CALL FOR ABSTRACTS
Open through 15th September 2026

ICS26 is a multi-disciplinary conference focused on the challenges of sustainability transitions in society, environmental change, and sustainable use of natural resources. ICS26 is organized into five working groups: sustainable resource society, water, biosociety, climate, and computational modelling and photonics. ICS26 is jointly organized by a consortium of six research communities from University of Eastern Finland: RESOURCE, FOBI, WATER, CLEHE, PHOTONICS, and COMMIT.

The conference will be held on-site at the Joensuu Campus of the University of Eastern Finland.

We warmly invite paper or poster submissions covering the themes of sustainability transitions and transformative innovations; these are described in detail in the session descriptions. We especially welcome submissions that explore and discuss the ICS26 special theme:

Restoration Futures: Sustainability Transitions, Nature Governance, and Transformative Innovations

ICS26 offers a platform for researchers across all scientific fields to share research insights and discuss how technological, social, institutional, and cultural innovations can be transformative – reshaping entire systems toward more sustainable, equitable, and resilient futures.

You are all warmly invited to give presentations and discuss your ongoing research and projects with key scholars from different research disciplines. ***Please see the more specific topic descriptions below and submit an abstract (200-300 words) by 15th September 2026.*** Decisions are posted by the end of September.

Link to the abstract submission form: Abstract submission

There are no conference fees for conference participation. There is a small fee (10€/person) for participation in the conference dinner that will be arranged at the Sokos Hotel Kimmel.

Contact email: ics@uef.fi

ABSTRACT / POSTER / SESSION TOPICS

Parallel sessions are held on Thursday (Nov 5th) in the afternoon and Friday (Nov 6th) morning. Posters are on display during the whole conference. A separate poster session is organised during Campus Tour late Thursday afternoon.

The sessions specific to each Research Community are described below.

SUSTAINABLE RESOURCE SOCIETY: Circular Economy, Energy and Raw Materials (RESOURCE RC) sessions bring together multidisciplinary perspectives on sustainability transitions. Achieving long-term goals for a sustainable and restorative future requires rapid and profound transformations in core societal systems, business practices, and governance approaches. Sustainability transitions involve shifting from resource-intensive models to resource-wise and carbon-neutral solutions. Circular economy, energy, and raw materials are key areas where these transitions take place.

RESOURCE sessions invite researchers and professionals from various disciplines to submit abstracts related to these themes. We particularly encourage contributions from young scholars, professionals, and doctoral students. The conference fosters interdisciplinary dialogue across fields such as environmental policy, economics, business studies, law, geography, history, sociology, and cultural studies.

The special topics for the RESOURCE sessions are:

1. *Encouraging sustainability transitions and transformations in businesses, organisations, and communities both locally and for scaling up globally*

   Sustainable transitions move away from unsustainable practices towards efficient and sustainable solutions; this requires innovation, collaboration, and management approaches. Theory needs to examine how small- and medium-sized enterprises and larger multinational enterprises can reduce environmental pollution through improving operations and responding to sustainability regulation (such as the European Union Green Deal and Corporate Social Responsibility Directive) as well as voluntary initiatives that promote circular economy and sustainability. Despite increased innovation in industries such as product tracing, digitalisation, sustainability reporting, sustainable product innovation, and efforts to engage consumers and suppliers in sustainable practices, gaps in understanding how to promote uptake of sustainable business models and practices persist.

This track aims to deliberate how theory and research can encourage sustainability transitions and transformations in businesses, organisations, and communities both locally and for scaling up globally.

With this session, we encourage participants to:

- explore theoretical foundations, innovations and social dimensions of scaling-up sustainable management
- explore nascent to functioning circular economic ecosystems as transitions or transformations, from micro, meso, or macro levels of analysis
- investigate sustainable or circular consumer behaviours and preferences

- inquire on the planning and management of sustainable materialities and/or waste transitions
- explore or theorize sustainability leadership research
- examine how scholars engage with policy makers, practitioners and communities, and establish the interface between public policy and voluntary action for ecological and socially equitable transitions
- shed light on knowledge gaps on sustainability transitions and transformation from a local or global perspective.

2. *Conflict-Sensitive Sustainability Transitions*

Sustainability transitions are increasingly recognised as complex socio-ecological processes that involve not only technological innovation and policy reform, but also shifts in governance, knowledge systems, and everyday practices. Societal change always implies friction between prevailing and emerging practices in various domains. These frictions and related conflict dynamics shape transition outcomes. On one hand, conflict may be necessary to induce change. On the other hand, conflict may also frustrate transitions.

This session examines sustainability transitions through the lenses of conflict-sensitivity, i.e. approaches that seek to understand and address the tensions, frictions and conflict dynamics at the various frontiers of sustainability transitions. These may include place-based community-level socio-ecological conflict, land use conflict, policy controversies and tensions between knowledge systems . The session explores various challenges that actors, organisations, planning and governance systems and knowledge systems face in the pressure points arising from conflictual transition dynamics – and explores what kinds of novel and innovative conflict sensitive approaches are emerging at these frontiers.

The session welcomes presentations from pressure points of transition conflicts, including practice-oriented research perspectives from the frontlines of sustainability transitions. Practitioners addressing conflicts often develop innovative, locally grounded approaches to resource governance, conflict resolution, and ecological stewardship that remain underrepresented in academic and policy debates.

By bringing together interdisciplinary research and practice-based insights, the session advances a systems-oriented and inclusive understanding of sustainability transitions, highlighting pathways toward adaptive governance and long-term ecological resilience.

Key questions to be addressed in the session:

- In what ways do conflicts influence or frustrate transition pathways?
- How can sustainability governance become more conflict-sensitive?
- What lessons can practitioners and researchers learn from conflict-sensitive practices in advancing sustainability transitions?

3. *Sufficiency in the Circular Economy*

Circular economy scholarship highlights the importance of reducing resource use through strategies such as refusing and preventing consumption (Bocken et al., 2022; Kirchherr et al., 2017; Murray et al.,

2017). These strategies are supported by operations that extend product lifetimes, promote sharing and renting, and encourage shifts from product ownership to service-based consumption (Murray et al., 2017). Despite these strategies and operations, the 'reduce' principle remains underrepresented in mainstream circular economy discourse (Kirchherr et al., 2017). Practitioners and policymakers tend to focus on efficiency improvements—doing more with less—rather than on doing less altogether or seeking (consensus towards) enoughness, that is, pursuing sufficiency (Hartmann, 2024; Kirchherr et al., 2017; Princen, 2003; Young & Tilley, 2006). For example, current circular economy frameworks at national and European levels continue to prioritize resource efficiency (e.g., Finnish Government, 2021; European Commission, 2020, 2023). As a result, sufficiency strategies remain marginal (Schneider et al., 2010). This session invites contributions that examine the role of sufficiency within the circular economy.

We welcome conceptual, empirical, and policy-oriented work that explores:

- how sufficiency strategies can be strengthened within the circular economy
- what kinds of sufficiency-oriented circular economy operations already exist
- how such approaches challenge the dominant ethos of efficiency
- how the circular economy might evolve to support more transformative, sufficiency driven futures; and
- what kinds of circular economy business models may emerge within these futures?

This session is open to researchers, practitioners, businesses, policymakers, community leaders, artists, and NGOs working with and/or interested in a sufficiency-oriented circular economy.

4. *Young people´s agency in sustainability transformations*

Younger generations tend to have up-to-date environmental knowledge, and they often hold strong sustainability values and interest in environmental issues. Young people have also taken active roles in sustainability transformations (e.g. Honkatukia & Rättilä, 2023; Mustalahti et al. 2023; Sinkkonen & Mustalahti 2025; Runko & Mustalahti 2026). In this session, we focus on the agency of younger generations in environmental sustainability-related transformations and on ways in which their agency and inclusion can be strengthened.

We understand sustainability transformation as broad term referring to changes towards more sustainable ways of living, practices, and systems. The session is equally interested in innovative, action-oriented and participatory approaches to studying young people's agency in sustainability transformations. Session presenters may address questions such as: How do younger generations act toward sustainability-related changes in their eco-socio-cultural systems? How do governance structures recognize younger people and their sustainability-related activities? What roles are young people aspiring for — or being pushed into — within sustainability transformations? How can young people's agency in environmental sustainability transformations be fostered? How do younger and older generations collaborate and learn from each other in sustainability transformations?

We welcome studies employing a variety of methods (e.g. case studies, conceptual analyses) and emerging from diverse global contexts. This session will be connected to a Special Issue on the same theme in a relevant scientific journal. The session is part of our research project *VIZAZI – Intergenerational learning and young people's inclusion in collaborative environmental governance*: https://uefconnect.uef.fi/en/vizazi/

More information about the RC: https://www.uef.fi/en/research-community/sustainable-resource-society-circular-economy-energy-and-raw-materials-resource

CLIMATE FORCING, ECOSYSTEMS and HEALTH research community (CLEHE RC) brings together scientists from the multidisciplinary fields of aerosol physics, environmental science and climate law and policy aiming to increase understanding of various direct and indirect climate change and mitigation measures and their health effects. The CLEHE session welcomes papers in different fields of research including studies on natural and anthropogenic emissions, natural feedback mechanisms, mitigation technologies, actions and policies as well as human health.

The special topics for the CLEHE sessions are:

1. *Carbon capture, sequestration, utilization and carbon sequestration in ecosystems*
2. *Circularity in respect to the novel technologies and green transition*
3. *Air pollution from anthropogenic activities and its mitigation*
4. *Impacts of natural fires on air quality, biosphere and climate*
5. *Natural feedback mechanisms in relation to climate change*
6. *Climate change and human health*
7. *Climate actions and policies*

More information about the RC: https://www.uef.fi/en/research-community/climate-forcing-ecosystems-and-health-clehe

FOREST AND BIOECONOMY (FOBI RC): Transition to a low-carbon and resource-efficient society in Europe and globally is a key requirement for climate change mitigation, for which forests and the forest-based bioeconomy can contribute largely. However, in sustainable and climate smart forest management and utilisation we must simultaneously take account multiple ecosystem services, climate-induced risks to forests and forestry (e.g., storms, drought, forest fires, and bark beetles), and the need to adapt to and mitigate climate change. It also requires the development, production, and marketing of innovative forest-based products that could replace fossil-intensive products and increase the carbon storage of wood-based products. In FOBI, we aim to provide the necessary scientific knowledge needed to transfer into a biosociety, that relies on sustainably managed and utilized forests and sustainable production and consumption of pro-environmental products and services to mitigate climate change. In our thematic session, we will discuss science-based solutions needed for improving the sustainable and multifunctional management and use of forests for different ecosystem services and creating and accelerating sustainable bioeconomy markets and business in forest-based bioeconomy.

The special topics for the FOBI sessions are:

1. *Current research on forest economics, policy and foresight at UEF School of Forest Sciences*

Welcome to join an open space for discussions related to forests and society! In this session you will hear about current research on forest economics, policy, and foresight conducted at the UEF School of Forest Sciences. As a group, we aim at providing an open space for everyone interested in having discussions and conducting research on topics related to forests and society. We encourage people to think and create understanding in an environment without pressure to be efficient and produce something. We offer a community for making connections, sharing ideas, and discussing. We also take action with an ambition to initiate change and foster sustainability transformation by doing impact driven research.

Examples of the forest economics, policy and foresight related research themes that are discussed during the session

- Critically exploring dimensions of forest-related issues in the society, businesses, economies and people
- Understanding the interactions, relationships, phenomena and impacts between forest ecosystems, people and society
- Understanding the dynamics of forest use: how did we come to this, what is happening now and what will be in the future

The session consists of introductory keynotes, invited presentations and a facilitated discussion with the participants.

We welcome everybody to join our open space discussions related to forests and society!

Key questions to be addressed in the session:

- What kind of research is done in the UEF school of forest sciences related to forest economics, policy and foresight? What are the current discussions going on related to forests and society?

2. *The politics of the EU Nature Restoration Law*

Despite a large and widespread political resistance, the EU Nature Restoration Law was accepted 2024 with a qualified majority as Austria's environment minister Leonore Gewessler switched Austria's position to support the law. The implementation of the regulation is important, as t it sets binding targets to restore degraded ecosystems, particularly those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters. But its high ambition level will also carry large costs, as it requires that Member States will put in place restoration measures in at least 20% of the EU's land areas and 20% of its sea areas by 2030.

To achieve cost-effectiveness in this ambitious goal, we must simultaneously use nature restoration to achieve other societal goals. For example, in October 2025, a working group of the Ministry of the Environment and the Ministry of Defence was established to investigate how nature restoration can support national defence and border security.

A broad discussion on how to achieve these targets is important, since they require a manifolding of our current restoration efforts. Thus, this session call for presentation proposals on among other things: 1) What do we mean by restoration? 2) How can we improve the cost-effectiveness of nature restoration? 3)How do we finance restoration at the scale required? 4) How do we assure that we have the resources and skilled workforce available? 5) How do we assure public participation in the planning and consequently acceptance of restoration measures?

Key questions to be addressed in the session:

The session addresses the challenges of meeting the EU Nature Restoration Law's highly ambitious targets, which demand massive scaling-up of restoration efforts, financing, available workforce, and public acceptance.

3. *Bridging the Sustainability Intention–Behavior Gap*

The sustainability intention–behaviour gap, also known as the attitude– or value–behaviour gap, refers to the persistent mismatch between actors' stated sustainability values, commitments, or intentions and their actual behaviours and decisions. This gap occurs across societal levels, including consumers, organizations, and policymakers. Examples include environmentally concerned consumers purchasing carbon-intensive products, organizations adopting sustainability or restoration commitments without corresponding operational change, or policymakers endorsing ambitious sustainability goals while implementing limited or delayed measures.

A broad range of factors have been identified as influencing this gap, such as perceived costs and benefits, habits and routines, knowledge and familiarity, institutional and governance constraints, moral motivation, social aspects, and concerns related to greenwashing. Despite extensive empirical research, the field remains fragmented, with limited integrative theories and generalizable explanations.

This session invites interdisciplinary contributions that examine the formation, persistence, and reduction of the sustainability intention–behaviour gap across contexts. The aim is to bring together diverse perspectives to advance unified frameworks, models, and empirical insights that can inform more effective sustainability practices, governance approaches, and innovation pathways, including those relevant for long-term restoration and transition processes.

Key questions to be addressed in the session:

- What mechanisms explain the sustainability intention–behavior gap across actors and contexts?
- Which individual, organizational, and institutional factors reinforce or mitigate the gap?
- How do governance arrangements, incentives, and information practices (e.g., greenwashing) shape outcomes?
- What theories or models can explain the gap and support the design of effective interventions to close it?
- What interventions help translate sustainability intentions into sustained action?

4. *Towards more sustainable land use planning – decision support in the changing operating environment*

Natural ecosystems are essential for all life on Earth, and they provide habitats, resources and well-being for humans and more than humans. However, over-utilisation of these ecosystems causes land degradation, biodiversity loss, conflicts and decline in social and economic well-being. In addition, values and preferences of societies, organisations, citizens and landowners are diversifying. Thus, a comprehensive sustainability transformation is needed in the ways how land and its resources are used, managed and governed.

Responding to these changes calls for innovative and transformative solutions to land use management and planning as well as new tools for providing decision support to different landowners. These new solutions should consider the various perspectives and values of different landowners and users at different levels. Whether the decision maker is a private family forest owner thinking about how to use family forests, a municipality drawing a plan for solar power or a national level official planning where to locate a new national park they all should get support for making the best possible decision to enhance the well-being of natural ecosystems while ensuring societal justness.

In this session, we are calling for presentations from a variety of perspectives and topics, for example, but not limited to, about how sustainability transformation changes land use planning.

Key questions to be addressed in the session:

- How does sustainability transformation change land use planning in different levels?
- How to support landowners in their decision-making?
- How to consider altering perspectives and values in land use planning?
- What kind of transformative innovations are needed to support decision-making?

More information about the RC: https://www.uef.fi/en/research-community/forests-and-bioeconomy-fobi

COMMIT RC co-organizes a joint cross-disciplinary session with **PHOTONICS RC** on **Data, Imaging and Technologies for Sustainability Transitions**.

COMPUTATIONAL MODELLING, IMAGING AND DATA SCIENCE (COMMIT RC) research community brings together internationally recognized scientists in computational modelling, data analysis, inverse problems, and imaging, who advance the science on the highest level in their research fields. We provide novel methodologies and solutions to various modelling, imaging, and sensing problems that arise from industry, healthcare, and environment. Through our developed methodologies and technical advancements, we tackle the global challenges that UEF's strategy is rooted in.

PHOTONICS (PHOTONICS RC) is a multidisciplinary consortium that unites research and education in optics and photonics across departments and campuses at University of Eastern Finland. Coordinated by the Center for Photonics Sciences, the community brings together expertise from biology, chemistry, computer science, medicine, and both fundamental and applied physics. Its collaborative approach further extends to fields such as electronics, forestry, environmental science, geography, and pharmacy, creating a broad and integrated research environment.

The session welcomes contributions to data science, modelling, imaging, machine learning, simulations, sensing, photonics and digital tools for sustainability transitions, environmental understanding, restorative futures and responsible innovation.

The special topic for the COMMIT-PHOTONICS session is:

1. *Data, imaging and technologies for sustainability transitions*

This joint COMMIT–PHOTONICS session explores how data science, computational modelling, imaging, photonics, sensing, artificial intelligence and digital technologies can support sustainability transitions and restorative futures. The session welcomes empirical, methodological, theoretical and applied contributions from a wide range of fields. Relevant topics may include, but are not limited to, remote sensing, optical technologies, computational imaging, simulations, machine learning, data analytics, digital twins, decision-support tools and responsible technology development.

Key questions to be addressed in the session:

- How can data, imaging, photonics and computational methods support sustainability transitions?
- What technological and digital innovations are needed for environmental monitoring, restoration, and sustainable resource use?
- How can AI, modelling, simulations, and data analytics support decision-making?
- What are the societal, ethical, and governance implications of emerging technologies?
- How can interdisciplinary collaboration strengthen transformative sustainability solutions?

More information about the RCs: https://www.uef.fi/en/research-community/photonics

https://www.uef.fi/en/research-community/computational-modelling-imaging-and-data-science-commit

SUSTAINABLE CO-MANAGEMENT OF WATER RESOURCES AND AQUATIC ENVIRONMENTS (WATER RC) brings together researchers, experts, and stakeholders working across disciplines to address current and future water-related challenges. The community promotes collaboration in areas such as aquatic ecosystems, water quality, environmental health, water governance, technological innovation, and sustainable use of water resources. By connecting researchers from natural sciences, social sciences, health sciences, and engineering, the network aims to strengthen interdisciplinary research and support impactful solutions for society.

We are pleased to invite researchers, professionals, and doctoral candidates to submit abstracts for the ICS26. The event offers an opportunity to share ongoing research, exchange ideas, and build new collaborations within the broad field of water research. In addition to the special themed sessions, we also welcome abstracts related to other areas of water research. Contributions from all disciplines connected to water are encouraged, including interdisciplinary and applied research perspectives.

More information about the RC: https://www.uef.fi/en/research-community/sustainable-co-management-of-water-resources-and-aquatic-environments-water

The special topics for the WATER sessions are:

1. *Circular Wastewater Systems for Sustainable Cities*

Urban wastewater management is a key component of sustainable and climate-resilient cities. Traditional wastewater treatment systems, designed primarily for pollution removal, are increasingly evolving toward circular and low-carbon approaches that recover resources, reduce greenhouse gas (GHG) emissions, and support ecosystem restoration. This session explores sustainable wastewater treatment strategies, including energy-efficient biological processes, resource recovery, and innovative treatment technologies. Particular attention will be given to the roles of centralized versus decentralized treatment systems and their implications for urban sustainability and infrastructure resilience. Contributions on nature-based and hybrid treatment solutions, such as constructed wetlands and ecological engineering approaches, are also welcomed, highlighting pathways toward circular wastewater systems that support sustainable and restorative urban environments.

Key questions to be addressed in the session:

- How can wastewater treatment systems transition toward circular, low-carbon, and resource-efficient urban water management?
- What are the comparative advantages and challenges of centralized versus decentralized wastewater treatment systems in sustainable cities?
- How can nature-based and hybrid treatment solutions (e.g., constructed wetlands, ecological engineering approaches) contribute to sustainable wastewater management and ecosystem restoration?
- What technological innovations and operational strategies can help reduce greenhouse gas (GHG) emissions and energy use in wastewater treatment?
- What governance, policy, and institutional frameworks are needed to support the transition toward circular and sustainable wastewater infrastructure?

2. *Water Futures and Nature-Based Solutions in Social-Cultural-Ecological-Technological Systems*

Water environments are increasingly understood as integrated social-ecological-technological systems, where natural processes, human decisions, and built infrastructures continuously shape one another. In these intertwined systems, questions of access, control, and benefit-sharing are inherently political, and governance choices strongly influence how water security is achieved-or contested. Against this backdrop, Nature-based Solutions (NbS) have gained attention as approaches capable of supporting ecosystem creation, restoration, community conservation, and enhancement, while simultaneously generating ecological, social, and infrastructural benefits.

However, the application of NbS also exposes challenges: outcomes unfold over long periods, their effectiveness depends on decisions that may not be optimal for long-term ecosystem functioning, and their success depends on governance arrangements that align diverse interests. Trade-offs among ecosystem services, situations where promoting one function may diminish another, and mismatches between societal preferences and ecological needs all underscore the importance of understanding NbS within a broader systems perspective. This session, therefore, focuses on frameworks and methods for assessing conflicts, synergies, and co-benefits, and on exploring how NbS can be more effectively embedded into decision-making rather than implemented as isolated interventions.

We welcome contributions that examine socio-hydrological feedback, innovative approaches to mapping and evaluating water-related NbS, participatory and community-driven planning, and governance arrangements that support fair distribution of benefits. The session will also open a pathway toward a collaborative synthesis paper, drawing on the insights and evidence produced during the discussions.

Key Questions to be addressed in the session are:

- How can NbS be strategically embedded in social-ecological technological systems to support sustainability transitions in water-based environments?
- What methods best capture conflicts, trade-offs, and co-benefits among ecosystem services when planning restoration actions of water bodies?
- How can stakeholders and communities shape NbS planning and decision-making?
- How can social-ecological-technological systems perspectives improve equitable distribution of benefits from water-related NbS?

3. *Emerging pathogens in a changing climate: a threat to food security – implications for aquaculture and wild fish*

Aquaculture and capture fisheries form an essential part of global food security. Fish in both farm and wild environment are increasingly affected by climate change, anthropogenic environmental changes, invasive and emerging pathogens and harmful parasites. Human-managed environments, such as aquaculture facilities, can accelerate the emergence and spread of high-virulence pathogen genotypes, shaped by elevated host densities and homogeneity, recurrent transmission bottlenecks, and intensive management practices designed to handle only the acute issues. Understanding the intricacies of monitoring and mitigating these disease agents is of utmost importance, and this session aims to highlight current research in viral, bacterial, oomycete and other aquatic pathogens and microbiomes shaping their pathogenicity.

This session will ask how monitoring and management of fish diseases and parasites could be improved during the time when many old diseases such as saprolegniosis cause increasing problems and new diseases such as PKD emerge with the changing climate. We will discuss various questions related to the monitoring of fish parasites and pathogens, virulence evolution of aquatic pathogens, invasion dynamics of pathogens and parasites, knowledge-gaps in emerging pathogens and parasites, effects of microbiomes and probiotes on aquatic pathogens.

More information about the RC: https://www.uef.fi/en/research-community/sustainable-co-management-of-water-resources-and-aquatic-environments-water

Conference programme

Thu Nov 5th

8.00 Registration opens

10.00 Plenary

11.30 Lunch

12.30 Parallel sessions

16.00 Campus Tour, including the poster session

19.00 Conference dinner, Sokos Hotel Kimmel

Fri Nov 6th

8.00 Registration

8.30 Plenary

10.15 Parallel sessions

12 Closing words

Conference registration

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The conference will be held on-site at the Joensuu Campus of the University of Eastern Finland.

There are no conference fees for conference participation. The conference dinner and evening event (maximum of 150 participants, potential waiting list) will be 10€/person.

Link to the registration form: Registration

Conference hotel accommodation 4.-6. November 2026

ICS26 has a set of hotel rooms reserved for attendees in Sokos Hotel Kimmel www.sokoshotels.fi or +358300870000 by using the code ***"BICS2026"***. You can reserve a standard single room for **124€** per night and a standard double room for **144€** per night.