



CENTRUM FÖR TJÄNSTEFORSKNING
CTF | SERVICE RESEARCH CENTER



Annual report 2022

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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Highlights²⁰²²

12 MSEK ...to new research
In 2022, CTF received 12 MSEK in new external funding and launched 12 new research projects.

5 new researchers
joined our research group.

3 PhD students
had their half way seminars during the year.

The return to CTF and working onsite

In March, we were happy to be finally back to in-person meetings and working onsite. Several meetings and seminars, both internal and with external partners in ongoing research projects, were held throughout the year.



In March, CTF had a post pandemic get together at Selma Spa in Sunne to discuss research and met new colleagues that joined CTF during the pandemic.



Stephen L. Vargo, Margareta Friman and Bo Edvardsson at a CTF seminar in June.

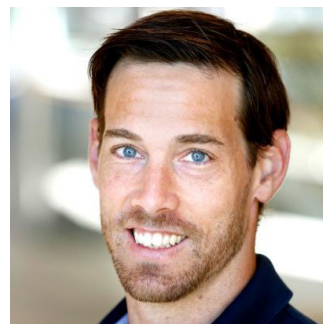


Jenny Karlsson

was invited to present results from the project Music Ecosystems Inner Scandinavia (MECO) at the EU Commissions Interreg Conference in Brussels with the Swedish artist Aevy Lore (Olivia Ahltop) who performed with the saxophonist Emanuel Blom at the conference.

Jakob Trischler

was promoted to associate professor in Business Administration. His research revolves around user involvement in innovation activities.



Reducing waste is the mission for RETAKE ...

... which is one of the new research projects that started during the year. The project involves several actors who develop new knowledge in order to support the industry in switching from disposable to reusable containers. Starting from 1 January 2024, all retailers and businesses selling food or beverages for takeout in Sweden must offer their customers reusable mugs and boxes, according to EU's single-use plastic directive.



Research making an impact

CTF researchers on international top lists

Research.com listed **Bo Edvardsson** (1 in Sweden and 132 internationally) and **Lars Witell** (8 in Sweden and 551 internationally) among the world's most influential researchers within Business and Management. CTF's Ander Visiting Professor **Stephen L. Vargo** was once again named among the world's most influential researchers on prestigious lists published by Clarivate Analytics and Stanford University.

Look out for dark patterns!

In April, the Consumer Agency launched an information campaign to help consumers avoid hasty online purchases. It is about so-called "dark patterns" that trick the customer into making quick decisions and that attract credit purchases. Erik Wästlund was one of the researchers behind the campaign run by **Hallå konsument [Hello Consumer]** – a nationwide information service that is coordinated by the **Swedish Consumer Agency**.



Agnieszka Kitkowska

postdoctoral researcher in Computer Science, was invited to talk about dark patterns at a webinar in April hosted by the United Nations Conference on Trade and Development (UNCTAD).



courses for professionals...

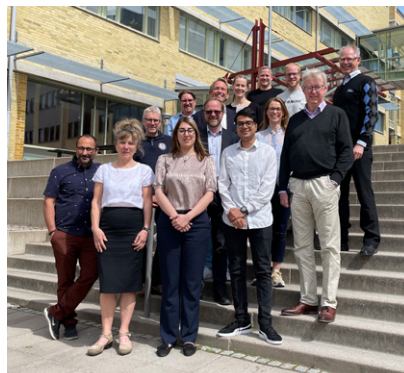
...with various topics related to CTF's research were offered to working professionals during the year. The courses are developed within CTF's Graduate professional development program ISE in collaboration with several companies and organisations.

Workshop with Kongsberg – a win-win situation

In October, a workshop was held with **Kongsberg** within the project **DISCERN**. The day with Kongsberg was very rewarding, according to the researchers. Working in a workshop with almost 20 people at management level is a potential source for good research. For Kongsberg it was an opportunity to take part of research results and insights, new knowledge that can be used in the development of internal innovation processes.



Kongsberg met CTF researchers at Karlstad University.



The research group within DISCERN.

Director's report

When looking back at the past year, I am proud, happy and foremost grateful to all those who have contributed to making our research center impactful throughout the year.



In our annual report we sum up the year and share some highlights from our work at the Service Research Center (CTF). You will find examples of how our research contributes to increased competitiveness, sustainable development and value-creation for businesses, organisations and society.

Throughout the year, CTF researchers have investigated, collaborated, shared and contributed to value creation through service - which is CTF's mission statement. We have continued to receive new funding for new research initiatives and had no less than 47 ongoing research projects in collaboration with partners, both within and outside academia. No less than 127 scientific publications were published, and our researchers presented and discussed research at conferences and events all over the world, as well as in media. I would like to stress how important publications are for our research center. Publications are evidence-material of the scientific process and implies a quality-assurance that the hard work researchers put down is deemed meaningful by experts in the same field.

One particular aspect that sticks out regarding our research efforts during 2022, and which I believe will be representative for a number of years ahead, is our focus on aspects surrounding sustainability. Much of our research efforts have been devoted to contributing with knowledge that can make companies and organisations more competitive. While this research has implied much attention to value-creation with the customer, now, with sustainability in mind, we add societal value to this equation. This expands our research and makes it more complex but, as we hope, more relevant and sought-after by our co-producing external organisations.

An academic research center is defined by three things; societal relevance, collaboration with organisations external to the university and interdisciplinary research. And speaking of that, I am happy about our ability to co-create new knowledge together with businesses and organisations, as well as with various academic partners. It is my sincere belief that such knowledge is needed in order to make the future a little bit better, in terms of competitiveness, wellbeing and sustainability. I continuously hear of examples of how our research is being used by external partners to transition in and thus provide a better foundation for value creation through service. Efforts that have led to an improved experience for customers, consumers, patients and citizens. Co-production is also an important factor in our Graduate professional development program ISE where we develop and offer courses for professionals with the aim to strengthen the competitiveness of Swedish business organisations. The program is now running at full speed, and you can read more about our work within ISE in this report.

I would like to thank everyone, both colleagues and partners, for their efforts and I am looking forward to continue our work together where we co-create value through services and contribute to a sustainable development in businesses, organisations and in society.

Per Kristensson
CTF director

Key numbers 2022

127

SCIENTIFIC PUBLICATIONS IN TOTAL

51

JOURNAL ARTICLES

12

NEW EXTERNAL FUNDING IN MSEK

28

INTERNATIONAL
CO-AUTHORED JOURNAL ARTICLES

16

SEMINARS & CONFERENCES

47

ONGOING
RESEARCH PROJECTS

87

CTF PEOPLE

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

101

HITS IN MEDIA

51

CONFERENCE PAPERS

Chair's view

In April 2022, COVID-19 was no longer classified as a threat to Swedish public health and a danger to our society. During the year a lot of focus was on returning to “business as usual” and “building back better”.



Many have taken a breath of relief that the year 2022 is over. At the same time, we are truly in a time of disruption and forced transformation, and during the year we have had to reconsider many previous decisions and traditional ways of thinking.

The COVID-19 ceased to be classified as a threat to Swedish public health and a danger to Swedish society, but instead both life and the economy were, and still are, marked by Russia's invasion of Ukraine, the energy crisis, shifts in the global balance of power and an increased frequency of extreme weather events. We see the consequence in the form of changed value chains, new partnerships and new business models within both services/products and systems according to the “as a service model”. A development that is completely in line with the logic and research that has been conducted and advocated by the researchers at CTF for more than 35 years.

When society must try to find some new form of “normal” status and there is a lot of talk about “building back better” there is a lot that the knowledgeable and curious researchers at CTF can contribute with. As you will see examples of in this report, CTF also contributes in many ways to the global goals and to the transformation that needs to take place - through ongoing research, but also through the qualified knowledge offered within the framework of the open ISE courses.

CTF researchers contribute with knowledge in many of the common challenges we are facing today and can offer scientific insights in many

important areas. Some examples are how to reduce food waste with the help of packaging, how to reduce waste by replacing disposable containers for food and beverages, how car dependence can be decreased, how the large carbon dioxide impact that occurs in new constructions and buildings can be halved with alternative materials and methods. CTF's courses for professionals within ISE convey important knowledge about areas such as new business models, nudging and behavioral changes, data-driven service innovation and introduction to servitization. The fact that many research projects take place in close collaboration with businesses and other organisations is also a good example of the type of partnership and collaboration defined by goal 17 in Agenda 2030.

On behalf of the board, I would like to thank all the dedicated researchers for their efforts to create new knowledge. I would also like to thank all the members of the board who so generously share their worldly intelligence and input that contribute to challenging the operations, so that we can see important and value-creating results in published articles, as well as in impact in companies and the society.

Malin Thorsén

CEO Bright Planet and chair of CTF Advisory Board

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.

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, and Religion Sociology.

Management team

The daily operations is led by a director (Per Kristensson) supported by a vice director (Johan Quist), an administrative team (administrators, communication officer and accountant), and the strategic council consisting of professors and associate professors at CTF.

Advisory board

The advisory board provides valuable insights, vital knowledge and experience.

- Malin Thorsén, Bright Planet AB (Chair)
- Kristina Heinonen, Hanken School of Economics
- Vilhelm Jensen, Nordea
- Hans Karlsson, Arvika Municipality
- Mikael af Kleen, Differ Strategy
- Jonas Matthing, Compare
- Peter Rovèr, Effect Management
- Anders Tufvesson, Ninetech
- Per Kristensson, CTF
- Johan Quist, CTF
- Jenny Karlsson, CTF



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:

- Afa Försäkring
- Almega
- Anne-Marie and Gustaf Anders Foundation
- Arvika Municipality
- Attityd
- BillerudKorsnäs
- Brobygrafiska
- Cellcomb
- City of Helsingborg
- Compare
- DigitalWell Arena
- Effect management
- Elevenite
- Experio Lab Sweden
- Formas
- Forte (Swedish Research Council for Health Working Life and Welfare)
- Färjestads BK
- Genelle
- Got Event AB
- Göteborg & Co AB
- Handelsbankens Research Foundation (Jan Wallander's and Tom Hedelius's Foundation)
- Ica Maxi Supermarket
- Ikea
- InTechrity
- Karlstad Municipality
- Kongsberg Maritime Sweden
- Lidl's Future Initiatives/Plastutmaningen
- Life and Welfare)
- Light My Fire
- Löfbergs
- Miller Graphics
- Mistra SAMS (The Swedish foundation for strategic environmental research)
- MIT (Swedish Research School of Management and IT)
- Panter
- Paper Province
- RE:Source
- Region Gotland
- Region Värmland
- RISE
- Samhall
- SBAB
- Scaaler
- SIQ (The Swedish Institute for Quality)
- SMA Mineral AB
- SQMA (The Swedish Quality Management Academy)
- Stiftelsen Chalmers Industriteknik
- Stål & Verkstad
- Swedish Agency for Economic and Regional Growth (Tillväxtverket)
- Swedish Consumer Agency (Konsumentverket)
- Swedish Energy Agency (Energimyndigheten)
- Swedish Foundation for Humanities and Social Sciences (Riksbankens jubileumsfond)
- Swedish Transport Administration (Trafikverket)
- Swegon
- The Hamrin Foundation
- The Knowledge Foundation
- The Research Council of Norway
- Thingssquare
- Tobii Technology
- Uddeholm AB
- Unionen
- Valmet
- Vinnova
- Voith Hydro
- Volvo Group
- And many others

VINNOVA

FORMAS

KK-stiftelsen

Energimyndigheten

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.

Ander Visiting Professors

CTF's Ander Visiting Professors contribute with an international perspective and knowledge from the forefront within their respective fields of research.

- Helen Perks, UK
- Martin Schreier, University of Vienna, Austria
- Satoshi Fujii, Kyoto University, Japan
- Johanna Gummerus, Hanken, Finland
- Joann Peck, University of Wisconsin, USA
- Stephen L. Vargo, University of Hawai'i at Manoa, USA

The professorship is funded by Anne-Marie and Gustaf Anders Foundation for Media Research.

Visiting researchers

Visiting researchers who stay for shorter or longer periods of time is important to our environment. In 2022, Manuel Giraldo Oliveros (Universidad del Norte, Colombia), Qusay Hamdan (Merrick Business School, Belgium) and Jasper Van Kuijk (Delft University, the Netherlands) visited us, as well as our Ander Visiting Professors Stephen L. Vargo, Helen Perks and Martin Schreier. Some CTF researchers visited research environments and universities during the year. Per Skålén (University of Naples Federico, Italy), Kristin Svärd (Università Cattolica del Sacro Cuore, Italy), and Ingo Karpen (Adelaide Business School at the University of Adelaide and University of Western Australia), to mention some examples.

A selection of academic partners worldwide.



Selected scientific networks and organisations

- Mistra (SAMS) - The Swedish Foundation for Strategic Environmental Research
- SIQ (The Swedish Institute for Quality)
- SQMA (The Swedish Quality Management Academy)
- MIT (Swedish Research School of Management and IT)
- WASP-HS Graduate School
- SNABS (Swedish Network for Advanced Business Studies)

Meet Helen Perks ...

... new Ander Visiting Professor with a focus on relationships and networks in service and product innovation.

Helen Perks is a new Ander Visiting Professor and will be part of CTF for three years. With her expertise in service and product innovation she will make a strong contribution to ongoing research on digital service and customer experience.

Helen's research focuses on innovation in services, and she will help support CTF researchers in developing theory, conceptualizing and making sense of their data. Her current research projects encompass service-centric business logics and sustainability; innovation within peer-to-peer networks in online community-based innovation contests; interlocking logics of effectuation and causation in service innovation; platform-led service innovation and ecosystems; and customer-driven smartness in service systems.

Prior to CTF, Helen was professor of Marketing and Innovation at several leading UK universities, including University of Manchester and University of Nottingham. She is world renown for shaping

research in product and service innovation management, and her research has been cited widely and published in high-impact-factor journals.

For almost a decade she was on the editorial team of the Journal of Product Innovation Management and represented the journal globally at forums to meet the editor. She is a member of the editorial board of several high-level journals and of scientific committees representing the innovation field. She has a passion for international academic collaboration, with strong partnerships throughout Europe, the US and particularly Scandinavia.

Prior to academia her career spanned managerial and professional positions across Europe with Olivetti, Italy; the European Commission, Brussels; PA Consulting Group, London and Acorn Computers, Cambridge. She engages with both multinational organisations and SMEs to support and guide her research.

“I am delighted to have this opportunity. CTF is a great collegial group that has made me feel very welcome. The group has an applied grounded approach to research, stemming from its high level engagement with industry. They get to know, first-hand, the problems and opportunities facing service and manufacturing organisations. This gives them a real edge in carving relevant and important research projects. I am working with CTF to develop this bank of knowledge into leading contributions – both theoretical and empirically-driven. It is an exciting place to be!



Introducing new CTF people



FEDERICO ARTUSI holds a PhD in Management Engineering from the School of Management at Politecnico di Milano and is a researcher at CTF and lecturer in Business Administration at Karlstad Business School. His research focuses on the intersection between innovation management, service management and design.



KLAS HEDVALL holds a PhD in Technology Management and Economics from Chalmers University of Technology. He is a project manager at Chalmers Industriteknik and researcher at CTF. His research focuses on servitization and services for circular economy. Prior to academia, Klas has had various positions within the automotive industry and the space industry.



SIRI JAGSTEDT holds a PhD in servitization and product-service development from Chalmers University of Technology. She is a researcher at CTF and senior lecturer in Business Administration at Karlstad Business School. Her research areas include servitization, digitalisation and product service architectures with a current focus on digital integrity within the food industry.



LASSE MAGNELL is a PhD student in Psychology and assistant professor in Project Management at Karlstad University. Lasse conducts research within organisational psychology. He is studying individuals in organisational change, and is looking at factors that can contribute to making an individual more prone to change or positive towards organisational change.



ANNA RAGÉN is an Industrial PhD student in Business Administration. Her research focuses on factors that promote, or obstruct, innovation and commercial activities in relation to higher education and research. She recently was the CEO of Örebro University Holding AB. She has had various positions in the Swedish manufacturing industry and is part-owner of smaller technology businesses.

New funding and projects

CTF researchers continue to attract funding for new research and received SEK 12 million in new funding. Here are some examples of new projects that were initiated during the year.

Retake

From 1 January 2024, all establishments selling food or beverages for takeout in Sweden must offer reusable packaging. CTF researchers will gather knowledge and experiences in order to support the industry in switching from disposable to reusable packaging. CTF's research is led by Lars Witell, professor in Business Administration, and conducted within the project Retake led by Chalmers Industriteknik. The objective of the project is to demonstrate how reusable packaging systems can contribute to increased sustainability, reduced littering and lowered sanitation and waste management costs. The project is funded by the Swedish Energy Agency, Vinnova and Formas, via the strategic innovation programme RE:Source, and involves several actors.

DHINO

The overall aim of DHINO is to contribute to the vision "A sustainable Värmland that changes the world by being a leader in driving health innovation together". The starting point is to carry out needs-driven research in collaboration with external actors within the innovation environment DigitalWell Arena. The research will focus on health, welfare, data and services. DHINO is coordinated by Erik Wästlund, associate professor of Psychology. It is funded by Region Värmland, Karlstad University and Vinnova through "Arenaprojektet" within DigitalWell Arena, and involves several actors.

Autonomy and everyday travel

Public transport is an important part of a sustainable and equal society. In order to accelerate this transition, new knowledge and more research is needed. Within the project "Autonomy and everyday travel: Dynamic public transport for reduced dependency on cars" CTF researchers will develop new knowledge related to dynamic public transport, and to understand the conditions for changes in modes of transportation. The project, which is led by Lars E. Olsson, professor of Psychology, is funded by the Swedish Energy Agency and is conducted in collaboration with Region Värmland and public transport providers in Säffle and Karlstad.

A robotic colleague - help or hooray?

CTF is part of the project "A robotic colleague - help or hooray?" funded by Afa Försäkring. The project is led by Kristina Palm, professor of Working Life Science at Karlstad University, in collaboration with CTF researcher Poja Shams, senior lecturer in Business Administration. The aim of the project is to investigate what happens when you introduce a new colleague in the form of a chatbot, a collaborative robot or a humanoid robot at both private and public work places. Poja Shams has developed a method for measuring how employees experience collaborating with a robot and will conduct experimental studies using stress-measuring bracelets and emotion-recognition cameras.



Erik Wästlund



Lars E Olsson



Lars Witell



Poja Shams

Publications

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

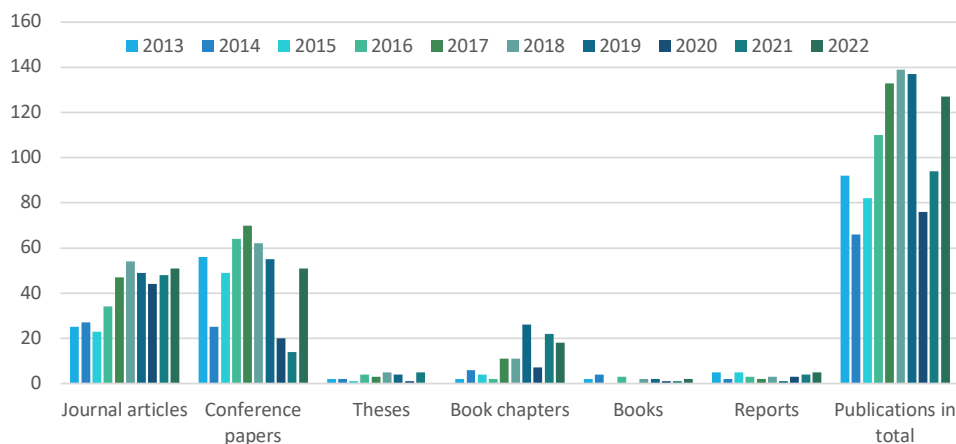
In 2022, no less than 51 scientific CTF articles were published in peer-reviewed scientific journals. 28 of the articles were written in cooperation with international scholars, which is a sign of our international position. In addition, 51 conference papers were accepted and two books, 16 book chapters and five reports were published. Several CTF articles were published in leading journals with a high impact factor, for example: *Journal of Business Research*, *Journal of Service Research*, *Journal of the Academy of Marketing Sciences*, *Marketing Theory*, *Industrial Marketing Management*, *Journal of Product Innovation Management*, and *Journal of Business Ethics*, to name but a few.

Several CTF researches have contributed to journals, boards and committees. For example to: *Journal of Service Research* (Lars Witell, Per Skåln and Ingo Karpen), *Journal of Service Theory and Practice* (Ingo Karpen), *Italian Journal of Management* (Bo Edvardsson), *Journal of Business Research* (Lars Witell and Bård Tronvoll), *Journal of Service Management* (Lars Witell and Bård Tronvoll), *Digital Business* (Mia Larson), *Research-Technology*

Management (Federico Artusi), *Tourism Management Perspective* (Javaneh Mehran), *The Nordic Journal of Innovation in the Public Sector* (Johan Quist and Per Skåln), *TQM and Business Excellence* (Lars Witell), *Creativity and Innovation Management* (Lars E. Olsson), *Marketing Theory* (Per Skåln), and *Creativity and Innovation Management* (Peter Magnusson).

“The Palgrave Handbook of Service Management” edited by CTF professors Bo Edvardsson and Bård Tronvoll was published in May. More than 100 service scholars from around the world have contributed to the book with a total of 47 chapters. In October, Helén Williams and Fredrik Wikström published the popular scientific book “Stoppa matsvinnet! – en förpackad lösning” (unofficial translation: Stop Wasting Food – a Package Solution), which won the Food, Climate and Environment category in the food litterature contest “Årets Svenska Måltidslitteratur 2022”.

Annual number of publications



Acknowledgements

CTF researchers have been acknowledged and awarded, and here are some examples. The article “How experts screen ideas: The complex interplay of intuition, analysis and sensemaking” by Alexandre Sukhov, Johan Netz, Lars E. Olsson, Peter Magnusson and Antti Sihvonen (University of Jyväskylä) received the Albert L. Page award. The article “Assessing travel satisfaction in public transport: A configurational approach” by Alexandre Sukhov, Margareta Friman, Lars E. Olsson, Katrin Lättman (University of Gävle) and Satoshi Fujii (Kyoto University) was recognised by the Elsevier publishing group as a top downloaded article that relates to SDGs.

The articles; “The inevitability of essentializing culture in destination branding: the cases of fika and hygge” by Mia Larson, and Richard Ek (the Department of Geography, Media and Communication at Karlstad University), and the article “Office types and worker’s cognitive vs affective evaluations from a noise perspective” by Jörg Pareigis, Tobias Otterbring (University of Agder) and Christina Bodin Danielsson (KTH) received the Emeralds Literati Award for Outstanding Paper 2022.

CTF’s Ander Visiting Professor, Stephen L. Vargo, was named among the world’s most influential researchers by Clarivate Analytics and Stanford University. CTF professors Bo Edvardsson and Lars Witell was ranked among the most influential researchers in the field of Business and Management by Research.com.

A selection of scientific articles

- Abadzhiev, A., Sukhov, A., Sihvonen, A., & Johnson, M. (2022). Managing the Complexity of Green Innovation. *European Journal of Innovation Management*, 25(6).
- Artusi, F., Magnanini, S., & Bellini, E. (2022). Embedding Values into Digital Artifacts. *Research-Technology Management* 65(2), 18–28.
- Bolton, R. N., Gustafsson, A., Tarasi, C. O., & Witell, L. (2022). Managing A Global Retail Brand in Different Markets: Meta-Analyses of Customer Responses to Service Encounters. *Journal of Retailing*, 98(2), 294–314.
- Carida, A., Colurcio, M., Edvardsson, B., & Pastore, A. (2022). Creating harmony through a plethora of interests, resources, and actors: The challenging task of orchestrating the service ecosystem. *Journal of Service Theory and Practice*, 32(4), 477–504.
- Danatzis, I., Karpen, I.O., & Kleinaltenkamp, M. (2022). Actor ecosystem readiness: Understanding the nature and role of human abilities and motivation in a service ecosystem. *Journal of Service Research*, 25(2), 260–280.
- Gremyr, I., Birch-Jensen, A., Maneesh, K., & Löfberg, N. (2022). Quality functions’ use of customer feedback as activation triggers for absorptive capacity and value co-creation. *International Journal of Operations & Production Management*. 42(13).
- Henkens B., Verleye K., Larivière B., & Perks H. (2022). Pathways to Service System Smartness for Firms. *Journal of Service Research*.
- Kawabata, Y., Kusakabe, H., Fujii, S., Nakamura, F., Friman, M., & Olsson, L. E. (2022). A Study on the Relationship between Subjective Well-Being and Accompanying Activities in Urban Leisure Experiences. *Journal of Tourism and Leisure Studies*, 7(1), 1–21.
- Petros Sebhathu, S. & Enquist. B. (2022). Values and Multi-stakeholder dialog for business transformation in light of the UN Sustainable Development Goals. *Journal of Business Ethics*.
- Pilawa, J., Witell, L., Valtakoski, A., & Kristensson, P. (2022). Service innovativeness in retailing: Increasing the relative attractiveness during the COVID-19 pandemic. *Journal of Retailing and Consumer Services*, 67, 102962.
- Shulman, Y., Kitkowska, A., & Meyer, J. (2022). Informing Users: Effects of Notification Properties and User Characteristics on Sharing Attitudes. *International Journal of Human-Computer Interaction*.
- Skålén, P., Cova, B., Gummerus, J., & Sihvonen, A. (2022). Marketing-as-Practice: A Framework and Research Agenda for Value-Creating Marketing Activity. *Marketing Theory*.
- Snyder, H., Witell, L., Gustafsson, A., & McColl-Kennedy, J. R. (2022). Consumer lying behavior in service encounters. *Journal of Business Research*, 141, 755–769.

Research collaborations and impact stories

Hello there, Margareta Friman ...

... Deputy vice chancellor at Karlstad University. Why is cutting-edge research conducted in research environments important to Karlstad University?

– This type of research is necessary and important in order to increase our attractiveness as a university. A strategic research environment like CTF contributes to achieving our vision of research of high academic standard of great importance to society. CTF is a multidisciplinary research environment that contributes to high standard in our courses and study programmes with the help of different cases and current knowledge.

What significance does CTF, and the research conducted there, have to Karlstad University?

– The international environment and atmosphere that exist within CTF most definitely enrich the day-to-day operations. In addition to being a stimulating environment for our staff, it attracts prominent international researchers from all over the world who want to visit Karlstad University. Collaboration partners are invited to meet and discuss with researchers with various specialisations and backgrounds. And this opportunity also applies, perhaps above all, to our students. As a university, we need these types of environments to be an attractive and modern university.

The public value is important to a university – how has CTF's research benefited our society?

– The researchers at CTF have developed and fostered deeper relationships with partners in many different sectors. This has allowed for an opportunity

to contribute with knowledge to help solve many of the challenges that we are facing in society today. I know of several examples where CTF's research has affected the way organisations communicate, the way they choose to design quality-enhancing measures and formulate policies at different levels. Research at CTF has, and will continue to have, an impact on the surrounding community outside of academia.



Margareta Friman, professor of Psychology and deputy vice chancellor at Karlstad University.

IndBygg – a good example of collaboration between research and industry

CTF is one of the participants in IndBygg that aims to promote a green transition within the construction industry to bring industrial wood construction to new heights.



Andrey Abadzhiev

There is a need to develop the forest-based bioeconomy and use more wood as construction material. Based on this, Paper Province launched IndBygg, to increase knowledge and skills among public and private actors in Värmland and Dalarna.

CTF has been part of the project since the start and contributed to the establishment of a platform for developing new knowledge and collaborations within the industry. CTF's research is based on Stora Enso's CLT factory in Grums and the aim is to create a better understanding on how companies can organise for a system change towards a more sustainable future and the role of the business model in such a transition.

– The wood construction industry is moving towards a circular economy. Primary efforts are focused on green innovations, and more precisely engineered wood technologies for multi-story construction, says Andrey Abadzhiev, PhD student in Business Administration.

He thinks that there have been a few major improvements over the past few decades in productivity, profitability and environmental impact of construction.

– The industry's hope is to decouple environmental impact from economic growth, says Andrey Abadzhiev. The current approach fits well with the narrative that sustainability and profitability are not mutually exclusive, which may explain its increasing popularity. Yet, there is a risk that a narrow interpretation may prolong or even deepen the climate-related issues. With our research, we try to broaden the industry perspective on the circular economy and position it as a fundamental systemic innovation. The circular economy requires essential changes in multiple directions beyond technology such as current production and consumption patterns, business models and institutional setups.

The collaboration between Paper Province and CTF has been very beneficial.

– Andrey has contributed with an academic perspective and has at the same time acquired a good introduction to the industrial wood construction industry, says Elin Appel, project manager of IndBygg. Results from the research have, among other things, been presented in Andrey's licentiate thesis "Wood we change", and at conferences, including IndBygg's national conference "Tree2Tower".

Even though the collaboration within IndBygg will come to an end during 2023, Elin Appel is convinced that collaborations linked to industrial wood construction will continue beyond the project.

Read more: indbygg.paperprovince.com



The construction process accounts for at least 50 percent of a building's total climate impact during its lifetime. A development of forest-based bioeconomy and building more with wood is necessary to achieve the sustainability goals. In IndBygg, various actors meet and collaborate to identify and address knowledge gaps and contribute to a green transition.

Elin Appel, project manager of IndBygg at Paper Province



Elin Appel

Quality improvement in public procurement

CTF and SQMA have been working together for several years to promote quality management research. The collaboration has, among other things, resulted in the SIQ Management Model.

As part of a research project, SQMA and CTF have studied how the procurement of elderly care services can be improved by applying quality models, such as the SIQ Management Model.

– CTF researcher Carolina Camén has been part of the research behind the development of using the SIQ Management Model in public procurement and, in recent year, also the research on quality and partnership. The SIQ Management Model has been used as a model to be applied in public procurement, says Anders Fundin, Director of Research at SIQ and Professor at Mälardalen University.

In public procurement, the price is often the most crucial factor, but an evaluation of the ability to improve quality over time during long-term contracts could present a fairer picture.

– There is a great need for a model that includes working methods with a dynamic approach and a leadership that supports improvements within organisations, says Carolina Camén, researcher and senior lecturer in Business Administration. Our SIQ Management Model is an example of a quality model that provides this and can create better conditions for partnerships and quality where both parties co-create value.

Results of the research have been published by SIQ in the report “Kvalitet och partnerskap – offentlig



Carolina Camén



Anders Fundin

upphandling och uppföljning av äldreomsorg” (Quality and partnership – public procurement and follow-up of elderly care services).

– Our research could be useful in public procurement where more weight is placed on quality than price. And above all, provide conditions for a dynamic view of quality that develops during long-term contracts, and that can provide citizens with more adapted and need-based services during that time, says Anders Fundin. Developing the culture in a partnership between clients and providers of procured services can also create conditions for greater employee satisfaction.

In addition to research on quality improvement in public procurement, SQMA and CTF have plans for a joint graduate school.

– With the energy crisis, increased inflation rates and risk of an approaching recession, the need for innovation and adaptability in businesses and organisations increases, says Anders Fundin. Management models must be developed with new sustainable principles that apply new working methods. The graduate school will focus on this important transition.

Read more: siq.se/forskning-sqma/sqma

SQMA (Swedish Quality Management Academy) is a platform where researchers can meet to develop new forms of collaborations and share experiences with the aim of promoting quality management research. SQMA is co-ordinated by SIQ (the Swedish Institute for Quality) and consists of researchers from: Chalmers University, Karlstad University, Linköping University, Luleå University of Technology, Mid Sweden University, Mälardalen University, Royal Institute of Technology in Stockholm and Uppsala University. Carolina Camén is representing Karlstad University.

Sustainability initiatives and digital integrity in the food industry

Within the project TRUEdig, CTF and Elvenite are developing new knowledge that can support a sustainable development in the food industry.



Siri Jagstedt

TRUEdig focuses on digital integrity and how businesses that develop privacy-enhancing services can increase the user's security and sense of empowerment. Elvenite is one of the partner companies within the project.

– The purpose of the research is to widen the scope of sustainability work in the food industry. We intend to identify and share good examples of operational initiatives and approaches, says Siri Jagstedt, CTF researcher and lecturer in Business Administration. Together with Elvenite, we look at how companies manage digital integrity in various sustainability initiatives. For example, what strategies that are used and what kinds of data that are considered relevant.

The collaboration between CTF and Elvenite is characterised by open, continuous and creative dialogue.

– As a consultancy organisation, we can provide with our expertise in the field, and a vast network, says Agnes Lindell, business owner at Elvenite. We are currently in the process of data collection and here we can facilitate contact with relevant interviewees from the sphere surrounding the food industry.

Both CTF and Elvenite hope that results from their work can be used to facilitate and promote sustainability initiatives within food companies and in the industry.

– The Sustainable Development Goals (SDGs) are closely linked with the food industry. To be able to achieve the SDGs we need both general and specific efforts and competencies, says Siri Jagstedt. Sustainability work has traditionally focused on large-scale initiatives based on technological advances. We want to widen the scope of sustainability work throughout the organisation and value chain, in order to scale up and spread good initiatives that sometimes are identified at a grassroots level. Responsiveness and support within the organisation are required, as well as cooperation with other actors in the value chain in which data sharing sometimes is required. This is where digital integrity issues come into play.

Elvenite has a strong focus on sustainability and the food industry and are happy to be involved in research within these areas.

– We believe that collaboration between industry and academia is important. We want to learn more from research while also helping progress along, says Agnes Lindell.

“Elvenite's mission is to make the food industry smarter with the help of data and technology, and we work with Scandinavia's largest and most influential food companies. In order to secure a sustainable food industry, it is important to share new knowledge throughout the entire industry. We hope that results from TRUEdig can be used as guidance that can easily be embraced in the industry, and that we can use to support this development.

Agnes Lindell, business owner, Elvenite



Agnes Lindell

Research on the role of packaging in preventing food waste

The goal in Agenda 2030 is for global food waste in the entire food chain to be reduced by half. Researchers at CTF are working to develop, communicate and disseminate new knowledge that can support producers, service providers and consumers in this effort.

Fredrik Wikström and Helén Williams have done research for many years on issues related to the environment and sustainability, and the role of packaging in reducing food waste. In collaboration with various actors, they aim to develop and spread new knowledge about the role of packaging in reducing food waste.

In 2019, the researchers received funding through the Lidl Future Initiative's "Plastic Challenge" for the sustainability project "Transformative packaging design for sustainable development – the creation a guide for packaging design with the aim of reducing the total environmental impact". The project aims to develop and spread new knowledge about food packaging among packaging developers and consumers, and within the project the researchers have developed a packaging guide, a handbook based on their research.

– It is necessary to reduce food waste in order for us to achieve the goals in Agenda 2030, says Helén Williams, associate professor in Environmental and Energy System, who is running the project together with Fredrik Wikström. Designing or choosing a packaging solution that considers the environmental

impact of the material and the product throughout its life cycle is a complex task that includes many different factors. Our goal is to make this process as easy as possible with the help of our packaging guide.

The researchers have worked together with different actors, one of which is the graphic design school Brobygrafiska.

– Final year students enrolled in the packaging design programme have evaluated the packaging guide to see how it works in the hands of a designer/ packaging designer, as well as what conclusions they can draw from the guide, says Sara Larsson, head of graphic design at Brobygrafiska. My colleague Marie Falk and I have also studied how the students interpret the guide as well as evaluating the guide ourselves by looking at how it could be applied in the industry based on the work processes and the time available in the part of the packaging process where these decisions are made.

Sara Larsson says that the collaboration between CTF and Brobygrafiska is a good example of how co-operation between research and vocational education and training can contribute to spreading

“Helen and Fredrik’s research has had an important impact on our packaging design programme for a long time. Collaboration with researchers is an important part of Brobygrafiska’s ambition to contribute to professionally skilled students entering the industry, as well as ensuring that the industry continues to evolve by adding new knowledge brought in by the students.

Sara Larsson, head of graphic design, Brobygrafiska





Fredrik Wikström and Helén Williams with the price winning book “Stoppa matsvinnet!”. The book has been presented by the researchers, for example, at The Gothenburg Book Fair and at Värmland book festival.

important knowledge from research directly to the industry it concerns.

In 2022, Fredrik Wikström and Helén Williams released the popular scientific book “Stoppa matsvinnet”. The book is addressed to anyone who in their professional life comes into contact with packaging or who has an interest in the environment. In addition to explaining the underlying causes of food waste, the authors provide practical tips and guidance on how producers and consumers can reduce waste.

– It is important that more people have easy access to knowledge about food waste and especially the role of packaging in reducing food waste, says Fredrik Wikström, professor of Environmental and Energy Systems. It is important in order to reduce the pressure both on the environment as well as your own wallet.

Packaging has a function and a bigger impact on food waste than most people think. In the end, it is the actual behaviour of people that determines how much food is actually thrown away, and in order to solve the issue of food waste, we need a paradigm shift in the way we view packaging, say the researchers.

– Packaging is often seen as something purely evil from an environmental point of view, says Helén Williams. Many times we forget the positive side – that packaging which protects the food and increases shelf life reduces the environmental impact, provided that the food is not thrown away, since less food needs to be produced. But to truly reduce the total environmental impact, there needs to be a balance between the negative and positive aspects of packaging.



I am thankful for the invaluable efforts in research and in public education made by Helén Williams and Fredrik Wikström. Their research makes the food industry more aware and improves the conditions to make wiser decisions. After reading their book, I have become both wiser and inspired.

Per-Stefan Gersbro, managing director, Paccedo

Communication and dissemination activities

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

CTF actively use the web (ctf.kau.se and kau.se/ise), electronic newsletters, annual reports, social media and other digital platforms for communication and dissemination activities. Throughout the year, we presented our research and results in several press releases, news articles and blogs, and we were active in social media.

In 2022, CTF arranged about 16 research seminars, and arranged/ co-arranged several other seminars and events. For example CTF was co-organisier of: The 17th International Research Symposium on Service Excellence in Management (QUIS17) hosted by Polytechnic University of Valencia, Spain, The 11th annual Swedish transportation research conference hosted by Lund University, The PRME i5 Program workshop at the 9th Responsible Management Education Research Conference in Innsbruck, Austria. The annual events Sustainability Day and Karlstad Business School Day at Karlstad Business School were arranged in collaboration with CTF researchers.

Examples of research conferences CTF researchers participated in: 12th SERVSIG Conference (Glasgow, UK), Forum on Markets and Marketing (Helsinki, Finland), 9th International Conference on Business Servitization (Malaga, Spain), Frontiers in Service Conference 2022 (Boston, USA), QUIS-17" (Valencia, Spain), Innovation and Product Development Management Conference (Hamburg, Germany.), and FEKIS – Föreningen Företagsekonomi i Sverige (Västerås, Sweden).

CTF researchers were invited to talk in podcast, seminars and public events. For example: Agnieszka Kitkowska talked at the webinar "Dark Commercial Patterns: Experiences and Tools for Education and Business Guidance" arranged by UNCTAD (the United Nations Conference on Trade and Development). Helén Williams and Fredrik Wikström talked about food waste at "The Gothenburg Book Fair". Johan Quist was one of the speakers at the seminar "Fores Reformpaket för Tillit" where he presented and discussed his policy paper on trust within institutions. Jenny Karlsson presented results from the project Music Ecosystems Inner Scandinavia (MECO) at the EU Commissions Interreg Conference in Brussels. Anna Fyrberg-Yngfalk was invited to the podcast "Problemlösarpodden" where she talked about her research on hybrid organisations.

CTF researchers have also contributed to investigations and reports in collaboration with different companies and organisations. For example, CTF researchers have, within the platform Samhällsnytta AB, contributed to five different governmental committees of inquiry. Several researchers have contributed to the reports "Tro, hopp och visioner - hur vi uppnår ett cirkulärt samhälle för alla" published by the Expert group Normskifte, and "Delade Meningar 2022" published by Insightintelligence, to mention some examples.

CTF in social media



@CTFse



CTFServiceResearchCenter



@kauresearch



ctf-service-research-center

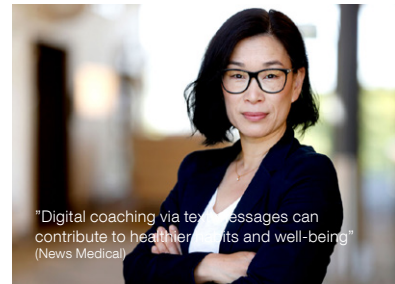


CTFse

CTF in media

During 2022, we received more than 100 hits in media. Our research on food waste and packaging as well as topics related to the economy and energy crisis received the most media space. Here are some selected examples of CTF in media.

- How science is solving food waste (bignewsnetwork.com)
- Listening to the Lessons of the Swedish Music Market (socialscience.com)
- Forskaren: Ha inte dåligt samvete för klämmisarna (Aftonbladet)
- Att räkna huvuden kan ge falsk bild av styrelsemakt (Dagens industri)
- Så kan en kvalitetsmodell utveckla partnerskapet (Kvalitetsmagasinet)
- Tips för att minska din konsumtion (Extrakt)
- Expertens tips: Så undviker du att handla för mycket (SVT)
- Du riskerar att göra sämre affärer när du är pengastressad (Sveriges Radio)
- Engångsmuggen ska bort – frågan är hur? (Papper och Massa)
- Makt och inflytande i näringslivet – tre jämställdhetsperspektiv (TT)
- Här är värsta hindren för e-handeln (kvalitetsmagasinet.se)
- The wrap on food waste and Plastic packaging has an evil twin (360info.org)
- Vilseledande webbdesign lockar till förhastade köp (SVT)
- Unga är sämre på att skydda sin personliga information på nätet (P4 Värmland)
- Promenaden till skolan är mer än motion (Smålänningen)
- Minskat matsvinn med mindre mängd mat i förpackningarna (Dagens industri)
- Psykologiprofessor: Längre har vi svenskar bara känt oss rikare för varje dag (DN)
- Här bestämmer självstyrande team – chefen nöjd: "Jag ville få mindre inflytande" (Dagens samhälle)
- 10 ways workspaces—and office culture—have evolved (The Telegraph)
- SMS-coaching ger bättre hälsa (Dagens industri)
- Svenskar försiktigare med att lämna ifrån sig personlig information (Computer Sweden)
- Lyckad tjänstefiering kräver nytt "mindset" (Kvalitetsmagasinet)
- Experterna om ekonomiska läget – då vänder det (Aftonbladet)



"Kollega" (Unionen's member magazine) highlighted CTF's Graduate professional development program ISE as a good example of skills development for professionals. (In the picture: ISE program managers Carolina Camén and Pernille K. Andersson).



"Rekorddyr el väntas i vinter – här är spartippen som funkar" (Sveriges Radio)
"Ur europeiskt perspektiv är svenska elpriser låga" (Extrakt)



Maria Åkesson talked about servitization in the magazine "Kvalitetsmagasinet" and shared results from research in collaboration with the companies Voith Hydro, BillerudKorsnäs, Cellcomb and Kongsberg Maritime.

Education

CTF researchers are active in and have important roles in undergraduate, graduate, and postgraduate education. Here are some examples of how CTF contribute.

Graduate level

CTF researchers and doctoral students are active in teaching and supervising at different levels. Foremost within Karlstad Business School and in Business Administration, but also in other disciplines such as Psychology, Environmental and Energy Systems, and Political Science. In 2022, several researchers were involved within teaching and supervising in Business Administration, and had leading roles, for example in the programs “Business and Economics” and “International Business” offered by Karlstad Business School, and as “Head of discipline” and “Director of studies in doctoral education”. Several researchers had course responsibilities, especially at master’s level and within the programs “Master in Service management” and “Master in Marketing”. 59 master’s theses in Business Administration were connected to streams of research at CTF. Within Psychology, CTF researchers were involved in teaching, both at undergraduate level and within the “Master of Science in Psychology Programme”, and had leading roles as “Head of discipline” and “Director of studies”. CTF researchers were also involved in teaching within Informatics, Environmental and energy systems and Political science.

PhD level

20 PhD students in the disciplines Business Administration, Psychology, Political Science, and Machine Design were connected to CTF. Jana Huck, Kristin Svärd and Anne-Charlotte Paas are now half way into their PhD studies and had “PhD Midway 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 during the year. At the annual MIT conference PhD student Kristin Svärd was awarded “Best reviewer award”. Petter Falk, PhD student in Political Science, is associated with the WASP-HS graduate school. Two PhD courses in Business Administration were held during the year; “Overview course in Business Administration”, and the new course “Fuzzy set qualitative comparative analysis (fsQCA)” – the latest course is also part of the Swedish Network for Advanced Business Studies (SNABS). The PhD course “Innovation Management Research” was developed, it is also part of SNABS and will be held next year.

Competence development for professionals

CTF researchers are involved in competence development for professionals, foremost within the Graduate professional development program ISE (read more on the next page) at CTF, but also in collaboration with, for example, Karlstad University’s Uppdrags AB commissioned education.



CTF is a multidisciplinary research environment that contributes to high standard in our courses and study programmes with the help of different cases and current knowledge.

Margareta Friman, professor of Psychology and deputy vice chancellor at Karlstad University

Competence development for professionals within ISE

The work within our Graduate professional development program ISE continued to develop. Several new courses were developed and offered, and new collaborations and dissemination activities were initiated.



Linda Bergkvist

During 2022, eight courses were held. For example “Digitalisation and digital transformation within organisations” developed and led by Linda Bergkvist, researcher and senior lecturer in Information Systems.

– This course provides new knowledge and experiences on how businesses and organisations can work with digitalisation and digital transformation, says Linda Bergkvist. Through sharing of experiences and application of research based models and methods for analysing and implementing digitalisation and digital transformation, we can help our course participants to increase their knowledge and acquire tools for how to manage and work systematically with digitalisation within their own organisations.

In the course, Linda Bergkvist has been collaborating with several organisations and companies from different sectors and industries, such as SBAB and Karlstad Municipality who both have participated in seminars and given presentations. The possibility to exchange knowledge and experiences with different actors (both from academia and practice) is an important and appreciated part of our ISE courses.

Additionally, the following ISE courses were held throughout the year: Idea management for

professionals, Introduction to servitization, Applying service management for professionals, Business models in times of transformation, The customer journey, Nudging and psychological influence, Improving organisational capacity for change, Theory and practical tools, and Tools for strategic development and planning.

In addition to course development, ISE has performed program development and dissemination work. Several meetings and events have been arranged, or participated in to discuss further development of courses, collaborations and share insights. The ISE management team met with representatives from Svenskt näringsliv and Almega, held a seminar and met with presumptive course participants and partners at the fair “Företagssalongen” in Karlstad, and shared insights at a pedagogical conference at Karlstad University, to mention some examples. A digital newsletter was launched, and ISE was highlighted in “Kollega” a member magazine by Unionen (Sweden’s largest trade union on the private labour market).

The work within ISE is an ongoing process. By disseminating and communicating courses, results and insights, ISE can contribute to personal development (lifelong learning) and support a sustainable development within businesses and organisations.

Read more: kau.se/ise

ISE stands for “Improving value creation through service education” and 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, and led by CTF researchers Carolina Camén and Pernille K. Andersson.





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