLOYER

d.velop offers its employees a wide range of attractive benefits and opportunities: Alongside flexibility in terms of work location and working hours, great importance is attributed to a pleasant working atmosphere, colleague cohesion and values such as diversity and inclusion. There are numerous opportunities for professional development and personal growth. The very good work-life balance is supported by offers for reconciling work and family life.

As a software company, d.velop offers a variety of exciting IT jobs ranging from product development, project management and consulting for the implementation of

software at customers to internal IT with a focus on IT security and the provision of business IT services. In addition, d.velop offers job opportunities across all areas of the company, e.g. marketing, sales, purchasing and human resources.

### JOB OPPORTUNITIES

Has d.velop aroused your interest? Find out about attractive job offers at [karriere.d-velop.de](http://karriere.d-velop.de).



### SELECTED VACANCIES

- Software Development Engineer (f/m/x)
- UX Designer (f/m/x)
- Project Manager (f/m/x)
- Project Consultant (f/m/x)
- Working student  
Process Digitalization (f/m/x)
- Working student  
Digital Business Consulting (f/m/x)

### CONTACT

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**ABOUT THE COMPANY**

DMI takes responsibility for the digital archiving of patient records and provision in client software systems. Since 1966, the specialised service provider has been providing hospitals with continuous support in the optimisation of information-based processes and with fully compliant archiving throughout constant changes in technology and framework conditions. In production centres and at clients' locations, DMI staff digitise, qualify, integrate and archive every second patient record for in-patients based on certified information security and data protection guidelines and ensure seamless integration into health IT systems. Through its interface expertise with all data management HIS architectures, DMI enables the consolidation of digitised paper-based patient records with electronic documents and data, as well as medical image documentation, in audit-proof long-term archives. Interoperability (the ability of systems to interact with one another), including on a data level, is the basis for the integration and sustainability of our solutions.

DMI provides its clients with lean, secure, efficient processes through consolidated patient records.

Our relationships with our clients are shaped by commitment, respect and fairness. The quality of our service business is based on the professional and social skills of our employees.

# D-M-I

**TOPICS OF INTEREST**

- Digitalising and consolidating medical records including electronic and digitized documents
- Certified service portfolio "Archivar 4.0"
- Over 1.400 clients, approx. 1.200 employees at 4 locations in Germany
- Interoperable IT architectures based on current standards
- Audit-proof digital archiving for compliance
- Deep integration of archived documents into administrative and clinical work-flows for enabling effective clinical processes for best patient outcomes
- The link between medical informatics and medical research as well as routine practice in healthcare

**DMI AS AN EMPLOYER**

DMI is not your typical medium-sized company: it is an owner-managed organization of roughly 1,000 highly motivated staff and a flat hierarchy. Its approach is long-term and sustainable, with continuing education of employees as a key ingredient. With a focus on the German healthcare market and additional activities in banking, insurance, general business, and the public domain, DMI offers high-value services:

- digitization, qualification, consolidation, presentation, and archiving of documents
- integration into information-based processes
- analysis of documentation process landscapes and support for optimization aiming at effectiveness and compliance.

Company headquarters are situated in the pulsating university city of Münster in North Rhine-Westphalia (NRW); service centers are located in the castle town of Leisnig near Leipzig (Saxony) and Essen (the "Green Capital", NRW).

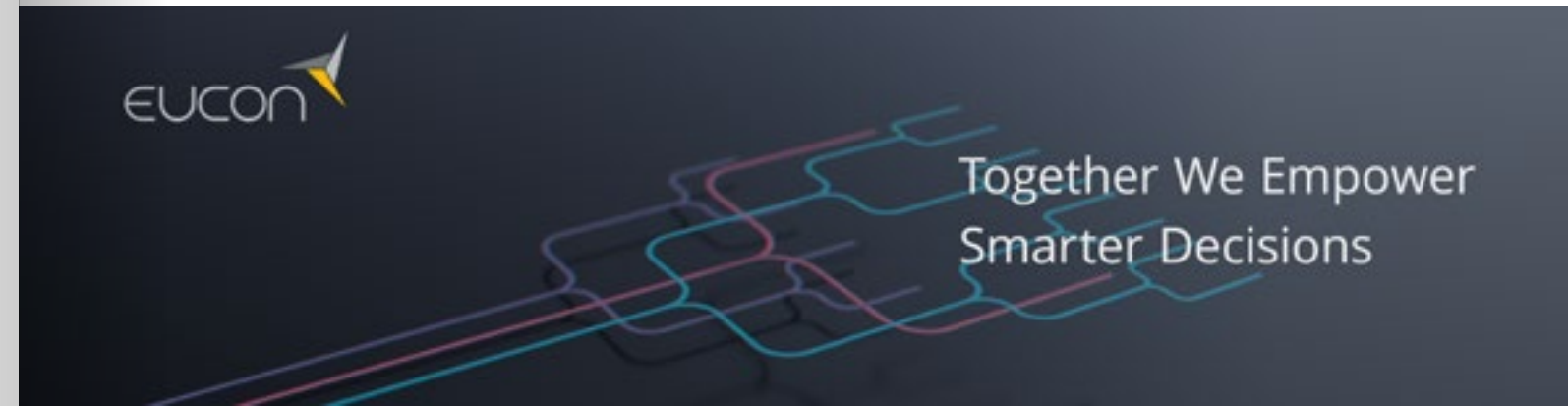
**JOB OPPORTUNITIES**

Are you up to this challenge? DMI's team members are committed to achieving results for customers in a dynamic ecosystem of evolving technologies and continuously changing customer demands. A multitude of benefits make DMI an attractive employer.

- Selected open positions in Germany for professionals: (senior) software developers for applications, information systems specialists, experts for IT infrastructures and networks.
- Selected open positions in Germany for students: thesis students (business IT, information systems, IT, software development) for innovation in documentation and archiving enabled by state-of-the-art IT and by digital transformation.

**FOR MORE INFORMATION, CONTACT:**

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[www.dmi.de](http://www.dmi.de)



**Together with our customers and partners, we are committed across industries to ensure that smarter decisions can be made based on data intelligence. As a digital pioneer with over 25 years of experience, Eucon has consistently driven the digital transformation of the automotive, insurance, and real estate sectors.**

A key to our success in data-driven decision-making and process intelligence lies in a focus on practical implementation. At Eucon we firmly believe that true innovation comes from transforming ideas into marketable solutions. By working closely with our B2B customers, we ensure that each product is designed to turn data into actionable insights, driving process automation and value creation. This collaborative approach not only embraces change, but empowers our customers to make smarter, more informed decisions.

**ABOUT THE EUCON GROUP**

At Eucon we develop data-driven solutions based on technologies such as Artificial Intelligence and Robotic Process Automation. In total, more than 600 employees work for the Eucon Group worldwide. Around 250 customers from over 80 countries already rely on our innovative products around the global automotive aftermarket, the insurance claims process and real estate management.

In the automotive aftermarket, Eucon is a leading international provider of market information and data-based solutions for the product management of parts manufacturers. The systems are used by both original equipment manufacturers and automotive suppliers who seek to define and improve their aftersales strategy using data-driven processes.

In the insurance industry, Eucon implements solutions to analyze, automate, and accelerate the entire claims process, from claims reporting to AI-supported verification, control, and automated processing to final negotiation. With its aggregated products, Eucon enables significantly simpler and faster processes, cost benefits, and higher productivity for insurers.

For real estate companies and corporate real estate managers, Eucon offers a platform for data-driven property management, where the use of various quality-assured sources enables fact-based real estate management. The central data platform creates added value by paving the way to a digital twin of the building, especially in terms of consumption and a full cost overview. This enables companies to make informed investment decisions and increase building profitability. At the same time, rapid efficiency gains are achieved in invoice processing and internal and external cost control is improved.

**JOB OPPORTUNITIES**

If you are keen to develop your talents further and become a digital trailblazer, Eucon is the right choice for you, whether you are a student, graduate or expert! We would like to get to know you and look forward to your application or a casual first contact. These are some opportunities to join the company in Münster or remotely:

- Software Developer (m/f/d)
- Data Scientist (m/f/d)
- DevOps Engineer (m/f/d)
- Product Manager (m/f/d)

We also mentor bachelor's and master's theses in various areas and are regularly looking for interns and working students.

**CONTACT**

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For more information, visit us at [www.eucon.com](http://www.eucon.com)

or follow us on LinkedIn!  
[www.linkedin.com/company/eucon-group/](http://www.linkedin.com/company/eucon-group/)





## ABOUT THE COMPANY

For the sixth time in the past 11 years, Hilti has been named one of the best employers by Great Places to Work. What began as a family business in 1941, founded by brothers Eugene and Martin Hilti, has become a leading industry player with over 120 locations worldwide and a workforce of more than 33,000 colleagues. Our incredible journey, from humble beginnings to a global powerhouse, is a shining example of the rewards of a hard-working and dedicated team.

At Hilti, we provide leading-edge tools, technologies, software, and services for the global construction industry and beyond. Our purpose is making construction better based on a passionate and inclusive global team and a caring and performance-oriented culture.

We invest a substantial amount of our annual profit into the Hilti Foundation, which focuses on initiatives that empower people to live independently and autonomously, contribute to building stronger societies, and create networks of competent partners to achieve sustainable and scalable impact.

Hilti stands for quality, innovation, and direct customer relationships, resulting in about 280,000 individual customer contacts each day. Many ideas for improve-

ments are developed directly on construction sites while talking to customers. This is why the company invests approximately 7 percent of sales each year into research and development. We run our own research and design labs. Working with top technical universities and partners all over the world.

## ABOUT GLOBAL IT AT HILTI

Hilti's IT team is a globally diverse group with major hubs in Switzerland, Malaysia, and the USA. Each location boasts a highly skilled team that collaborates closely to achieve success. Known for their commitment to sustainable value creation, Hilti's IT experts are dedicated to utilizing the latest technological innovations to deliver value-adding solutions and services.

## TOPICS OF INTEREST

- **Integrated Operations** – where we make sure all of our systems, such as S/4HANA, BW, EWM, APO, and Hilti Online work together efficiently.
- **Digital workplace** – where we connect 34,000 Hilti employees and make them an information-enabled team.
- **Enterprise computing** – where we design, build, and operate our network and computing capabilities.

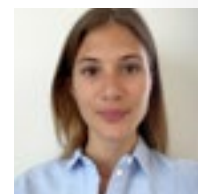
- **AI Implementation** – where we use AI as a tool to work more efficiently everyday.

Our Global IT roles range from data analysts, project managers and system engineers to cybersecurity experts, user experience designers, and enterprise architects.

## JOB OPPORTUNITIES IN OUR STRATEGIC IT OFFICE IN BUCHS, SWITZERLAND:

- **Interns or thesis students**
- **Hilti Fellowship program** (in cooperation with University of Liechtenstein)
- **Graduate positions**

Take a look at the open positions on <https://careers.hilti.group/de-ch> or get in touch with us directly.



**CONTACT**  
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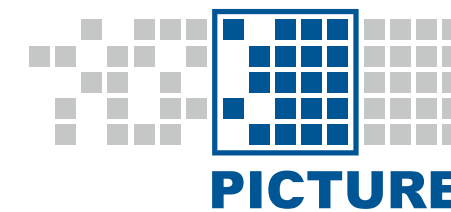
## ABOUT THE COMPANY

We combine a methodical approach, technical support and considerable process expertise with new ideas. This integrated approach helps to achieve success in process management. The PICTURE GmbH is a spin-off of the University of Münster, founded in 2007 by Lars Algermissen and Thorsten Falk. In the ERCIS network we stay connected with the university and still benefit from a transfer of knowledge. The core business segment of the PICTURE GmbH is process consulting, process analysis and organizational design. The PICTURE GmbH is a consulting firm as well as a software company with consultants and developers specialized in process consulting. The company is well known for the PICTURE method and the PICTURE platform, which in combination allow describing, analyzing and optimizing business processes within organizations.

## THE PICTURE METHOD – easy. effective. efficient.

Based upon 24 semantic building blocks, the method allows the construction of BPMN 2.0 process models for hundreds of business cases in a quick and easily understood way.

This method of process modelling lays the foundation for extensive business process reengineering, as it offers a target-oriented and efficient way to analyze the elements of a company's organizational structure and business procedures.



Prozessmanagement. Einfach. Machen.

The following bullet points give a brief overview about the PICTURE method:

### Self-Explanatory

Simplified process modelling due to easy-to-use and intuitive components.

### Standardized Process Description

Increased comparability and analyzability due to a formal and contextual standardization of the description level.

### Instruction and Integration of Employees

Due to its simplicity, it enables employees to adopt this model quickly and fosters staff acceptance.

### Flexibility in Process Description

The PICTURE method can be personalized according to the individual requirements of organizations.

### Efficient Process Modelling and Activity Analysis

The 24 building blocks enable to filter essential information for further analysis.

## THE PICTURE PLATFORM

The PICTURE method is embedded in the web-based PICTURE platform. This platform serves to support process management within organizations as well as between different levels of the state. The PICTURE platform is tailored to the special needs of organizations and aims to provide a vivid, precise and easily understood methodology to improve through customized processes.

Visit our website:  
[www.picture-gmbh.de](http://www.picture-gmbh.de)

## JOB OPPORTUNITIES

For job opportunities at PICTURE GmbH visit: [www.picture-gmbh.de/karriere](http://www.picture-gmbh.de/karriere)

## TOPICS OF INTEREST

- **Process management and optimization**
- **Quality Management and Risk Management**
- **Organizational review**
- **Knowledge Management**
- **Task and Product Review**
- **Software Implementation**
- **Process Benchmarking**
- **Change Management**

Learn more about the PICTURE platform:





# PROVINZIAL

## ABOUT THE COMPANY

The Provinzial Group is the second largest public insurance group in Germany. We are an insurer and employer in the region with social responsibility. With 12,000 employees in various professional groups, we inspire our customers with security and reliability.

Headquartered in Münster, the Provinzial Holding AG comprises four regional indemnity and casualty insurers as well as a life insurer with head offices in Münster, Düsseldorf, Kiel, Hamburg and Detmold.

## OUR IT DEPARTMENT

Within the IT department, our almost 1,000 colleagues ensure the operation and further development of our systems. More than 70 cross-functional and cross-locational units focus on:

- Software Engineering
- Business Process Management and Automation
- Data Analytics and Artificial Intelligence
- IT Security and Governance
- Enterprise Architecture
- Digital Transformation, Innovation and Agility
- IT Operations and Cloud



As a financial service provider, we are part of Germany's critical infrastructure (KRITIS) and adhere to the highest standards in infrastructure and security. This strong foundation also empowers us to explore new, innovative paths through our corporate start-ups, such as our tenant and landlord service *Apato*, the geodata service *Daten-service+*, or our digital insurer *andsafe*.

## IT EDUCATION RE-DESIGN

IT education is important? Absolutely! That is why we completely re-designed our IT education groupwide within the last year. We included new apprenticeship and study programs, harmonized education phases and trainings, and we set up new education offices. Furthermore, we established a new career path for instructors, and we significantly increased the number of apprentices and students.

As a starting point, over 100 students, apprentices, instructors, and executives gath-

ered in Düsseldorf for a grand IT education summer event. We warmly welcomed our new students and apprentices and celebrated those who have completed their programs. Alongside reports on current activities, all participants had the opportunity to connect with each other, as well as with their instructors and executives.



## JOB AND COOPERATION OPPORTUNITIES

We regularly search developers, business analysts, IT architects and IT infrastructure specialists. We offer direct entries, trainee programs, internships as well as working student activities.

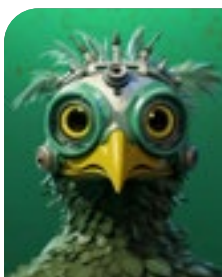
You can also write your Bachelor or Master thesis with us, and we are open for research and development cooperations, cocreation, guest lectures or joint courses. Just get in contact with us.

## CONTACT

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Get more information:  
[www.provinzial.de/karriere](http://www.provinzial.de/karriere)

or follow us on **in k**



## EVER CHECKED WITH HENRIETTE?

Provinzial GPT Chat – affectionately named Henriette – is the enterprise GPT platform developed by the Provinzial Group. Distinct from public offerings it goes beyond the "pure" GenAI experience, adhering to the rigorous information security and data protection standards that are required for insurers.

As the central LLM/GPT gateway it offers a wide array of functionalities including chat, image generation, RAG, and coding assistance. And more use cases are already on the way. With its capacity to integrate both self-hosted LLMs and commercial solutions from various hyperscalers while maintaining a reliable internal interface, it provides stability in a fast-paced environment.

Currently utilized by over 4,000 employees – and growing – ProviGPT is enhancing daily operations within the Provinzial Group.



**We are committed to helping the world run better and improving people's lives. Our vision is to bring out the best in every business.**

## ABOUT THE COMPANY

As a global leader in enterprise applications and business AI, SAP (NYSE:SAP) stands at the nexus of business and technology. For over 50 years, organizations have trusted SAP to bring out their best by uniting business-critical operations spanning finance, procurement, HR, supply chain, and customer experience.

A market leader in enterprise software, SAP turns businesses into intelligent, sustainable enterprises. Our applications and services enable business and public customers across 25 industries to operate profitably and adapt continuously.

Our cloud ERP solutions, powered by technologies like the Internet of Things, Big Data, and more, make a real impact on the world. SAP helps companies revolutionize

everything from cancer treatments to flood prevention. We invest in research that can save lives, and we're passionate about sustainability and social responsibility. At SAP, we bring out the best in every business.

For more information, visit [www.sap.com](http://www.sap.com)

## TOPICS OF INTEREST

- Business Technology Platform
- Database & Data Management
- Application Development
- Artificial Intelligence/Machine Learning
- Predictive Analytics
- Cyber Security/Quantum Technologies

## Intelligent Suite

- Business AI
- Digital Supply Chain
- Industrie 4.0/IIoT
- Employee Experience Management
- Sustainable Enterprises/ Sustainability Footprint Management

## JOB OPPORTUNITIES

At SAP, we grow, we lead, we innovate. As colleagues, we support, challenge, and inspire one another every day. Whether connecting global industries, people, or platforms, we help ensure every challenge gets the solution it deserves. We build breakthroughs, together.

At SAP, over 100,000 employees of 160 nationalities in 78 countries, are encouraged to bring their diverse backgrounds and perspectives to the table. They have helped shape a culture defined by these traits.

No matter your experience level, all SAP employees get opportunities, support and resources to pursue their career goals, balance work-life commitments, and bolster their health and well-being.

For more information, visit [jobs.sap.com](http://jobs.sap.com)





**ABOUT THE COMPANY**

viadee Unternehmensberatung AG is a German IT Company with more than 250 tech-savvy employees and working students. Our company culture is dedicated to caring for each other individually to reach our full potentials. Applying this principle, we have come a long way since 1994 to offer great individual solutions to our customers.

viadee has offices in Münster, Cologne and Dortmund. We focus on a regional customer base in North-Rhine Westphalia. Projects are seldom far away from our employees' home, which proudly makes us say that most of our consultants typically sleep in their own beds. This contributes to our flexibility, family lives and helps us with keeping a small CO<sub>2</sub> footprint. With the latest step of joining the Gemeinwohl-Initiative GWÖ in summer 2024, viadee is committed to corporate action based on social and ecological responsibility.

The industry sectors in which our consultants are active include banking, electric power industry, trade, logistics, public service, telecommunications, insurers, and pension funds.

**TOPICS OF INTEREST**

We share a passion for technological expertise and a rich toolkit of methods. Keeping up to date with the ever-changing world of IT, there are various opportunities to grow within viadee.

Bringing BPMN (business process model and notation) diagrams to life is currently one of our core activities. Prominent mention should be given to our Open Source contributions on GitHub as well as our Confluence BPMN Modeler on the Atlasian Marketplace. Work is often organized in agile projects leveraging Java- or Cloud-based technologies, be it cutting-edge frameworks like Quarkus and Micronaut, or established tools such as Spring Boot, WSDL or REST. Java and SAS have accompanied us throughout a large portion of our history. However, we emphasize our undogmatic view on technologies and methods and use whatever is appropriate, such as Python and R in the Data Science domain.

Test automation is great to ensure software quality. We feel it is even greater with a tool developed here called mateo, the viadee test automation and RPA framework: An opportunity to create cross-platform integration tests, be it web-based, or on the operating system level.

Employees contribute their topics of interest as part of our research and development activities. Right now, this is happening with Artificial Intelligence, IT Security, Cloud Architecture, Process Mining, Agile Leadership, MLOps, and several other topics. To keep up with the scientific discussion we also enjoy cooperating with the ERCIS and other research institutions.

Areas of expertise and consulting products such as these are established and supported like internal start-ups by using lean methods.

**JOB OPPORTUNITIES**

Interested in our topics and ready to take the next step? If you see yourself in a technical role while being open and interested in the social components of everyday business life, we would love to welcome you on board.

**IT Consultants for, e.g.**

- Software Engineering
- BPM & Software Architecture
- Data Science & BI
- Quality Assurance

To find out about our benefits and further job listings make sure to visit our website [www.viadee.de/karriere](http://www.viadee.de/karriere).

For a closer look at our fields of interest, you are invited to follow along at [blog.viadee.de](http://blog.viadee.de) – a blog to which every employee can add content.



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# Westfalen

**ABOUT THE COMPANY**

100 years of expertise: The Westfalen Group is active in the fields of technical gases, refrigeration and heating, service stations and mobility, and respiratory home therapy. With its products and services, the company is increasingly offering solutions that help customers become more sustainable. Hydrogen as an energy carrier is playing an important role in more and more areas. Founded in Münster in 1923, the family-owned company is now represented by numerous subsidiaries and affiliates at over 20 production sites in Germany, the Netherlands, Belgium, France, Switzerland and Austria. In the fiscal year 2022, sales of around 2.3 billion euros were generated with approximately 2,000 employees.

**Industrial Gases & Services**

The Westfalen Group produces and sells more than 300 technical gases and gas mixtures for virtually all applications in industry and the trades, food production, laboratories, pharmaceuticals and medicine. These include the air gases nitrogen, oxygen and argon, which are produced in three of the company's own air separation plants, as well as acetylene and hydrogen. Refrigerants and heat transfer media for cooling and air-conditioning technology complete the extensive product range.

**Energy Solutions**

With its Westfalengas brand, the Westfalen Group is one of Germany's leading suppliers of liquefied gas. Westfalengas is suitable for more than 2,000 applications: as off-grid thermal energy for heating private homes, factory buildings and agricultural buildings, for thermal processes in industry and commerce, and as environmentally friendly energy carrier for cars or forklifts. Since mid-2023, Westfalen has been adding heat pumps to its range of heating solutions

**Mobility**

With around 260 stations, the Westfalen Group has the largest branded-independent filling station network in Germany, primarily in North-Rhine Westphalia and Lower Saxony. Westfalen is actively helping to shape the mobility transition and is increasingly focusing on future fit energy carriers: its product portfolio already includes charging power from 100% green electricity, hydrogen, and a prospective switch from LNG to Bio-LNG and the offer of Bio-CNG.

**Respiratory Homecare**

Westfalen offers innovative equipment technologies and services in the fields of oxygen, sleep, nebulizer and ventilation therapy as well as secretion management, and its commitment contributes to a significant improvement in the quality of life of the people supplied.

**A family owned company**

The Fritsch-Albert family ensures continuity of the family company: Westfalen remains an independent family business, competitive, financially independent and proud of its 100-year history. The family foundation behind the company guarantees a stable ownership structure and stands for generation- and value-oriented thinking.

**Sustainability**

The Westfalen Group has defined six fields of action in which the family-owned company is focussing upon sustainability. In addition to the aim of being an attractive employer and increasing transparency in the supply chain, Westfalen would like to help itself and in particular its customers to act in a more sustainable way. Westfalen's locations in Germany are certified

according to ISO 14.001 and the electricity-intensive locations according to ISO 50.001. Since the beginning of 2022, all Westfalen filling plants in Germany have been powered by green electricity. At the same time, Westfalen is developing future fit business models and wants to actively contribute to the energy transition by investing in sustainable drive energies such as Bio-CNG, Bio-LNG, hydrogen and e-mobility. Westfalen has set itself the goal of significantly expanding its hydrogen activities in the coming years and establishing itself as the preferred partner for European SMEs in the decentralized production and delivery of green hydrogen. This includes expanding the network of mobile and stationary hydrogen filling stations, primarily for refueling commercial vehicles. With the acquisition of the NGC.Tec Group, Westfalen has also significantly strengthened its position in the field of electricity-based heat in 2023.

**TOPICS OF INTEREST**

- Industry 4.0
- IoT in Logistics
- Data Analytics and Machine Learning
- Several initiatives for AI
- Mobile Solutions
- Business Process Excellence
- Digital business models

**JOB OPPORTUNITIES**

If you are interested in working with great people at the Westfalen Group, take a look at our website:

<https://www.westfalen.com/de/de/unternehmen-jobs/jobs-karriere>





**ABOUT THE COMPANY**

zeb is one of the leading strategy, management and IT consultancies specializing in financial services in Europe. We support banks, insurance companies and (tech) service providers in dealing with all the challenges and opportunities arising from transformation in the industry. As an employer, we rely on people who like to try new things, take responsibility and inspire others through their actions. Topics of interest As a partner for change, it is our aim to improve the performance and competitive strength of our clients. The success of our consulting services is based on well-founded methodology, combined with in-depth expertise and excellent knowledge of the sector. The focus of our work lies in strategy & organization, finance & risk and IT. We intend to continue our growth path in the future. Our thematic growth focus is on management and IT consulting.

**FIND YOUR IT JOB AT ZEB**

To help companies align their economic success with the changing world of work and boost their competitiveness, we develop sustainable business models not just from theory: at the interface between banking expertise, architecture and digitalization, our IT consulting experts optimize existing organizational structures and implement new ones. The most important thing in this context: solutions tailored to our clients.

**ADDITIONAL INFORMATION**

**ABOUT THE COMPANY**

**#ShapeSpaces**

Entering new spaces, shaping and designing them, grasping and changing the unknown. That's our thing. We love to discover new things, try them out and develop them further.

#ShapeSpaces expresses the key element of the zeb culture: shaping things. With

**SHOOT FOR THE MOON,  
WE'LL HELP YOU LAND  
AMONG THE STARS.**

Take yourself and your IT consulting expertise to the next level.  
Apply now.

#shapespaces

expertise, courage and creativity, we drive the transformation of the financial sector forward. We love to discover new things, try them out and develop them further. We are looking for people who overcome boundaries, shape the future and infect others with their enthusiasm. Shape your professional future with us.

**STAY AND GROW**

“Stay and grow” is our motto. zeb promotes long-term careers—with a focus on your personal career path. We are looking for people with an excellent university education and team spirit. Our principle at zeb: reasoning beats hierarchy. This means that your opinion matters. Get involved in the dialog that gives rise to something new. Listening well is just as important as arguing convincingly. Question the familiar and inspire others with your ideas. Create new solutions in a team and dive deep into the topic.

**JOB OPPORTUNITIES**

Required specializations: (business) informatics, (business) mathematics, applied physics, business administration or economics

**POSSIBILITIES TO JOIN THE COMPANY**

- Internship
- Student assistant
- Theses and dissertations
- [zeb.bachelor.welcome](http://zeb.bachelor.welcome)
- Direct start

**CAREER WEBSITE:**

[www.zeb-career.com/de/](http://www.zeb-career.com/de/)  
[www.zeb-career.com/en/](http://www.zeb-career.com/en/)



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# COMPETENCE CENTERS

The ERCIS network bundles certain areas of expertise in several competence centers. Competence centers are multi- and interdisciplinary consortia consisting of partner institutions from research as well as from practice to focus on distinct topics.





## CRISIS MANAGEMENT

The Competence Center for Crisis Management (C<sup>3</sup>M) integrates the research efforts of the ERCIS network in the domain of crisis management (CM) and humanitarian logistics. Our main objective is to identify relevant challenges in practitioner realities and to design appropriate socio-technical solutions. C<sup>3</sup>M integrates a collaborating network of different practitioner and research organisations from the CM and humanitarian logistics domain.



## CURRENT RESEARCH AND TEACHING ACTIVITIES

The C<sup>3</sup>M team is looking back at a busy but highly productive year 2024. We were very honoured to host the 21<sup>st</sup> ISCRAM conference in Münster. The C<sup>3</sup>M joined forces with the State Fire Service Institute North Rhine-Westphalia, embodying a pracademic approach. The ISCRAM 2024 conference uniquely emphasized the synergy between academic research and practical application under the theme ‘Embracing the Crisis Management Lifecycle’. The conference was opened by the NRW Minister of Interior Herbert Reul and the University Rector Prof. Dr. Johannes Wessels. We thank our keynote speakers Jon Hall, Prof. Dr. Mark Haselkorn, Tina Ristmäe, and Prof. Dr. Julie Dugdale, who addressed integrative topics such as community-centered design of collaborative systems and simulations of human behavior in crisis situations, showcasing a seamless blend of theoretical insights and practitioner realities. The participants were welcomed by Mayor Markus Lewe at the historic Dominikanerkirche, where he reinforced the relevance of the research in the face of the multiple crises the world is currently experiencing. Besides the rich day-time schedule, networking events and the festive award ceremonies, attendees were invited to visit the State Fire Service Institute training facilities, where they gained firsthand experience of the rigorous training routines that first responders undergo. ISCRAM 2024 attracted an impressive assembly of over 200 experts from more than 25 countries. Impressions of the conference can be seen



on our website [iscram2024.ercis.org](http://iscram2024.ercis.org). The next ISCRAM conference in 2025 will be organized from May 18<sup>th</sup> to 21<sup>st</sup> in Halifax, Canada.



We made significant strides in our collaborative research project, “**DigCBA: Responsible Use of Digital Cash-Based Assistance**”, funded by the Research Council of Norway and led by our ERCIS partners at the **University of Agder**. The project’s aim is to design, develop, and assess evidence-based frameworks for selecting and utilizing the most appropriate digital technologies in delivering cash-based assistance (CBA) to refugees. This objective aligns seamlessly with both our previous and ongoing research on humanitarian logistics and fosters a deeper integration of ERCIS partners into the C<sup>3</sup>M network. In 2024, the project reached its third year. Alongside regular meetings between all participating institutions, interviews were conducted, and workshops took place in refugee shelters in Uganda. Furthermore, a project update presentation was given in Münster during this year’s ISCRAM conference to inform

about current progress and to discuss next steps of the project.



Simultaneously, our two interconnected, epidemic-related research projects, funded by the Federal Ministry of Education and Research, have entered their third year. In the **OptimAgent** project, we made significant contributions to the alpha version of the **German Epidemic Micro-Simulation System (GEMS)**, enabling public health decision-makers to assess the effectiveness of various infectious disease intervention strategies. The system has already been adopted by various universities across Germany and is currently being used to evaluate vaccination and non-pharmaceutical intervention strategies, identify how behavioural aspects influence the spread of diseases, and investigate health economic outcomes. Several workshops were held in Münster, Växjö (Sweden) and Halle. In the **PROGNOSIS** project, we continued advancing a simulation-based testbed for resource allocation decisions within a hospital network during a pandemic. Both projects were presented and discussed with research partners at the MONID (Modeling Network for Severe Infectious Diseases) Annual Meeting in Halle.

After our collaboration with the **State Fire Service Institute North Rhine-Westphalia**, the **Fire Department** and the **City of Erftstadt**, which was seriously affected by the



floodings in the year 2021, we continued our work with municipal administrations. Together with a group of ERCIS students, we carried out a project with the **Cities of Lüdinghausen and Senden**, NRW, Germany. The key challenges addressed the preparation and guidance of primarily untrained support staff from the administrations to handle crisis events. The objective was to design informational and actionable material in a simple, easy-to-understand format. We developed the prototype platform “**KrisenNavi**” to educate and share crisis related information within the administration and towards citizens. In an upcoming project, we will dive into the topic of crisis team trainings supported by artificial intelligence.

We are very grateful for the great collaborations with our long-standing and new partners and would like to end with an amazing news: We are happy to welcome **Prof. Dr. Hossein Baharmand** from the School of Business at the University of Agder, who joined the ERCIS members of the C<sup>3</sup>M.

## SELECTED PUBLICATIONS

*Middelhoff, M., von der Linde, M., Karadaş, D., & Thielsch, M. (2024).* How the Design of Emergency Warning Systems Affects Volunteer Users’ Satisfaction and System Success. *International Journal of Human-Computer Interaction*, Manuscript submitted for publication.

*Middelhoff, M., Lamers, C., & Widera, A. (2024).* Prototyp zur virtuellen Zusammenarbeit im Führungsstab. *Tagungsband BBK Fachkongress Forschung für den Bevölkerungsschutz* 12.–14. Januar 2023, Bundesamt für Bevölkerungsschutz und Katastrophenhilfe

*Middelhoff, M., Lamers, C., & Widera, A. (2023).* Digitale Stabsarbeit. *IM EINSATZ*, 3/2023 *Kommunikation im Einsatz*, S+K Verlag.

*Penkert, B., Hellingrath, B., Rode, M., Widera, A., Middelhoff, M., Boersma, K., & Kalthöner, M. (Eds.). (2024).* Proceedings of the 21<sup>st</sup> ISCRAM Conference, Münster.

*Ponge, J., Horstkemper, D., Hellingrath, B., Bayer, L., Bock, W., & Karch, A. (2023).* Evaluating Parallelization Strategies for Large-Scale Individual-based Infectious Disease Simulations. *Winter Simulation Conference (WSC)*, pp. 1088–1099.

*Suer, J., Ponge, J., & Hellingrath, B. (2023).* EpiPredict: agent-based modeling of infectious diseases. *KI-Künstliche Intelligenz*, pp. 1–5.

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# COMPETENCE CENTERS

## DIGITAL TRANSFORMATION MANAGEMENT FOR SMES

SMEs (small and medium-sized enterprises) account for approx. 65 per cent of jobs in most OECD countries. Throughout they also account for a disproportionately large share of new jobs created. So, helping SMEs to grow helps the whole economy growing and provide a distribution of welfare in society.

This ERCIS Competence Centre works with research and education activities to promote knowledge that can help businesses to cope with the challenges and reach the potentials for sustainable growth that can be achieved through digital transformation. In this section is rendered some of the activities taking place or starting up in 2024.

### PROJECT CONCLUDED IN 2024

The CoDeAI project, funded by ERASMUS+ KA220-HED, concludes in 2024. This initiative focused on the collaborative development of AI (Artificial Intelligence) capabilities in SMEs, building on the existing VOIL platform. Through training packages and AutoML (Machine Learning) case studies, it provided SMEs with AI knowledge and tools to boost productivity. ERCIS participants include Westfaelische Wilhelms-Universitaet Muenster (Germany) and the University of Minho (Portugal).

More information: <https://codeai-project.eu/>

### SUMMER SCHOOL

In July 2024, the summer school "The Digital Transformation of the Wine Industry and Wine Tourism" took place in Guimarães, Portugal. Organized by ERCIS members, including Westfaelische Wilhelms-Universitaet Muenster, University of Minho, University of Agder (Norway), and Università degli Studi "G. d'Annunzio" Chieti – Pescara (Italy), the event brought together participants to explore digital transformation through workshops, fieldwork, and a hackathon.

July 1	July 2	July 3	July 4	July 5	July 6
Digital Strategies in the Vinhos Verdes Sector	Smart Wine Industry		The Innovation Challenges of the Vinho Verde Industry	The Innovation Challenges of the Vinho Verde Industry	
09:00 Reception of participants 10:30 Definition and implementation of digital business strategies	09:00 IoT and Digital Twin technology to support decisions 10:30 Coffee-Break 11:00 Transformative analytics in business management	9:00 – 18:00 Visit to Producers from the Vinho Verde Demarcated Region  Quinta da Raza Veade - Peneireiros Celorico de Basto	09:00 Presentation of the challenges 10:30 Coffee-break 11:00 Hackathon kickoff	09:00 Project completion 11:00 Interval 11:30 Presentation of solutions	10:00 Social Activities
12:30 Lunch	12:30 Lunch	Quinta Sem Igual Estrada da Ferradura, 1150, Meinedo - Lousada Portugal	13:00 Lunch	13:00 Lunch	
14:00 The digital transformation of the wine industry 16:00 Coffee-Break 16:30 Wine tourism and digital customer experiences 18:00 Closing of activities	14:00 AutoML solutions for decision support 16:00 Coffee-Break 16:30 Co-creation and open innovation 18:00 Closing of activities		14:00 Co-creation session - Part A 16:00 Coffee-break 16:30 Co-creation session - Part B 18:00 Closing of activities	14:00 Presentation of solutions 15:00 Session for the joint discussion of solutions 16:30 Coffee-break 17:00 Evaluation of solutions 19:00 Awards ceremony 19:30 Closing of activities	15:00 Summer School Closing
20:00 Dinner	20:00 Dinner		20:00 Dinner	20:00 Dinner	
Universidade do Minho Guimarães, Portugal.			Green Wine Farm Guimarães, Portugal.		

Program for the 2024 summer school

The summer school was structured in three phases. The first phase (2 days) focused on the theoretical exploration of digital transformation, designed to equip participants with relevant knowledge and skills. The second phase (1 day) was dedicated to fieldwork day, during which participants visited two wine farms to understand the sector and its challenges better. The last phase, which lasted two days, featured a hackathon.

The ERCIS members involved were Westfaelische Wilhelms-Universitaet Muenster (DE), University of Minho (PT), University of Agder (NO) and Università degli Studi "G. d'Annunzio" Chieti – Pescara (IT).



Pictures from excursion to wineries, the 2024 summer school

There are plans for a next summer school, at Università degli Studi "G. d'Annunzio", in Italy, in the summer of 2025.

## EMERGING TECHNOLOGY AND SME OBSERVATORY

The "Emerging Technology and SME Observatory" (ESO) is a new unit within the Department of Management and Business Administration at the University of Chieti-Pescara, developed in collaboration with Confindustria Abruzzo Medio Adriatico.

The primary goal is to explore the dynamics of emerging technology adoption across both public and private organizations, with a special focus on small and medium-sized enterprises (SMEs). The Observatory will also provide an in-depth analysis of the local production ecosystem, offering insights relevant to SMEs.

Moreover, ESO will function as a central hub for collaboration between academia, local businesses affiliated with Confindustria, and public administration entities. The mission is to co-develop meaningful projects with SMEs, leveraging expertise from both national and international research communities, including ITAIS and ERCIS.

### COLLABORATIVE PAPERS

The collaborative paper "Starting the AI Transformation Bottom-Up!" was submitted to MISQ Executive in 2024. It presents key findings from the CoDeAI project, focusing on AI adoption in SMEs via AutoML

tools. Contributors include researchers from Westfaelische Wilhelms-Universitaet Muenster (Germany) and University of Minho (Portugal). The paper includes recommendations for AI capability building for small businesses.

A paper, based on a workshop at the summer school: "Open Innovation Workspaces: Applying the Triple Bottom Line Co-Creation Canvas for the Wine Industry" was submitted by authors from University of Agder (with acknowledgement to all involved in the summer school) and has been accepted at CENTERIS – International Conference on Enterprise Information Systems, taking place in Funchal, Madeira, Portugal, 2024.

### PROJECT PROPOSAL

A proposal for a project to enhance AI and Auto ML literacy among SMEs in the wine sector is being prepared, particularly addressing climate change and consumer behaviour challenges. These initiatives will continue the collaboration between Westfaelische Wilhelms-Universitaet Muenster, University of Minho, University of Agder, Università degli Studi "G. d'Annunzio" Chieti – Pescara and other ERCIS partners, promoting digital innovation and sustainability in a sector that is rarely the focus of studies in the field of information systems.

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If you are interested in our work, or you would like to collaborate with us, please do not hesitate to get in touch with us!

# DTM for SMEs





# COMPETENCE CENTERS



## COMPETENCE CENTER SMARTER WORK

### SMARTER WORK

The Competence Center Smarter Work is a cooperation platform for researchers and practitioners who seek to investigate the transformation of work and to support organizations with the introduction, use, and management of digital technologies at the workplace. For this purpose, we build on years of experience with transformation processes and help exploit the potential of new working modes using conscious and coordinated use of technologies. We integrate individual and organizational perspectives in our research, characterized by pursuing long-term improvements. To this end, we seek a nuanced understanding of underlying organizational problems as a basis for actionable suggestions. We combine a broad repertoire of methods (e.g., surveys, interviews, physiological measurements, digital forensics) with traditional and innovative theories, enabled by our interdisciplinary team of scientists from business, computer science, psychology, and sociology, as well as practitioners from the IT industry.

### NEWS

- With the beginning of the winter term 2024/25, Prof. Dr. Stefan Klein became a professor emeritus at the Department of Information Systems at the University of Münster and stepped down as academic director of the Competence Center Smarter Work. Given Stefan Klein's role as founder and long-standing director, it is safe to say that the competence center would not exist without him. All members deeply thank Stefan Klein for his efforts and guidance throughout his time at the competence center and wish him all the best for his retirement. With Stefan Klein's farewell, his fellow academic director Prof. Dr. Benedikt Berger seeks to continue the competence center's mission.
- Prof. Dr. Julia Backmann, Prof. Dr. Benedikt Berger, and BASF Coatings, in particular the global communication department represented by Lena Köhne, investigate the impact of generative AI systems on work and organizational structures within

companies in a joint research project, beginning in November 2024.

### SELECTED RESEARCH PROJECTS

- **Implementing ML-Based Forecasts in Financial Planning and Analysis** (*M. Möllers and B. Berger*)

Seeking efficiency gains and data-driven insights, organizations increasingly deploy machine learning (ML) techniques to support human work and decision-making. As the introduction of a new technology comes with new roles and interactions between humans and ML-based systems, new actor configurations arise which meet long-established work practices and can evoke diverse challenges and responses. By means of an exploratory case study inside Deutsche Telekom, we investigate the introduction and use of machine learning (ML) predictions within its financial planning and analysis (FP&A) departments. Our case organization aims to establish a setting in which human controllers remain in the loop of ML predictions to adjust input and output data while using these insights as a secondary opinion for financial planning and decision making. We try to shed light on the individual responses and challenges that the new interplay between financial planning practices and ML-based insights in the human-in-the-loop configuration evoke.

- **Meaningful work in human-AI collaboration settings** (*J. Backmann and B. Berger in cooperation with C. Ruiner*)

Leveraging technological advances in artificial intelligence (AI), many companies begin to establish collaborations between humans and AI-based systems. This raises the question how the implementation of AI-based systems at the workplace affects human work, specifically its meaningfulness. To answer this research question, we conducted an experimental two-step study. In the first step, we identified tasks that differ in their meaningfulness to hu-

man workers. Secondly, we investigated how support by an AI-based systems in conducting these tasks affects the tasks' meaningfulness. The results show that the deployment of an AI-based system does not necessarily affect task meaningfulness or the effect of task type on meaningfulness. However, AI support moderates the relationship between task type and excitement, reducing professionals' excitement for particular meaningful tasks.

- **Hybrid Workplace Behaviors and Self-Determination** (*J. Hüllmann in cooperation with P. Weritz*)

The deployment of novel technologies in the digital transformation of work creates new avenues for hybrid workplace arrangements. Although recent phenomena-driven research highlights the sustainability of hybrid work, firms struggle with designing hybrid work arrangements to benefit the organization and its employees. In this research project, we follow a survey-based approach and investigate what factors guide hybrid workplace behaviors and what influence these hybrid workplace behaviors have on the employees' IT mindfulness, job satisfaction, and autonomy. The results contribute to understanding hybrid workplace behavior and shed light on how firms can design their work arrangements to facilitate employee self-determination and benefits.

- **People Analytics Beliefs** (*J. Hüllmann in cooperation with M. Gierlich-Joas*)

People analytics (PA) is a sensitive topic that provokes contradictory beliefs, often at odds with the reality of PA's technological features. While managers tend to over-trust PA in explaining and predicting the workplace, employees fear transparency and surveillance. Confronting these beliefs with the reality of PA leads to unmet expectations and complicates PA's introduction into organizations. Thus, uncovering how these beliefs are formed is crucial. In this

research project, we empirically investigate the beliefs of PA by conducting semi-structured interviews. The results shed light on the contextual factors that guide the formation of beliefs. Explanations for the contradictions are derived and inform guidelines for designing and initiating PA projects. The guidelines contribute to effectively introducing PA in organizations and reducing PA project failures.

### SELECTED PUBLICATIONS

- *Ngwenyama, O., Rowe, F., Klein, S., & Henriksen, H. Z. (2023).* The Open Prison of the Big Data Revolution: False Consciousness, Faustian Bargains, and Digital Entrapment. Information Systems Research (ahead of print).

*Mattern, J., Tarafdar, M., Klein, S., & Schellhammer, S. (2024).* Thriving in a bruising job: How high achieving IT professionals can cope with occupational demands. Information Systems Journal, 34(6), pp. 1902–1934.

*Jarvenpaa, S., & Klein, S. (2024).* New Frontiers in Information Systems Theorizing: Human-gAI Collaboration. Journal of the Association for Information Systems, 25(1), pp. 110–121.

*Manheim, M.-B. & Klein, S. (2024).* Robotic-assisted surgery: A new cycle of innovation and work. In 15<sup>th</sup> International Workshop on the Changing Nature of Work (CNoW). Bangkok, Thailand.

*Möllers, M. & Berger, B. (2024).* Seeking Augmentation of Knowledge Work through Machine Learning: A Case Study in the Field of Financial Planning. In Proceedings of the 45<sup>th</sup> International Conference on Information Systems. Bangkok, Thailand.

*Hüllmann, J. A., Kimathi, K., & Weritz, P. (2024).* Large-Scale Agile Project Management in Safety-Critical Industries: A Case Study on Challenges and Solutions. Information Systems Management, 1–23 (ahead of print).



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*Lansmann, S., Mattern, J., Krebber, S., & Hüllmann, J. A. (2024).* The future of working from home: A mixed-methods study with IT professionals to learn from enforced working from home. Information Technology & People (ahead of print).

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## SOCIAL MEDIA ANALYTICS

The Competence Center Social Media Analytics (CC SMA) deals with challenges due to the rapid and often disruptive evolution of social media technology. The main research focus of the CC SMA is the misuse of social media technology for disinformation, propaganda, and fake news distribution. The international partners approach the topic from the different angles of their respective disciplines: information systems, computer science, psychology, statistics, journalism and media, communication science, as well as mathematics.

## NETWORKING & RESEARCH VISITS

In the context of the DAAD-funded exchange project “The role of Large Language Models in the Detection/Mitigation of Disinformation”, members of the CC SMA visited our partners in Australia during February 2024 and strengthened the international network of the CC SMA with setting up new joint research collaborations at the University of Western Australia (Perth) and at the Macquarie University, Sydney.



## RESEARCH

The CC SMA has continued topics of previous years in research, networking, as well as in collaboration projects, and at the same time has added new topics to its consideration. The new research topics particularly include the possibilities of generative neural networks (like GPT) for content production and techniques for artificial content detection. AI-based content creation methods are evolving in fast pace and pose ever new challenges to current content and campaign detection methods. Thus, the members of the CC SMA investigated the technical possibilities in detail and extended their perspective to so-called multimodal content (i.e., text, image, video) analysis. In addition, the CC SMA worked on AI-based methods that strengthen

## MISDOOM 2024 IN MÜNSTER! SIXTH EDITION OF THE INTERNATIONAL SYMPOSIUM

This year, the ERCIS and the CC SMA were strongly involved in the successful organization of the sixth edition of the Multidisciplinary International Symposium on Disinformation in Open Online Media (MISDOOM), which was held in Münster during 2–4 September. Organized by the Institute for Communication Science (Thorsten Quandt, Online Communication Group) and the Department of Information Systems (Christian Grimme, Computational Social Science & Systems Analysis Group), MISDOOM again brought together researchers from many domains working on disinformation in social media. The conference is traditionally a very multidisciplinary forum for computer scientists, social scientists, political scientists, journalists, law scholars, and practitioners. This year’s program featured Tine Ustad Figenschou, a professor of journalism at Oslo Metropolitan University, and Walter Quattrociochi, who leads the Center of Data Science and Complexity for Society (CDCS) at Sapienza University of Rome as keynote speakers. Another highlight of the symposium was the high-rank panel discussion on “Foreign Information Manipulation and Interference: Vulnerability and Resilience of Liberal Democracies” featuring Jean-Christophe Boucher (Political Science, University of Calgary, Canada), Jānis Karlsbergs (NATO StratCom Centre of Excellence based in Riga, Latvia), Kyoko Kuwahara (Japan Institute of International Affairs), and Ofer Fridman (War Studies, King’s College London, UK).

## SELECTED PUBLICATIONS

Many members of the CC SMA have published multiple papers on disinformation identification, disinformation description, visualization, and explanation as well as on methodological issues:

*Stampe, Lütke Stockdiek, Grimme, & Grimme (2024).* Benchmarking Sentence Embeddings in Textual Stream Clustering with Applications to Campaign Detection. Interna-



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tional Joint Conference on Neural Networks (IJCNN), Yokohama, Japan, 2024, pp. 1–8, doi: 10.1109/IJCNN60899.2024.10650595.

*Grimme, Matzner, & Trautmann (2024).* Towards Explaining Disinformation Campaigns in Social Media. Extended Abstract at the 6<sup>th</sup> Multidisciplinary International Conference on Disinformation in Open Online Media, Münster, Germany.

*Kluske, Sippel, Nonnen, Wulf, Thier, Bornmann, Salfeld, Heitger, Kamps & Bönninghoff (2024).* Dashboard for real-time Visualization of Disinformation Campaigns. Extended Abstract at the 6<sup>th</sup> Multidisciplinary International Conference on Disinformation in Open Online Media, Münster, Germany.

*Stampe, Lütke Stockdiek, Grimme (2024).* Utilizing Image-Embeddings in Stream Clustering to Detect Image-based Campaigns on Social Media. Extended Abstract

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at the 6<sup>th</sup> Multidisciplinary International Conference on Disinformation in Open Online Media, Münster, Germany.

## ACTIVITIES

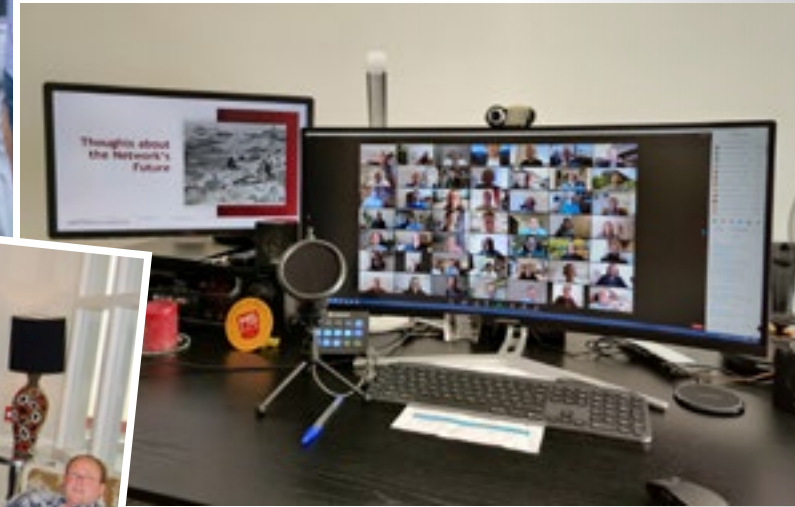
- Several members of the CC SMA are active project partners in the HybriD project, which is running until March 2025. This project addresses the challenges of disinformation campaign detection.
- Several members of the CC SMA were involved in more than 7 project proposals on the German national level (BMBF, DAAD) and international level (DFG Weave program together with Poland).

- The CC SMA supported the MISDOOM 2024 in Münster, Germany, especially in organization and acquiring funding.





20 YEARS OF ERCIS 2004-2024



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# THE EUROPEAN NETWORK FOR DIGITAL TRANSFORMATION



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