

Advancing Sustainability Solutions

INTERNATIONAL INSTITUTE FOR INDUSTRIAL ENVIRONMENTAL ECONOMICS
ANNUAL REPORT 2022



The IIIEE is an international and interdisciplinary centre within Lund University. We are committed to produce rigorous, impactful, and solution-oriented interdisciplinary research, focused on Business Management and Practice, Consumption Governance, Urban Transformation, and Policy Interventions to catalyze climate neutrality and resource-efficient economies.

We recruit students from all over the world with various disciplinary backgrounds. With a dual focus on management and policy, we educate future leaders and change agents with the knowledge, skills, and networks to drive sustainability transitions.

2022

The IIIEE is a unique centre and node for interdisciplinary research and education within Lund University that is focused on accelerating sustainability transitions in governance and management.

INTERDISCIPLINARY

The IIIEE has a genuine interdisciplinary approach synthesizing insights not only from economic theory and practice but also from natural sciences, engineering, political science, organizational, legal and behavioral studies. The IIIEE academic staff has backgrounds in diverse disciplines.

COLLABORATIVE

The IIIEE education and research are performed in close collaboration with business, public authorities and other societal partners. We actively engage our partners in collaboration research, case study projects, site visits, lecture series, interactive seminars and workshops.

INTERNATIONAL

The IIIEE is a highly international, diverse and vibrant workplace with staff and students from all around the world. We have more than 20 nationalities represented in the staff and we have had students from more than 115 different countries.

www.iiiee.lu.se

The year 2022 can be described as a year characterised by the end of a pandemic, geopolitical chaos initiated by the Ukraine war, macroeconomic and political challenges, but also by a massive IIIEE engagement and support for the people in Ukraine, a combined feeling of relief, happiness and gratitude to be able to be back onsite and meet staff and students and not least having many joyful social events. In June we said goodbye to 29 EMP students and 14 students from MESPOM who graduated and in August we could welcome 33 new EMP students and 21 MESPOM students. 2022 has also resulted in fantastic research which has supported a transformative change in society. How research, education and also the IIIEE podcast has an impact on society has been described in five impact stories developed during this year. These and much more is found on the IIIEE webpage, which also has been revitalised during the autumn. 2022 encompasses many fantastic performances of which some but far from all are described in this annual report. Finally, I am happy to summarise this first year as Director of the IIIEE as a success. This is of course due to to all bright, supportive and pragmatic students and staff that the IIIEE is built upon and around. Many thanks to all of you. Thanks also to our collaborative partners for your engagement in both education and research. It is a joy to work with you all!

Jenny Palm, Director 2022



CONDUCTING HIGH IMPACT RESEARCH

In 2022, the IIIEE hosted approximately 44 research projects and several research applications were developed and submitted to various research funding agencies; 10 of these applications were accepted for funding. In all, the IIIEE received more than 23 MSEK in new research contracts. The main funding agencies are EU, Formas, Energimyndigheten, Mistra and Forte. Two EU Horizon 2020 projects were completed during the year.

IIIIEE is a centre of excellence conducting interdisciplinary and collaborative research focused on advancing sustainable solutions. We synthesize insights not only from economic theory and practice but also from natural sciences, engineering, political science, organisational, legal and behavioural studies. We conduct research in close collaboration with business, public authorities and other societal partners.

COMPLETED PROJECTS

- **CIRCUSOL:** Circular business models for the solar power industry
- **Cirkulär ekonomi:** att fånga värden från avfallet genom producentansvarregler
- **CREACE:** Creating a Repair Society
- **Flexeffect:** Flexible electricity use in households: barriers, opportunities and effects
- **Hållbar Konsumtion:** Politik och styrning för hållbar konsumtion
- **IPACST:** Intellectual Property Models for Accelerating Sustainability Transitions
- **MESAM:** Implications of electrification of municipal transportation systems
- **NEWCOMERS:** New Clean Energy Communities in a Changing European Energy System
- **Sharing and the City:** Cities, Sharing, Sustainability **Smart Cities Accelerator+:** Methods to improve the effectiveness and climate impact of electricity and heat production
- **Textile to Textile 2:** Green Public procurement and Extended Producer Responsibility to close material loops

STARTED PROJECTS

- **Barriers for Circular Products:** The policy context for corporations that want to “go circular”
- **Certified to LAST:** A solution to incentivize circular production based on verifiable sustainability requirements
- **CULTIVATE:** Co-designing food sharing innovation for resilience
- **IEA:** Swedish National Expert in the IEA TCP DSM Task on ‘Hard-to-Reach’ energy users
- **JustCE:** Toward a Just Circular Economy
- **JUSTHEAT:** Looking back, moving forwards: a social and cultural history of home heating
- **Leadership and Employee Well-Being in Virtual and Hybrid Meetings**
- **REES II:** Resource-Efficient and Effective Solutions based on circular economy thinking
- **VERSAM:** Effective regional collaboration for a fossil-free society
- **Waste Prevention:** Measuring waste prevention and reuse



SPECIAL HIGHLIGHT: RESEARCH ON URBAN TRANSFORMATIONS

All over the world, cities are experiencing complex sustainability challenges, and the future calls for a significant change towards modern, sustainable and just cities. There is a vital need for building transformative capacity, which is based on sound knowledge, to underpin urban transformations. IIIIEE researchers are focusing on eight areas of urban research that can change the world.

Urban Transformative Change

Urban Governance, Innovation & Learning

Urban Living Labs

Sharing Cities & Sustainable Consumption

Urban Nature

Agenda 2030

Local Energy

Climate Neutral & Circular Cities

IMPRESSIVE DISSERTATION DEFENCES



BJÖRN WICKENBERG

In June, Björn Wickenberg successfully defended his PhD thesis “Translation and Implementation of Nature-based Solutions in Cities: Experimentation, Learning and Knowledge Production.” Björn has studied the local implementation in Swedish municipalities and has found that whereas nature-based solutions represents a holistic planning approach for achieving sustainability in cities, it needs to be translated into action-oriented knowledge and implemented through collaborative efforts that cut across boundaries between different stakeholders and types of knowledge.



HEATHER SCHOONOVER

In September, Heather Schoonover defended her PhD thesis entitled “Business Models for Sustainable Consumption: Identifying and Overcoming Barriers to Rental and Reuse of Home Furnishings.” Heather has looked at business models to facilitate sustainable consumption practices, focusing on rental and reuse of home furnishings and other consumer goods. Understanding the barriers that rental and reuse business models encounter can result in more sustainable options for consumers to acquire, utilise and dispose of home furnishings and other consumer goods.



ROLAND ZINKERNAGEL

In October, Roland Zinkernagel defended his Licentiate thesis entitled “Localising the Sustainable Development Goals: tools and processes for building urban transformative capacity – the case of Malmö.” Roland has explored the potential to use indicators to monitor urban sustainable development and uses a spatial planning process in Malmö where the goals have been translated to fit the local context. The sustainable development goals can have a shepherding function, unifying stakeholders across disciplines and sectors. and therefore facilitate new ways of collaboration and finding innovative solutions.

OUR EDUCATION IS ATTRACTING MORE TALENT THAN EVER

The year 2022 marked a nice house record for our master programmes with 84 students representing 42 countries for the fall semester. Great diversity and good energy for a year that started with covid restrictions and online classes. After two years of covid we could return to our classic Kullen intro days: a great way to get to know each other, team-build, see some magnificent nature and prepare for the coursework.

This year we also secured another four years of EU funding for our MESPOM joint master. This was quite a feat, done in fierce competition, and we are very proud to see this joint programme now be in it's 18th year – a fantastic achievement!

We now have more than a 1000 alumni representing more than 120 countries. From the alumni network we also have had at least 50 alumni contributing to our teaching activities over the year, e.g. by giving talks, arranging student projects and internships, acting as opponents to theses and mentoring. It is soon time for alumni to meet up again, at the upcoming IIIIE Alumni Conference in 2023 we expect some 100-200 to join.

Admissions continues to be competitive with close to 20 applicants per spot. Notably we had the first-ever student from Saudi Arabia and a couple of students from Indonesia. Conversely, we sadly had few African students, which can be explained with some poor luck with scholarships there.



CAPSTONE CONSULTING COURSE GAINING MORE GROUND

Our unique client course, where our close-to graduating students test their wings on real-life projects, was also back on the road this year. Eight projects were completed supporting clients such as Utsunomiya City in Japan, UNDP & The Swedish Waste Management Association, Volvo Energy and SITRA. Topics included road electrification, circularity in shipping, digital solutions for material reuse, and the value of green certification; helping the clients advance their sustainability efforts in different ways. Several other elements in the master programme build up to this practical case making it the practical capstone course where student can see that they are able to contribute to real change.



MASSIVE OPEN ONLINE COURSES

In 2022 we were running 5 massive open online courses (MOOCs). Now, more than 1,000,000 people have visited the courses, 200,000 have signed up and 100,000 have started studying. We also received a grant for developing three new MOOCs on the topic of urban governance and climate change, and circular public procurement.

COMMISSIONED EDUCATION

In 2022, IIIIE in collaboration with Lund University Commissioned Education (LUCE) and LU School of Economics and Management (LUSEM) ran the second iteration of the programme Innovation in Governance for Urban Nature-based Solutions (2021–2022), targeting managers in city administrations, civil society, or multilateral organisations. The programme focused on governance, leadership, and innovation in the context of nature-based solutions in Azerbaijan, Armenia, Georgia and Ukraine. A third year of the programme has also received funding from the Swedish Institute (2022-2023), extending the target countries with Moldova.

SPECIAL AREA STUDIES COURSES

In 2022 the IIIIE offered two Special Area Studies courses for both exchange students and regular students at Lund University. The courses were "Circular Economy - Managing Materials Sustainably" and "Greening the Economy - Achieving the Global Goals," and provides students to engage in collaborative learning and creating change.

FIVE GENERATIONS OF IIIIE DIRECTORS OF EDUCATION

All five directors of education, from the start of the Environmental Management and Policy master's programme, were captured in one unique photo. Together they built the our top quality program. They have pulled the strings to engage students and staff, and to keep program up to standards. Quite successfully so, as the EMP program is more competitive and attractive than ever.

Directors of education in chronological order: Thomas Lindqvist, Lars Hansson, Håkan Rodhe, Beatrice Kogg and Naoko Tojo (current).

THE IIIEE BY NUMBERS IN 2022

STAFF: 44

PHD STUDENTS: 10

MASTER'S GRADUATES: 46

PUBLICATIONS: 57

RESEARCH PROJECTS: 44

TURNOVER: 46,4 Million SEK

MOOCs: More than **1 000 000** unique visitors since the start in 2014. More than **35 000** learners signed up and **21 000** started the courses in 2022.

OUR VISION

A future in which the IIIEE has accelerated the transitions to climate-neutral and resource-efficient economies.

OUR MISSION

To produce and share actionable knowledge for sound decision making at all levels, from the local to the global, and to educate future leaders and change agents, to enable transitions to climate-neutral and resource-efficient economies.

EDUCATION

Students taught on undergraduate and graduate levels:

- IIIEE Master's programmes (EMP & Mespom): 121
- Others courses at the IIIEE: 121
- Commissioned education courses: 25
- Massive open online course: 21 000

MOOCs AND LIFELONG LEARNING

Five online courses open to all and free of charge:

- Greening the Economy: Lessons from Scandinavia
- Greening the Economy: Sustainable Cities
- Circular Economy: Sustainable Materials Management
- Urban Nature: Connecting Cities, Nature and Innovations
- Cities and Consumption: Governance & Sharing Economy

PODCASTS

Two podcasts series on cutting edge themes:

- Advancing Sustainability Solutions
- Talking Transformations

RESEARCH THEMES

Four main research themes:

- Policy Interventions
- Urban Transformation
- Business Management and Practice
- Consumption Governance

RESEARCH PROJECTS

High impact research reflected by:

- 11 completed research projects
- 10 started research projects
- 44 ongoing research projects

STAFF

In total 44 staff members (December 2022):

- 7 Professors
- 25 Senior researchers and teachers
- 5 Administration
- 7 PhD students

Several positions were announced: 1 lecturer, 2 postdocs, 1 PhD position, 2 researcher, 1 amanuensis, 5 research assistants and 1 institutional administrator. The recruitment of an associate senior lecturer in Sustainable Businesses was initiated.

Visit www.iiiee.lu.se for all the news, events, projects and publications from the IIIEE and follow us on Facebook, LinkedIn, Twitter and Youtube.

