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Letter from the director

Situating our journey in 2023, I have looked back and come to realize how much has changed. In 2021, we received continued support from Lund University leadership based on a diligent evaluation of our work. During the times of the Corona crisis, we have built our networks, strengthened the research environment, and developed our organisational routines. 2023 was in that sense less stormy for CIRCLE, and we had good wind in our sails.

Our focus on strong interdisciplinary research in an open, stimulating, and constructive environment has paid off:

- CIRCLE members are central in the two research excellence initiatives related to Agenda 2030 funded by Lund University.
- The project "Circular Economy: Multi-level value chain and policy dynamics for accelerating sustainability transformations" was born and developed in the CIR-CLE environment.

The projects made it possible to recruit excellent post-doctoral researchers who have invigorated our research environment. Providing an indication for our research and societal relevance, these projects are two visible markers of the many new and existing collaborations in the CIRCLE network.

The hidden quality of CIRCLE lies in its trust-based culture, which entails respect for and curiosity about different perspectives, which leads to new ideas and research actions, and this regardless of whether they directly succeed in acquiring new funding. Most importantly, we have fun on the way, try out new things, some of which work out while others don't – isn't that what innovation and experimentation is about?

The relevance of CIRCLE has received further validation through our engagement with external stakeholders. In 2023, we have been a central node in developing a national interaction platform between VINNOVA, the Swedish Innovation Agency, and research environments in Sweden. CIRCLE has been entrusted with being the coordinating partner for this initiative. We have also signed a collaborative agreement with Region Skåne, which institutionalises our long-term informal relationship. Besides

regular knowledge exchange activities, we will collaborate in relevant real-time policy processes as sounding board to Region Skåne, possibly coupled to specific projects.

In addition to these institutional linkages, I am very impressed with how many CIRCLE members engage with external actors at all levels – from the local to the international. We realised that it is hard to give credit to all this work. However, a pattern emerges – societal impact for CIRCLE is much more than research dissemination: We make impact through relationship building and dialogue, transforming what we know and how we do things.

All this would not have been possible without the engagement of many CIRCLE members in diverse activities, in coordinating research themes, organising our research talks and seminars, developing the policy brief series, taking care for our working paper series, engaging in communication activities including an active social media community, taking responsibility in initiatives for early career researchers, representing CIRCLE in networks such as NORSI, Eu-SPRI, and STRN, or providing the hidden work in terms of financial and office administration. Moreover, the engagement of many in the various activities is creating the stimulating environment. For me it has been a pleasurable journey also thanks to the support of my colleagues in the management team.

Our work and achievements are also result of the faculties' and Lund University's support. The mandate of Mats Benner (former Dean of the School of Economics and Management) and Anna Meuwisse (former Pro-Dean for Research at the Faculty of Social Sciences) in the CIRCLE board, and of Merle Jacob as faculty coordinator for the School of Economics and Management ended in 2023. I would like to extend my gratitude for the fruitful collaboration to you. It has been a wonderful journey.

- Markus Grillitsch

This is CIRCLE

CENTRE FOR INNOVATION RESEARCH

CIRCLE is the Centre for Innovation Research at Lund University. The meaning of the term innovation has transformed and is now tightly linked to sustainable development goals including climate change, social sustainability and food security. This calls for not only technological and business innovations but also for an understanding of how innovations impact societies, communities and households.

THREE OBJECTIVES FOR CIRCLE

- Develop as an internationally renowned research centre in innovation studies with the capabilities to attract successful researchers and PhD Candidates.
- Provide excellent opportunities for dynamic and multi-disciplinary research activities.
- Disseminate research results and engage with decision makers and stakeholders.

SOCIETAL CHALLENGES WE AIM TO ADDRESS

Innovation is a key driver of economic and societal change, for the good and for the bad. By developing a better understanding and knowledge co-creation with practitioners about innovation, CIRCLE aims to contribute to tackling societal challenges.

Our research aims to bring insights on how to address the sustainable development goals (SDGs) set by the United Nations. A variety of projects address several of the different SDGs and CIRCLE as a whole works in particular with goals 8 – Decent work and economic growth, 9 – Industry, innovation and infrastructure, and 10 – Reduced inequality.

On a European level CIRCLE's research aims to be part of delivering the European green deal.

OUR VISION

We strive to be a world-leading interdisciplinary research environment delivering scientific and societal impact.

OUR MISSION

CIRCLE's mission is to understand and explain how innovation can contribute to a good society and tackle societal challenges such as economic crises, climate change or the increased globalization of economic activities. This aim requires advanced insights into:

- how knowledge is created and diffused in organizations, networks, regions, countries, and globally
- how knowledge is turned into innovations
- which conditions promote or hinder the creation and diffusion of innovation
- what intended and unintended societal consequences innovation has.



Organisation

MANAGEMENT TEAM

The management team consists of the director, deputy director and the three faculty coordinators

Director: Markus Grillitsch, Associate Professor in Economic Geography, Social Sciences

Deputy Director: Magnus Nilsson, Associate Professor in Business Administration, Lund University School of Economics and Management

Faculty Coordinators:

- Lund University School of Economics and Management: Merle Jacob, Professor in Research Policy
- Social Sciences: Josephine Rekers, Associate Professor in Human Geography
- Faculty of Engineering: Torben Schubert, Associate Professor in Innovation Management







Magnus Nilsson



Merle Jacob



Josephine Rekers



Torben Schubert

BOARD

Mats Benner (Chairperson), Dean Lund University School of Economics and Management Cecilia Garcia Chavez, Student representative

Richard Gullstrand, Head of Regional Development Region Skåne

Anna Meeuwisse, Vice Dean Faculty of Social Sciences Fredrik Nilsson, Deputy Head of Department Design Sciences

Annika Olsson, Dean Faculty of Engineering Diamanto Politis, Director of Sten K. Johnson Centre for Entrepreneurship

Annika Ralfs, Student representative

Co-opted members and rapporteurs:

Markus Grillitsch, *Director CIRCLE*Magnus Nilsson, *Deputy Director CIRCLE*

INTERNATIONAL ADVISORY BOARD

Anna Bergek, Professor at Environmental Systems Analysis/Technology Management and Economics, Chalmers, Sweden Susana Borrás, Professor at the Department of Organization at Copenhagen Business School (CBS), Denmark. Jakob Edler, Professor and Executive Director of the Fraunhofer Institute for Systems and Innovation Research ISI, Germany, and Professor of Innovation Policy and Strategy at the Manchester Institute of Innovation Research (MIoIR), UK

Markku Sotarauta, Professor, Faculty of Management and Business, Tampere University, Finland Roger Sørheim, Professor, Department of Industrial Economics and Technology Management, NTNU, Trondheim, Norway

FACILITIES AND ADMINISTRATION

CIRCLE is physically based on campus at Lund University with flexible office spaces that are open to all members. Administrative staff:

Sengül Redzep, Financial administrator, Annette Gustafs, Finance officer Pernilla Daws, Communications officer

Membership in numbers

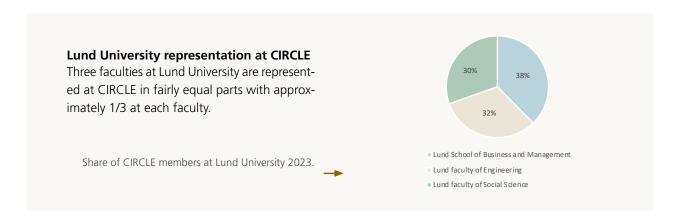
Membership in CIRCLE is open to academics with an interest in innovation research. CIRCLE aims to be diverse and inclusive, and this is reflected in the different research area interests, faculty affiliations and degree of academic experience as well as nationality.

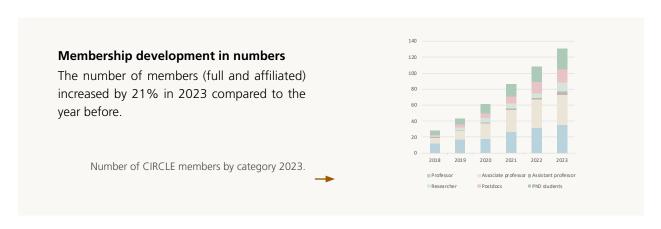
There are two types of membership at CIRCLE, described in detail on the CIRCLE website. Lund University employees can become *full* members whereas researchers with

an interest in innovation studies from other universities are welcome to apply for an *affiliated* membership.

There are CIRCLE researchers of many different nationalities represented at universities in 19 countries around the world. Approximately 1/3 of the members are professors, 1/3 are associated or assistant professors and 1/3 of the members are postdocs, researchers and PhD students with a slight increase in the latter category in 2023.







Community

CIRCLE strives to be a diverse and inclusive community, open to a wide variety of academics united by a shared interest in innovation research.

Within our research themes, members work together to broaden and deepen the particular field through interdisciplinary approaches. Read more about the research themes on page 14.

In addition to theme-based collaboration, there are other ways to engage and participate in the CIRCLE community, including through the activities listed below.

INTERNAL MEETINGS

All of CIRCLE's affiliated and full members are invited to an internal meeting each month. Information is shared and progress reported for the research themes and the activities arranged by CIRCLE, ensuring cohesive and coordinated efforts within the community.

RESEARCH TALKS

CIRCLE's research talks continued to be a cornerstone of our community engagement in 2023.

Held every Wednesday, these informal meetings provided a platform for both senior and junior researchers to discuss ongoing and planned research and act as each other's sounding boards. The hybrid format, introduced during the pandemic, remained in place, allowing participants from around the globe to join and contribute to the discussions.

RESEARCH SEMINARS

Throughout 2023, CIRCLE's research themes organised seminars and invited speakers to share their expertise on various topics. Highlights from the year included:

- Einar Rasmussen, Professor of Technology Management at Nord University Business School, on "Economic and Societal Impact of Academic Spin-offs: An emerging taxonomy with illustrative cases."
- Luca Bertollini, Professor of Urban Planning at the University of Amsterdam, on "Learning from experiments to transform cities. How does that work?"
- **Koen Frenken**, Professor in Innovation Studies at the Copernicus Institute of Sustainable Development, on "A new view on radical innovation."

POLICY SEMINARS

The "New Perspectives on Innovation Policy" theme hosts a seminar series focusing on building bridges and fostering dialogue between researchers and practitioners. 2023 featured a seminar with **Karolina Winbo** and **Cassandra Marshall** from VINNOVA and **Erik Brattström** from Ramboll on "Insights from turning transformative innovation policy into practice – the case of Impact Innovation."

EARLY CAREER RESEARCHERS' AFTERWORK

2023 saw the introduction of afterwork events organised by and aimed at early career researchers. These informal gatherings provide a relaxed setting for networking and sharing experiences. They have been well received and have contributed to the supportive and inclusive community for emerging scholars at CIRCLE.

RETREAT

The members gathered for a two-day retreat in May in Ystad. The retreat provided a productive environment for reflecting on CIRCLE's strategy and direction as an international research centre and for reinforcing the community bonds and commitment to the centre's mission.





Internationalisation



COLLABORATION ACROSS BORDERS

At CIRCLE there is an interest and explicit ambition to collaborate across borders. The centre encourages and provides opportunities for collaborations across faculties, universities, countries and also between PhD students, early career researchers and senior researchers.

RESEARCH

International cooperation within CIRCLE can be seen in particular within Europe and with North and South America, but also in many other places across the globe.

Many research activities involve people from different countries, faculties and fields, who come together in the CIRCLE research themes and project collaborations.

MEMBERS

CIRCLE members are a diverse group of people who are dispersed across 19 different countries around the world – from Sweden to Bolivia, India and Australia.

The representation of nationalities in CIRCLE is even greater with members originating from 33 different countries around the world. Sweden has the highest

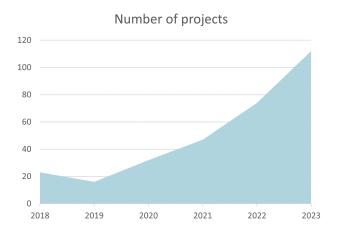
representation with 33% of the members. Some other European countries are also well represented, such as Germany, Italy, the UK and more. From other parts of the world we have members from for example: Brazil, Bolivia, the USA, India, China and Japan.



Projects, funding and output

PROJECTS

CIRCLE members were in 2023 involved in 112 different research projects delving into a wide range of topics such as innovation and sustainability in the industry, entrepreneurship and society, innovation and geographic equality, human health and wellbeing, innovation processes and policy making.



A selection of ongoing projects

- Acquisitions for experimentation: the impact of acquisitions of deep tech ventures on the capability creation and transformation of incumbent technology firms
- **CoMiMo Connected Micro Mobility**, a project that creates collaboration and solves mobility needs in the city.
- The EU-funded project, ENDINGS Towards a theory of endings in innovation studies, aims to shed light on the part of the transformation process where existing systems end – or not.
- GreenPole Green forests policies: a comparative assessment of outcomes and trade-offs across Fenno-Scandinavia. A comparison of governance approaches over the last 20 years.
- TRANSFORM, works with small enterprises to experiment with fundamentally transformative business models.

A longer list of active projects in 2023 is found in Appendix 2.

Projects finalised in 2023

- Adapting digital healthcare platforms to the needs of elderly patients
- AFM: Alternative Food Markets: Promoting new modes of food provisioning and consumption
- CARUACI: enhancing Climate change Adaptation and Resilience in Urban areas through combining Artificial and Collective Intelligence
- CHISMA: accounting for Climate change and Health risks in energy System Management
- DiHECO: Digital Healthcare ECOsystem research and innovation capability building
- Ekonomiseringen och dess motkrafter
- Empirical research project on functional public procurement
- Mobile Socialities
- Petrochemicals and Climate Change: Mapping Power Structures
- Resilience to Economic Shrinking A social capability approach to processes of catching up in the developing world since the 1950s
- Scanian homes: Reception, settlement or rejection homelessness policies and strategies for refugee settlement
- Small science on big machines: Patterns of collaboration and use of contemporary large neutrons and x-rays research infrastructures
- Spaces and humans as services
- STIPP: Swedish Transformative Innovation Policy Platform
- Svensk forsknings- och interaktionsplattform för systeminnovation (SIRI). En förstudie
- The role of regional anchors in industrial growth and transformation
- Viable Cities



PUBLICATIONS

In 2023, the number of recorded publications authored by CIRCLE members was 186 in total, divided between peer reviewed journal articles, working papers, books, book chapters and editorial book assignments.

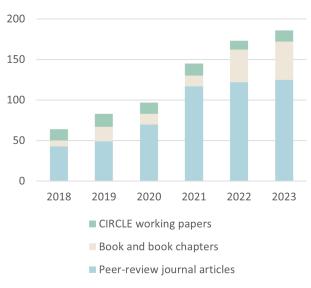
Research has been published in a variety of leading peer-reviewed journals such as Organization, Progress in Human Geography, Regional studies, Technovation, Research Policy, Entrepreneurship: Theory and Practice, Technological Forecasting and Social Change

Publications by CIRCLE members are listed in Appendix 1.

"CIRCLE members have successfully applied for and implemented research projects of very different character, some addressing specific societal needs and others allowing curiosity driven research. Both are extremely important for CIRCLE as we strive to deliver scientific and societal impact. We appreciate the trust that funders and stakeholders have placed in us."

- Markus Grillitsch, CIRCLE Director

Number of publications



FUNDING

CIRCLE members are active in different countries and fields and funding of our projects come from a wide range of organisations and private actors, such as:

The EU, FORMAS, Forte, Handelsbanken, Jan Wallander and Tom Hedelius foundation, The Kamprad Family Foundation for Entrepreneurship, Kraftringen energi AB, Research & Charity, Länsförsäkringar Alliance Research Foundation, MISTRA, NordForsk, Riksbanken, Swedish Energy Agency, Vetenskapsrådet (Swedish Research Council), Vinnova, V. Kann Rasmussen foundation (VKRF), Volkswagen Foundation and The Wallenberg foundations



A CLOSER LOOK AT THE EXCELLENCE PROGRAMME FOR SUSTAINABLE DEVELOPMENT

Markus Grillitsch, Fredrik Nilsson, and Sylvia Schwaag Serger received funding through Lund University's Excellence Programme for Sustainable Development for the project "Circular Value and Supply Chains, Regional Development, and Multi-Level Policy Dynamics."

The Excellence Programme supports interdisciplinary research focusing on Agenda 2030 and sustainability through funding postdoctoral fellowships.

The CIRCLE project, a collaborative effort spanning three faculties, aims to examine the shift from global value chains to circular supply chains. It will delve into three areas of tensions:

- between linear and circular business models,
- between global corporations and local actors, and
- between deregulation and forms of governance that include environmental and social consideration.



Markus Grillitsch



Sylvia Schwaag Serger



Fredrik Nilsson

A voice from within the project Circular Value and Supply Chains, Regional Development, and Multi-Level Policy Dynamics:

growing interest in implementing circular economy practices. We see it as a great opportunity to speed up the transition of their global value chains towards environmental and social sustainability. We aim to understand the mechanism triggering such decisions from an interdisciplinary perspective – our research team consists of scholars from fields like Economic Geography, Operations Management and Policy. Our ambition is to advance knowledge in different levels of analysis, both for science and practice.



Vitor Souza, Postdoc
 Packaging logistics and CIRCLE

Research outreach

The knowledge generated by our members' research activities is disseminated through, for example, working papers, peer-reviewed articles and popular science articles; through members' participation in networks, conferences, seminars and round table discussions as well as through videos, policy briefs, social media posts and the CIRCLE website.

WORKING PAPERS

The CIRCLE working paper series in innovation studies, edited by Torben Schubert, is an open instrument for early dissemination of theoretical and empirical research.

In 2023, 14 working papers were published and some of the most viewed were:

- The Transformative Capacity of Public Sector Organizations in Sustainability Transitions: A Conceptualization by Susana Borras and others
- Directionality and Subsidiarity: A Regional Policy for People and Planet by Markus Grillitsch and others
- Governance arrangements for the implementation of transformative innovation policy: Insights from a comparative case study by Lea Fünfschilling and others

The full series is available through the website: https://www.circle.lu.se/publications/working-pa-pers/

POPULAR SCIENCE ARTICLES

A variety of articles are written by the members for publication in newspapers, specialised magazines and as reports for different organisations. Some examples:

The COP28 climate agreement is a step backwards on fossil fuels.

Al Khourdajie, Alaa; Bataille, Chris; Nilsson, Lars J. *In: The Conversation, 13.12.2023.*

The US and China Should Push for an Ambitious Plastics Treaty.

Bauer, Fredric

In: Common Dreams, 18.11.2023.

Building innovation ability in Nordic organizations: how to develop organizations' ability to innovate.

Bengtsson, Lars; Lindholm Dahlstrand, Åsa and others In Management of innovation and technology: forskningsinformation; Vol. 2023, No. 2. What will it take for an Indian city to become low carbon? A beginner's guide to the sector-coupling approach, urban typologies, and the key to just transitions.

Haldar, Stuti.

In: The Hindu, 06.06.2023.

POLICY BRIEFS

In 2023 the CIRCLE policy brief series was officially launched with a seminar where researchers and policy makers were invited.

A policy brief aims at presenting research findings in an easy-to-read format highlighting a road forward based on the findings. During the year, two innovation policy briefs were released:

- Open Source Software-policy can influence the global economy
- Time to move from global to responsible value chains

You find the policy briefs for reading and downloading on the website:

https://www.circle.lu.se/publications/policy-briefs/



SOCIETAL ENGAGEMENT

Launching of the Swedish Platform for System Innovation Research in Interaction (SIRI) – A Collaborative Approach to Transformative Innovation Policies

Between August and October 2023, CIRCLE led a study investigating the feasibility of a new research and interaction platform focusing on system innovation and entrepreneurship. This study gathered insights from various universities, practitioners, and political decision-makers across Sweden. It culminated in a proposal which received approval and funding from Vinnova – Sweden's Innovation Agency. As the coordinating body, CIRCLE is set to manage the *Swedish Platform for System Innovation Research in Interaction (SIRI)*, aiming to forge connections among researchers, policymakers, and practitioners interested in the design and implementation of transformative innovation policies.

The goal of this effort is to collaboratively generate and consolidate knowledge and expertise related to the transition towards more environmentally sustainable and inclusive economies and societies.

WEBSITE

Many of the visitors to the CIRCLE website come from Sweden but a vast variety of countries are represented among the website visitors being a strong indicator for the international visibility of CIRCLE.

In the news feed on CIRCLE's website, visitors find the latest news within the research centre. Some examples from 2023:

- Innovation policy ideas bouncing around CIRCLE
- <u>Innovation for climate change mitigation in beer production</u>
- Innovation researcher at CIRCLE new Fellow of IVA

SOCIAL MEDIA

The CIRCLE **LinkedIn** account was revived during 2022. It is becoming another important channel for outreach alongside **X**, with our LinkedIn followers doubling during 2023.

LinkedIn account: https://www.linkedin.com/company/ circle-lund-university/

Account on X: https://x.com/CIRCLE_LU

SNIPPETS FROM WEBSITE AND LINKEDIN

Innovation conference sets sights on transition to a circular economy

At the initiative of Tetra Pak and Lund University, around one hundred companies have come together to set out a path towards a sustainable society. The stakeholders meet at Innovation Roundtable's innovation conference to discuss solutions that can make it possible for industry to transition to sustainable practices.

Jessika Sellergren – Published 12 April 2023







Research

The research initiatives at CIRCLE aim at exploring unused potential in promoting international, cross-disciplinary research and thereby partake in Lund University's contribution to tackling society's challenges.

Research at CIRCLE is currently organized in nine interconnected thematic areas grouped in three main fields. Each theme hosts different research projects and most researchers at CIRCLE are involved in several research themes

Short introductions to the research themes follow below and you can read more about CIRCLE's research on the website: https://www.circle.lu.se/research/

INNOVATION POLICY AND THE PUBLIC SECTOR

Functional public procurement for innovation, welfare and the environment

Public procurement can drive innovation through functional specifications where the buyer describes the problem to be solved – instead of describing a product to purchase. This research theme brings attention to how functional public procurement is a powerful innovation policy instrument that can influence, not only the speed, but also the direction of innovation processes.

New perspectives on innovation policy

Innovation policy makers of today are facing a range of challenges to solve, extending far beyond the usual paradigm of economic growth. This calls for more innovation within innovation policy itself. The research theme aims to study the changing landscape for policy making and

develop new approaches to guide the 21st century innovation policy.

Public Sector Innovation

Facing major societal challenges and limited resources, governments are under pressure to promote innovation while also devising ways to innovate their own processes of governance. This research theme brings together practitioners and researchers who are engaging with innovation in, through, and of, the public sector.

ENTREPRENEURIAL EXPERIMENTATION, INNOVATION, AND ORGANISATION

Corporate venturing and innovation

The theme studies how firms organize and benefit from corporate venturing activities that build upon either internal or external ideas to advance innovation to sustain competitive advantages. We take a systemic view to understand the interactive relationship between corporate venturing and the local innovative and entrepreneurial environment, which matters for the overall competitiveness of a region or a country.

Entrepreneurial Experimentation

Entrepreneurial experimentation is a system function in technological innovation systems that includes the creation, selection and scaling-up processes of new technologies and innovations within the system. This theme studies how in an experimentally organised economy, individuals, organisations and institutions interact in exploring, discovering and exploiting opportunities and new ideas.





International businesses, technology and innovation

Research in this theme focuses on the global dimension of innovation processes, including global research collaboration, global sourcing of knowledge and offshoring of R&D and innovation, as well as their impact in terms of innovation, wellbeing and growth. The aim of this research area is to understand how firms organize jointly their innovation and internationalisation activities and how global activities influence the local features of innovation dynamics.

GEOGRAPHIES OF INNOVATION AND MULTI-SCALAR PERSPECTIVES

Geography of Innovation and Societal Transformation

At the centre of this theme is the question of how and why innovation and technology change vary in time and space, and what consequences this has for societal development with a particular focus on disparities between regions, and the transformation towards a green economy. This entails the unpacking of different types of knowledge,

technology, and innovation and studying the spatial outcome and distribution over time.

Innovation in the Global South

Innovation is now tightly linked to sustainable development goals including climate change, social sustainability, and food security. The research context of the Global South demands and offers additional perspectives to the study of innovation. Experiences in the Global South make it clear that innovation goes beyond transferring technical solutions, and requires understandings of how innovations impact societies, communities and households.

Sustainability transition

This theme explores the role of innovation in addressing the grand challenges of our time and finding solutions to problems associated with ageing societies, pandemics, public health, security, global warming, and increasingly difficult access to sources of energy, water, and food. This effort typically involves a variety of technological and social innovations, behavioural and institutional change, and a diversity of societal actors.

A CLOSER LOOK AT THE PUBLIC SECTOR INNOVATION THEME

Theme coordinator for *Public Sector Innovation*, Katja Lindqvist says that focus has been on exploring possibilities for transdisciplinary research in collaboration with the City of Helsingborg and other actors across a range of areas – in particular social innovation and municipal innovation policy implementation.

- During 2023, ideas for a research hub – the Centre for Public Sector Innovation were elaborated in dialogue with invited guests.
 - Katja Lindqvist, Senior Lecturer and research theme coordinator

Some of those who contributed with their experience and ideas for the research hub during the year were:

- Jan Abrahamsson from Samhällsentreprenörskap Sverige
- Anna-Karin Bergman, Senior advisor and strategist at the City of Helsingborg Research and Transformation Department
- P. K. Shajahan, Professor of Social Work and Dean, Academic Affairs at the Tata Institute of Social Sciences, Mumbai, who was invited to talk on the topic of Public Sector Innovation through Research and Action: A case of partnership between University and City Administration from Mumbai, India.

Education

CIRCLE has continued providing master's and PhD level education in collaboration with different faculties at Lund University as well as other universities.

Our members participated in teaching at three faculties at Lund University: the Faculty of Engineering, the Social Science Faculty, and the School of Economics and Management. CIRCLE's ambition is to contribute to further strengthening cross-disciplinary teaching at Lund University – and beyond.

CIRCLE is a member of NORSI (Nordic Research School in Innovation and Entrepreneurship), a joint research school bringing together 33 partner institutions in the Nordics. Åsa Lindholm Dahlstrand represents CIRCLE at NORSI's general assembly and is a member of the executive committee and management team.

CIRCLE is also a member of Eu-SPRI (European Forum for Studies of Policies for Research and Innovation). A network of 20 European research institutions that focuses on the interaction between science, technology, and innovation policy. Mart Laatsit represents CIRCLE at the general assembly of Eu-SPRI, and Torben Schubert is a member of the executive committee.

Through both networks, PhD students and post-docs at Lund University can benefit from various courses, training, and mobility opportunities. In addition, CIRCLE members actively contribute to these programs as organisers and speakers.

Examples of PhD courses with CIRCLE involvement in 2023:

- PhD course in Innovation and Society at Lund University – Offered by the Faculty of Social Sciences and CIRCLE (12-16 June)
- NORSI PhD course in Sustainable Business Model Innovation (14 March-20 April)
- NORSI Kappa Seminars (3-5 May and 13-15 December)
- NORSI PhD course in Quantitative Methods for Innovation Research (4-8 December)

SUPPORT FOR EARLY CAREER RESEARCHERS

To further support early career researchers, CIRCLE held its inaugural Early Career Innovation Research Day in 2023. Twenty participants from various departments and faculties at Lund University and neighbouring institutions gathered at CIRCLE to network, share their academic experiences, present posters, and discuss professional development.

The day featured mini-keynotes from experienced CIRCLE researchers, providing insights into the twists and turns of research careers. They inspired the early career researchers by generously sharing their professional journeys, including highs and lows.

Together they showed how powerful it is to have a positive and open-minded attitude in an academic world filled with uncertainty and chance encounters.

– Organiser Josephine Rekers



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Appendix 1 – Publications 2023

A selection of publications by CIRCLE members:

In: Issues in Science and Technology. 40, 1, 2023, p. 38-43

CONTRIBUTIONS TO JOURNALS

Achieving 100 climate neutral cities in Europe: Investigating climate city contracts in Sweden

Shabb, K. & Mccormick, K.

In: npj Climate Action, Vol. 2, No. 6, 2023.

Actor Roles and Networks in Implementing Urban Water Innovation: A Study of Onsite Water Reuse in the San Francisco Bay Area

Wagner, T. R., Nelson, K. L., Binz, C. & Hacker, M. E. *In: Environmental Science and Technology.* 57, 15, 2023, p. 6205-6215

Advancing innovation in manufacturing firms: knowledge base combinations in a local productive system

Plechero, M. & Grillitsch, M.

In: European Planning Studies. 31, 6, 2023, p. 1247-1269

Affording excellence: What does excellence funding do for researchers?

Jacob, M. & Hellström, T. *In: Policy Studies. 2023*

Agency and economic change in regions: identifying routes to new path development using qualitative comparative analysis

Grillitsch, M., Sotarauta, M., Asheim, B., Fitjar, R. D., Haus-Reve, S., Kolehmainen, J., Kurikka, H., Lundquist, K. J., Martynovich, M., Monteilhet, S., Nielsen, H., Nilsson, M., Rekers, J., Sopanen, S. & Stihl, L.

In: Regional Studies. 57, 8, 2023, p. 453–1468

"All that glitters is not gold!": The (Unexplored) Determinants of Equity Crowdfunding

Civardi, C., Moro, A. & Winborg, J. *In: Small Business Economics, 2023.*

A Multidimensional Readiness Index for the Electrification of the Transportation System in China, Norway, and Sweden

Bhatti, H. J., Danilovic, M. & Nåbo, A In: Future Transportation. 3, 4, 2023, p. 1360-1384

An Age of Disentangled Research?

Martins, I. & Schwaag Serger, S.

Analysing intersections of justice with energy transitions in India: a systematic literature review

Haldar, S., Peddibhotla, A., Bazaz, A.

In: Energy Research & Social Science, Vol. 98, 103010, 09.03.2023.

An inquiry into the linkages between university ecosystem and students' entrepreneurial intention and self-efficacy

Moraes, G. H. S. M. D., Fischer, B. B., Guerrero, M., Rocha, A. K. L. D. & Schaeffer, P. R.

In: Innovations in Education and Teaching International. 60, 1, 2023, p. 134-145

Applying The Model of Event Portfolio Tourism Leverage: A Study of The Volvo Ocean Race in Cardiff, UK

Jaimangal-Jones, D., Clifton, N., Haven-Tang, C. and Rowe, S.

In: Event Management, 27(7), 2023, p. 993-1009

Are evaluative bibliometrics neoliberal? A historical and theoretical problematization.

Hammarfelt, B. & Hallonsten, O. *In: Social Science Information. 61, 4, 2023*

A spatial perspective on green technology adoption in China: insights from patent licensing data

Losacker, S., Horbach, J. & Liefner, I In: Innovation and Development, 2023.

A Speculative Conversation on Climate Change and Sociology

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Barriers to continuance use of cloud computing: Evidence from two case studies

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