



CENTRUM FÖR TJÄNSTEFORSKNING
CTF | SERVICE RESEARCH CENTER

Annual report 2024

Vision & Mission

CTF's vision and mission is to contribute to scientific knowledge and development of private and public organisations and the wider society through research on value-creation through service.



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Highlights²⁰²⁴



Poja Shams was featured on IVA's 100 List for his research on work-related stress – research with a potential to create significant societal impact.

To be professional at work

During our annual planning days, we discussed research funding and future research projects, got to know new colleagues, and had many conversations and laughs together. Anna Tufvesson held a lecture on the theme “Professional at work”.



Erik Wästlund promoted to professor in Psychology

“The combination of research in the humanities, social sciences, natural sciences, and technology is a unique blend. It has led to my role in digital health innovation at the Academy for Smart Specialisation and has been the common thread in my work over the years.”

A Sustainable Tomorrow

In September, CTF co-hosted Karlstad's local hub for the A Sustainable Tomorrow conference, together with Karlstad Business School, Bright Planet AB, and Karlstad Municipality. Around 100 participants gathered at Karlstad University to join the live broadcast and connect with some of the 30,000 attendees across 200 Nordic hubs.



Helén Williams, CTF, Marie-Therese Christiansson, Karlstad Business School, and Vice-Chancellor Jerker Moodysson, Karlstad University.

Have you experienced CTF's Friday fika?

“Fika is a Swedish intangible cultural heritage that blends culinary and social elements. It means taking a break over coffee or tea with something to eat, like a cinnamon bun or a cheese sandwich,” says Mia Larson, Professor of Business Administration at CTF. Her research on the topic was published this year in the article “In the Interest of the Nation: Swedish Fika.”

Friday fika is one of CTF's oldest and warmest traditions — a time to come together, talk research, and enjoy a coffee and treats with colleagues. Hope to see you there soon!



Friday fika is one of the oldest traditions at CTF – a world wide known tradition.



How can we reduce food waste and consume more sustainably?

In episode 8 of our seminar series Värdeskapande samtal (Value-Creating Conversations), Maria Wetterstrand (CEO at Milttön), Fredrik Wikström (Professor at CTF), and journalist Annika Lindqvist discussed food waste, packaging, agricultural policy, and sustainable consumption. They explored both individual actions and the systemic changes needed. The series is a collaboration with the Hamrin Foundation. All episodes are available on CTF's YouTube channel.



Linda Bergkvist promoted to associate professor in Information Systems

"I want to help organisations and individuals navigate in the digital world."

Per Kristensson was awarded the "Grönroos Service Research Award 2024" for lifetime achievements at the CERS Hanken's 30th anniversary at the Hanken School of Economics.



From research to education

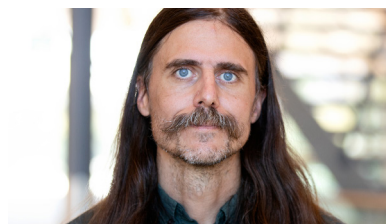
Karlstad Business School launched the new master programme "Management: sustainable value creation."

"The programme is based on CTF research and prepares leaders for a rapidly changing world, making it unique in Sweden," says programme director and CTF researcher Sara Davoudi.



Focusing on the Swedish wood construction industry

In December, Andrey Abadzhiev, defended his dissertation in Business Administration "Managing business model innovation for sustainability transitions: Towards a theory-based typology"



Data from meetings with patients and users does not always represent their needs

In October, Petter Falk defended his dissertation in Political Science "Assemble Care // Align Data".

Director's report

Many great activities and initiatives were accomplished during 2024. I want to thank everyone who have contributed to our research and work that was carried out during the year.



As the Director of our research center, I take pride in reflecting on another remarkable year of achievements. In our Annual Report, we demonstrate how our researchers' excellence and dedication pave way for our brand to be a significant leader in scientific thought, a magnet for external collaborations, and a catalyst for societal relevance and impact.

Firstly, our department has remained at the forefront of scientific thought leadership. Through groundbreaking research ideas, innovative methodologies, and active involvement in international academic networks, we influence the direction of service research. Our researchers have gained significant recognition for their work, receiving keynote invitations and publishing in top-tier journals, further reinforcing our status as a hub for research on value creation.

Secondly, our ability to attract external projects is a testament of our expertise. We have expanded our funding portfolio and enhanced our capabilities by forming strategic partnerships with industry leaders, government agencies, and various international research institutions. These collaborations ensure financial sustainability and keep our research relevant to real-world challenges and various contexts.

Thirdly, the societal impact of our research has never been clearer. Our work addresses urgent global issues, influences policy, advances technological solutions, and improves lives. This is research focused on value creation! Whether through healthcare innovations, environmental sustainability efforts, or contributions to social equity, our department is making a meaningful difference in communities worldwide.

At the heart of all this lies the trust of our partners—built through long-term relationships, shared goals, and countless collaborative activities. As a testament to this, I encourage you to explore the stories and achievements featured in this Annual Report.

As we continue this exciting journey, we are fully committed to expanding our knowledge, fostering valuable collaborations, and producing impactful research. I truly appreciate our members, partners, and Karlstad University for their steadfast support throughout 2024.

Per Kristensson
CTF director

Key numbers 2024

100

SCIENTIFIC PUBLICATIONS IN TOTAL

30

JOURNAL ARTICLES

15,7

NEW EXTERNAL FUNDING IN MSEK

14

INTERNATIONAL
CO-AUTHORED JOURNAL ARTICLES

26

ONGOING
RESEARCH PROJECTS

41

SEMINARS & CONFERENCES

110

HITS IN MEDIA

84

CTF PEOPLE

Including people employed at Karlstad University,
guest researchers and affiliated researchers.

52

CONFERENCE PAPERS

Chair's view

In 2024, we witnessed numerous negative reports about extreme weather, heat records, and how society and politics are failing to meet most environmental goals.



As of now, 2025 has also started turbulently with a new administration in the USA, unstable governments in Europe, and a shaky global economy. In such times, it is comforting to focus on the positive developments – such as the many valuable research results and initiatives delivered by CTF.

Throughout the year, CTF's researchers have contributed to many important insights and shared their knowledge, for example regarding questions such as: how individuals can consume more sustainably, how food waste can be halved by 2030, the progress of electrifying transport, digitalisation for better health, and the finding that children who walk or cycle to school perform better academically.

Additionally, CTF has both created and facilitated several important forums throughout the year where academia and practice can meet and where knowledge can be shared and applied in practice. The seminar series 'Värdeskapande samtal' (Value-Creating Conversations), available on YouTube, is one example. The seminar series has helped spread knowledge for better sustainability in society.

There is much more to be proud of. Work-related stress has long been an increasing problem in society. However, research is now being conducted that could help solve this issue. Research that has been featured on IVA's annual 100 list, which highlights research with great potential to create benefits.

Service research is about how organisations can create and maximise value, and the knowledge generated at CTF is known to be world-class. But it is not only the research itself that is important, but also the ability to disseminate the results and create an impact. Here too, CTF demonstrates excellence, which has been evident in various ways throughout the year.

The ISE graduate professional development programme, which provides professional development, has continued to attract participants from across the country and various industries. Furthermore, a new master's programme at Karlstad Business School has been introduced, based on CTF's cutting-edge research, entitled "Management for sustainable value creation," a programme focused on creating real value in a rapidly changing world. This increases the opportunities to equip tomorrow's leaders with valuable knowledge, so that they – just like CTF's researchers – can contribute to a bright future. The exciting journey continues.

Malin Thorsén

CEO Bright Planet and chair of CTF Advisory Board

Organisation

The Service Research Center (CTF) is a multidisciplinary research center at Karlstad University, Sweden, established in 1986.

Our staff members (researchers, PhD students, administrative team, guest researchers) come from all over the world and are variously involved in research and education within Business Administration, Psychology, Information Systems, Computer Science, Environmental and Energy Systems, Political Science, Machine Design, Industrial Engineering and Management and Religion Sociology. The daily operations is led by a director supported by a vice director, and by an administrative team (administrators, communication officer and accountant), and a strategic council consisting of professors and associate professors at CTF.

Advisory board

CTF's advisory board provides valuable insights, vital knowledge and experience and consist of representatives from private and public organisations, and academia.

- Malin Thorsén, Bright Planet AB (Chair)
- Kristina Heinonen, Hanken School of Economics
- Anna Skärdin, Elvenite
- Hans Karlsson, Arvika Municipality
- Mikael af Kleen, Differ Strategy
- Jonas Matthing, Compare
- Peter Rovér, Effect Management
- Per Kristensson, CTF
- Johan Quist, CTF
- Jenny Karlsson, CTF

Research framework and goals

Our research is driven by societal challenges with a focus on humans, society and our planet.

We conduct research on value creation through service based on the needs of individuals, businesses, organisations and society. We want our research to make a difference and help develop people, organisations and the world around us. Through research on services we develop new knowledge about value creating processes. With value creating processes, we refer to the effects that arise between an organisation and a user in the form of a customer, citizen or patient. Central research areas: service innovation, service management, service experience, transformative service research, service logic and service system transformation. CTF is always open to new research areas when societal transformation makes such areas relevant. CTF's research is conducted in

collaboration with private and public organisations as well as academia, and is at the forefront internationally in service research.



Several projects and studies at CTF are related to the Sustainable Development Goals (SDGs) in the 2030 Agenda for Sustainable Development.

Funders and partners

We work in partnerships with businesses, public organisations and academia all over the world. Our funders and partners are important factors of our success. In addition to support from Karlstad University, we are grateful for the collaboration and support from the following funders and partners:

- 2030 Sekretariatet
- Almega
- Anne-Marie och Gustaf Anders Stiftelse för mediaforskning
- Arvika kommun
- Attityd Karlstad
- Coop Värmland
- Dimatech
- Effect management
- Elvenite
- Energimyndigheten
- Europeiska Regionala Utvecklingsfonden (ERUF)
- Experio Lab Sverige
- Hagfors kommun
- Helsingborgs stad
- Ica Maxi Supermarket, Bergvik
- Ikea
- Innovation Skåne
- Formas
- Friskvården i Värmland
- Furhat Robotics
- Glava Energy Center
- Jan Wallanders och Tom Hedelius stiftelse samt Tore Browaldhs stiftelse
- Karlstads Energi
- Karlstads kommun
- KK-stiftelsen
- Kongsberg Maritime Sweden
- Konsumentverket
- Lidl's Future Initiatives/Plastutmaningen
- Light My Fire
- Livsmedelsverket
- Länsstyrelsen i Värmland
- Löfbergs
- Nifa
- Nobina Sverige AB
- Nordic Behaviour Group
- Panter
- Paper Province
- Polismyndigheten
- Postnord
- Region Värmland
- Riksbankens jubileumsfond
- Research Institute of Sweden (RISE)
- Sahlgrenska Science Park
- SBAB
- Scaaler
- Skellefteå Kraft
- SMA Mineral AB
- Stitelsen Compare/DigitalWell Arena
- Strawberry Hotel
- Stål & Verkstad
- Svensk Handel
- Sveriges Kommuner och Regioner (SKR)
- Swegon
- The Hamrin Foundation
- The Research Council of Norway
- Thingssquare
- Tillväxtverket
- Tobii Technology
- Trafikverket
- Uddeholm AB
- Unionen
- Valmet
- Vinnova
- Visit Värmland
- Visitors eXperience Lab Värmland
- Voith Hydro
- Volvo Group
- And many others.



MED FINANSIERING FRÅN



Selected scientific partners worldwide

CTF has a large international scientific network and collaborates with scientific partners all around the world. Here are some selected examples.

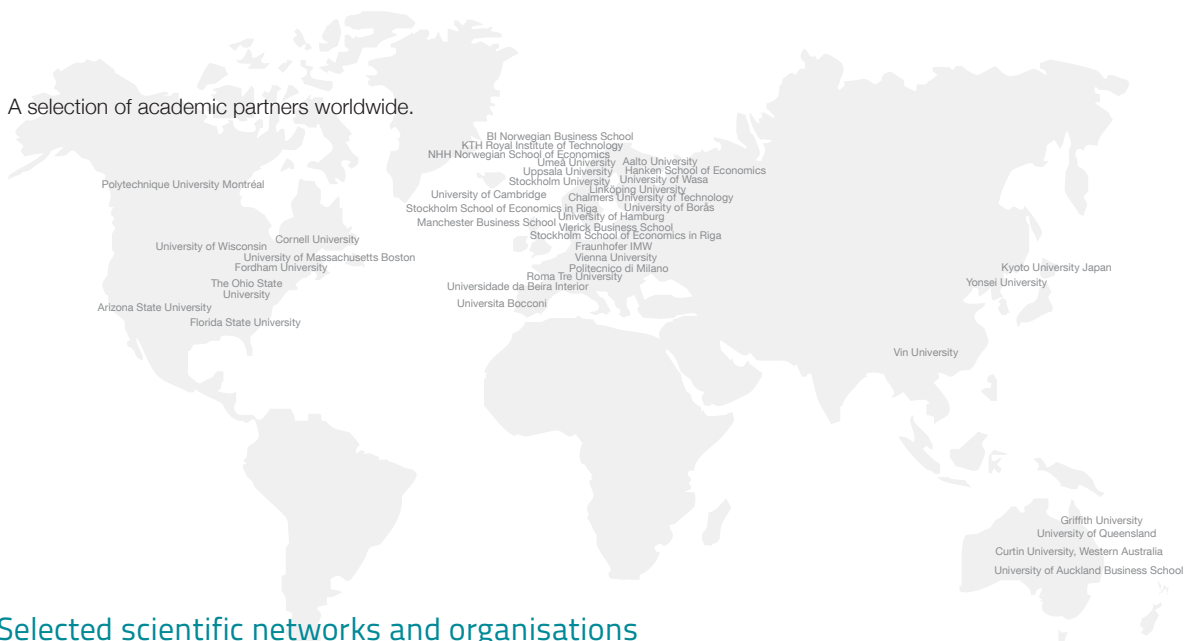
Visiting researchers who stay for shorter or longer periods of time is important to our environment. They contribute with an international perspective and knowledge. During 2024, we collaborated with professor Helen Perks and four new Visiting professors joined CTF (see page 12) with the support from by Anne-Marie and Gustaf Anders Foundation for Media Research.

During the year, several guest researchers and PhD students visited; Nanouk Verhulst, (Vrije Universiteit), Antoine Bordas (Mines Paris & Urgo Médical), Irene Di Bernado, (University of Naples Federico II) Aniek Toet and Maïke Klip-Veltman (Delft University), Jodie Conduit (University of Adelaide)

Luigi Sergianni, (Università L 'Orinetale di Napoli) Carmine Sergianni (University of Naples Federico II and Eva Lexutt (Fern Universität Hagen), to mention some examples.

CTF researchers visited and spent time in other research environments and universities, for example Petter Falk visited Harvard University and MIT (Massachusetts Institute of Technology) as part of the Wallenberg AI, Autonomous Systems and Software Program – Humanity and Society (WASP-HS), Per Skälén visited University of Edinburg Business School, Poja Shams visited Curtin University, Western Australia, Bo Edvardsson visited University of Valencia, to mention a few examples.

A selection of academic partners worldwide.



Selected scientific networks and organisations

- SIQ, The Swedish Institute for Quality
- SQMA, The Swedish Quality Management Academy
- MIT, Forskarskolan management och IT
- WASP Graduate School
- SNABS, Swedish Network for Advanced Business Studies
- NORSI, Nordic Research School in Innovation and Entrepreneurship
- CREDS, Center for Research on Digitalization and Sustainability – University of Inland Norway

New visiting professors

During 2024, four new visiting professors were appointed. They contribute with an international perspective and knowledge from the forefront within their respective field of research. The Visiting professorship is funded by Anne-Marie and Gustaf Ander Foundation for Media Research.

Elina Jaakkola is a professor of marketing at Turku School of Economics, University of Turku in Finland. She specialises in service research and her current research focuses on topics such as customer experience, customer journeys and value driven business. Her research projects over the years span many topics in B2C and B2B contexts, for example

service innovation, B2B service solutions, value creation, customer/actor engagement, and customer experience. Her most recent research project deals with circular economy experiences, and how circular solutions could be designed to foster positive experiences.

”CTF represents a multidisciplinary, lively home for a service researcher where new ideas emerge, and great research is conducted in a friendly atmosphere.

Elina Jaakkola



Elina Jaakkola

Cristina Mele is a professor of Service Innovation and the coordinator of the PhD programme on Management at the Department of Economics, Management and Institutions at the University of Naples Federico II. Her main research interests are innovation and smart technologies, customer journeys, value creation, markets, and service ecosystems. Her research projects deal with innovation prompted by the

adoption of smart technologies, particularly sensing technology, chatbots, and social robots in education and healthcare contexts. Most of her studies adopt a constructivist view, emphasising the active role of actors in constructing their understanding of the world. The practice-based approach delves into the service practices as an interpretive, qualitative methodology.

”CTF is one of the most excellent service research centres worldwide; great scholars, a vibrant atmosphere, and cutting-edge research.

Cristina Mele



Cristina Mele

Pascal Le Masson is an engineer and a professor at MINES ParisTech – PSL Research University. His research focuses on design theory and methods for innovation. His research interest lies in design-oriented management and the management of the unknown. This topic relates to two main disciplines: management

science, more specifically innovation management; and engineering design, more specifically design theory and methods. He is particularly proud to have contributed to developments in C-K theory, for a better understanding of generativity processes, with impact in many research areas.

“I’m so happy for this opportunity to delve deeper into the research of the renowned CTF and to get to know the researchers. The Visiting Professorship presents a great opportunity to explore in more depth how to combine expertise in design theory and expertise in ideation, user involvement and idea refinement processes.

Pascal Le Masson



Pascal Le Masson

Martin Schreier is Professor of Marketing and Head of the Department of Marketing and the Institute for Marketing Management at the Vienna University of Economics and Business (WU Vienna). His primary areas of research are marketing, innovation, and consumer behavior. Some of his current research projects focus on topics such as creativity, groundedness, new product ideation, and sustainability. For example, how to boost one’s creative potential, how can marketers work with the concept of groundedness? How can AI complement crowdsourcing efforts for firms? and, how can we help consumers to live a more sustainable life? With regard to the latter, we have discovered that by

making a certain behaviour merely more fun for the focal customer, you can increase their engagement in the target behaviour. The tenet that “sustainable behaviour should be fun” is thought provoking to popular lay and expert beliefs – and broad literature streams – according to which the underlying problem should be at the focus of attention, for example, we need to recycle to save the world. Instead, our idea is to focus on immediate self-benefits, which provides a disruptive alternative to spur behaviour that is good for the world. For example, in a field experiment we found that customers are actually more willing to offset a bus trip in case the offsetting option is embedded in a fun challenge.

“I hope to help researchers at CTF develop impactful papers and contribute with method expertise and with my experience as editor of a major marketing journal, to provide constructive feedback on all kinds of marketing-related research at CTF. Of course, it would be cool to kick-off joint research projects as well.

Martin Schreier



Martin Schreier

Introducing new CTF people



Sarath Raveendran, PhD student in Computer Science. Research interest: applying data science to drive sustainable business practices. Sarath will focus on applying data science to drive sustainable business practices. This topic aligns with his background in data science and his commitment to creating environmentally and economically sustainable solutions.



Olle Bäcklund, PhD Student in Business Administration. Research interest: circular economy and the development of circular business models, focusing on how these can support a sustainable transition for companies. How customer behaviours and service design can facilitate the shift from linear to circular practices.



Henryk Stawicki, PhD student in Business Administration. Research interest: the role of service design in facilitating the transition to a circular economy. How circular economy principles can be integrated into service design practices, considering circular solutions and business models.



Hans Lind, Industrial PhD Student in Business Administration. Research interest: servitization in Swedish industries. Hans will be pursuing his PhD part-time while continuing his work at Volvo Group.



Martiina Salokangas, PhD student in Business Administration. Research focus: human experiences in circular economy services and practices, aiming to shape these experiences to support the circular transition. How service design can address challenges in adopting circular solutions, making them easier to embrace.



Siri Jakobsson Störe, PhD in Psychology. Research interest: lies primarily within clinical psychology, health psychology, and developmental psychology, closely linked to her background as a licensed psychologist.

Publications

Publishing research is one of the distinguishing factors for researchers. The publication process brings quality assurance to higher education.

In 2024, 30 scientific articles were published in peer-reviewed scientific journals. 14 of these articles were written in collaboration with international scholars, highlighting our global standing. Additionally, about 52 conference papers were accepted, 11 book chapters, and five reports were published. Two PhD theses were published; Abadzhiev, A. (2024) Business Administration, “Managing business model innovation for sustainability transitions: Towards a theory-based typology”, Karlstad University Studies, 2024:38, and Falk, P. (2024) Political Science, Assemble Care// Align Data: An Ethnographic Study of Datafication in Swedish Public Care, Karlstad University Studies, 2024:30.

Several articles appeared in leading journals with high impact factors, such as the *Journal of Business Research*, *Journal of Service Research*, *Marketing Theory*, *Journal of Business Ethics*, *Journal of Service Management*, and *Total Quality Management*, among others. Several CTF researchers have contributed to journals, boards, and committees.

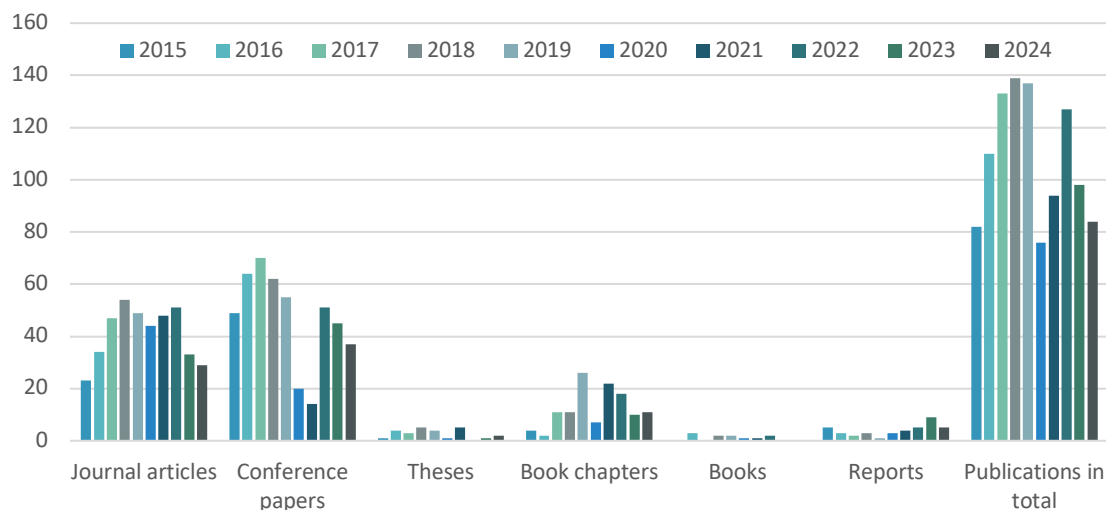
Scientific achievements and awards

Erik Wästlund was appointed professor in Psychology, and Linda Bergqvist was appointed associate professor in Information Systems.

Poja Shams’ research on work-related stress was featured on IVA’s 100 list for its potential to create significant societal impact. The aim of the project, “Deep Tech Meets Workplace Wellness: Pioneering Real-time Stress Solutions,” is to monitor and reduce work-related stress. By using real-time measurements and AI models, stress triggers in the workplace are identified, allowing employers to promote employee well-being.

Lars E. Olsson, Margareta Friman, Bo Edvardsson, and Lars Witell were listed in the ranking of the world’s top 2% researchers published by Stanford/Elsevier. Ingo O. Karpen, Bo Edvardsson, Bård Tronvoll, Elina Jaakkola, and Jodie Conduit won the “Robert Johnston Highly Commended Paper Award” for their research on

Annual number of publications



“Circular service management: towards conceptual understanding and service research priorities for a more sustainable future” in the Journal of Service Management. Samuel Sebhatu received the “Best Paper Award” at the International Association on Quality, Innovation, and Sustainability conference. Per Kristensson, was awarded the “Grönroos Service Research Award 2024” for lifetime achievements at the CERS Hanken’s 30th anniversary at the Hanken School of Economics.

A selection of scientific articles

Fyrberg Yngfalk, A. & Fellesson, M. (2024). Service with(out) a smile: The reproduction of gendered consumer violence. *Marketing Theory*.

The article discusses how female employees in the Nordic retail trade are exposed to violations from customers, connected to the idea that “the customer is always right”. The authors show that this customer power not only affects how service work is organised but also reinforces gender roles and power structures, particularly through expectations linked to female availability and subordination. By combining service research on customer misbehavior with a feminist-inspired power analysis, the study highlights how market logic, together with gender norms, contribute to normalizing these abuses. The article thereby contributes to a deeper understanding of how the concept of customer sovereignty can create and maintain inequalities in working life.

Johansson Rehn, H., Olsson, L.E. & Friman, M. (2024). A framework of routine transitions in daily travel. *Transportation Research Part A*. 179.

We introduced a theoretical framework that describes the psychological processes and phases individuals undergo when they alter their daily travel patterns in response to life events. Life events, such as changing jobs or moving, are often discussed by scholars as a “window of opportunity” for promoting more sustainable behavioral changes.

Our framework provides guidance on understanding decision-making and the formation of new habits during these periods.

Skållén, P. (2024). Framework of Services-as-Practices. *Journal of Service Research*.

Service research has put little emphasis on understanding concrete services that organisations, users and other stakeholders exchange. However, many researchers and practitioners are calling for a “language” able to describe and account for services. To satisfy this need, this article develops a practical applicable conceptualisation of services as value cocreating activities using practice theory.

Hassel, J. E. (2024). Third actor introductions to interaction episodes aiming at fast-forwarding new firm relationship development. *Journal of Business & Industrial Marketing*, 39(13), 200-215.

The study presents how so called third actors such as venture builders use strategic introductions to trigger relationship building between their co-founded startups and potential counterparts in business networks. These strategic introductions contribute to fast-forward startups gaining ‘insidership’ in existing networks and are thus important for their survival and market success. The study contributes both theoretically and practically, primarily to the research on venture builders, but also on relationship development in early stages.

New funding and projects

In 2024, CTF received over SEK 15 million in new funding. This include funding from the EU, research funders such as Vinnova and Tillväxtverket, and foundations such as Ann-Marie and Gustaf Ander Foundation. This has resulted in several new projects and research collaborations, some of them mentioned below.

PERUPP

The project, led by Siri Jagstedt, aims to leverage AI technology to create personalized experiences for tourists. Over the course of three years, CTF is collaborating with local stakeholders to develop an AI-based service that matches tourism offerings to visitors' preferences. Funded by the European Regional Development Fund, PERUPP is part of the Academy for Smart Specialisation, a partnership between Karlstad University and Region Värmland.

DigiH4A

CTF, with Erik Wästlund as the research leader, is participating in DigiH4A (Digital Health for All), an EU-funded project under the Interreg North Sea programme. The project aims to improve healthcare through digital health solutions by developing innovative reimbursement pathways and cost-benefit analysis methods. In collaborating with over 200 small and medium-sized enterprises, these solutions will assist healthcare providers and decision-makers in integrating digital health technologies, thereby enhancing care delivery and patient outcomes at a systemic level by 2027. Learn more at: interregnorthsea.eu/digih4a

DHINO 2.0

Phase two of the project DHINO project, led by Erik Wästlund, was initiated this year. Funded by Region Värmland, the European Regional Development Fund (ERDF), Vinnova, and Karlstad University, this interdisciplinary project aims to promote the digitalisation of healthcare services in Värmland, with a focus on economic, social, and environmental sustainability.

INNOPATH

The project, funded by Vinnova and led by Jakob Trischler, aims to improve innovation policy to address societal challenges and promote sustainability. It will integrate innovation commons into transformative innovation policy, supporting transitions in line with Agenda 2030. In collaboration with Compare, the project will develop a conceptual framework and analyze case studies in Sweden.

Bruksort 2.0

The project is managed by Compare, with Karlstad University providing expertise in service design and social development. The project aims to strengthen Hagfors through social development, citizen participation, and improved mobility. CTF's research, led by Jenny Karlsson, will generate new knowledge on sustainability.

ReValue

The project aims to make transport solutions more circular through new business models, needs analysis, and vehicle design for improved lifespan and recycling. Funded by Vinnova and led by Lindholmen Science Park with Volvo Group, RISE, CTF, and IVL as key partners, it provides knowledge and guidelines for a circular transition. CTF's research, led by Klas Hedvall and Jasper van Kuijk, focuses on understanding the needs of future customers of circular transport solutions.

Research collaborations and impact stories

Co-creating a sustainable, accessible, and dynamic public transportation

For nearly 20 years, CTF and Värmlandstrafik have worked together in a long-term partnership, fostering shared experiences, new insights, and knowledge – shaping key decisions and enhancing public transport from a user perspective.



Lena Thorin and Lars E. Olsson have been working together for many years, gaining new insights and creating new knowledge focused on the sustainable development of public transportation.

The long-term collaboration between CTF and Värmlandstrafik has generated shared experiences, new insights and knowledge that influence important decisions and help improve public transport.

“In the public transport sector, we may not always be great at seeing things from the customer’s perspective. The research at CTF has been incredibly useful,” says Lena Thorin, assistant director of transport at Region Värmland.

“For us as researchers, it is crucial to study customers in a real environment over time, as we’ve been doing together with Värmlandstrafik”, says Lars E. Olsson, professor of Psychology at CTF.

Lena Thorin says that working with CTF has changed their perspective and provided new methods, particularly in understanding customer behaviour.

They have become better at evaluation methodology, identifying the consequences of various decisions, which in turn leads to better public transport and makes it easier for people to make sustainable choices.

“The passenger’s decision is often seen as entirely analogue. They either travel by public transport or they don’t. But we are learning from the research culture and try to focus more on the road leading up to that decision. Even if someone doesn’t choose to travel by public transport this time, they might have come a bit closer, and perhaps they’ll choose public transport next time, she says.

“We have developed various measuring methods to capture satisfaction levels and accessibility. These are methods that are now used in research world-wide. And it all started here, with us working together,” says Lars E. Olsson.

The long collaboration between CTF and Värmlandstrafik has turned into more of an ongoing work process rather than fixed-term projects. When a project is nearing the end, plans for the next study is already well underway. The fact that both parties involve each other early in the projects and that both contribute their resources and perspectives is a strength, he says and continues,

“Our collaboration is built on trust, which gives both organisations the confidence to embark on new joint initiatives. We know it will generate valuable knowledge and that it will be a successful project,” he concludes.



Development requires knowledge, and that's where research plays a crucial role. We continuously improve our services to offer the residents of Värmland better accessibility. Our collaboration with CTF is invaluable in advancing sustainable transport in Värmland with impacts that reach far beyond.



Lena Thorin

Lena Thorin, Region Värmland

In 2024, research has been conducted on dynamic bus transport, that is, buses operating without a timetable or fixed route, for a freer way of travelling that is more based on individual needs. In Värmland, this is now a permanent service in Säffle and it has also been tested in Sunne. Research has shown that the need for dynamic transport varies greatly depending on the location and the conditions.

In the near future, Värmlandstrafik and CTF will work on a joint project focused on how resources can be used more efficiently.

"We will look at how each vehicle can be used in the best way, and the idea is to create new services

that will benefit the citizens through better and more flexible public transport," says Lena Thorin.

CTF will contribute with the user perspective, how citizens are affected and how their perspective can contribute to improving public transport.

"Development requires knowledge, and this is where research comes in. We are continuously improving our services over time and can offer the residents of Värmland increasingly better accessibility. The collaboration with CTF is, therefore, extremely valuable for the development of sustainable transport in Värmland, and the knowledge also has effects around the world", says Lena Thorin.

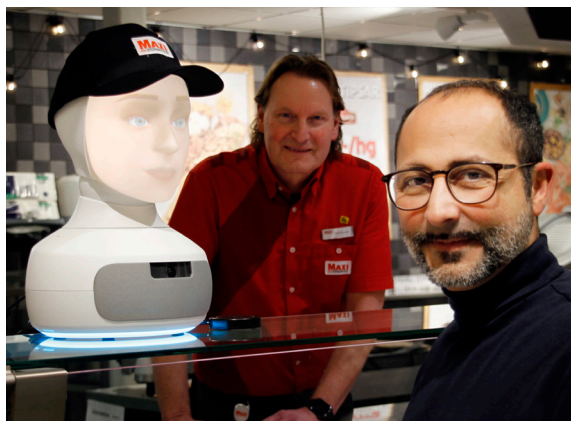
Voice, appearance, and credibility: understanding social robots in retail environments

Can robots enhance the supermarket experience? How do voice and appearance affect credibility? CTF has been collaborating with Ica Maxi Bergvik in Karlstad for close to 15 years. The most recent study has focused on customers' attitude towards social robots in retail.

In 2024, a study was conducted on how customers experience and interact with social robots in a store environment. The study focused on the role of the robot as more than a source of information. The aim was to understand how factors such as voice, communication style, and appearance including gender, affect the customer experience and the robot's credibility as a store assistant.

"People's expectations of a robot vary depending on the context. When information and guidance are key, they may want a clear and authoritative voice. At the same time, our experiences of digital assistants influence how we react to different voices and gender characteristics," says Poja Shams, senior lecturer at CTF and project leader.

Further research will deepen the understanding of how these factors affect customer interaction and how social robots can be adapted to create a better



Creating new knowledge on customer experiences is at the core of this long-term collaboration – driven by a curious mindset. Christer Johansson and Poja Shams with the social robot Furhat.

store experience. Recently, studies have also been conducted testing how the robot is perceived in the unstaffed ICA ToGo store, which is open 24/7.

“The social aspect is extremely important for our customers; it creates great loyalty. Therefore, it is exciting to see how people want to interact in a store where they don’t encounter human staff, and where the unstaffed aspect is the whole idea,” says Ica store-owner Christer Johansson.

The collaboration between Ica Maxi and CTF has been ongoing for many years with numerous experiments and studies conducted at the supermarket in Bergvik. These have ranged from investigating how nudging can encourage more people to choose Fairtrade bananas, to exploring opinions on digital screens in the store. Ideas

for studies are generated both by the researchers and the curious ICA store-owner himself.

“Both CTF and Ica Maxi are interested in learning more about customers expectations and behaviours and what factors that effects that the researchers have the opportunity to study consumers in a real environment, and we benefit from world-class expertise that helps us understand more about customer experiences and behaviours,” says Christer Johansson.

“The interaction is immensely valuable to us. Studying reality in this way is completely different from a controlled lab environment,” Poja Shams adds.

The collaboration has fostered great trust between the university and the store owner. They know what to expect from one another and can trust that everyone acts professionally.

“It can, of course, be a sensitive matter for customers to be approached by researchers or find themselves involved in an experiment. But there are never any issues – it always works out,” says Christer Johansson. He also highlights the value of the knowledge generated in their store being presented in a way that is relevant and accessible to them. The long-term and ongoing collaboration with the research environment also allows the store to stay at the forefront and try out new technology. This can be an advantage when recruiting new staff, Christer Johansson says.

“We learn from each other, I guess that’s the core of our collaboration: that both parties feel it generates something useful,” says Poja Shams.

“Through our collaboration with CTF, we receive world-class research presented in a simple and effective way. We then use that knowledge to improve our offerings and the way we interact with our customers. I love applying new ideas in to practice, when they have a real impact, and when we work with CTF, things go from words to action.

Christer Johansson, Ica Maxi Bergvik



Christer Johansson

CTF and Samhällsnytta – finding solutions for our future society requires collaboration

Samhällsnytta AB, which is owned by Karlstad University, has emerged through research collaborations run by CTF over many years. It is a national meeting place that gathers a wide range of expertise and experiences to jointly contribute to a better society.



Johan Quist with some of the partners within Samhällsnytta.

Samhällsnytta allows for research conducted at the Service Research Center to be put into practice. This takes place through collaboration with various community stakeholders.

“There is a lot of talk about the importance of solving complex problems for the future,” says Ida Lundblad, head of sustainable development at Region Värmland. “Through Samhällsnytta, we have gone from talking to doing. It has put Värmland on the map as a place where we are doing something innovative and important.” Region Värmland is one of the stakeholders that are contributing expertise and resources in the projects conducted through Samhällsnytta.

“To us, it is of course an opportunity to work with solutions that make a difference. But it also provides professional development in a way that would not have been possible otherwise, and it is of course a strength for us when we recruit new employees as well,” says Ida Lundblad.

Samhällsnytta started in 2021 based on experiences and relationships that have grown over a long period of time through, for example, CTF at Karlstad University and the meeting place Experio Lab. Samhällsnytta allows various actors from academia and the public and private sector to jointly contribute to national projects and investigations. Samhällsnytta creates a neutral arena where

different parties can work together to solve complex challenges and problems.

“We connect the societal actors who created the framework with those who are going to be working within that framework,” says Johan Quist, CEO of Samhällsnytta. “All our collaborations are essentially based on relationships. It requires finding a win-win situation and being able to work together. What we see now is the result of many people working together in various contexts over a long period of time, there is trust and well-established contacts.”

Ida Lundblad and Johan Quist mention two projects as examples of the benefits created by Samhällsnytta:

Nu börjar vi med barnen (Let's start with the children)

A pilot project conducted 2022-2024 in collaboration with the national coordinator of the 2030 Agenda for Sustainable Development. The main purpose was to test a new infrastructure for dialogue and development between the national government, the regions and the municipalities, with citizens and employees as active co-creators. The project Nu börjar vi med barnen included tests of new models where children were involved in decision processes. Work continues together with Youth2030, a movement involving democracy activists, young leaders and child rights advocates.

Vårdansvarskommittén (the Healthcare Responsibility Committee)

Vårdansvarskommittén is a parliamentary committee that will investigate the possibility of central national government responsibility for health and medical care in Sweden. In 2024, Samhällsnytta conducted workshops in collaboration with the committee to generate new knowledge together with various stakeholders in the healthcare system, including the opportunities and risks of state responsibility. The analysis and conclusions from the workshops will serve as a basis for the committee's work.

“Working with complex societal challenges requires collaboration between different stakeholders. Our collaboration with CTF through Samhällsnytta gives us a unique opportunity to work with regional challenges together, at the same time as we acquire knowledge of systems design, policy development and user-driven development. Through our collaboration agreement, we strengthen Värmland by raising our level of expertise and putting us on the national map as being at the forefront. It also contributes to making Region Värmland a more attractive employer for people with specialised knowledge”, says Ida Lundblad.

Learn more at: kau.se/samhallsnytta

Working with complex societal challenges requires collaboration between different stakeholders. Collaborating with CTF through Samhällsnytta gives us a unique opportunity to tackle regional challenges while gaining valuable knowledge in systems design, policy, and user-driven development. It strengthens Värmland's expertise, raises our national profile, and helps make Region Värmland a more attractive employer for specialists.

Ida Lundblad, Region Värmland



Communication and dissemination activities

Research communication and sharing knowledge is an important part of our activities. Here are some examples of activities during the year.

Several seminars and events were organised and co-organised throughout the year. Four new episodes of the seminar series Värdeskapande samtal – a collaboration with the Hamrin Foundation – were produced and presented on YouTube, including a live session at the seventh edition of CTF's Service Innovation Day (Tjänsteinnovationsdagen). These included: "Hållbar mat för framtiden: utmaningar och lösningar" with Maria Wetterstrand, Millton (former spokesperson for the Swedish Green Party) and Fredrik Wikström, CTF. "Nycklar till storskalig beteendeförändringar", with Niklas Laninge, Nordic Behavior Group, and Per Kristensson, CTF. "Hur blir staden bättre med hjälp av elektrifiering" with Marie Carlsson, Volvo Bussar, and Peter Lindgren, Göteborgs Stad and Bo Edvardsson, CTF. "Från engångs till flergångs – vägen mot hållbar take away" with Calill Odqvist Jagusch, Light My Fire, Anna Lindvall, Panter, and Lars Witell, CTF. All episodes were moderated by journalist Annika Lindqvist.

CTF co-organised several events, including the 13th Swedish Transportation Research Conference, hosted by Chalmers University of Technology in Gothenburg, and The 3rd Chapter Nordic PRME Symposium hosted by Karlstad Business School. The annual conference FEKIS 24 and the FEKIS doctoral conference were arranged by Karlstad Business School in collaboration with CTF, alongside the annual events Sustainability Day and Karlstad Business School Day. CTF was also one of the organiser of A Sustainable Tomorrow which was held at Karlstad University.

CTF researchers communicated their research through various conferences, such as *the 13th SERVSIG 2024, the 17th International Conference on Travel Behaviour Research, the 32nd Nordic Symposium on Tourism and Hospitality Research, the R&D Management Conference, the 40th Annual IMP Conference, the 25th CINET Conference 2024, the 38th Annual Conference of the European Health Psychology Society, and the 40th Annual IMP Conference*, to mention some examples.

CTF researchers were invited to speak at public events and in podcats and engaged with Swedish media to disseminate their research. For instance, Carolina Camén delivered presentations at the Swedish Transport Administration, and was interviewed by Radio Sweden P1. Helén Williams and Fredrik Wikström presented a report on food waste in the Nordic countries for the Nordic Council of Ministers. Helén Williams was a keynote speaker at the Shelf Life International Meeting in Reggio Emilia, Italy. Bo Edvardsson was an invited keynote speaker at the AQUIS Conference in Viterbo, Italy. Jenny Karlsson participated in a panel discussion at a book release from MIRAC. Petter Falk was a keynote speaker at the 1st DEDA European Conference at Utrecht University, to mention some examples. CTF researchers also contributed to investigations and reports in collaboration with various companies and organisations, for example through the platform Samhällsnytta AB in several governmental committees of inquiry.

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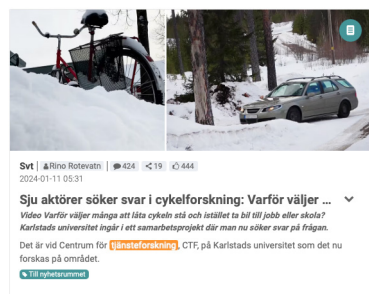
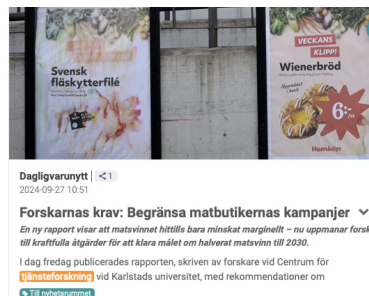
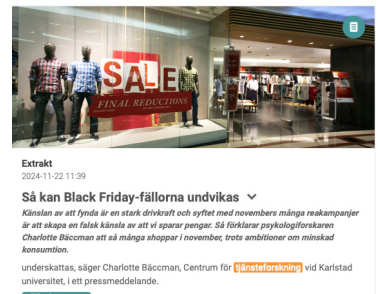
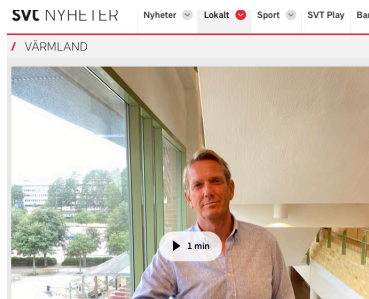
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CTFse

CTF in media

In 2024, several studies and activities received media attention. Our research on behaviour change, consumer behaviour, food waste, and wellbeing received the most media space, and CTF researchers appeared at TV4, SVT, SR, Aftonbladet, Göteborgs-Posten, to mention some examples.



Education

CTF researchers are active in and have important roles in undergraduate, graduate, and postgraduate education.

Graduate level

Our researchers and doctoral students are actively engaged in teaching and supervising at various levels at Karlstad University. Primarily within Karlstad Business School and in the discipline Business Administration, but also in other disciplines such as Psychology, Environmental and Energy Systems, Information systems, Industrial Management Engineering and Political Science.

In 2024, several CTF researchers were involved in teaching and supervising in Business Administration, holding leading roles in programs such as Business and Economics and International Business offered by Karlstad Business School. They also served as Head of Discipline and Director of Studies in doctoral education. Many CTF researchers had course responsibilities, particularly at the master's level, within the Master in Service Management and Master in Marketing programs. Additionally, several researchers were involved in the Master of Science in Industrial Management Engineering and Management program. A total of 102 master's theses in Business Administration and Industrial Engineering and Management were connected to research streams at CTF. Within Psychology, CTF researchers contributed to teaching at both undergraduate and master's levels, including the Master of Science in Psychology Programme. They participated in teaching the new Master programme in Psychology with a focus on the future and Global Survival, and held leading roles as Head of Discipline and Director of Studies. CTF researchers were also involved in teaching within Information Systems, Environmental and Energy Systems, and Political Science.

PhD level

Twenty-three PhD students in the disciplines of Business Administration, Psychology, Political Science, and Industrial Engineering and Management were connected to CTF. Petter Falk and Andrey Abadzhiev both defended their PhD theses. Amie Gustafsson is halfway through her PhD studies, while Jana Huck and John-Erik Hassel had their final seminars. Six of our PhD students are associated with MIT (The Swedish Research School of Management and IT) and participated in MIT courses and conferences throughout the year. Petter Falk, a PhD student in Political Science, is associated with the WASP-HS graduate school.

During the year, two PhD courses were arranged. The course "Fuzzy set Qualitative Comparative Analysis (fsQCA)" (7.5 ECTS) was held at Karlstad University and is part of the Swedish Network for Advanced Business Studies (SNABS). The course "Theory and Research in Service Management" (7.5 ECTS) was a collaboration between CTF, Karlstad Business School, and Roma Tre University, with sessions held in Rome, Karlstad University, and on Zoom. On January 9-10, CTF, in collaboration with CREDS, University of Inland in Norway, hosted a PhD seminar. CTF also hosted a two-day doctoral course from the Swedish Research School of Management & IT (MIT), where CTF researchers delivered lectures. The SNABS network visited Business Administration and CTF for a workshop on future doctoral courses.

Competence development for professionals

CTF researchers are involved in competence development for professionals, primarily within ISE (read more on next page), but also in collaboration with Karlstad University's Uppdrags AB commissioned education.

Empowering lifelong learning and skills development in Swedish industry

Within the ISE Graduate professional development programme, CTF offers courses specifically designed for working professionals.

In 2024, ISE remained committed to enhancing and expanding its course offerings, with a strong focus on quality improvement. A total of 15 courses were offered to professionals, attracting over 150 participants. Among the newly introduced courses were *Innovation Processes for More Sustainable Business*, *Transformation for Sustainable Development*, *Servitization from Theory to Practice*, and *Data-Driven Innovation*.

Throughout the year, Carolina Camén represented ISE at several events, including a presentation at the Confederation of Swedish Enterprise on education for professionals. She also contributed to a debate article for Svenskt Näringsliv and actively participated in events at Almedalen, organised by the KK Foundation. Additionally, she participated in discussions on transition reforms and lifelong learning arranged by Svenskt Näringsliv and TCO.

“We are constantly working on quality improvements,” says Programme Manager Carolina Camén. “It has been an eventful year, with significant opportunities to present ISE and engage in a wide range of external activities and events. As a result, our courses have gained national attention and are being discussed by key labor market stakeholders and influential decisionmakers.”



Carolina Camén

Tor Sunesson, management leader and innovations engineer at Softronic AB. After completing the Idea management for professionals course, what are your thoughts?

– The course was excellent, featuring seminars for discussion and assignments for reflection on the provided literature. It offered new perspectives on a subject I have studied extensively, primarily from a design perspective. It deepened my understanding of idea management and critical thinking, reinforcing the importance of collaborating with those who face the problem rather than solving it for them. The course also clarified professional processes, such as stage-gate, which are often followed without a full understanding of their origins.

How would you describe the course to a colleague or friend?

– A great course that enriches your professional life, even while working full-time. I have taken many independent courses at other universities, but I prefer those that offer interaction with the teachers. This course provides valuable opportunities to explore and deepen my understanding of topics that might otherwise be covered only superficially.



Tor Sunesson

Malin Remmerfors, service designer at the City of Helsingborg. After completing the Nudging course, what are your thoughts?

– I find this course, like other distance learning courses within ISE, both engaging and highly relevant. In all the courses I have taken, we have had enriching discussions in digital workshops, and the teachers have been both inspiring and approachable in their leadership. The courses have exceeded my expectations, providing knowledge that I apply daily in my work. Working in innovation, change management, and service design within public administration, I have taken four courses covering organisational change capability, service design, customer journey mapping, and behaviour change. These courses have deepened my knowledge, strengthened my ability to advocate for organisational decisions, and enhanced my planning in various assignments.



Malin Remmerfors

How would you describe ISE to a colleague or friend?

– ISE courses provide valuable perspectives and knowledge that stay with you throughout your professional life, helping you navigate both current and future challenges. You learn and reflect remotely alongside others, making it easy to combine with work commitments. ISE courses offer inspiring and rewarding professional development at its best!

Pernilla Tellefors, service designer at TRR. After completing the Idea management for professionals course, what are your thoughts?

– The course was excellent in layout, structure, and content. The most valuable aspect was collaborating with other professionals who brought diverse experiences from their respective companies and organisations. We engaged in insightful discussions on various issues, both from our own organisational perspectives and in relation to research. The course exceeded my expectations, offering both validation and exciting insights into how different organisations address challenges such as servitisation. Having changed my career direction, the course has been foundational for my new role as a Service Designer.



Pernilla Tellefors

How would you describe ISE to a colleague or friend?

–The real value lies in the dialogue between professionals and course leaders. As a participant, you gain a deeper understanding of how research and theory are applied in practice. The ISE courses are well-structured, making it possible to balance work and studies effectively. Go Karlstad University – you are leading the way!

ISE “Improving value creation through service education” aims to develop and offer flexible courses at advanced level for professionals, in collaboration with businesses and organisations. The graduate professional development program is funded by the Knowledge Foundation until 2025. Learn more: kau.se/ise





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