INDEK 2025

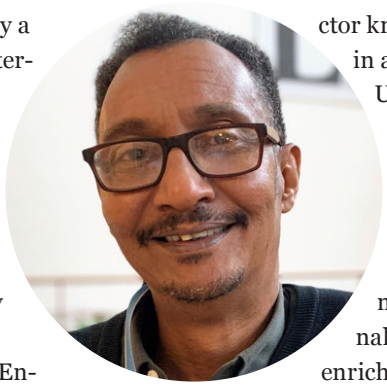
Enhancing technology-based value creation and sustainable industrial growth

Content

Project manager: Matti Kaulio
Layout: Communications ITM

Our vision is to be a leading European center for research and education at the intersection between technology and management.

2025 – a year focusing on the world outside INDEK



This past year has been marked by a clear and deliberate focus on external engagement, a cornerstone of how the Department of Industrial Management and Economics understands its role within KTH and in society. As the challenges facing industry, public organizations, and communities grow increasingly complex, our ability to collaborate meaningfully with external partners has never been more important. Engagement is no longer an add-on to academic work; it is central to achieving relevance, impact, and long-term excellence.

Throughout the year, we have strengthened our ties with key stakeholders in several significant ways. Our advisory board has continued to offer invaluable guidance, ensuring that our research, education, and strategic direction reflect real-world needs and opportunities. Likewise, our adjunct professors and affiliated researchers play a vital bridging role between academia and practice, bringing contemporary insights from industry and public organizations directly into our classrooms and research environments.

A major highlight was the Singapore–Sweden symposium on digitalisation, where researchers, industry leaders, and policymakers jointly explored how digital technologies are reshaping industrial ecosystems. This event not only deepened our international collaborations but also reinforced the importance of cross-cultural and cross-sector knowledge exchange. Similarly, our involvement in a conference dedicated to the reconstruction of Ukraine underscored how industrial management research can support societal resilience, capacity building, and long-term redevelopment in the face of crisis.

Taken together, these initiatives demonstrate the breadth of our engagement and the value of maintaining an active dialogue with our external environment. Strong stakeholder relationships enrich our research, strengthen our teaching, and enhance our ability to contribute to societal transformation. They challenge us to think beyond traditional disciplinary boundaries and to anchor our work in the needs and aspirations of the communities we serve.

As we look ahead, the department remains committed to fostering collaborations that create mutual value, expand our international reach, and ensure that our research and education continue to make a meaningful difference. I am grateful to all colleagues, partners, and students who have contributed to this year's achievements—and I look forward to building an even more engaged, impactful, and externally connected department in the year to come.

Welcome to the 4th edition of our annual reports. Thank also to Prof. Matti Kaulio for the editorial work related to this year's edition.

Professor Cali Nuur, PhD
Head of Department

This is INDEK

Industrial Economics and Management, commonly known by its Swedish abbreviation "INDEK", is a department addressing issues of management in the contexts of engineering and technology.

INDEK represents a multidisciplinary field revolving around management, organization, and development of technology-based businesses and sustainable industrial growth. Most of our research is pursued at the organizational level, but we also conduct studies of inter-organizational relations, industrial and technological transformations, as well as studies of jobs and work processes. Our research contributes to long term competitiveness and sustainable growth in close collaboration with both the private and the public sector.

Our education is student-centered, innovative, and strongly anchored in research and in practice. The learning objectives are to develop the students' ability to understand and manage technology-based operations in different environments as well as to navigate technological, organizational, and social transformations. Annually, about 5,500 students participate in our courses at the bachelor and master levels. In addition, about 140 MSc thesis projects with industrial partners are conducted every year.

The department has an extensive academic network and various partners. In addition, we cooperate with an large number of companies and societal actors both in our research projects and educational activities.

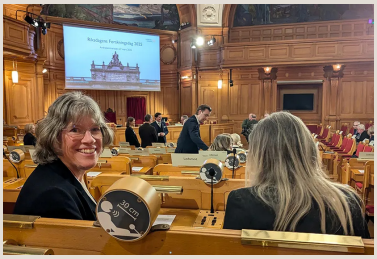
Indek has a faculty of 34 professors, lecturers and doctors, 10 in-house PhD-students and 8 professors emertis structured structured in three divisions: Accounting, Finance, Economics, and Organization (AFEO), Management and Technology (MT), and Sustainability, Industrial Dynamics, and Entrepreneurship (SIDE). Although the divisions are separate, there are significant interactions between them in terms of research and teaching activities.

This happened 2025...

Photo: Viktor Gårdsäter

Daimler Truck's (and INDEK's) Karin Rådström Alumnus of the year

Karin Rådström, a KTH graduate with a degree in Industrial Engineering and Management, is currently the head of Daimler Trucks, the world's largest truck manufacturer. In 2025, she was named 'KTH Alumnus of the Year'. "Looking back, I can see just how much KTH actually prepared me for working life," says Karin Rådström in an interview with KTH. *(Find the interview at kth.se)*



Aviation of the future in the Riksdag

On 27 March, the Riksdag Research Day was held, and KTH was in attendance; INDEK researcher **Pernilla Ulvengren** was invited to speak to the Transport Committee about sustainable aviation.

World Championship bronze to student Almgren

Andreas Almgren took a historic World Championship bronze medal in the 10,000 metres in Tokyo. Andreas is a student at KTH, studying for a Master of Science in Industrial Economics.

New role for Broström

Professor Anders Broström has been appointed by the Swedish Government as a member of the Implementation Council.

The Council supports efforts to strengthen the competitiveness of Swedish companies by reducing unnecessary regulatory burdens and ensuring that EU legislation is not implemented more strictly than required.

Award for organisation design

Maxim Miterev, Associate Professor at INDEK, KTH, has received the 2025 IPMA Global Research Award for his research on organisation design in project-based environments. The award was presented at the IPMA Research Conference in Dubai. His research explores how organisations structure and manage projects, from individual initiatives to large multi-actor programmes. The work has helped establish organisation design in project settings as an emerging research field and contributed new insights into how complex projects can be organised more effectively.

From Bo to Andreas – a handover

At the turn of 2025/2026, INDEK welcomes a new Director of Studies. After ten years in the role, Bo Karlson steps down, and Andreas Feldmann takes over. Matti Kaulio sat down briefly with both the outgoing and incoming Directors of Studies.

Bo, you are stepping down at the height of success. Three of KTH's five most sought-after Master's programmes fall under your responsibility. Looking back, what are you most proud of?

”One achievement I am particularly pleased with is the development of the Entrepreneurship programme from a one-year Masters into a two-year programme. It has become a strong, internationally attractive programme that draws many international students and addresses the growing need for education in innovation and new venture creation at KTH. It has also brought us closer to KTH Innovation, strengthening KTH's overall start-up ecosystem by attracting talented students with a focus on entrepreneurship.”

”Another success is the continued development of the Industrial Engineering and Management programme (the I-programme). It has always been popular, but it has now become the flagship programme at KTH. More than 20 percent of applicants list it as their first choice.”

What do you think explains this success?

”I believe we have succeeded in delivering on the programme's ambition: integrating engineering and management. A key factor is the strength of our technical specialisations. Students can choose to write their thesis either within INDEK or within their engineering discipline. They are not forced to choose one over the other, they become both. The strong demand confirms that both students and industry value this approach.”

Andreas Feldmann and Bo Karlson

”Another important but less visible development is how we have strengthened the Master Thesis process. We now have a structured system with individual supervisors, seminar groups, and a two-day “mini-conference” in May where all students present their work. The thesis should be the crown jewel of the programme, and I believe we have succeeded in making it so.”

”Finally, I am proud of how quickly we digitalised during the COVID-19

pandemic. It was challenging for both students and faculty, but we successfully transitioned all courses online. At the same time, we learned valuable lessons about digital teaching, and many of our courses now combine on-campus and digital elements."

Andreas, what will be your first priority as Director of Studies? What tone do you want to set?

"The most urgent as well as strategic issue is how we relate to AI. How should AI be used in teaching and research? How can it accelerate learning without diluting knowledge?"

"Another priority is to further strengthen the link between research and education. There is great value in integrating the two, and this is why our Master Theses are so important. We have made significant progress in recent years, and I believe this integration is a key factor behind our successful programmes."

To both: What do you see as the key factors for developing INDEK's programmes in the future?

Bo: "One crucial factor is to think in terms of programmes, not just individual courses. Delivering a good course is important, but building coherent, integrated programmes is much more challenging. At the same time, we must safeguard our identity as an engineering school. Technology is a core component of all our programmes and we are not a traditional business school. This requires a diverse faculty, including both management scholars and experts in engineering."

"Finally, AI will be transformative. We must not only manage this change but use it proactively to strengthen our programmes."

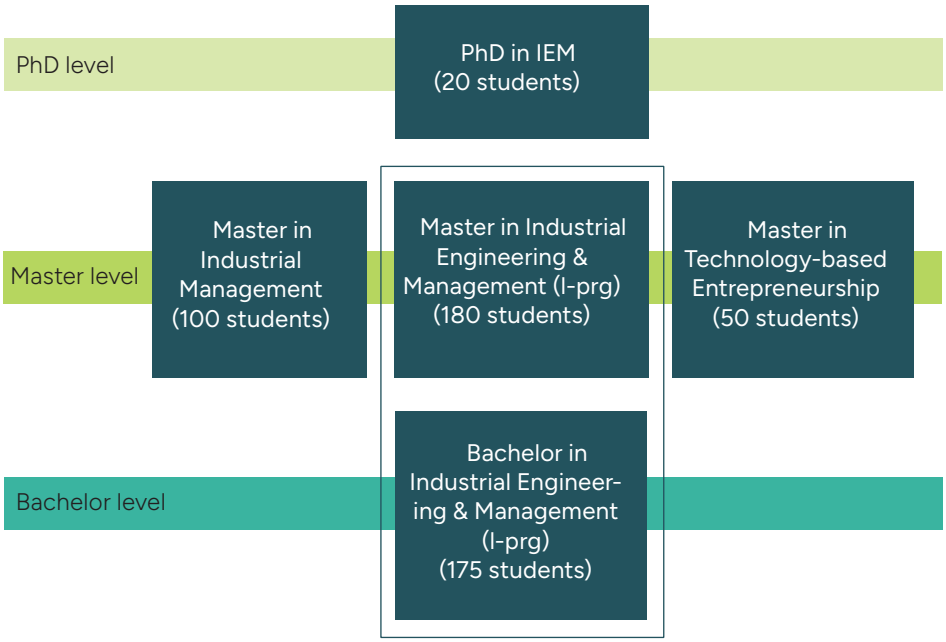
Andreas: "I fully agree, AI is a central issue that requires focused effort.

Another key factor is the continued integration of research and education. Our programmes must remain at the forefront, which requires research-active faculty. While we have made great progress with theses, we need to strengthen this connection throughout the programmes."

"Collaboration with industry is also becoming increasingly important. Guest lectures are no longer enough, we need deeper engagement through real industry projects by even more project-based learning. This ensures relevance and provides valuable connections for students."

"A final challenge is the next generation of programme directors. As we are now seeing a generational shift, we must ensure that younger faculty are motivated to take on these roles. With increasing bureaucracy and a strong emphasis on research output, we need to reinforce the importance and attractiveness of programme leadership both at the KTH level and within the School."

INDEK's education programmes



Singapore and KTH join forces on AI

AI is reshaping how we work and learn – but how do we build inclusive and future-proof knowledge? In September KTH, Örebro University and Linköping University brought together leading actors from Sweden and Singapore to explore this question. Initiator Mattias Wiggberg hopes the symposium will serve as a starting point for joint strategy, research and policy on AI competence in society and education.

What was the idea behind the AI Symposium – and why Singapore?

AI is transforming both working life and education at an unprecedented pace. Singapore and Sweden have different but complementary strengths when it comes to technology, policy and competence development. The symposium created a space to compare approaches and explore how international collaboration can support more inclusive and future-proof AI capabilities.

What came out of the symposium?

The event helped establish new connections between Swedish and Singaporean institutions. Since the symposium, the collaboration has already resulted in a first joint research article, and discussions are ongoing around a larger joint research initiative on AI, education and workforce transformation.

What stood out during the programme?

The Deep Dive sessions on how universities can reclaim the initiative in an AI-dominated world sparked particularly rich discussions. Another highlight was the contribution from the Singapore delegation on AI leadership and governance, offering insights into how national strategies, public institutions and industry can work together to accelerate responsible AI adoption.

What happens next?

Building on the momentum from the symposium, the ambition for 2026 is to establish a more permanent collaboration between KTH and partners in Singapore. The goal is to develop joint research, policy dialogue and educational initiatives focused on AI competence and societal transformation.

Why is this important for INDEK?

INDEK works at the intersection of technology, management and policy. Strengthening international collaboration around AI and societal transformation is therefore central to the department's mission.

Nobel Laureates on Ukraine's Future at KTH Conference

"As I look back on the conference, a few overarching questions really framed our discussions: How can decentralization strengthen Ukraine's resilience? What role do global power shifts play in shaping the war? And what responsibilities now fall on Europe? These themes guided the conversations as researchers from around the world joined us for this international gathering at KTH.


Hans Lööf

Across several sessions, we heard stark accounts of the pressures facing Ukrainian society. Half of all basic education now takes place remotely, more than 6,000 energy facilities have been destroyed, and over 10 million people are either internally displaced or have left the country. The loss of knowledge and talent abroad is substantial, and the country's innovative capacity has been severely weakened.

Yet amid these challenges, there were also important insights into sources of resilience. Nobel laureate **Roger Myerson** highlighted how Ukraine has gained strength through an ambitious and creative decentralization process. By shifting more decision making to the local level, the country has fostered entrepreneurship and reduced vulnerability — even within the military, which has managed to withstand a numerically and militarily superior Russian force partly thanks to this structure.

Nobel laureate **Daron Acemoglu** placed the war in a broader geopolitical context, pointing to three intertwined developments: Russia's long term decline as a great power, China's expanding influence, and a more inward looking United States with diminishing interest in upholding the international legal order.

A similar perspective was offered by Nobel laureate **Paul Krugman**, who argued that both Ukraine and the international community now depend on Europe stepping forward and assuming the role the United States has traditionally played as the defender of the free world.

Finally, KTH's President Anders Söderholm shared concrete examples of how the university is contributing to Ukraine's reconstruction through initiatives in both education and research. These efforts underscore the important role academic institutions can play in supporting a country facing extraordinary challenges."

Hans Lööf

Elina Gobena

Wheel of Transformation
An Exploraton of Reskilling in organisations and beyond

Julia Liljegren

Corporate Governance and Gender Diversity
Endogenous Preferences and Fiscal Policy Design

5 dissertations and 1 docent

During the year, five doctoral students successfully defended their PhD theses, highlighting the Department's strong research environment. In addition, one faculty member was promoted to docent, reflecting continued excellence in academic leadership.

Mattias Wiggberg (docent)

Management of Digital Transformation and Artificial Intelligence

Emily Christley

Transitions in-the-making
Towards a performative understanding of sustainability in Swedish aviation

Kathryn McMullan

The "wild west" of social media influencer marketing:
examining the relationship between social media influencers and firms

Linda Dastory

Innovation, Technical Change and the Labour Market

Martyna Solis
– affiliated researcher from Stockholm Exergy AB

What is the focus of your work?

I work at the intersection of waste systems, circular economy, and environmental policy, with a focus on how technologies and policy instruments perform within real-world system constraints.

What is your background?

It combines doctoral research, industry-based R&D, and science-for-policy work, including collaboration with EU institutions. Across these settings, I have focused on system analysis, techno-economic and policy assessment, and scenario-based evaluation to support long-term decision-making.

What motivates your research?

I am particularly interested in identifying where dominant narratives around recycling, circularity, and innovation diverge from practical, economic, or societal realities, and in contributing evidence to support the design of robust and balanced waste and resource management systems.

Elise Irgens
– coordinator NORSI

NORSI (Nordic Research School in Innovation and Entrepreneurship) is a Nordic research school for doctoral students, bringing together 31 partner institutions across the Nordic countries. KTH serves as NORSI's main coordinating partner in Sweden, and NORSI Manager Elise Maria Irgens is based at INDEK. The network includes 346 active PhD candidates, 217 alumni, and hundreds of faculty members specializing in innovation and entrepreneurship.

Christofer Laurell returns to INDEK as affiliated professor

For this year's INDEK Yearbook, Matti Kaulio had the chance to sit down with Christofer, who recently returned to the department after a few years in industry. Our conversation quickly turned into a reflection on moving between two worlds - and why that movement matters.

Who are you and what are you doing at INDEK?

"When I think about my path at INDEK, it really started back in 2020 when I joined as an associate professor. After a few years in industry, working in different executive roles, I eventually found my way back, this time as an adjunct professor. I hold this position in parallel to my role as research leader at the Länsförsäkringar Research Foundation.

Coming back feels a bit like returning home, but with a new perspective. Being positioned between academia and industry gives me the chance to bring real world questions into the research environment, and to take research insights back into practice. It's a space where the two sides genuinely enrich each other, and that's something I really enjoy."

What research questions or projects are you currently working on, and why are they important?

"The collaboration with KTH, one of Europe's leading technical universities and a research environment at the forefront of new technology, offers a valuable opportunity to deepen our understanding of how emerging technologies are reshaping organizations and society. Working alongside researchers at KTH provides access to perspectives and analytical tools that can help inform strategic decisions.

At the same time, Länsförsäkringar's presence in local communities across Sweden makes it possible to translate research into practice and to identify the questions that matter most from a societal perspective in different parts of the country. This work is important because several parallel technology shifts continue to change the conditions under which customer owned organizations operate. By bringing these perspectives together, the ambition is to ensure that technological change works to the benefit of customer owned organizations and the people they serve."

Academic citizenship

Engagements within KTH

- The Stockholm School of Entrepreneurship, Head, KTH Entrepreneurship Lab – Terrence Brown
- KTH Entrepreneurship Lab - Terrece Brown
- KTH Food Center – Theme leader for Value Chains and Consumption – steering committee: Emrah Karakaya
- MSc in Industrial Engineering and Management (CINEK) – program director: Åsa-Karin Engstrand
- Master in Industrial Engineering and Management (TIEMM) – program director: Lars Uppvall
- Master in Industrial Management (TINEM) – program director: Emrah Karakaya; deputy program director: Niklas Arvidsson
- Master in Innovation and Entrepreneurship – program director: Mana Farshid
- MSc in Industrial Engineering and Sustainability – program director: Pernilla Ulfvengren
- KTH Centre for Sustainable Aviation – director: Pernilla Ulfvengren
- Digital Futures – digitalized industry: Mats Engwall; educational transformation: Mattias Wiggberg
- Inspire Labs – Pia Höök

Engagements outside KTH

- European Academy for Industrial Management – fellow: Mats Engwall
- Institute of Management of Innovation and Technology (IMIT) – board: Cali Nuur; fellow: Mats Engwall
- Politechnico di Milano; School of Management – advisory board: Mats Engwall
- Ratio Institute – board: Elina Gobena
- Scandinavian Academy of Industrial Engineering and Management (ScAIEM) – chairman: Mats Engwall
- Stockholm School of Entrepreneurship – board: Cali Nuur
- Swedish Entrepreneurship Forum – managing director: Anders Broström; researchers: Pontus Braunerhjelm, Per Thulin
- Swedish Gender Equality Agency – scientific committee: Anna Wahl
- Swedish Human Factors Network – board: Pernilla Ulfvengren
- Swedish Implementation Council – Anders Broström
- Swedish Project Academy – fellows: Mats Engwall, Anna Jerbrant, Johann Packendorff
- Swedish Royal Academy of Engineering Sciences (IVA) – fellows: Pontus Braunerhjelm, Mats Engwall
- Swiss National Science Foundation – gender equality commission: Anna Wahl.
- Centre for Innovative Human Systems (CIHS) - Trinity College Dublin Affiliated lecturer and researcher – Pernilla Ulfengren
- Institute for Management of Innovation and Technology, (IMIT) – Terrence Brown, Mats Engwall
- Entrepreneurial Marketing Special Interest Group, American Marketing Association – Terrence Brown
- Platform Work Directive (EU) 2024/283 – Mattias Wiggberg

Scientific Journals Editorial boards and board members

- Annals of Regional Science, Hans Lööf
- Industry and Innovation, Anders Broström
- International Journal of Empirical Economics, Hans Lööf
- International Journal of Project Management, Maxim Meterev
- International Journal of Project Organisation and Management, Johann Packendorff
- International Journal of Information Technology Project Management, Johann Packendorff
- Journal of Change Management, Monica Lindgren, Johann Packendorff
- Journal of Family Business Management, Johann Packendorff
- Project Leadership and Society, Maxim Meterev
- Project Management Journal, Maxim Meterev, Johann Packendorff
- Scandinavian Journal of Management, Monica Lindgren
- The International Journal of Entrepreneurial Venturing, Terrence Brown.

Academic staff

MOHAMMAD AKHBARI
Lecturer
Research areas: Industrial engineering and management, Management accounting and control systems in the digital era.
Teaching area: Industrial management.

HENRIK BLOMGREN
Associate professor
Research areas: Digital Transformation, Mobile Marketing:
Teaching areas: Corporate Strategy, Entrepreneurship, Marketing, Disruption.

ÅSA-KARIN ENGSTRAND
Associate professor
Research areas: Work organization with a particular focus on bounded ethicality, precarious working conditions and inequalities.
Teaching areas: Organizations, human resource management, ethical dilemmas and gender relations.

ANDREAS FELDMANN
Associate professor
Research areas: Circular economy, Recycling, circular supply chains
Teaching areas:
Circular economy, supply chain and operations management, industrial dynamics.

PHILIP KAPPEN
Associate professor
Research areas: International management, strategy, corporate entrepreneurship
Teaching area:
Entrepreneurship.

JANNIS ANGELIS
Associate professor
Research areas: Algorithmic management, data-driven decision making, EV battery ecosystems.
Teaching areas: Operations strategy, performance management, quantitative methods.

ANDERS BROSTRÖM
Associate professor
Research areas: Innovation, entrepreneurship, economics of science and education.
Teaching area:
Data analytics.

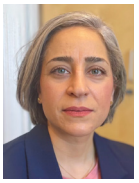
MATS ENGWALL
Professor
Research areas: Business model implications of AI, digitalization, and electrification;
Teaching areas: Technology and innovation management, operations management, theory of science.

CHARLOTTE HOLGERSSON
Associate professor
Research areas:
Gender in organizations, management careers, homosocial cultures, work for change
Teaching areas: Organization, gender studies, critical diversity management.

EMRAH KARAKAYA
Associate professor
Research areas: Sustainability transitions, business models and innovation diffusion
Teaching areas: Research methods, sustainability transitions, industrial dynamics.

NIKLAS ARVIDSSON
Professor
Research areas: Innovation in payment system, cashless society, sustainability in digital systems
Teaching areas: Strategic management in technology shifts, Management of innovation, Industrial dynamics.

TERRENCE BROWN
Professor
Research areas: Digital entrepreneurship, digital marketing, business model innovation.
Teaching areas: Opportunity Development and business model innovation.



MANA FARSHID
Associate professor
Research areas: Digital marketing and e-commerce, Digital twin and sustainability, digital communications
Teaching areas: Digital marking, e-business strategy, Quantitative market research and business analytics.

BO KARLSON
Lecturer
Teaching areas:
Basic industrial management
Management accounting
Operations management.

ANNA JERBRANT
Associate professor
Research areas: Collective action and collaboration, knowledge ecosystems as meta-organizations, institutional influence.
Teaching areas: Program & portfolio management, project management, organizing and management in knowledge-intensive businesses

MATTI KAULIO
Professor
Research area: Leadership & Organization
Teaching areas: Leadership & Organization, Technology-based Entrepreneurship.

FABIAN LEVIN
Associate professor
Research area:
Pollution and climate change.
Teaching areas:Sustainability and dynamic entrepreneurship.

JOHAN NORDENSVÄRD
Associate Professor
Research areas: Innovation, Transformation, Innovation policy, Energy policy, Innovation governance
Teaching areas:
Technology and Innovation; Societal Transformation.

KRISTINA NYSTRÖM
Professor
Research areas: Firm dynamics and entrepreneurship, recruitment of competence in a regional perspective
Teaching areas: Technology-based entrepreneurship.

PER THULIN
PhD
Research areas: Entrepreneurship and innovation
Teaching area:
Economics.

MATTIAS WIGGBERG
Researcher
Research areas:
Digital transformation, Artificial Intelligence, Digital Skills and Competence
Teaching areas:
Digitalisation.

HANS LÖÖF
Professor
Research areas:
Economics of innovation, green economics
Teaching areas:
Econometrics, economics.

ANNA NYQUIST
Lecturer
Research areas:
Sustainability marketing and communication, sustainable supply chains, entrepreneurial marketing.
Teaching areas: Industrial marketing, entrepreneurship, innovation management.

JOHANN PACKENDORFF
Professor
Research areas:
Organisation theory, leadership, gender
Teaching areas:
Project management, organisational development, leadership.

HENRIK UGGLA
PhD
Research areas: Strategic Brand Management, Brand Portfolio Management, Strategic Marketing
Teaching areas:
Brand Portfolio Strategy, Mature Brand Leverage Strategy, Luxury Branding.

MONICA LINDGREN
Professor
Research areas:
Organisation theory, leadership, gender
Teaching areas:
Project management, organisational development, leadership.

MAXIM MITEREV
Assistant Professor
Research areas: Project studies, business model innovation.
Teaching areas: Project management, management of project-based organizations.

CALI NUUR
Professor
Research areas: Innovation processes, industrial and technological transformation processes, industrial dynamics, circular economy
Teaching areas: Industrial and technical change.

CHRISTIAN THOMANN
Associate professor
Research areas: Financial Mathematics, Business and Management
Corporate Finance
Teaching areas: Financial Mathematics, Business and Management Corporate Finance.

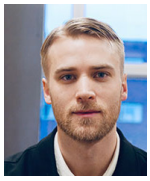
LARS UPPVALL
Associate professor
Research areas: R&D Management and Innovation: Collaborative Work in Product Development, Sustainable Transport
Teaching areas: Perspectives on Industrial Management, Change Projects in Industrial Management.

LUCA URCIUOLI
Associate professor
Research areas:
Resilience and sustainable supply chains, climate risks, infrastructure intelligent access
Teaching areas: Logistics, supply chain management, operations, risk management.

ANNA WAHL
Professor
Research areas: Gender and organization, management careers, homosocial cultures, heterosocial strategies, work for change and gender-based violence
Teaching areas: Organization studies, gender studies, critical diversity management and theories on work for change.

PERNILLA ULFVENGREN
Associate professor
Research areas: Socio-technical system analysis, Complexity management/ engineering, Sustainable innovation
Teaching areas: Engineering methods, System change and risk management, Human factors/Ergonomics.

SABINA DU RIETZ DAHLSTRÖM
Associate professor
Research areas:
Sustainability och management control
Teaching areas:
Management control.



ADAM UHRDIN
Researcher
Research projects:
Fostering Innovation Ecosystems for a Green Mobility Transition;Drive Sweden Business Model Lab; Urban Logistics Barkarby.

FRAUKE URBAN
Professor
Research areas: management of sustainable energy systems, sustainability transitions, energy and climate policy
Teaching areas: Management of sustainable energy systems, industrial dynamics; management of innovation.

MARK SANCTUARY
Associate professor
Research areas:
Economics, sustainable finance
Teaching areas:
Finance and control.

Post Docs and guest researchers

CHARLOTTA LINSE
Post doc
Research areas:
Managing uncertain product development work, Adopting agile beyond software
Teaching areas
Organization and knowledge-intensive work.

VOLKER KOCH
Senior lecturer, TU Graz
Research area: Circular Supply Chain Management

ALAA SHQAIRAT
Guest PhD candidate
Research areas:
Sustainability Transition, Lithium-ion batteries.

YIRAN CHEN ZHOU
PhD student, Åbo Academi
Research area: Digitalization's impact on business models and business ecosystems.

Professors emeriti

Pontus Braunerhielm
Jan Forslin
Claes Gustavsson
Bo Göransson
Staffan Laestadius
Lena Mårtensson
Esmail Salehi-Sangrai
Thomas Sandberg

HENRY SCHWARZ
PhD Student, Åbo Akademi
Research area:
Sustainable Maritime shipping

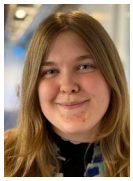
Inhouse doctoral students

ADAM BERTHOLD
Dissertation area: AI and Industrial transformation
Defense planned: 2027.

ELINA GOBENA
Dissertation area: Dynamic capabilites and reskilling
Defended: Autumn 2025.

ARI PRASETIA
Dissertation area: Resilient Supply Chain in Sustainable Built Environment
Defense planned: 2028.

ARVID SVENSON
Dissertation area: Circular Business Models and Circular Supply Chains in Process Industries
Defense planned: 2029.



EMELIE EKSTRÖM
Dissertation area: Innovation in the Urban Water System
Defense planned: 2029.

ERIKA BLOMSTRAND
Dissertation area: gender equality and diversity work in engineering cultures
Defense planned: Spring 2026.

EVELINA HÅDÉN
Dissertation area:
Digital Innovation
Defense planned: 2026.

BEATRIZ PÉREZ HORNO
Dissertation area: Circularity systems and solutions
Defense planned: 2027.

JING WANG
Dissertation area:
Carbon pricing and labor economics
Defense planned: 2029

EMILY CHRISTLEY
Dissertation area: Sustainable Energy Transformations in Aviation
Defended: Autumn 2025.

HANNES KRISTOFERSSON
Dissertation area: Electrification of road freight transports
Defense planned: Autumn 2027.

ISABEL WERNER RUNEBJÖRK
Dissertation area:
Organizational behaviour: leadership in collaborative research
Defense planned: 2026.

JIAYU ZHANG
Dissertation area: Property insurance and carbon pricing
Defense planned: 2028.

Support

CAROLINE AHLSTEDT
Operations Controller

VARDAN HOVSEPYAN
Datasupport.
IT and technical support.

SÉBASTIEN GUSTIN
Webmaster and Infomaster
Local IT and technical support.

New research projects

Sustainable Energy Transitions – Technology and Management Perspectives

PI: Frauke Urban
Project period: 2025-08-15 – 2025-11-30
Funder: Nordic Academy of Management, 95,505 SEK
Project partners: Hanken School of Economics, Technical University of Denmark

Abstract:
The PhD course Sustainable Energy Transitions – Technology and Management Perspectives is an interdisciplinary course package that provides doctoral students with training in innovation and technology management, sustainable business, and entrepreneurship related to sustainable energy transitions. The course addresses the challenges and opportunities driving transformations of energy systems and energy-related industries. This includes discussions of global challenges such as climate change and sustainable development, and analyses of how these contribute to the transformation of energy systems and industries. The course was held at KTH during the autumn of 2025.

Is the Green Transition Economically Sustainable? Effects of Large Investments on Entrepreneurship and Business Dynamics in the Swedish Small Town

PI: Kristina Nyström
Project period: 2025-01-01 – 2027-12-31
Funder: Kamprad Family Foundation, 786,439 SEK
Project partners: Institute of Retail Economics

Abstract:
Large-scale investments linked to the green transition create opportunities for economic development in rural regions and smaller cities that have previously experienced economic decline. At the same time, these investments also create new challenges. This project examines how such industrial establishments affect regional economies, entrepreneurship, and business dynamics. The empirical study focuses on the establishment of Northvolt Ett in Skellefteå. The project aims to generate knowledge about the extent to which large industrial investments in rural areas and small cities can contribute to long-term economic growth. The study is highly relevant from a policy perspective, as such investments are increasingly viewed as instruments for stimulating development in peripheral regions.

SEEK – Accelerating Electrified Construction through Climate-Oriented Procurement

PI: Adam Uhrdin
Project period: 2025-06-01 – 2027-05-31
Funder: Swedish Energy Agency, 660,142 SEK
Project partners: ABT Bolagen, Skanska, City of Stockholm, Sustainable Innovation

Abstract:
The project explores how procurement can be used to accelerate the transition to zero-emission trucks and construction machinery. Although the technology has already been validated in real-world operations, its adoption is constrained by high investment costs and business models that are not adapted to electrification, particularly for smaller actors. The project aims to develop a non-exclusionary procurement framework that can contribute to faster electrification of construction activities in Stockholm, while also serving as a model for broader adoption among municipalities, private actors, and in European contexts. The work includes a baseline analysis, literature review, environmental scanning, and co-development with project partners. The project is expected to generate new knowledge on the role of procurement in sustainable transitions.

Pre-study: Pathways for Energy Transitions of Road Transport – ZEVs and Infrastructure Solutions (PaTET)

PI: Adam Uhrdin
Project period: 2025-04-07 – 2025-12-31
Funder: ITRL, 162,530 SEK
Project partners: Scania, Ramboll

Abstract:
This pre-study analyzes transition pathways for heavy freight transport in Sweden, with a particular focus on zero-emission vehicles (ZEVs) and associated infrastructure solutions up to 2040. The study is conducted in collaboration between KTH Royal Institute of Technology (ITRL), Scania, and Ramboll, and includes energy modeling, business model analysis, vehicle development, and integrated systems analysis.

BUS – Noise Impact Analysis of Urban Air Mobility in Stockholm

PI: Pernilla Ulfvengren
Project period: 2025-05-01 – 2027-10-31
Funder: Swedish Transport Administration, 4.5 MSEK
Project partners: Swedish Transport Administration (Aviation Portfolio), Karolinska Institutet, CAMM (Centre for Occupational and Environmental Medicine), Akustikdoktorn AB, Aurskall AB, and the City of Stockholm (Traffic Office and Environment Administration)

Abstract:
There are high expectations for Urban Air Mobility (UAM) as a future solution for mobility, congestion reduction, emissions reduction, and service provision in cities. The aim of the project is to develop tools and methods for planning and regulating transportation using Urban Air Mobility, as well as assessing health effects by generating different drone traffic scenarios in Stockholm's airspace. The focus on noise is linked to public health policy goals related to housing, living environments, and local environmental quality, as well as the City of Stockholm's objective of reducing the number of residents disturbed by noise. The project also evaluates how environmental goals can be integrated into transportation planning and decision-making processes. The results are expected to contribute to future guidelines, planning models, and regulatory frameworks used by the Swedish Transport Administration.

... cont. new research projects

Summer Research Internship Program:

Digital Transformation in Water Utilities – A Challenging Journey to Smart Maintenance

PI: Maksim Miterev
Project period: 2025-06-10 – 2025-08-29
Funder: Digital Futures, 60,000 SEK
Project partners: ESEM (Eskilstuna Strängnäs Energi och Miljö AB) and the Inframaint digitalization project

Abstract:
Access to clean water and effective wastewater treatment is critical for both industry and society. However, water utilities worldwide are facing significant challenges, including aging infrastructure, population growth, stricter regulations, and climate change. This project builds on previously collected empirical data from a digitalization initiative in a Swedish water utility focused on predictive maintenance, as well as related empirical studies. In particular, the project analyzes the implementation of so-called "smart reports" for more than 250 water pump stations, contributing to a deeper understanding of digital adoption in critical infrastructure systems. The main expected outcome is a publication or practical guide intended to support water utilities in their transition toward advanced digital enterprises.

Digital Water Utilities: What Can We Learn from International Pioneers?

PI: Mats Engwall
Project period: 2025-01-01–25-06-30
Funder: Mistra, 500,000 SEK

Abstract:
The purpose of this project is to identify leading international water utilities in digitalization and analyze what lessons Swedish organizations can draw from their experiences. Previous research has explored the drivers, challenges, and contextual differences related to the digitalization of Swedish water utilities. While these insights are grounded in a Swedish context, the project broadens the perspective by examining international frontrunners. In countries such as Spain and the United Kingdom, different institutional conditions, market structures, and challenges, including water scarcity, have created alternative pathways and incentives for digital transformation. The study is based on document analysis, interviews, and site visits where possible. The project aims to strengthen Swedish municipalities' asset management capabilities, where digital technologies play a key role.

ELL – Expert Learning Lab Phase 3.0

PI: Mattias Wiggberg
Funder: Vinnova, 60 MSEK (Tot), 7 MSEK Indek
Project partners: Hanken School of Economics, Technical University of Denmark

Abstract:
Expert Learning Lab (ELL) Phase 3.0 addresses Sweden's shortage of advanced digital skills by scaling a workplace-based learning model developed jointly by universities and industry. The initiative supports reskilling and upskilling in areas such as AI, cybersecurity, and energy optimization, while integrating new technologies and validation systems. By bringing together leading companies and universities, ELL strengthens industrial competitiveness and supports Sweden's digital transformation.

Smart cities – Pathways through Experimentation, Research and regulatory Exploration towards sustainability (SPHERE)

PI: Frauke Urban
Co-PI: Mattias Wiggberg
Project period: 2025-2029
Funder: KTH strategic research initiative 14 MSEK

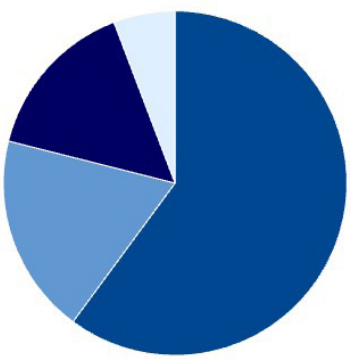
Abstract:
The SPHERE initiative aims to establish a city-scale research and innovation arena that supports the sustainability transition through smarter, more resilient infrastructure and reduced environmental impact. With an initial focus on Stockholm, the arena will enable cross-disciplinary research in cyber-physical systems across transport, the built environment, healthcare, energy, and water. By bringing together currently fragmented research groups, stakeholders, and experimental capabilities, SPHERE creates a foundation for long-term collaboration and innovation, positioning Stockholm as a leading smart city and providing a platform for future large-scale research initiatives.

BRIGHTER – Vi leder vägen med pålitlig AI för ett hållbart samhälle

Co-PI: Mattias Wiggberg
Project period: 2025-2026
Funder: VINNOVA, 1.5 MSEK

Abstract:
By 2035, Sweden aims to become a world-leading and trusted testbed for AI-based autonomous cyber-physical systems (AI-CPS). The initiative brings together research, industry, public-sector organizations, and regulators to create an ecosystem where advanced technologies can be developed, tested, certified, and deployed with confidence.
The pre-study involves 16 partners and lays the foundation for a national AI-CPS cluster. Key outcomes include a governance model, an AI-CPS research agenda, international partnerships, an advisory board, and proposals for coordinated test environments that support innovation, responsible scaling, and continuous validation of autonomous systems.

Financial result 2025



Total income, SEK

• Government grants for education first and second level studies	60%	57 972 731
• Government grants for research and doctoral studies	19%	18 142 747
• External grants for research and doctoral studies	15%	14 728 573
• Other revenues	6%	5 587 500
	100%	**96 431 551**

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The INDEK management team: Anna Jerbrant, Luca Urciuoli, Cali Nuur, Andreas Fledmann, Caroline Ahlstedt, Jannis Angelis and Mats Engwall.

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Link to INDEK's publication list:

www.kth.se/indek

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