

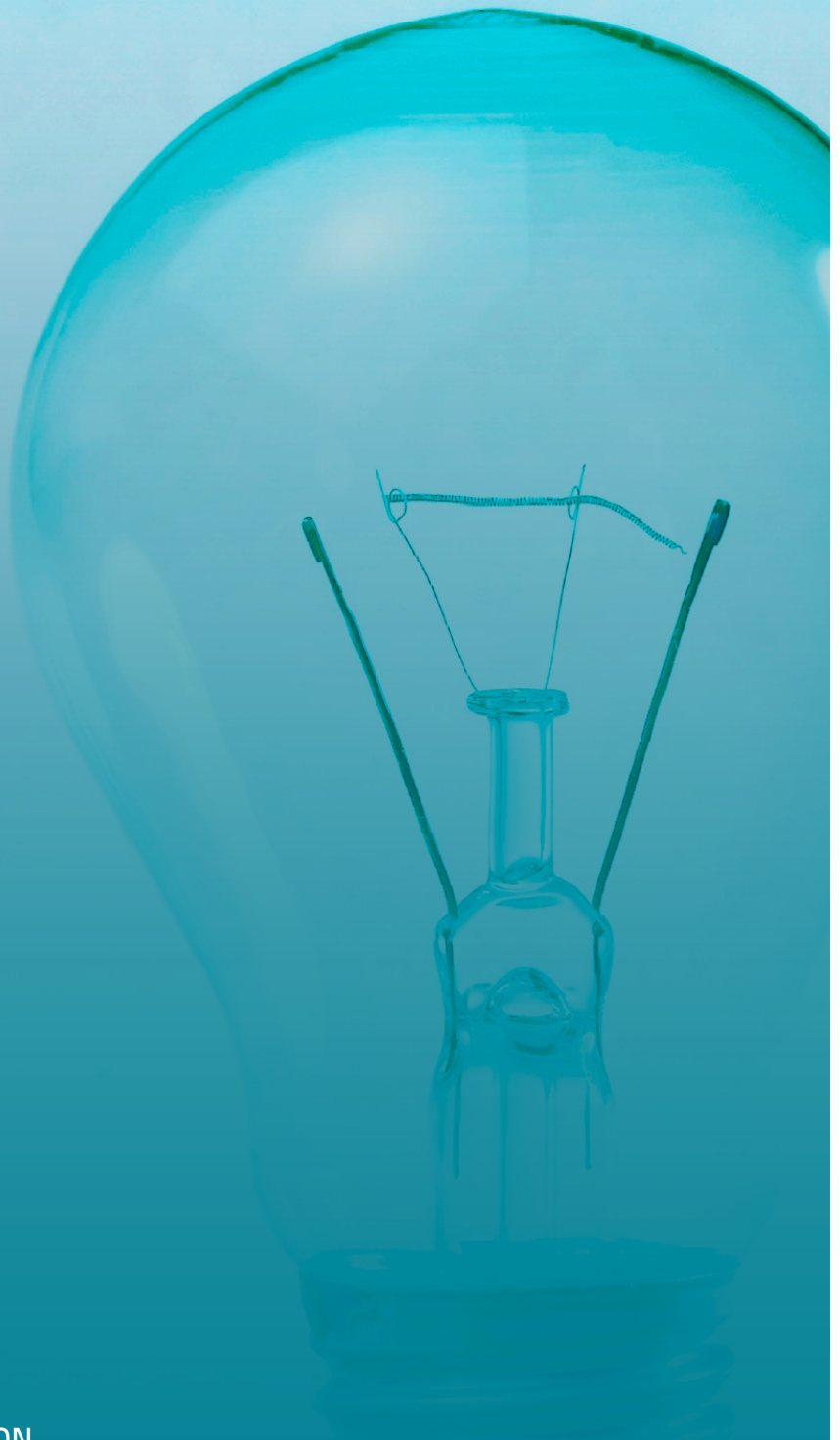


SERVICE RESEARCH CENTER  
CTF | CENTRUM FÖR TJÄNSTEFORSKNING



# ANNUAL REPORT 2019

[CTF.KAU.SE](http://CTF.KAU.SE)



## VISION & MISSION

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

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# HIGHLIGHTS<sup>2019</sup>



## *KK funding for a new research project with the business sector*

CTF received approximately 18 million SEK from the Knowledge Foundation for DISCERN, a new research project in collaboration with the business sector. We are very happy and grateful that the Knowledge Foundation has given us the opportunity to deepen our research on digitalization, customer experiences and servitization. It will give CTF the opportunity to prioritize these important issues - issues that are important both for business and society.

The new research project will be led by Lars Witell, Nina Löfberg, Per Kristensson and Poja Shams.

## At top 100 list

Eight researchers from Karlstad University were amongst the 100 most cited researchers according to the Swedish news magazine Fokus. The list included Swedish researchers who have been most frequently cited in international scientific journals. CTF researchers on the list: Per Skålén (place 70), Margareta Friman (place 88) and Peter Magnusson (place 98).

## Ander Visiting Professor one of the world's most cited researchers



Stephen L. Vargo, Professor of Marketing at the University of Hawaii at Manoa.

The Web of Science Group published the list "Highly Cited Researchers 2019" recognizing the world's most cited and influential researchers. On the list, and top 1% of most cited in Economics and Business, is Stephen L. Vargo, Ander Visiting Professor at CTF.

## CO-CREATED knowledge at Cambridge University

CTF and Cambridge Service Alliance co-arranged a seminar at Cambridge University on digital services and platforms. Researchers and industrial partners from both research centers presented and discussed current projects and future challenges - a successful event where academia and practitioners met to exchange experiences and insights.



CTF researchers and industrial partners at Cambridge University. The following partner companies participated: Ikea, Volvo, Valmet and Ica Maxi.





## CTF LAUNCHED THE SWEDISH INNOVATION INDEX (SII) and SII 2018

ranked Ikea as the most innovative company on the Swedish market followed by MTR Express and Netflix in second and third place.

## *CTF developed & launched courses for professionals within ISE*

ISE, Improving value creation through service education, is a collaborative project between academia and industry. The aim is to strengthen the competitiveness of the Swedish business sector. The ISE project is carried out in collaboration with a number of companies and is financed by the Knowledge Foundation's program "Graduate Professional Development".



## QUIS16

CTF hosted the 16th international symposium QUIS16. The conference is one of the world's foremost in service research, and over 250 participants came to Karlstad University to present and discuss research on how services can contribute to create value for users, and sustainable social development.



Photo: Lidl Sverige

## LIDL SUSTAINABILITY AWARD

Helén Williams, Fredrik Wikström and Jakob Trischler received the Lidl Future Initiatives award of 3.8 million SEK for a new research project on transformative packaging design. The project aims to increase consumers' and packaging developers' knowledge of plastic food packaging.



CTF's annual planning days were held at Selma Spa in Sunne and consisted of talks and discussions relating to future development and publications. One of the guest speakers was Johan Martinsson, Head of SOM-Institute.

## KEY NUMBERS

135

PUBLICATIONS IN TOTAL

47

JOURNAL ARTICLES

28

INTERNATIONAL  
CO-AUTHORED ARTICLES

36,8

NEW EXTERNAL FUNDING IN MSEK

Have been granted for research projects during 2019. Some of the funders are: the Knowledge Foundation, Vinnova, Forte, EU, Lidl Future initiatives, and Anne-Marie and Gustaf Anders Foundation for media research.

45

ONGOING  
RESEARCH PROJECTS

86

CTF PEOPLE

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

45

SEMINARS & CONFERENCES

4

PHD & LIC DEFENSES



# DIRECTOR'S REPORT

When I look back at CTF's contributions during 2019 I see two things that stick out; impact and internationalization. In terms of impact, I note, for example, how CTF researchers took place in news media regarding how climate actions stimulate sustainability. Also, our researchers managed several research projects that led to outcomes in terms of scientific papers, workshops with partner organizations, new external funding, and all of those activities were disseminated in newspapers and other types of news media. In addition, another area of research that has made an impact on our surrounding society is our innovation index. The Swedish Innovation Index measures how companies perform in terms of innovation from the customer's perspective. Our innovation index attracted much attention from business organizations as well as media.

It is important that research activities at CTF makes an impact. It is stated in our strategy, developed by our Advisory Board, that we should conduct research that counts and makes an impact. Research should lead to better organizations, a better society, and a better world, and not only be conducted for the benefit of an internal department or colleagues within a scientific group or a discipline. I see that many of our efforts during 2019 resulted in value creation through service, which also is our mission stated in our strategy.

In terms of internationalization, CTF expanded further during the year. Several of our new colleagues either

have experience from working outside Sweden, or have origins from other countries. CTF is a multi-national research environment with members from all over the world, for example; Finland, Norway, Germany, the Netherlands, Austria, Italy, Brazil, Bulgaria, Japan, China, and the USA. This paves the way for a multicultural, heterogenic and dynamic research center where ideas from all over the world can meet, cultivate and expand. Our fika-room is the one place where this becomes evident as new ideas and experiences are shared there every day.

If we look at more concrete research, 34 of our 56 international research papers, published in well-respected peer-reviewed academic journals of high quality, were co-authored papers with scholars outside our center. This too, makes our research internationally anchored and it also brings several advantages, for example, facilitates external funding, increases attractiveness for organizations working with us, and also provides our center with a good reputation as being a great place to work.

Impact and internationalization are two important facets of a research environment, and I am happy that we are progressing so well in both of these areas. Thank you all for 2019, and I look forward to meeting and sharing what CTF does during 2020.

Per Kristensson  
Director of CTF



## CHAIR'S VIEW

The year of 2019 will go down as a turning point when it comes to putting the climate change on the agenda, both nationally and globally. Along with the global challenges mapped in Agenda 2030, this will set the scene for the upcoming ten years. The increased importance of sustainability aspects and acting for the common good already show in the demands from the customers, and also in the numbers in financial reports from all types of companies and enterprises.

This contributes to the increasing need of and interest for service based logic and interdisciplinary research conducted by the skilled researchers at CTF. There are a number of challenges that need solutions. As the projected life span of the population increases, so does the strain on the welfare system demanding it to balance the need of integrity and the will to be self-sufficing against the need of help and human interaction. How robots and digital tools are perceived by care takers, and how can they be used to streamline the medical system is thus an important and interesting area of research for the community at CTF.

There are a number of vital areas in society where the knowledge and insights created by the CTF researchers are useful. For example, how new technology and new behavior transform the business models of entire industries, how public transport can be developed and utilized more, how to improve sustainability and minimize food waste by packaging design, how we are affected by interaction with mobile devices and other technical products that are measuring and tracking our activity, how gamification or nudging can

be used to enhance the wished for behaviour, etc. All these areas are of importance for the ability to carry out the changes needed to meet the demands stated by the sustainable development goals of Agenda 2030 for a better world.

Therefore, in the continuous process to strengthen the position of CTF as the world's leading research center for service management and value creation, we are balancing the time spent analyzing our research, with time spent spreading our research results to create an impact in businesses, organizations and the surrounding community.

Malin Thorsén  
CEO Bright Planet and Chair of CTF Advisory Board





# ORGANISATION

CTF, Service Research Center, is a multidisciplinary research center at Karlstad University, Sweden, established in 1986. In 2013, Karlstad University appointed two Excellent Research Groups, and CTF is one of them.

CTF is a multinational research environment with staff members (Senior and junior researchers, phd students and administrative staff) and guest researchers from all over the world. Our researchers and phd students are variously involved in disciplines such as business administration, psychology, religion sociology, information systems, environmental and energy systems, and working life science.

## MANAGEMENT TEAM

CTF's daily operations were led by a Director, Per Kristensson, and a Vice director, Per Skåln, supported by an administrative team: Administrators Britt-Marie Shandrew and Ingrid Hansson, Communications Linda Fridberg and Accountant Roberta Starosky Jonsson.

## STRATEGIC COUNCIL

A Strategic Council, consisting of professors and associate professors at CTF, deals with joint issues and is a forum for discussion and information.

## ADVISORY BOARD

The Advisory board provides CTF with valuable insights, vital knowledge and experience.

During 2019, the board consisted of:

- Malin Thorsén, Bright Planet AB (Chair)
- Peter Rovér, Effect Management
- Hans Karlsson, Landstinget i Värmland
- Christina Öberg, Örebro University
- Jonas Matthing, RISE Research Institutes of Sweden
- Anders Tufvesson, Motification
- Sofi W. Elfving, Telia Company
- Vilhelm Jensen, Nordea
- Kathrine Löfberg, Löfbergs
- Mikael af Kleen, Differ Strategy
- Per Kristensson, CTF
- Per Skåln, CTF
- Jenny Karlsson, CTF

## CTF PEOPLE - WHAT'S NEW

During 2019, Lars E. Olsson was appointed Professor of Psychology. Per Skålén became Head of Discipline for Business Administration, and Johan Quist became new Vice Director of CTF. Jörg Pareigis, was appointed Head of Centre for Teaching and Learning at Karlstad University.

Five new PhD Students joined CTF during the year: Jonas Hjalmar Blom is a PhD student in Psychology. His research focuses on decision making and behavioral change in an economic, ecological and psychological sustainable direction. He will, among other things, investigate how digitalized services can create better conditions for health care and rehabilitation, and also how to make people change their behavior to prevent ill health.

Petter Falk is a Industrial Phd student at RISE. He will be supervised by Political Science and Business Administration at Karlstad University and is linked to CTF. His studies focuses on data management, automation and AI in welfare services, and will be conducted within the project "Demokratidata", a research project at CTF in collaboration with RISE, Research Institutes of Sweden.

Kristin Svärd is a PhD student in Business Administration at Karlstad Business School placed at CTF. She is also part of the Swedish Research School of Management and IT, MIT. Her research will focus on digital innovations, and the effects they have on individuals, organizations and society.

Muhammad Murtaza Ali is a PhD student in Business Administration at Karlstad Business School placed at CTF. He will study how digitalisation is affecting markets and actors. His focus areas are systems in the music industry, and digital initiatives in low-income countries.

Anne-Charlotte Paas is a PhD student in Business Administration at Karlstad Business School placed at CTF. Her research will focus on sustainable development in everyday life, where she, among other things, will look at different dilemmas that can arise and what implications this can have when a family will try to live a more sustainable everyday life.



CTF has a new Professor in Psychology, Lars E. Olsson.



Petter Falk



Jonas Hjalmar Blom



Muhammad Murtaza Ali



Kristin Svärd



Anne-Charlotte Paas

# RESEARCH

We conduct research on value creation through service based on the needs of individuals and society. We want our research to make a difference and help develop people, organizations and the world around us.

Through scientific research on services we develop new knowledge about value creating processes. With value creating processes, we refer to the effects that arise between an organization and a user in the form of a customer, citizen or patient.

Central research areas: service innovation, service management, service experience, service transformation, service system transformation and service logic. CTF is always open to new research areas when societal transformation makes such areas relevant.

CTF's research is at the forefront of the international research and is conducted in collaboration with private and public organizations as well as academia.





# PROJECTS

During 2019, CTF had about 45 ongoing research projects. We applied for funding for approximately 86 million SEK for new research projects and received 36,8 million SEK in new funding. Here are some selected new research projects.

## DISCERN - digital services and customer experiences

The research project aims to create an increased understanding of how digitalization affects servitization in companies and customer experiences - this with a focus on the interaction between the company and the customers. The concept servitization is used to describe the process when a company moves from a product focus, to focusing and expanding its offering of services, all to create value for, or together with the customer. The research will be conducted in close collaboration with the following companies: Ikea, Volvo, Miller Graphics, Valmet, Tobii Pro, Kongsberg Maritime Sweden, Löfbergs, QBIM, Maxi Ica Supermarket and Thingssquare. The research project will run during a three-year period and at a total cost of 35 million SEK, of which nearly 18 million SEK are financed by the Knowledge Foundation. Discern is a continuation of the research profile "Service innovation for sustainable business" which was conducted during 2011-2019 in collaboration with the business sector.

## RESPONSE - Interactive citizen involvement in DRT service design

Researchers at CTF will, within an Interreg Consortium, analyze travel services from a traveler's perspective. The project is funded by the EU regional development fund Interreg Baltic Sea Region. The project will extend over 2.5 years, and is conducted within RESPONSE - Demand-Responsive Transport to ensure accessibility, availability and reliability of rural public transport - an initiative driven by the public transport sector seeking to develop and coordinate existing publicly funded transport services. The purpose of the project "Interactive citizen involvement in DRT service design" conducted at CTF is to study vulnerable travel groups and their perceived experience of existing services, with special focus on critical aspects such as reliability and user-friendliness. The RESPONSE consortium is coordinated from SEI Tallinn, Estonia, with participating organizations (including regions, universities, public transport companies and public transport authorities) from Estonia, Lithuania, Sweden, Norway and Denmark, and is financed by the Interreg Baltic Sea Region.



"The purpose of our project within RESPONSE is to study vulnerable travel groups and their perceived experience of existing services. The project has a particular focus on critical aspects such as reliability, lack of user-friendliness, and how travelers and drivers together handle this."

Per Echeverri, Work Pack Leader within the RESPONSE Consortium

## TRUEDIG - digital services and customer experiences

TRUEdig investigates how businesses that develop privacy-enhancing services also can increase users' security and sense of empowerment. The project is financed by the Knowledge Foundation during 2019-2022 and will be conducted together with Computer Science at Karlstad University and in collaboration with Google and Sandvine.

## Transformative packaging design for sustainable development

The project aims to increase consumers' and packaging developers' knowledge of plastic food packaging. "Transformative packaging design for sustainable development – creating a guide on packaging design with the aim of reducing the total environmental impact" received over 3.8 million from Lidl's sustainability initiative Lidl Future Initiatives / The plastic challenge and the project will last for three years.

## Selected project collaborations where CTF researchers are participating:

### KomDig

The project Kommunal & Digital (KomDig): The impact of digitalization on social relations, organizational context and work environment received funding from AFA Insurance. The project will investigate if the work and work environment of employees are taken into consideration when municipal procedures are digitalized, how digitalization influences the form and content of different occupations within the municipalities, and how this in turn affects the organizational and social work environment with a special focus on social relationships and the social context.

### Digitalwell Arena

Digital Well Arena is a continuation of the project DigitalWell research, serving industry and public sector organizations with research on developing digital user-friendly welfare services. The project DigitalWell Arena was initiated by: Compare, Region Värmland, Karlstad University, County Administrative Board, Karlstad municipality, Karlstad El & Stadsnät, RISE Service Labs, MSB, Tieto, CGI, Nordic Medtest, Effect Management, Xmentor Management and Vinnova. The project is in progress until the end of November 2028.

"We want to help explain the confused debate about plastic packaging by developing new knowledge, and to create a guide on how to choose packaging that has less impact on the environment. We need to raise awareness on the functions of packaging, and understand how it can contribute to reducing food waste."

Helén Williams, Project Leader of Transformative packaging design for sustainable development



## SISB, SERVICE INNOVATION FOR SUSTAINABLE BUSINESS

The research profile SISB (Service Innovation for Sustainable Business) was initiated in 2011 and ended in August 2019. During these years CTF strengthened its position as a leader in service research with a specific emphasis on service innovation and the customer experience. The research profile was a joint research initiative between manufacturing and retail companies, Karlstad University and the Knowledge Foundation.

In total, SISB financed about 40 researchers who conducted research together with our partners on service innovation, business models, customer experience, and service infusion. The close co-operation with our partners Ica Maxi, Löfbergs, Valmet, Volvo, Ikea, Ericsson, Tetra Pak and Stamford enabled us to work on relevant issues that are important both for business practice and academia. We have organized workshops in Turkey and Italy with Ericsson, we have studied remote services in Switzerland and we have carried out many field studies in Karlstad. We are very proud of all the projects we have done in collaboration with our partners.

We set out to identify the DNA of service innovation, an endeavor that has been challenging but also very rewarding. Altogether, the researchers and project

leaders in SISB published 3 books, 107 peer-reviewed journal publications, 128 conference publications and 2 dissertations. Several of the publications, both papers and dissertations, have been recognized with national and international awards.

As a research profile, we were evaluated very favorably by the Knowledge Foundation. Our publications have been cited 55% more than average in OECD, and 23% more than average in Sweden. In addition, we have published in higher ranked research journals compared to researchers in other profiles financed by Knowledge Foundation (36% in top 10 versus 12% for other research profiles).

We are grateful for the opportunity to work together with many great individuals, managers, companies and co-authors for so many years. Some of which we will continue working with in DISCERN, a new project financed by the Knowledge Foundation to further build on the strengths of SISB and with our partners, we hope to find new ways for further collaboration in future projects

Lars Witell  
Research Director of SISB



The research group gathered for the last meeting within the research profile in January 2019.



# PUBLICATIONS

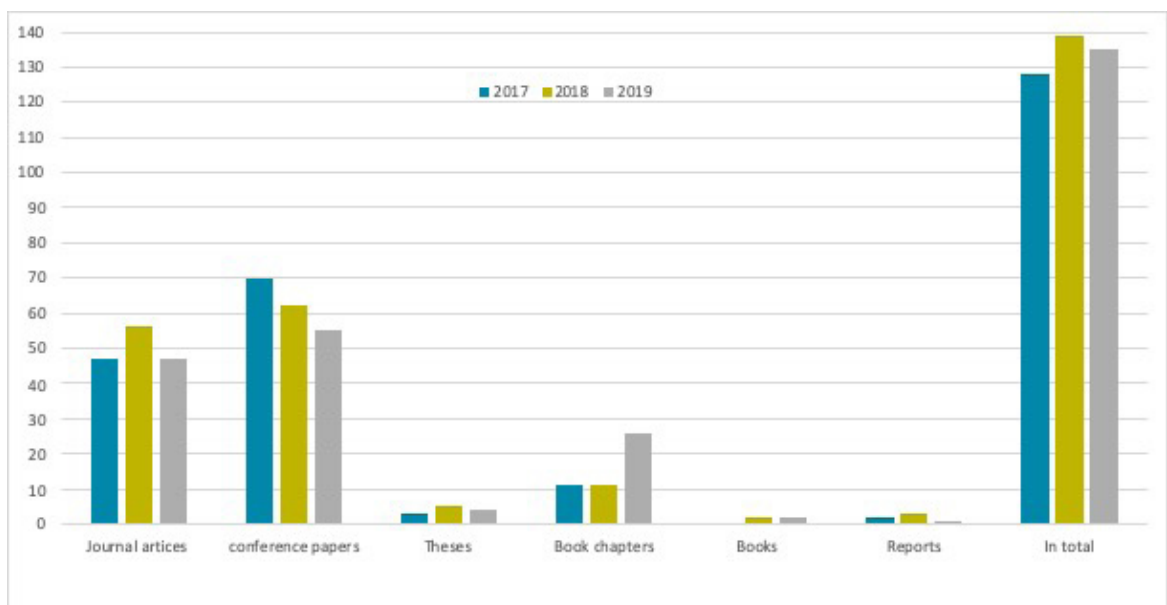
Research at CTF is resulting in - and making an impact - through scientific publications. In 2019, 47 journal articles, 55 conference papers, 4 theses, 2 books, 26 book chapters, and 1 report were published. Several of our researchers published in leading and high impact factor journals, for example in Journal of Marketing Research, which is considered to be a 4-star publication. The work on developing strategies to further increase our publications, and foremost to publish in high impact journals is continuing. 28 of our journal articles were published in collaboration with international scholars.

Many CTF publications have made an impact on our research field, and during the year several of our researchers were acknowledged in ranking lists and by winning awards. Eight researchers from Karlstad University were amongst the 100 most cited researchers according to the Swedish news magazine Fokus. The list includes the researchers in Sweden who have been

most frequently cited in international scientific journals. Margareta Friman, Per Skålen and Peter Magnusson from CTF were on the list. The list "Highly Cited Researchers 2019" by The Web of Science Group is recognizing the world's most cited and influential researchers. On the list, and top 1 % of most cited in the field Economics and Business, is Stephen L. Vargo, Ander Visiting Professor at CTF.

The article "The role of perceived comprehension in idea evaluation" by Alexandre Sukhov was recognized as a top 20 most read article in Creativity and Innovation Management during 2017-2018. Tobias Otterbring, former PhD student and researcher at CTF, today researcher at Aarhus University in Denmark, was awarded the 2018 Emerald/EFMD Outstanding Doctoral Research Award for his doctoral dissertation "A shaken self on shopping: consumer threats and compensatory consumption".

*"The graph shows that we keep our publication performance at a consistent high level. We have somewhat fewer articles in terms of numbers, but at the same time we were aiming a little bit higher this year. Out of our 47 journal publications, ten were published in journals which were found on the AJG-list at level 3 or higher. This shows that our research has both rigor and relevance", says CTF Director Per Kristensson.*



# PHD & LICENTIATE DEFENSES



Johan Högberg (Psychology): "Gameful experiences: The not so painful road to gainful behavior" (October 22). In the doctoral thesis, he studied certain parts of the gaming experience, and how to use it for marketing purposes. He has created a model, used in research on gamification, that describes seven different dimensions that gamification influences.



Caroline Saul (Business Administration): "Extending Access: Perspectives on Business Model Innovation in Water and Sanitation Service Provision" (October 4). She has studied the roles of business models and business model innovation in providing and scaling water and sanitation services in low-income countries.

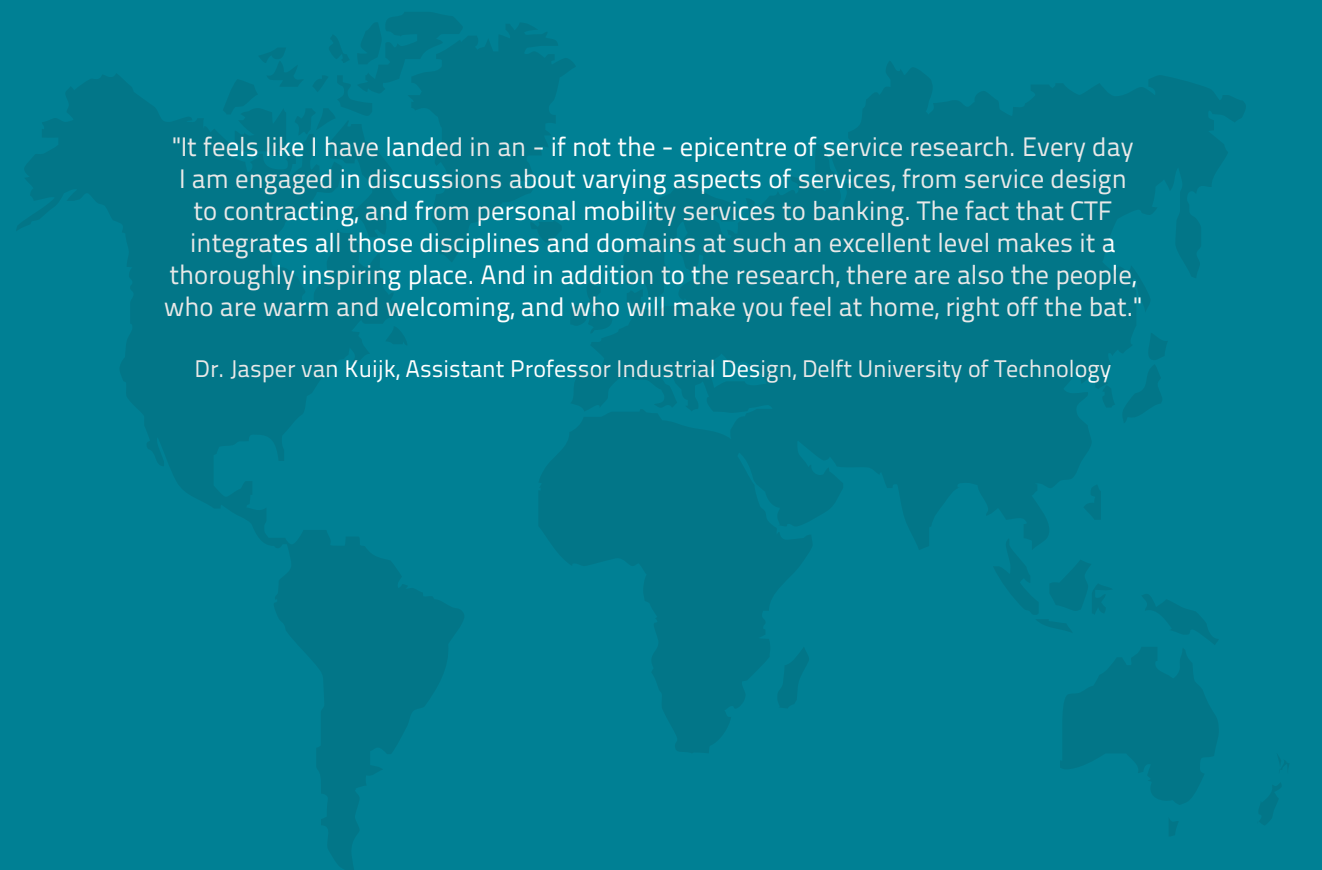


Josina Vink (Business Administration): "In/visible - Conceptualizing Service Ecosystem Design" (June 14). She has studied the patient journey and how it can be redesigned. Josina believes it is not only the physical details that are important when changing the patient journey, but also the whole structure of healthcare, the norms, behaviors and rules.



Per Myhrén (Business Administration): "Open service innovation in industrial networks" (June 17). His licentiate thesis describes how collaboration through open innovation processes in networks can be an alternative that makes the journey from idea to commercialization shorter.

# External relations & impact



"It feels like I have landed in an – if not the – epicentre of service research. Every day I am engaged in discussions about varying aspects of services, from service design to contracting, and from personal mobility services to banking. The fact that CTF integrates all those disciplines and domains at such an excellent level makes it a thoroughly inspiring place. And in addition to the research, there are also the people, who are warm and welcoming, and who will make you feel at home, right off the bat."

Dr. Jasper van Kuijk, Assistant Professor Industrial Design, Delft University of Technology



## FUNDERS & PARTNERS

Since the start in 1986, CTF works in partnership with businesses, public organizations 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 support from the following funders and partners: The Knowledge Foundation, Vinnova, The Swedish Foundation for Humanities and Social Sciences, Horizon 2020, Region Värmland, Handelsbankens Research Foundation, Anne-Marie and Gustaf Anders Foundation, The Swedish Research Council, Ericsson, Volvo, Valmet, Ikea, Löfbergs, Ica Maxi, Tobi Technology, The Swedish Transport Administration, Försäkringskassan, BillerudKorsnäs, Rolls-Royce, Voith Hydro, Cellcomb, Karlstad Municipality, The Swedish Retail and Wholesale Council, Forte, Formas, Mistra, The Swedish Energy Agency, and others.

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Examples of academic partners: Forskarskolan Management och IT, Chalmers University of Technology, University of Gothenburg, Stockholm University, Linköping University, Uppsala University, Lund University, BI Norwegian Business School, Hanken School of Economics, NHH Norwegian School of Economics, University of Aker, KEDGE Business School, Aalto University, EAWAG, Freie Universität Berlin, Manchester Business School, Università Bocconi, Arizona State University, Edificio Egade-Itesm, University of Hawaii at Manoa, Florida State University, Politecnico di Milano, University of Wisconsin-Madison, Kyoto University, Griffith University, and others.

## INTERNATIONAL COOPERATION

CTF has a large international network and during 2019 nearly 30 visiting researchers stayed in our environment for a longer or a shorter time. Several of our researchers also have assignments outside the University, and here are some examples. Margareta Friman is a member of the Academic Network Steering Board for the UITP, Union Internationale des Transports Publics, which is the International Association of Public Transport and a passionate champion of sustainable urban mobility. Carolina Camén is a member of the steering committee for the research platform SQMA, Swedish Quality Management Academy. Katrin Lättman is a board member of the "Network for equality in Transportation".

Per Skålén and Bo Edvardsson are visiting professors at INN, Inland Norway University of Applied Sciences. Per Kristensson is a Visiting Professor at NHH, Norwegian School of Economics. Per Pettersson is a Visiting Professor at Uppsala University. Mikael Johnson is a Research Fellow at INN.

### Ander Visiting Professors

Five Ander Visiting Professors are associated with CTF. They contribute with an international perspective and knowledge from the absolute front within their respective fields of research. Their knowledge of methods, theoretical frameworks and their contacts benefit our researchers and doctoral students and have great deal of input in their research. The Ander Visiting Professorship is funded by Anne-Marie and Gustaf Anders Foundation for Media Research. Ander Visiting Professors 2018-2020:

- Martin Schreier, University of Vienna
- Satoshi Fujii, Kyoto University
- Johanna Gummerus, Hanken School of Economics
- Joann Peck, University of Wisconsin
- Stephen L. Vargo, University of Hawai'i at Manoa

On the next page we present two of our Ander Visiting Professors.

## ANDER VISITING PROFESSORS: JOANN PECK & MARTIN SCHREIER



**Joann Peck** is an Associate Professor in the Marketing Department at the Wisconsin School of Business, University of Wisconsin-Madison. Her primary research focus is on haptics (the sense of touch), psychological ownership, and consumer behavior. Her most recent project focuses on interpersonal touch and examines comfort with both initiating and receiving touch. She is also working on a virtual touch project examining touch in a virtual reality environment. Her research has been published in the Journal of Consumer Research, the Journal of Marketing, the Journal of Consumer Psychology, the Journal of Business Research, and the Journal of Retailing. Peck's research has been cited in Forbes, U.S. News and World Report, Time.com, Forbes, the Canadian Broadcast Company and others.

*"Working with CTF has been enlightening and inspirational. Collaborating with leading academics to develop knowledge and practical insights is one of my key motivations for being a professor. CTF has excellent relationships with companies who encourage and welcome insights gained by researchers. This is invaluable. It is an honor to be affiliated with CTF."*

*Joann Peck, Associate Professor, University of Wisconsin-Madison*



**Martin Schreier** is Professor of Marketing and currently Head of the Department of Marketing, WU Vienna, Austria. His teaching and research interests include product and brand management, creativity and new product development, and consumer behavior. His recent research revolves around innovative forms of customer-brand interactions along the entire value chain, facilitated by new digital technologies. In the area of user-centered ideation and design he is particularly interested in the potential promises of user-involvement for a firm's new product development efforts and in the broader consequences of customer empowerment strategies on consumer behavior. His work has been published in academic journals such as the Journal of Marketing, the Journal of Marketing Research, the Journal of Product Innovation Management, or Management Science and featured in international media outlets such as the Harvard Business Review. He currently serves as Associate Editor at the Journal of Marketing and as Area Editor at the International Journal of Research in Marketing. He is also a member of the Editorial Review Board of the Journal of Consumer Research, the Journal of Product Innovation Management and the Journal of Marketing Behavior.

*"CTF is an excellent place to exchange ideas and thoughts about innovation, new product ideation, and design. There is an impressive group of researchers with a lot of expertise and energy on these topics and many of the papers coming out of this group have stimulated my own research. I enjoy my visits to CTF a lot and hope we can use the fruitful ground to develop some joint research projects with high impact."*

*Martin Schreier, Professor of Marketing, WU Vienna*

## EXAMPLES OF IMPACT

# CTF AND VOLVO - WORKING TOGETHER TO UNDERSTAND SERVICE

CTF and Volvo have a long tradition of working together in different research projects. We have conducted research covering different topics such as value co-creation, public transportation, new service development, service innovation and service infusion.

In the research profile SISB (2011-2019), we worked together to create an understanding of the relationship between service design, new service development and service innovation. Through workshops, experiments, surveys, interviews and “being on site” the research has contributed both to the development of Volvo as well as to academia.

During recent years, our cooperation has centered on how the business model is influenced by the change in core technology within the automotive business. How does a market with less carbon-dioxide emission and a gradual change from diesel towards electrical vehicles affect business models and the service business? A shift in core technology might influence the role of the service business and how Volvo should organize and set up the service business. Through workshops, inter-

views and working sessions, we have together developed potential scenarios for the service business and its potential role in the future.

During the next three years, Volvo will have a key role in the new research project DISCERN where we will focus on developing knowledge in the intersections between customer experience, digitalization and service infusion. The research profile will be a new platform for our cooperation and an opportunity to further extend and build on the long partnership we have together.

We appreciate the long-term relationship we have with Volvo – dependent on our need for new knowledge we have developed new research initiatives and programs. The research interests have shifted over the years – but openness and curiosity on new areas and inviting researchers into the strategic processes and development of innovations are valuable for CTF.

Lars Witell  
Research Director of SISB

*“Over the years, we have worked closely with CTF in various research projects. The results from our cooperation spread from knowledge transfer in the areas of service development and business modelling to models that could be implemented when working with innovation and change management. Recent projects have explored organizational consequence of the digital transformation journey for emerging technologies. Volvo’s cooperation with CTF is very valuable for our early phases of business engineering and service development.”*

*Christina Stenman Jörgensen, Product Planning Manager, Volvo Group*

*“The transport industry currently faces a wide array of changes. There is a need for more sustainable transports and new regulations. New technologies, such as electrification and automation, bring opportunities as well as challenges. This duality of opportunities and challenges also regards the areas of digitalization and servitization. For the aftermarket, specifically, new technologies will pose challenges for the development and deployment of new offerings. Hence, it is critical to establish new knowledge in order to develop new solutions that address the societal and technological changes, leverage the opportunities enabled by new technology, and to meet the future needs and expectations of customers. Therefore, the DISCERN project initiated by CTF is both welcome and timely. The team that Volvo has gathered for the project look forward to the exchange and collaboration with CTF as well as the industrial partners of the project.”*

*Klas Hedvall, Aftermarket Solutions Analyst, Volvo Group*

## EXAMPLES OF IMPACT

# CTF AND THE DELEGATION FOR TRUST-BASED PUBLIC MANAGEMENT

Together with government agencies, we have for two decades investigated how the public sector can be better, more relevant and effective for citizens. In 2019, it was the Government that needed our help. For more than a year, we were appointed part-time as Head of Research in the Government's Delegation for Trust-Based Public Management.

Along with other researchers we have long argued that New Public Management has led to excessive command and control. In January 2015, the then Minister of Public Administration, Ardalan Shekarabi visited Karlstad and CTF. The quest was to find out how the public sector can be governed so that the employees' professional skills would be better utilized. Shortly thereafter the government appointed the delegation.

However, during the initial work at the Delegation, we were already occupied with an experiment within the Swedish Social Insurance Agency. Two units at the Social Insurance Agency were freed from command and control and given the opportunity for a more self-managed and knowledge-based business. They would follow the law, but otherwise the units were given free hands to set up their own work routines. It turned out that the employees, who for a long time had been subjects of detailed control, were not really equipped to organize their work. They even asked for control, because they did not trust their own ability. But after a difficult journey, good results emerged. The employees' skills and work environment developed and citizens were more satisfied.

Appointed by the delegation, we were able to use some of the experiences from the Social Insurance Agency. We investigated how complex social challenges spanning several sectors, could be solved. The integration of new arrivals, the punctuality of trains, the availability of medicines at the pharmacies and reduced crime are areas where several agencies and departments are jointly responsible for the result. With many actors, it is difficult with the existing and somewhat rigid governance to make all resources work towards a common goal.

The delegation's interim report, submitted in October 2019 to the current Minister of Public Administration, Lena Micko, proposes that the government should establish its own development environment. We found a need for a neutral arena where employees from different actors are trusted to test tools and methods and where all needs and perspectives are considered. The Governments' ability to act and the capacity for coordination would then increase.



Martin Fransson  
Assistant Professor

Johan Quist  
Associate Professor

*"Working closely and together with researchers is something the Swedish Committees of Inquiries can develop. We have succeeded well in this work and it has yielded many benefits."*

*Christina Forsberg, Chair of the Delegation for Trust-Based Public Management, and Director General of CSN*





## THE SWEDISH INNOVATION INDEX - INNOVATION FROM THE CUSTOMERS' PERSPECTIVE

In March 2019, we launched The Swedish Innovation Index (SII) which ranks the innovativeness of Swedish companies and organizations as perceived by their customers.

There are different types of innovation and different ways to measure innovation. For companies, organisations, decision makers and politicians, innovation contributes with generating growth, increased competitiveness and developing welfare. From a customer point of view, innovation is a value-creating experience supported by a product or a service. This is what SII measures.

The purpose of SII is to complement other surveys and contribute to creating an overall picture of innovation and how to succeed with innovation. Our index makes it possible for companies and organisations to follow the development and results of investments in innovation from a customer perspective.

The Swedish Innovation Index 2018 is based on the information from about 13,000 customers who ranked the degree of innovation at 70 companies and organisations within 9 industries. The ranking is based on how they perceive the company's innovativeness, and how attractive customers perceive the company. The customers have also evaluated the company's offer, delivery,

treatment and interaction space. Ikea was ranked as the most innovative company on the Swedish market in 2018, followed by MTR Express and Netflix in second and third place.

With the index we hope to contribute to a better knowledge and understanding of how companies and organisations by investing in innovation can increase their attractiveness and competitiveness. Customers use products and services for a reason. Our research focuses on this reason, and shows that customers expect more from companies and organisations than just a satisfactory experience or a low price.

SII is based on many years of research and is a joint project with CTF, Service Research Center, and Karlstad Business School, together with NHH, Norwegian School of Economics, Norway, and Fordham University's Gabelli School of Business, USA. During 2020 Finland, more precisely Hanken School of Economics, Svenska Handelshögskolan in Helsinki, will join and create a Finnish Innovation Index using the same type of measurement as the other countries.

Per Kristensson  
Professor and CTF Director



# MEDIA IMPACT 2019

CTF researchers and PhD students are frequently featured in media, and during the year we had around 120 hits in media. Our research on food waste, transportation, consumer experience had the biggest media impact during the year, and appeared for example in: Svenska Dagbladet, Aftonbladet, Dagens Nyheter, Sveriges Radio, NWT, VF, and others.

Some examples of CTF in media:

Helén Williams	Fyra tips som minskar matsvinnet (Forskning.se)
Per Kristensson	Därför dras du med i shoppinghysterin (P4 Värmland)
Helén Williams	Klimatångestdoktor om dyrt vatten (P4 Värmland) #PlasticShame: Are supermarkets using an unnecessary amount of plastic for fruit and veggies? (Geelong Advertiser)
Charlotte Bäckman	Framgångsrika bedragare ljuger stort (Svenska Dagbladet) Framgångsrika bedragare ljuger stort (Aftonbladet)
Helén Williams & Fredrik Wikström	Matsvinn största klimathotet - experternas bästa råd om förpackningar (DN) "Vi klimatforskare stödjer Greta och skolungdomarna" (DN Debatt)
Fredrik Wikström	"Ut med den naiva teknikoptimismen - optimistisk teknikrealism" (DN kultur)
Frida Skarin	Psykologin bakom bussåkadet (Vetenskapsradion)
Per Kristensson	Ikea det mest innovativa företaget i Sverige (industrinyheterna.se) Kundbehov kring innovation mäts i nytt index (Kvalitetsmagasinet) Nytt innovationsindex mäter vad kunderna tycker (forskning.se) Ving i topp bland Sveriges mest innovativa företag (svenskyggtidning.se)
Johan Quist & Martin Fransson	Forskning: Därför är chefer ett hot i offentlig sektor (chef.se)
Charlotte Bäckman	Intelligenta duschar ökar självständigheten (P4 Värmland) Ökad självständighet med intelligent dusch (Forskning.se)
Katrin Lättman	New method contributes to better transport services (phys.org) Ny metod utvecklar bättre transporttjänster (transportochlogistik.se)
Jessica Westman	Schulweg ohne Eltern macht Kinder glücklicher (Stiftung Warentest)
Per Kristensson	Så lurar vi oss själva att handla på rean (Dagens Nyheter) Oförmågan att välja som konsument (SR)

# COMMUNICATION & DISSEMINATION ACTIVITIES

In 2019, CTF arranged over 40 research seminars at Karlstad University and several other events.

Research communication is an important part of CTF's activities. CTF actively use the webpage ([ctf.kau.se](http://ctf.kau.se)), social media and other digital solutions to post press releases, news, blog post, activities etc.

The following six blog posts were published during 2019: Travel choices and children's well-being, New book on Service design in Healthcare, Reflections and key takeaways from QUIS16, Servitization - How? Different routes to take, and Att lösa och förstå den digitala paradoxen.

## Newsletter

CTF News is our bimonthly, electronic newsletter (available both in Swedish and English) with national and international subscribers.

## Social media

CTF's Facebook account (CTFServiceResearchCenter) was launched in 2011. In 2010, CTF joined Twitter (@CTFse) and in 2011, Youtube (CTFse). In 2017, Karlstad University launched @kauresearch on Instagram. The account is used for exploring the researchers' daily life at Karlstad University, which also includes the researchers at CTF.

## Mynewsdesk & AlphaGalileo

For national external communication CTF use the digital PR solution MyNewsdesk together with Karlstad University. During 2019 we published 10 press releases, 4 news articles, and 6 newsletters on the platform and we had nearly 120 hits in media during the year.

For international external communication we use Alpha Galileo, an independent business to business service for research and media communities and we published 8 international articles during the year.

## SEMINARS & EVENTS

In 2019, we arranged over 40 CTF research seminars at Karlstad University and several other events. Some examples of our larger events that CTF arranged during the year are:

The international research symposium QUIS16 was held June 10-13 at Karlstad University. It is one of the world's foremost conferences in service research with around 250 participants.

The annual MIT research conference was held September 19-21 at Hennickehammar. 28 researchers from 7 different countries attended the conference.

Tjänsteinnovationsdagen 2019 was held March 7 at Karlstad Congress Culture Centre with about 120 participants.

We also co-arranged the seminar "The future of digital services and platforms: Challenges and Opportunities" with The Service Alliance in Cambridge, UK, where researchers and partner companies from both centers participated. On December 9-13 CTF arranged a research seminar week on "Service System Transformation"

Our researchers were invited to speak at seminars, public events and research conferences all over the world. Some examples are: Servsig, 25th International Conference on Recent Advances in Retailing and Consumer Service Sciences, 27th Frontiers in Service Conference, 8th European Conference on Sensory and Consumer Research, and 6th Forum on Markets and Marketing.

# EDUCATION

In addition to research, CTF has an important role in undergraduate, graduate, and post-graduate education at Karlstad University, particularly within the subjects of business administration and psychology.

In business administration researchers associated with CTF have leading roles in all three education programs offered by Karlstad Business School: the Master of Science in Business and Economics program (Civilekonomprogrammet), Real Estate Management program (Fastighetsekonometriprogrammet), and the International Business program (Internationella affärer). Researchers associated with CTF also have leading roles in two master programs: Master in Service Management and

Master in Marketing at Karlstad Business School, and during 2019, over 10 Master's students were connected to CTF. The PhD course Theory and Research in Service Management (7,5 ECTS) was arranged by researchers associated with CTF.

In psychology, researchers associated with CTF also have leading roles and contribute to the registered Psychologist program

During 2019, 27 PhD Students in the disciplines business administration, political science and psychology were connected to CTF. Researchers at CTF led the course "Facility Management" offered by Uppdrags AB at Karlstad University.





# WISR16 - WEB-BASED COURSES FOR INTERNATIONAL POSITIONING OF STRATEGIC RESEARCH GROUPS

CTF in collaboration with Computer Science and CMM at Karlstad University received funding during 2017-2019 for the project WISR 16 from the Swedish Knowledge Foundation. The aim of the project was to further strengthen the ties between research and education, and to profile and position CTF through web-based courses aimed for professionals.

The project was developed and carried out through two web-based Masters' level courses, Idea management and Servitization. We collaborated with several partner companies, for example: Valmet, BillerudKorsnäs, MacForum and Idea2Innovation Sweden. Our partner companies actively contributed to the development of the courses, this to ensure the highest possible match to the business sectors' needs. In combination with the flexible format, the course support scalable life-long learning. The project can also be regarded as an integration of our educational and research strategy at Karlstad University.

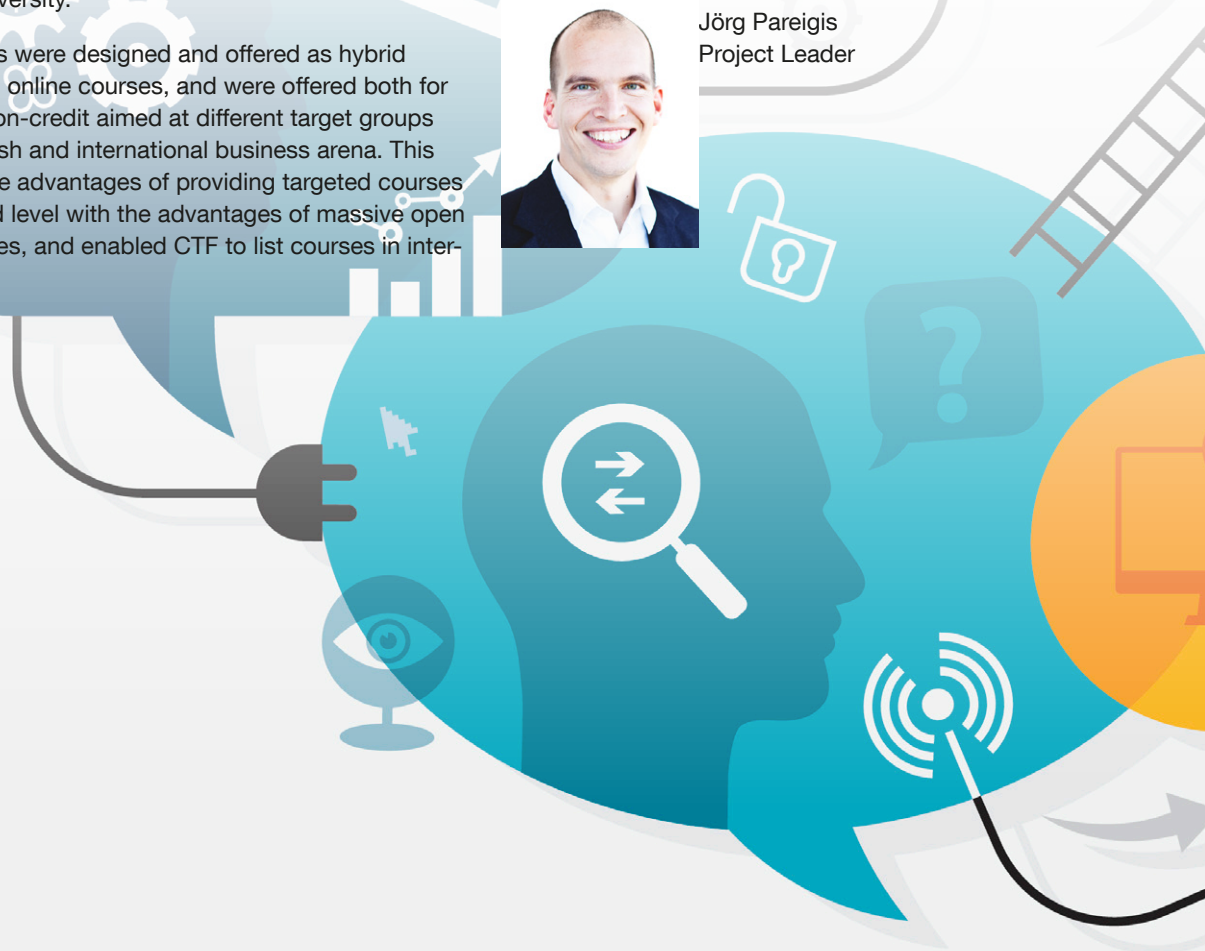
Both courses were designed and offered as hybrid MOOC open online courses, and were offered both for credit and non-credit aimed at different target groups in the Swedish and international business arena. This combines the advantages of providing targeted courses on advanced level with the advantages of massive open online courses, and enabled CTF to list courses in inter-

national databases such as Class Central, and thereby raising our international visibility and profile. Towards the end of the project, we also produced and disseminated a variety of open educational resources (OERs), many in the form of short video lectures.

During 2019, the Servitization course was offered both during spring and the autumn semester. Whereas the Idea management course was held only during the spring semester. Combined, the courses had almost 300 formal applicants on top of several dozen registered open learners. Also worth mentioning is that he openly available course homepages which includes many open access articles and the open educational resources, received over 900 unique visitors. The vast majority of these visitors are international, well in line with the aim of the project. Our research and courses are meeting a need for global life-long learning and our innovative course design continues to receive much attention.



Jörg Pareigis  
Project Leader



## ISE, IMPROVING VALUE CREATION THROUGH SERVICE EDUCATION

ISE, Improving value creation through service education, is a Graduate Professional Development Program funded by the Knowledge Foundation between 2018-2020. The program aims to strengthen Sweden's competitiveness by supporting professional skills development, and further educate professionals through tailor-made courses developed by strong research environments.

Through the program, CTF together with Karlstad Business School at Karlstad University, is given the opportunity to target education initiatives for the business sector, which aims to strengthen their competencies and competitiveness, but also to develop pedagogical skills suitable for teaching professionals. Also, by working together with support functions at the university, the program has been able to discuss and develop procedures on how to meet the requirements from professionals.

The tailor-made courses are developed in cooperation with our partner companies, and two pilot courses have been developed and have been running during the project. The pilot courses are a response to the competence needed, for example, to understand the challenges and ongoing transformation processes in organizations

and businesses. The courses are web-based, given part-time and are designed to be combined with work.

There are 14 companies and organizations participating in the program and they contribute with important knowledge and experience from the business sector, and also with possible new research questions which in the prolonging can lead to new project ideas. Our partners are: Almega, Attitude, BillerudKorsnäs, Cellcomb, Compare, Färjestads BK, Live Nation Nordic AB, Löfbergs, NWT, Miller Graphics Group, RISE, SMA Mineral AB, Uddeholm AB, and Volvo Bus Corporation.



Carolina Camén  
Program Manager





# SERVICE RESEARCH CENTER

CTF | CENTRUM FÖR TJÄNSTEFORSKNING



Value creation through service