



SUCCeSS

Annual report 2025



Stockholms
universitet

Stockholm University Center for Sustainable and Circular Systems (SUCCeSS) is a center for interdisciplinary research with focus on sustainable chemistry. The center has been operational since 2021 and is hosted by the Department of Chemistry.

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Notes from our directors

We are proud of the accomplishments during 2025 with Nobel symposium on the Chemistry for Sustainability and Stockholm Declaration which put the spot light on SUCCeSS. The intense networking activities during 2025 resulted in enhanced visibility for SUCCeSS, nationally and internationally. This year we contributed significantly to the Sustainability thinking in chemistry through original papers as well as perspectives and comments on Stockholm Declaration. We also led three special issues related to the Nobel Symposium. We launched the SUCCeSS newsletter to share information with the SUCCeSS community and collaborators. We also launched the SUCCeSS community page to facilitate the visibility of the individual PIs and researchers associated with the centre.

We aim to work towards increased interdisciplinarity – particularly engagement with the humanities and social sciences – during 2026 and beyond. We look forward to 2026 with focus on launching of SUCCeSS 2.0.

Summary 2025

Nobel Symposium
Stockholm Declaration
SUCCeSS SCS Session

- 8** lunch seminars
- 11** publications
- 3** invited talks
- 4** networking activities
- 2** workshops
- 9** newsletters
- 3** Journal Special Issues

SUCCeSS Vision

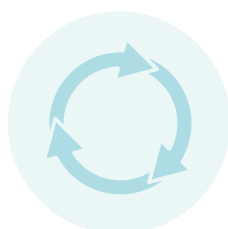
To lead transformative research and engagement on circular and sustainable systems.

SUCCeSS Mission

- Provide a stimulating environment for interdisciplinary research on sustainable chemicals and materials
- Enable the adoption of a system perspective in chemistry
- Create know-how on sustainable and circular systems in collaboration with industries, policy makers and society
- Promote interdisciplinary training in circular and sustainable systems

Research Focus Areas

The ongoing activities at SUCCeSS are designed to lead and facilitate interdisciplinary research and engagement in the following research focus areas:



Circular and Sustainable Processing



Circular and Safe Food and Water Systems



Data Driven Circular and Sustainable Chemistry

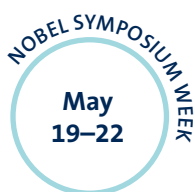
The Nobel Symposium Week

May 19	Green Chemistry for Sustainable Materials, Uppsala
May 19–22	Nobel Symposium on Chemistry for Sustainability, Sigtuna
May 22	Reimagining Chemistry: Building a Circular World, KVA
May 23	Launch of The Stockholm Declaration, Nobel Prize Museum
May 23	Biomass for sustainability, KTH
May 23	The Future of Chemical Safety, Stockholm University
May 23	SUCCeSS Nobel Symposium Mingle, Stockholm University

The Nobel Symposium was funded by the Knut and Alice Wallenberg Foundation, and made possible with additional support from SUCCeSS and the Gordon and Betty Moore Foundation. Read more about the events below; detailed programmes are found on SUCCeSS' website.



The inaugural signing of the Stockholm Declaration on Chemistry for the future took place during the symposium. Read more about the Declaration below.



Nobel Symposium on Chemistry for Sustainability *Sigtunahöjden*

SUCCeSS hosted the Nobel Symposium on *Chemistry for Sustainability*, bringing together 30 internationally leading speakers with Swedish scientists and stakeholders to explore innovative solutions for a more sustainable future. The Symposium also aimed to foster interdisciplinary collaboration and dialogue – not only among chemists but also with industry, policy makers, educators – to drive systemic change, scale-up sustainable practices, and ensure real-world impact. The event was a resounding success, featuring dynamic discussions on how chemistry can drive sustainable change.

Scientific Sessions during the Nobel Symposium

- Foundations of systems chemistry
- Sustainable synthesis
- Sustainable materials chemistry
- Molecular intersections of chemistry and toxicology
- CO₂ conversion and use
- New activation methods for chemical transformations
- Dynamic, adaptable, and obedient catalysts
- Sustainable and scalable processing
- Chemistry of the integrated bio-refinery



The organizing committee:

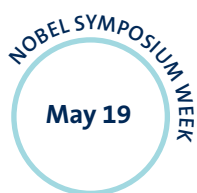
Berit Olofsson (chair, Deputy Director of SUCCeSS), Aji Mathew (Director of SUCCeSS), Paul Anastas (Advisory chair, Advisory board member of SUCCeSS), Oskar Karlsson (board member of SUCCeSS), Tetyana Budnyak (Uppsala university) and Yuanyan Li (KTH).



Nobel Symposium on Chemistry for Sustainability
Sigtunahöjden, May 19–22

Satellite events Symposium Week

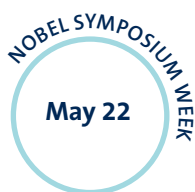
In addition to the main symposium, a series of satellite events engaged students, early-career researchers, senior researchers and the public to broaden the impact and reach of the week's discussions.



Green Chemistry for Sustainable Materials, *Uppsala University*

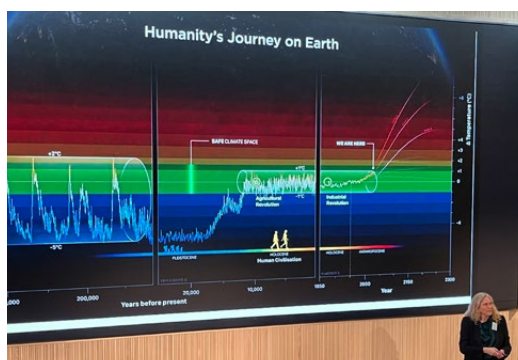
The event was held at the Ångström Laboratory, Uppsala University, to highlight cutting-edge research in green chemistry, foster interdisciplinary collaboration (chemistry, materials science, industry), accelerate sustainable materials

development, and support the transition to a circular economy. Tetyana Budnyak was the main organizer, and the speakers at this well-attended event were all from the Nobel Symposium: Paul Anastas, Yale University; Peter Licence, University of Nottingham; Kei Saito, Kyoto University; Desirée Plata, MIT; Philip Jessop, Queen's University and Julie Zimmerman, Yale University.



Reimagining chemistry: Building a circular world

How can we reimagine chemistry to build a circular world? This question guided an evening of talks and panel discussions at the Royal Swedish Academy of Sciences (KVA). This open event was organized by SUCCeSS and invited anyone curious about how chemistry can be transformed for a more sustainable society. It brought together perspectives from science, education, industry, and policy, and strengthened public engagement around sustainable chemistry and complemented the scientific discussions of the Nobel Symposium by offering a broader, societal perspective.



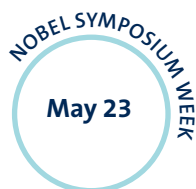
The programme highlighted two central themes – the need to integrate sustainability and systems thinking into chemical education, and the pivotal role of the chemical industry in driving circular solutions. The event contributed to advancing SUCCeSS' mission to promote interdisciplinary collaboration, support sustainable innovation, and position chemistry as a key enabler of the circular transition.

The evening was moderated by Magnus Breitholtz, SU (Chair of the SUCCeSS board) and included inspiring talks from Line Gordon, SRC (Vice chair of the SUCCeSS board); Elin Bergman, Cradlenet (Advisory board member of SUCCeSS); and two of the Nobel Symposium speakers: Athina Anastasaki, ETH Zurich and Ben Feringa, Groningen University.

Panel discussions:

“Shaping our Future: Educating Chemists for a Sustainable World”

“Towards a Greener Future: Industrial Transition to Sustainable Chemistry”



Launch of the Stockholm Declaration

A key outcome of the symposium was the launching of the *Stockholm declaration on chemistry for the future*, which took place with an invited audience at the Nobel Prize Museum. The Declaration is a collaborative call to action aimed at advancing sustainable chemistry worldwide. It urges chemists, educators, industry, policymakers, and society at large to embed sustainability, safety and societal responsibility into chemical research, education, and applications. The Declaration sets out concrete principles, e.g. designing chemical products and processes that minimize harm, using safe and renewable materials, making chemical data transparent, reforming education to include sustainability principles, and aligning policy with sustainable chemistry. The writing of this Declaration was initiated in conjunction with inviting the international speakers to the Nobel Symposium, and the declaration was inaugurally signed during the Symposium. The Declaration is a milestone shaped by a shared commitment to a more sustainable future through chemistry.



Call to Action:
Read and Sign the Stockholm Declaration on Chemistry for the Future

On Friday, May 23, 2025, leading voices from science, industry, education, and policy convened at the Nobel Prize Museum for the official launch of the Stockholm Declaration on Chemistry for the Future.

Hosted by the organizing committee of the Nobel Symposium and supported by the [Stockholm University Center for Circular and Sustainable Systems \(SUCCeSS\)](#), this event spotlighted chemistry's critical role in addressing global challenges through ethical, sustainable, and forward-looking solutions.

The program introduced the newly developed declaration, organized around five central themes, each presenting concrete, actionable recommendations.



[Read the Declaration](#)

The website www.stockholm-declaration.org was launched and opened up to the global community, inviting researchers, educators, policymakers, and industry leaders to read and sign in support of the transition toward sustainable chemistry.

By the end of the year 1900 persons had signed the Declaration.

Media on the Stockholm Declaration

Greening Chemistry: The Stockholm declaration's vision for the future

Statement's call to action highlights opportunity to harness creativity and responsibility of chemists

by Peter Licemko, special to C&EN
June 4, 2025



ACS Institute
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LC/GC Bootcamp - Hands-On Chromatography Master Class
Register Now

MOST POPULAR IN ENVIRONMENT

Noble gases help humans ju...

Carbon capture to strengthen...

What is ball lightning, a rea...

How can companies recycle...

Industrial ammonia product...

Chemistry and allied fields, along with the rest of society, benefit if chemists and colleagues advance the principles and practice of green chemistry. That's why we still need to be more intentional and coordinated with our actions, and to be responsible stewards of our resources. Inspired by this moment and its opportunity, C&EN is launching a regular column about green chemistry, written by a group of contributors, with this as the first installment.

On Friday, May 23, I was fortunate to witness the public launch of a

C&EN Chemical and engineering news,
June 9, 2025



Kemisk Tidsskrift, Nr 3, 2025

Described as the 'architect' of the declaration, green chemistry expert Paul Anastas spoke to *Chemistry World* about what led to its creation and what he hopes it will achieve.



Source: © Liisa Eklund

Paul Anastas, sometimes known as the 'father of green chemistry', holding the Stockholm Declaration on Chemistry for the Future

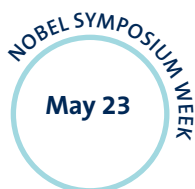
How did the Stockholm Declaration on Chemistry for the Future initially come about?

When the Nobel Foundation and SUCCeSS invited us to organize a **Nobel Symposium in Stockholm** and gather all of the best people from around the world on green chemistry, we looked at the level of commitment that people have to take an entire week sequestered on an island in the Swedish archipelago – we said, 'we're going to do all this for just a symposium?!

Chemistry World, June 4, 2025



Environmental science and
Technology, June 25, 2025

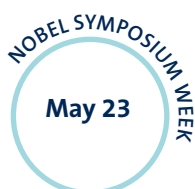


The Future of Chemical Safety

Stockholm University

This hybrid event at Stockholm University brought together scientists, regulators, policymakers, and early-career researchers. The purpose was to explore how advances in toxicology, regulatory science, and chemical design can foster safer, sustainable chemical products – bridging cutting-edge research with policy, public health, and environmental protection. Speakers addressed emerging methods such as AI-driven toxicity assessment, in-vitro hazard screening, “degradable-by-design” chemicals, and new frameworks for risk assessment and regulation. A concluding panel discussion highlighted the need to integrate mechanistic science, life-cycle thinking, and regulation – emphasizing that rigorous chemical safety should become a central driver of sustainable innovation. By convening voices from research, regulation, and industry, the event reinforced SUCCeSS’ commitment to steering chemistry toward a safer and more sustainable future. Oskar Karlsson was the main organizer, Christina Rudén served as moderator and hosted three speakers from the Nobel Symposium – Thomas Hartung, Johns Hopkins Bloomberg School of Public Health; Beate Escher, Helmholtz Centre for Environmental Research and Kathrin Fenner, University of Zurich; as well as Marlene Ågerstrand, Stockholm University; Sharon McGuinness, European Chemicals Agency and Serenella Sala, European Commission’s Joint Research Centre.

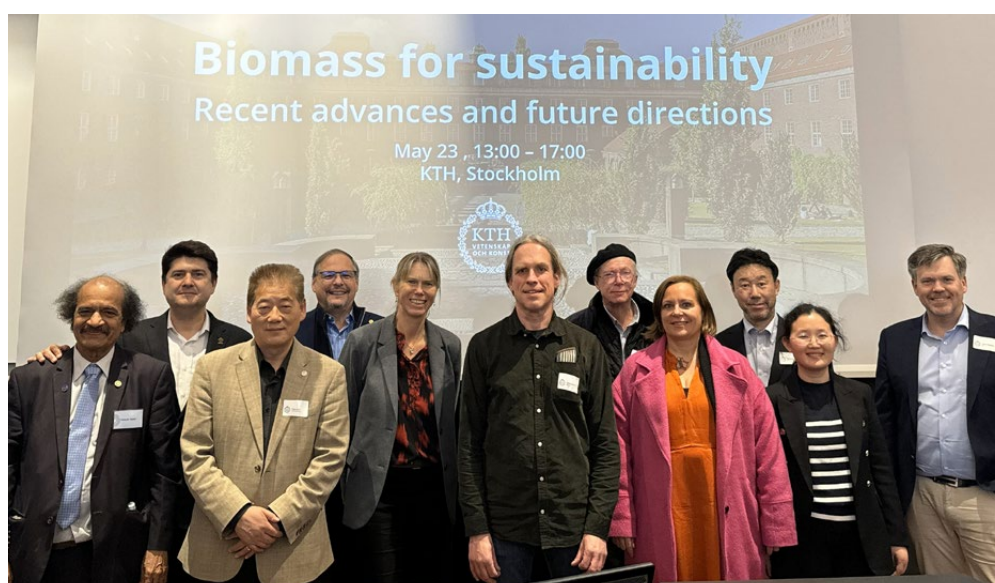


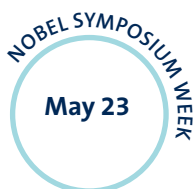


Biomass for sustainability

Royal Institute of Technology

This event at KTH brought together researchers and stakeholders to present and discuss recent progress and future prospects in biomass-based materials, bioenergy and sustainable biobased applications. The programme featured contributions from leading experts, covering topics such as bio-derived materials, sustainable polymers, biomass feed-stock conversion, green chemical reactions, and life-cycle assessment of biobased products. The symposium underscored how biomass can serve as a renewable and biodegradable alternative to fossil-based materials and fuels to support the transition toward a more sustainable, circular economy. By convening actors from academia, industry, and sustainability research, the event furthered SUCCeSS' mission to promote interdisciplinary collaboration, advance sustainable innovation, and reduce reliance on fossil resources. Yuanyuan Li was the main organizer, and the event hosted two speakers from the Nobel Symposium – Magdalena Titirici, Imperial College and Chao-Jun Li, McGill University; as well as Tanja Zimmermann, EMPA (Advisory board member of SUCCeSS); Daniel Söderberg, KTH; Olle Inganäs, Linköping University and Mathias Janssen, Chalmers.





SUCceSS Mingle

Stockholm University

Following an intense week of scientific discourse, a mingle event at Accelerator successfully concluded the Nobel Symposium week. Participants from the Nobel Symposium, the satellite events and the SUCceSS community listened to Alexandra Quadrelli's reflection on the Stockholm Declaration on Chemistry for the Future, discussed the Declaration's practical applications and enjoyed a lively Sweden quiz designed to increase their networks.

The event was organized by SUCceSS post docs Linnea Cederholm, Henrik Hupatz, and Joeselle Serrana, and SUCceSS core team member Erica Zeglio.



Alexandra Quadrelli
and Henrik Hupatz



SCS 2025 in Västerås

As a proud sponsor of the Swedish Chemical Society Meeting 2025 (SCS 2025), SUCCeSS hosted a half-day programme highlighting interdisciplinary perspectives in sustainable chemistry. The agenda was organized into three sessions. The programme included a plenary lecture by Prof. Christopher Jones, followed by two parallel sessions featuring keynotes from Prof. Jan H. Jensen and Assoc. Prof. Helena Lundberg, as well as selected talks covering the SUCCeSS' core research areas. Hans Adolfsson, head master of Stockholm University was part of one of the panel discussions, moderated by SUCCeSS chairman Magnus Breitholtz.

These sessions intended to highlight impactful research, both internationally and within Sweden, and to foster deeper discussion around circular and sustainable systems. Interdisciplinary advances in sustainable chemistry were highlighted, including direct CO₂ capture, data-driven molecular design, sustainable materials, biomass-derived carbon dots, protein-based materials, electrocatalysis, lanthanide photocatalysts, engineered molecular electrodes, and novel C–H functionalization for greener synthetic methods. Many thanks to our organizing committee: Miguel Rivero Crespo, Joseph Samec, Jiayin Yuan, Henrik Hupatz and Berit Olofsson.



Webinars

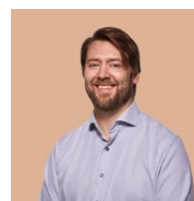
The SUCCeSS lunch webinar series continued during 2025, with experts from academia, industry and research organizations collaborating and sharing their views on different topics. The webinars continued to be well attended by 20–50 participants depending on subject, several of which were organized by our travel grantees.

February
2025

Sustainable mycomaterials

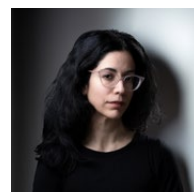
“Enifer, the story of sustainable mycoprotein technology”

Dr Ville Pihlajaniemi, Chief Technology Office, Enifer, Finland



“Upcycling Lignocellulose Waste by fermentation”

Ass. Prof. Tiffany Abitbol, EPFL Switzerland



Moderated by SUCCeSS PI Assoc. Prof. Mika Sipponen, SU

March
2025

Chemical pollution and biodiversity research for sustainable development

“Biodiversity Assessment in Water Ecosystems”

Prof. Kozo Watanabe, Ehime University, Japan



“Risk Assessment and management of Antibiotics Contamination”

Prof. Anwar Hossain, University of Dhaka, Bangladesh



Moderated by SUCCeSS postdoc & travel grantee Joeselle Serrana

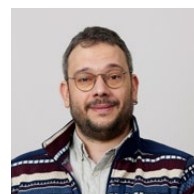
April
2025

Nano-engineered materials and catalysis for a sustainable future

“Nano engineered materials enable catalysis for a sustainable future”,
Senior lecturer Kelly Jousi, University of Surrey

”Exploring the catalytic properties of coordination polymers based on phosphonates”
postdoc & travel grantee Ioannis Mylonas Margaritis, SU

Moderated by Ass. Prof. Erica Zeglio, SU



May
2025

Bridging marine genetics and ocean governance: Pathways for ocean sustainability

“How to study commercial use of marine genetics and why is it important for multilateral environmental agreements”
PhD student & travel grantee Eric Zivkopoulos, SRC

“A Social science perspective on the emergence of digital twins in multilateral ocean governance”
Prof. Alice Vadrot, University of Vienna, Austria

Moderated by Prof. Edouard Pesquet



June
2025

Sustainable materials from food – and agroindustrial side streams

“Sustainable materials from sugarcane agroindustrial waste”

Assoc. Prof. Camila A. Rezende, UNICAMP, Brazil



“Synthesis of noncomposite films from oat husk fractions”

PhD student & travel grantee Yasmini Portes, SU.



“Case example: Beer from surplus bread”

Dr. Juhani Sibakov, Head of Innovation at Fazer Bakery, Finland



Moderated by Mahmoud Mazarji, Ph.D. in Environmental Engineering, SU

September
2025

Biopolymer based Composites – Toward Sustainable Solutions

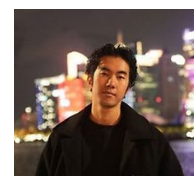
“Biobased flexible films: Sustainability challenges and possibilities”

Prof. Koon-Yang Lee, Imperial College London, UK



“Processing of PBAT – Cellulose nanocomposites”

PhD student & travel grantee Hongrun Chen, SU



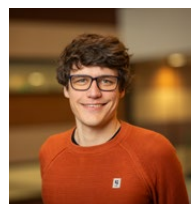
Moderated by Prof. Aji Mathew, SU

October
2025

Tracking plastics-related pollution around and within us

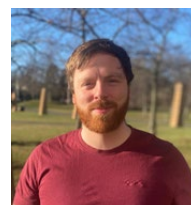
“Challenges and advancements in human exposure assessment to micro- and nano-plastics”

Dr. Kas Houthuijs, Vrije University, Netherlands



“Identification of chemical risk drivers in plastic leachates”

Dr. Frank Menger, SU



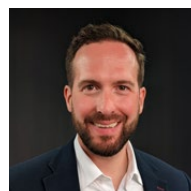
Moderated by PhD student & travel grantee
Helen Sepman, SU

November
2025

How to increase sustainability in research laboratories

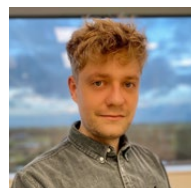
“Sustainable chemistry labs bottom-up and top-down – a case study”

Ass. Prof. Michael Lerch and Dr. Thomas Freese, University of Groningen, the Netherlands.



“MyGreenLab certification – Practical implementation”

Senior Staff Scientist Merle Plassmann,
Dept of Environmental Science, SU



Moderated by Prof. Berit Olofsson, SU



SUCCeSS meetings & workshops

March
2025

CIVIS visit

SUCCeSS hosted a CIVIS delegation at the Arrhenius laboratories March 4th. SUCCeSS' team provided an overview about the centre vision/ mission, research focus areas and activities. Short presentations on topics related to organic electronics, energy materials, textile recycling and also the infrastructure at Kemikum were also given as requested by the CIVIS team. The discussions about the challenges in leading interdisciplinary research and engagement – especially bridging between natural science with humanities – was highly fruitful. SUCCeSS aims to continue to share information about our activities with CIVIS.



CIVIS delegation visiting Kemikum March 4th.

April
2025

Study visit from Beckmans' College of Design

SUCCeSS hosted a study visit by a group of first year bachelor students and teachers from Beckmans' College of Design, Stockholm on April 28. There is a strong desire for making sustainable materials in design and the aim of the visit was to learn about Sustainable material development at Kemikum. SUCCeSS organised 7 talks from Kemikum PhD students, postdocs and professors on diverse topics including 3D printing of new materials, porous materials for water treatment, bioelectronics, new materials and chemicals

from recycled fibers and polymers or waste wood. This acted as an excellent forum for knowledge sharing and discussions on how to collaborate further. SUCCeSS is committed to host yearly study visits from Beckmans' College of Design in the future.



September
2025

SUCCeSS Retreat at Brygghuset

On September 16th, the SUCCeSS board, PIs and core group gathered in Stockholm for a full day retreat, to assess the progress and define strategies to have continued impact. The retreat convened faculty, researchers, students, board members, and external advisors to identify strategic priorities for the centre's next phase. Discussions focused on strengthening SUCCeSS' impact in research, collaboration, education, communication, and resource allocation, with a shared



Photos from the SUCCeSS Retreat in September

vision for long-term societal relevance. After the discussions it was concluded that SUCCeSS should continue to work as a connector and enabler of knowledge sharing across academia, civil society, industry and policy makers.

Participants

Board members: Magnus Breitholtz, Yasmini Portes Abraham Silva, Joseph Samec, Fredrik Nordin, Edouard Pesquet, Helen Blomqvist, and Siri Talme.

Core team: Aji Mathew, Berit Olofsson, Erica Zeglio and Kajsa Vårsjö. **Communicator:** Kimberly Michelle-Park and **SUCCeSS postdoc** Henrik Hupatz. **SUCCeSS Pls:** Marlene Ågerstrand and Benoit Dessirier Kemikum's Head of Dept. Niklas Hedén. **Advisory board:** Paul Anastas, Tanja Zimmermann, John Warner and Elin Bergman joined on zoom.

December
2025

WISE-SUCCeSS hybrid workshop with Audrey Moores

SUCCeSS hosted a joint workshop on the topic "Next generation advanced fossil-free materials" on December 10th at Kemikum, SU. The speakers of the event were Audrey Moores – recently appointed as WISE guest professor at SU, Jiayin Yuan (SU), Paul Christakopoulos (LTU) and Eva Malmström (KTH). The workshop was video recorded and published on SUCCeSS website.



Networking activities

January
2025

Film on lignins on Youtube

Informative film about Lignins produced by SUCCeSS scientists Mika Sipponen, Edouard Pesquet and Joseph Samec. The film was published on Youtube and the Stockholm University Channel.

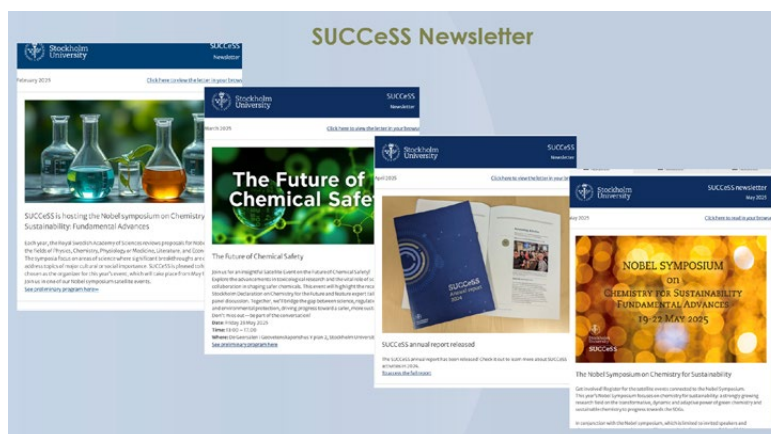
Link to film



February
2025

SUCCeSS monthly newsletter

The first SUCCeSS newsletter was published as a strategy to engage in and connect to a broader set of people in the activities of the centre. It is sent out to members and enlisted followers each month.



SUCCeSS in LinkedIn

We are happy to see that our presence is continuing to grow on LinkedIn, with over 700 new followers during 2025, totaling 1574 followers. An increase in followers with 86% since 2024!



August
2025

SUCCeSS community page

The SUCCeSS community page was launched, a register of our affiliated member researchers sorted by their respective research areas.

November
2025

Afterwork at Accelerator

On November 26th, SUCCeSS arranged a social AW event at Accelerator, SU.



Mingle bingo!



Participation in external events

September
2025

WiraSupra/Polymerinstitutet

Aji Mathew gave a presentation at the WiraSupra/Polymerinstitutet event days in Husqvarna 23 of September with the topic of AI in plastic production.

October
2025

Mistra SafeChem

On October 8, SUCCeSS Directors Aji Mathew and Berit Olofsson presented the Stockholm Declaration at the Mistra SafeChem annual meeting, where academia and industry discussed the Programs' growing impact in driving the shift towards safer and more sustainable chemical innovations.

October
2025

Conference on Carbon Capture and Utilization (CCU), Uppsala

October 27–29th, the Swedish Consortium for Artificial Photosynthesis organized a conference on Solar fuels, Electro fuels, CO₂ capture & valorization – towards sustainable energy, chemicals and materials. SUCCeSS was represented by Aji Mathew, as one of the speakers. The talk was focused on 'Circular Carbon: Strategies and vision' with focus on the activities at the department of Chemistry and SUCCeSS, including the Stockholm Declaration and Circulab.

November
2025

Presentation and workshop at CPE Lyon – presentation of the Stockholm Declaration

Deputy director Berit Olofsson visited research Director Elsje Alessandra Quadrelli at the CPE university in Lyon, to present SUCCeSS and the Stockholm Declaration on chemistry for the future. Alessandra signed the Declaration. We look forward to a continued collaboration with Lyon!



Berit, Emilie, Jérémy and Alessandra.

Testimonials from board members



Being a part of SUCCeSS has been such an enriching experience for me. The opportunity to engage in cutting-edge discussions and explore the depth of scientific knowledge has been inspiring and enhanced my understanding of sustainable chemistry. I truly value the holistic approach of connecting research to broader industrial and societal contexts, which resonates with my personal values. Looking forward, I hope SUCCeSS continues bridging academia and industry, accelerating breakthroughs in sustainable chemistry, and supporting researchers to drive long-term, systemic solutions for a sustainable future.

Helen Blomqvist, CEO Sandvik Coromant,
PhD in Materials Chemistry from Stockholm University



Being part of the SUCCeSS board has given me valuable insight into how interdisciplinary collaboration on circular and sustainable systems works in practice. I've particularly appreciated the energy and commitment shown by researchers across different fields, and how SUCCeSS provides a platform for connection. Looking ahead, I hope SUCCeSS can continue to strengthen these links and support work that contributes to sustainability in practice.

Fredrik Nordin, Professor in Business Administration
with a specialization in marketing, Head of Stockholm Business
School and specialized in marketing

SUCCeSS funded travel grants

2nd and 3rd call for Travel grants

SUCCeSS continued the funding of short research exchanges for postdocs and PhD students to initiate collaborations linked to SUCCeSS. After the end of the research visits, the funded researchers submitted a scientific report and organized a SUCCeSS lunch webinar to present their project.

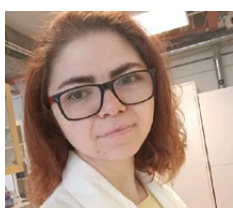
The funded researchers and their projects



- **Hongrun Chen (Kemikum):**
conducted an exchange at **Imperial College London, UK** from 9–22 February 2025. Project title: *Twin screw extrusion of PBAT-Cellulose nanocomposites*



- **Roja Rahmani (Kemikum):**
conducted an exchange at **Nottingham University, UK** from 24 March to 15 May 2025. Project: *Experimental Validation of Biomolecular Adsorption to Nanomaterial*



- **Lala Ramazanov (Kemikum):**
conducted an exchange at **University of Chemistry & Technology, Prague** 10–29 June 2025. Project: *2D Gas Chromatography (2D GC) and Simulated Distillation (SimDist).*



- **Honghong Li (SRC):**
conducted an exchange at **Potsdam Institute for Climate Impact Research, Germany** 12–27 June 2025. Project: *Unlocking the creative application of machine learning in understanding the linkages between biodiversity and human health and wellbeing.*



- **Helen Sepman (ACES):**
conducted an exchange at **Vrije Universiteit, Amsterdam** from 15 May to 25 July 2025. Project: *Develop and validate machine learning tools to predict the risk, that is the toxicity and exposure, posed by both identified and unidentified water contaminants detected with liquid chromatography coupled to high-resolution mass spectrometry.*



- **Prajakta Manal (Kemikum):**
conducted an exchange at **ETH Zurich, Switzerland** during October-November 2025. Project: *EPR spectroscopy studies of phenolic radicals in lignin nanoparticles and oxidation states of metal ions.*

External funding



Two donations from the Moore Foundation

The Gordon and Betty Moore Foundation has made two donations during the year. The first round a donation of \$24,000 to support the Nobel symposium “Chemistry for Sustainability: Fundamental Advances” and associated satellite events held in Stockholm in May. This contribution enabled SUCCeSS to host a wide range of activities during an intensive week of engagements with approximately 30 leading international researchers.

The second donation of \$20,000 was earmarked to strengthen SUCCeSS’ efforts to promote the Stockholm Declaration. This funding will expand dissemination activities and underline the need for a shared global understanding and practical action plan for sustainability in chemical research and practice.

GORDON AND BETTY
MOORE
FOUNDATION



Funding applied for



VR Network Application

A VR Network Grant was applied for in collaboration with KTH and IVL. The application was on Center for Discovery of sustainable and Circular chemicals and materials (DREAMER). The application was built on the foundation for interdisciplinary research in the field of sustainable and circular chemistry established through SUCceSS and the Stockholm Declaration, a call for action for the future of chemistry. DREAMER aim was to act to reach the Sustainability goals in chemistry in a fast, accelerated and collaborative manner.



SFO application

SUCceSS team has submitted the strategic research area application on the topic of Next Generation of Advanced Polymer Materials: Accelerating the transition to a circular and fossil-free society (PolyNEXT). Materials Chemistry is one of SU's profile areas, and the university recognizes that sustainability and circularity represent central challenges and opportunities in the development of next-generation advanced materials. The SFO on Advanced Materials is a strategic priority area at SU. This application aligns with SU's commitment to the intelligent and circular use of resources, with an emphasis on sustainable design principles, green synthesis, and resource-efficient processes. Within PolyNEXT, SU will collaborate closely with KTH Royal Institute of Technology (KTH) and Luleå University of Technology (LTU) to establish a new research environment for Advanced Materials that converges around a shared vision to address the major scientific and societal challenges defined by the three research pillars: Electrification & Digitalization, Mobility & Transport, and Surface & Interface Engineering.

Publication list for 2025

- **Sustainable and scalable one-pot synthesis of diaryliodonium salts**
Sayad Doobary, Leonard Kersting, Piret Villo, Marufa Akter, Berit Olofsson
Chemical Communications, **2025**, 61, 5158.
[Link](#)
- **Physiological roles of lignins – tuning cell wall hygroscoy and biomechanics**
Edouard Pesquet, Igor Cesarino, Shinya Kajita, Katharina Pawlowski
New Phytologist, **2025**, 248, 2674.
[Link](#)
- **Cross-taxa assessment of species diversity and phylogenetic structure of benthic communities in a dam-impacted river undergoing habitat restoration**
Joeselle M Serrana, Bin Li, Kozo Watanabe
Science of The Total Environment, **2025**, 958, 177886.
[Link](#)
- **Environmental drivers of the resistome across the Baltic Sea**
Joeselle Serrana, Malte Posselt, Francisco Nascimiento, Benoit Dessirier
Microbiome, **2025**, 13, 92.
[Link](#)
- **Is it possible to completely dry cellulose?**
Aleksandar Y. Mehandzhiyski, Maria-Ximena Ruiz-Caldas, Patrick Heasman, Varvara Apostolopoulou-Kalkavoura, Lennart Bergström, Igor Zozoulenko
Carbohydrate Polymers, **2025**, 365, 123803.
[Link](#)

- **Systematic metaproteomics mapping reveals functional and ecological landscapes of Ex vivo human gut microbiota responses to therapeutic drugs**

Joeselle Serrana, Li Leyuan, Caitlin M. A Simopoulos, Janice Mayne, Ning Zhibin

Nature Communications, **2025**, 16, 9383.

[Link](#)

- **Progress and future outlook towards a safe and sustainable production and use of chemicals**

John Munthe, Lennart Bergström, Dämien Bolinius, Ian Cotgreave, Anna-Karin Hellström, Hanna Holmquist, Magnus J Johansson, Anneli Julander, Richard Lihammar, Jonathan Martin, Belén Martín-Matute, Aji P Mathew, Tomas Rydberg, Lisa Skedung, Monika Witala, Per-Olof Syrén

Communications Chemistry, **2025**, 8, 350.

[Link](#)

- **In Operando Characterization of Nanocellulose Based Water Treatment Materials Using Atomic Force Microscopy and Synchrotron Scattering**

Houssine Khalili, Senuri H Kumarage, Aji P Mathew

Accounts of Materials Research, **2025**, 6, 1451.

[Link](#)

- **Mechanochemical synthesis of X-vinylbenziodoxol(on)es and one-pot conversion to complex alkenes**

Sayad Doobary, Judith Braunreuther, Andrew K. Inge, Berit Olofsson

Angewandte Chemie International Edition **2025**, e 19049.

[Link](#)

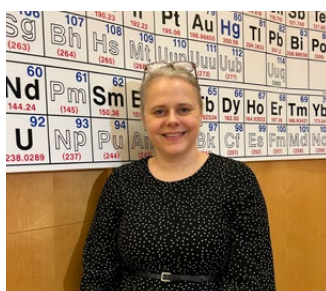
-
- **Critical review on in silico methods for structural annotation of chemicals detected with LC/HRMS non-targeted screening**
Henrik Hupatz, Ida Rahu, Wei-Chieh Wang, Pilleriin Peets, Emma H Palm, Anneli Kruve
Analytical and Bioanalytical Chemistry, **2025**, 417, 473-493.
[Link](#)
 - **Microbial hydrocarbon degradation potential of the Baltic Sea ecosystem**
Joeselle M Serrana, Benoît Dessirier, Francisco J. A. Nascimento, Elias Broman, Malte Posselt
Microbiome, **2025**, 13(1), 204.
[Link](#)
 - **Cover Feature: Upcycling Textile Waste into Anionic and Cationic Cellulose Nanofibrils and Their Assembly into 2D and 3D Materials**
Maria-Ximena Ruiz-Caldas, Varvara Apostolopoulou-Kalkavoura, Laura Pacoste, Aleksander Jaworski, Aji P. Mathew
ChemSusChem 9/2025.
[Link](#)

All researchers at SU, who publish in the SUCCESS research areas and who are/have been part of SUCCESS activities, are welcome to use the SUCCESS affiliation without need for prior approval by SUCCESS.

Researchers who have received funding from SUCCESS are required to use the affiliation when publishing results related to the funding. This includes the SUCCESS PIs, SUCCESS post docs, SUCCESS travel grant recipients, and SUCCESS executive committee.

SUCCESS Affiliation to use: Stockholm University Centre for Circular and Sustainable Systems (SUCCESS), Stockholm University, 106 91 Stockholm, Sweden

New members of the SUCCeSS Community



Audrey Moores

Audrey Moores, Professor of Chemistry at McGill University, Canada, is a new WISE guest professor at SU, and a world-leading expert in sustainable chemistry, nanomaterials, and biobased polymers. Her pioneering work on greener catalysts and circular-economy materials aligns perfectly with SUCCeSS' mission to advance sustainable innovation. With her international experience, leadership, and commitment to translating research into real-world impact, she is a highly welcome addition to the SUCCeSS Community!



Erica Zeglio new board member

SUCCeSS welcomes Erica, formerly part of the executive committee, as a new board member. Her background in chemistry and organic bioelectronics bridges electronics, biology, and sustainability. She sees her role as an opportunity to learn, collaborate, and help shape SUCCeSS's future, aligning with its mission to promote sustainable, circular research across disciplines. With experience connecting diverse fields, she aims to strengthen links between academic research and real-world innovation. Looking ahead, she emphasizes the need for materials and technologies that are not only high-performing but also environmentally responsible. We look forward to your contributions to SUCCeSS as a board member!

2 PhD student representatives joined the board

Yasmini Portes Abraham Silva is a PhD student at Kemikum, and a recent inductee to our board. Her PhD project is titled "Upcycling food industry side streams into functional organic-inorganic hybrid materials".

Siri Talme, is also a PhD student at Kemikum, and joined the SUCCeSS board to represent doctoral students and promote circular, sustainable solutions. Her research is focused on investigating the production of lignin-based carbon materials as potentially sustainable alternatives to mined and synthetic fossil-derived carbons.



New staff to the core team

Kajsa Vårsjö (Coordinator) and Micaela Sundberg (Communicator) joined the core team to facilitate coordination and communication about SUCCeSS activities and outreach.



Special tribute

Berit awarded Ulla and Stig Holmquist Prize

Berit Olofsson, professor at Stockholm University, has been awarded this year's Ulla and Stig Holmquist Science Prize in Organic Chemistry. She receives the award for her research in the field of hypervalent iodine chemistry. The prize is worth SEK 1.9 million.

The award citation reads: "The 2025 Ulla and Stig Holmquist Science Prize in Organic Chemistry is awarded to Professor Berit Olofsson of Stockholm University for her ground-breaking research in organic chemistry. Olofsson has pioneered the growing field of research in which hypervalent iodine reagents are produced and used for more environmentally friendly organic chemical synthesis. Her elegant and gentle approach allows different organic molecules to be selectively linked together without the need for toxic metals as catalysts. Olofsson's research is of the highest international standard."

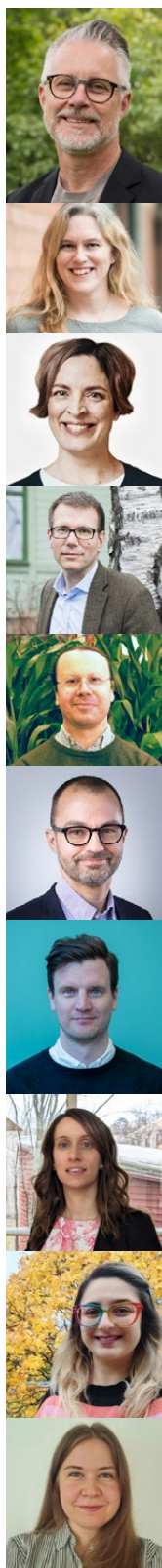


SUCCeSS Organization

In 2025 several organization changes took place. During spring 2025, Erica Zeglio joined as support to the Directors during Aji's sabbatical. Kimberly Michelle-Park joined as temporary communicator during spring and summer. In the fall, Kajsa Vårsjö joined as SUCCeSS coordinator and Micaela Sundberg as Communicator.

The Executive Board

- **Aji P Mathew**, Director, Professor in Materials Chemistry at SU. Research focus on sustainable and biobased functional materials processing, characterisation and applications.
- **Berit Olofsson**, Deputy Director, Professor of Organic Chemistry at SU. Research focus on sustainable organic synthesis using hypervalent iodine chemistry, including mechanochemistry.
- **Kajsa Vårsjö**, Administrative Coordinator
- **Micaela Sundberg**, Communicator



The Board

The current SUCCeSS board is appointed for the period 2024–2026, and appointed Erica Zeglio as new member in 2025.

- **Magnus Breitholtz**, Chair, Professor of Ecotoxicology, Senior advisor to the president for sustainability and external relations at SU. Research focus on ecotoxicology and risk assessment of chemicals.
- **Line Gordon**, Vice Chair, Curt Bergfors Professor in Sustainability Science, Director of Stockholm Resilience Centre (SRC) at SU. Research focus on the sustainability and resilience of the biosphere through food and water.
- **Helen Blomqvist**, CEO Sandvik Coromant, PhD in Materials Chemistry from SU.
- **Joseph Samec**, Professor in Organic Chemistry at SU, research focus on green chemistry in organic synthesis and biomass processing and applications.
- **Edouard Pesquet**, Professor in Plant Cell Biology at SU, PI of “Cell differentiation and coordination in tissues” research team.
- **Fredrik Nordin**, Professor in Business Administration at SU with a specialization in marketing, Head of Stockholm Business School and specialized in marketing.
- **Oskar Karlsson**, Professor in Toxicology at SU. Research focus on developmental origins of health and disease with an emphasis on the exposome and underlying molecular mechanisms.
- **Erica Zeglio**, Assistant Professor in Materials Chemistry at SU. Her research focuses on organic bioelectronics development as well as biodegradation, sustainability issues in modern bioelectronic materials and devices
- **Yasmini Portes Abraham Silva**, PhD in Materials Chemistry
- **Siri Talme**, PhD in Materials Chemistry

Senior Advisors

The senior advisors of SUCCeSS support the centre through active discussions, providing seminars and teaching on master level courses.

- **Paul Anastas**, Professor, Director of the Center for Green Chemistry and Green Engineering at Yale University, USA, and is world renowned as one of the founders of Green Chemistry.
- **John Warner**, Professor, has spent his life working to ensure that all practicing chemists will one day have the necessary skills to invent truly sustainable technologies. John is a chemist, inventor, educator, entrepreneur, and the co-founder of Green Chemistry.
- **Tanja Zimmermann**, Professor, Director at EMPA, the Swiss Federal Laboratories for Materials Science and Technology, research focus on applied wood materials and nanocomposites.
- **Elin Bergman**, COO and spokesperson of the Swedish circular economy network Cradlenet, and is also one of the co-founders of the Nordic Circular Hotspot a collaboration platform for accelerating circular economy in the region.



From left to right: Paul Anastas, John Warner, Elin Bergman, Tanja Zimmermann

Thank you and goodbye

Ilari Ohring and Kimberly Parke finished their duties as communicators but continue to work within the SU. Thank you for your great work with advancing and developing our website and communication!



SUCCeSS

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