CONFERENCE ON

INTERDISCIPLINARY AND **TRANSDISCIPLINARY RESEARCH FOR**

SUSTAINABLE DEVELOPMENT

SECOND EDITION - INCREASING THE CONTRIBUTION OF TRANSDISCIPLINARY RESEARCH TO ACCELERATING SUSTAINABILITY TRANSITIONS

24 -25 NOVEMBER 2022

LOUVAIN-LA-NEUVE - BELGIUM www.uclouvain.be



Thursday 24 November 2022

Auditorium SOCRATE 11

Place Cardinal Mercier 10 - Louvain-la-Neuve

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Keynotes Increasing the contribution of transdisciplinary research to accelerating sustainability transitions.

Keynote 1 - Strengthening societal effects of transdisciplinary sustainability research Dr. Alexandra Lux, Head of Research Unit on Transdisciplinary Methods and Concepts, Institute for Social-Ecological Research, Germany

Keynote 2 - Transdisciplinary knowledge co-production on sustainability transformations Prof. Dr. Flurina Schneider. Scientific director of Institute for Social-Ecological Research and professor of social ecology and transdisciplinarity at Goethe University Frankfurt, Germany

Panel: Take home messages by 4 interdisciplinary UCLouvain networks

Friday 25 November 2022

Auditorium Thomas More - Place Montesquieu 2 - Louvain-la-Neuve

Welcome and registration

Parallel Thematic Sessions – Series A

A1. Sustainable city development 1: case study approaches

A2. Sustainable development in innovative teaching formats

A3. Energy transition and climate change adaptation and mitigation

A4. Sustainable management of natural resource commons

MORE 56 MORE 55 MORE 76

MORE 63







Cross-disciplinary Research within Circle U. Universities

Aula Magna - Foyer Royal - Place Lemaire 1 - Louvain-la-Neuve

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Moderator: Kevin Guillaume - Circle U. Secretary General

Circle U. ICUP Ceremony - Best practice examples of interdisciplinary and transdisciplinary research in the European University Alliance Circle U.

- Manon Bajard and Ingar M. Gundersen (University of Oslo, NO) Vikings
- Robert Arlinghaus (Humboldt-Universität zu Berlin, DE) Towards Sustainable Fisheries
- Barbara McGillivray (King's College London, UK) (represented by Nilo Pedrazzini Alan Turing Institute) – The Language of Mechanisation

Panel Discussion: Creating interdisciplinary and transdisciplinary knowledge ecosystems for research and higher education at universities

- Prof. Jean-Christophe Renauld Pro-rector for Research (UCLouvain, BE)
- Prof. Mette Halskov Hansen Vice-Rector for Climate & the Environment and Cross-Disciplinarity (University of Oslo, NO)
- Samantha Aspinall, Head of Interdisciplinary Research (University of Leeds, UK)

Sandwich lunch

Central Hall Auditorium Thomas More - Place Montesquieu 2 - Louvain-la-Neuve

Parallel Thematic Sessions - Series B

B1. Regulation and economic assessment of sustainability transformations MORE 63 B2. Monitoring and citizen data gathering for sustainable resource use MORE 56

B3. Behavioural analysis and sustainability transitions MORE 55 B4. Sustainable city development 2: transdisciplinary approaches and policy MORE 76

Parallel Thematic Sessions – Series C

C1. Social networks and communication on sustainable practices

C2. Boundary crossing learning for sustainability research and social innovation MORE 56 MORE 55

C3. Transdisciplinary research on just sustainability transitions

Closing session - MORE 55

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101035814





MORE 63

09:30 - 11:00 PARALLEL THEMATIC SESSIONS - SERIESA

A1. Sustainable city development 1: case study approaches – MORE 63

Martin Grandjean; Arthur Nihoul; Pierre Genty; Yves Hanin - JUSTICE - Joining Urban morphology, Spatio-Temporal and socio-cognitive accessibility for an Inclusive City Environment

Daniel Otero Peña, Daniela Perrotti, Pierre Vanderstraeten - A context sensitive, practice based, and spatially explicit Urban Metabolism analysis. Resource flows, opens space networks, and alternative resource governance systems in Brussels.

Ursula Cardenas; Mamani; Daniela Perrotti - Provision of ecosystem services from an urban metabolism perspective: case study of the city of LIMA, Peru

Giuseppe Galbiati, PhD candidate; Prof. Giulia Marino, thesis director - Retrofitting Modern Architecture: an interdisciplinary approach between cultural and environmental sustainability. The case of the Olivetti corporate building in the UNESCO site of Ivrea.

A2. Sustainable development in innovative teaching formats – MORE 56

Marie-Charlotte Sparenberg , Pascale Wouters, Patricia Luis, Mariane Frenay - Réalisation de représentations graphiques pour l'apprentissage du développement durable chez les ingénieurs Yuliya Samofalova - L'éducation à l'environnement par l'apprentissage par la recherche dans un contexte universitaire : le cas de Q-Teams à HU Berlin

Pauline de Montpellier d'Annevoie, Valérie Swaen, Mariane Frenay - Corporate Social Responsibility in MOOCs: role of scientific input and debates in the learning process of a contested concept

Stéphanie Merle - "Apprentissage de l'éthique : comment les controverses liées aux dispositifs sociotechniques font émerger les enjeux de justice sociale"

Gabriel DIAS DE CARVALHO JUNIOR (UCLouvain et Unamur), Andressa XAVIER ZINATO DE CARVALHO (Mairie de Ponte Nova - Brésil) - Les invariants opératoires dans un atelier artistique de recyclage

A3. Energy transition and climate change adaptation and mitigation – MORE 55

Yasmina Choueiri - Informality in Urban Metabolism: an expanded Material Flow Analysis integrating formal and informal resource flows for more inclusive Circular Economy policy in Brussels and Wallonia.

Sinuhe Perea-Puente - Microbehaviour approach to the macroeconomics of GhG emissions: Non-fiat carbon token for individual carbon handprint market

Barbara Stinglhamber, Defourny Pierre, Hanin Yves - La ville à la métrique cyclable : une solution à la densification urbaine en Wallonie ?

Hervé Jeanmart, Line Vanparys, Pierre Jacques, Elise Dupont, Grégoire Lits, Françoise Bartiaux, Francesco Contino - The energy transition cannot remain in a technological silo

Castreman Julie, Olivier Dartevelle -SOFTSummer Vers des solutions efficaces et inclusives des systèmes de gestion de protections solaires et de ventilation intensive pour garantir le confort thermique estival dans les bâtiments résidentiels.

A4. Sustainable management of natural resource commons – MORE 76

Amani Belhaj Kilani, Marnik Vanclooster, Slaheddine KHLIFI - Gestion participative de l'eau en Tunisie

Jean-Philippe De Visscher, Chiara Cavalieri, Sandra Soares Frazao, Marnik Vanclooster, Thais Delefortrie, Bénédicte Dawance - Floods in Brabant Wallon: from a transdisciplinary diagnosis to transdisciplinary actions?

Julien Radoux, Anne-Laure Jacquemart, Yannick Agnan, Pierre Defourny, Maxime Buron, Thomas Debontc -Projet ARC NUTRIBEE – Pollen nutritional quality as a critical link between landscape, biodiversity, and bee health

14:00 – 15:30 PARALLEL THEMATIC SESSIONS – SERIESB

B1. Regulation and economic assessment of sustainability transformations MORE 63

Grégory De Boe, Valérie Swaen and Marie Lamensch - The influence of tax policies on corporate sustainable practices in the European Economic Area: a systematic literature review **Anne-Lise Sibony** - Confronting Product Obsolescence

Charlotte Desterbecq; Sandy Tubeuf - Inclusion of environment-related spillovers in applied economic evaluations of healthcare products: A scoping review

Pierre André & Alice Pirlot - Are Carbon Border Adjustment Measures Just?

Augustin WATTIEZ, David BOL – Quantitative and systematic eco-design of a capsule endoscopy system for early diagnosis of gastrointestinal diseases

B2. Monitoring and citizen data gathering for sustainable resource use – MORE 56

Dušan Isailović, Aleksandra Parezanović, Ana Nadaždi, Nenad Višnjevac, Zorana Petojević - A digital solution for unlocking the urban mining potential of the residential building stock through the integration of BIM and GIS

Alousseynou Bah; Racky Diallo; Serigne Faye; Marnik Vanclooster - The citizen at the core of scientific information gathering: a practical study of water quality in the Guiers lake basin, Senegal Altshuler Ernesto (University of Havana); Campo Alexandre (ULB); Degavre Florence (UCLouvain) Stamatios Nicolis (ULB); Terwagne Denis (ULB) – In Situ monitoring of water quality in Cuban Bays: creating and promoting the use of a scientific toolbox

Laurane Fréour, Paula Granero Ordoñez, Gwenaël Van Looveren, Tadeja Veršič - The PLEES Index: Climate Change Changes Needs

B3. Behavioural analysis and sustainability transitions – MORE 55

Geoffrey van Moeseke, Denis De Grave, Amélie Anciaux, Jean Sobczak - Concilier la fin du monde avec la fin du mois, via la pratique du Slowheat

Axelle Dorisse, Karine Charry, Béatrice Pargue - The impact of multi-labelling and conflicting information on Food Consumption Confusion and subsequent consumers' behaviours **Damien Brevers -** Imagining our better selves: Brain mechanisms underlying prospective thinking of

Camille Mouguiama-Daouda, Alexandre Heeren - Vers une approche cognitive de l'anxiété climatique : Du rôle de l'intolérance et de l'expérience perçue.

sustainable behaviours

B4. Sustainable city development 2: transdisciplinary approaches and policy applications – MORE 76

Dr Sareh Moosavi, Prof Daniela Perrotti, - Advancing capacity in Landscape Architecture for Metabolic Thinking, towards Climate Positive Design: Synergies between practice, policy and education

Jean-Philippe De Visscher and Aniss Mezoued, LOCI - LAB; Frederic Raynaud, perspective.brussels – Fostering Commons-oriented planning with Research through design, the work of the BSI-BCO Mathieu Berger, Louise Carlier - De l'urban living lab à la communauté d'enquête sociale

15:30 – 17:00 PARALLEL THEMATIC SESSIONS – SERIES C

C1. Social networks and communication on sustainable practices – MORE 63

Laetitia Aulit, Sara Cigada, Barbara De Cock, Sara Greco, Ewa Modrzejewska, Rudi Palmieri - Who has to take action in order to reach fashion sustainability: an interdisciplinary analysis of digital activism concerning the #FashionRevolution

Lou Chaussebourg, Noémie Maughan, Marjolein Visser, Kevin Maréchal - Un podcast pour soutenir le déploiement des filières boulangères alternatives de Wallonie. Un objet intermédiaire dans une recherche transdisciplinaire

Ignace Adant and Joaquin Landazuri - Algorella: An experimental approach to Citizen Engagement in Research and Innovation at University

Dr Erasmus zu Ermgassen, Cécile Renier, et Professeur Patrick Meyfroidt – Radical transparency in agricultural supply chains

C2. Boundary crossing learning for sustainability research and social innovation – MORE 56

Nicola Bertoldi, Anastasia Papangelou and Daniela Perrotti - Combining engineering and philosophy to expand the boundaries of urban metabolism research

Sabrina Courtois, Valérie Swaen - Constructing social identities and CSR discourses: Insights from a CSR community of practice

Régis Lomba, Benoit Raucent - Understanding cross-fertilization in Open-Source Product Development process

Zahra Abbasi (University of Oslo); Ingrid Aguiar Schlindwein (King's College London); Florence Degavre (UCLouvain); Maísa Edwards (King's College London); Amaury Peeters (Louvain Cooperation/UCLouvain); Luca Tateo (University of Oslo); Milad Zamani (Aarhus University) - Toppling the totem pole. How hierarchies affect interdisciplinary research work

Mariangela Fiorente, Gaëlle Fonteyne, Pierre D'Ans, Benoît Pétré, Isabelle Aujoulat & Ségolène Malengreaux - Soins, promotion de la santé et prévention : vers une articulation des approches dans la formation des professionnels de la première ligne de soins

C3. Transdisciplinary research on just sustainability transitions – MORE 55

Vedaste Cituli Alinirhu -'Tradition en transition' : Conservation de la nature et déracinement identitaire des peuples autochtones pygmées de la Province du Sud-Kivu, Est de la RDC.

Lionel Simon - Une anthropologie immergée. Savoirs ethno-océanographiques en Austronésie **Thierry Amougou** - Pour des mythes fondateurs de la transition vers des écosystèmes humains

durables : Le cas du Mvett chez les Bantous d'Afrique centrale

Joël Baraka Akilimali - Transition et Anthropocène : Urgence planétaire ou Injonctions contre le droit au développement des pays du Sud ?

Official opening of the 2nd edition of the Conference on interdisciplinary and transdisciplinary research for sustainable development

Thursday 24th November, Socrate 11, 16h15-18h

Conference key-notes "Increasing the contribution of transdisciplinary research to accelerating sustainability transitions"

Prof. Dr. Flurina Schneider

Scientific Director: Institute for Social-Ecological Research, Germany, Professor in social ecology and transdisciplinarity: Goethe University Frankfurt.

Flurina Schneider is scientific director of ISOE and professor in social ecology and transdisciplinarity at Goethe University Frankfurt. She is also spokesperson of the Research Activity "Ecosystem Services and Climate" at the Senckenberg — Leibniz Institution for Biodiversity and Earth System Research. Her research focuses on learning and action for sustainability transformations, as well as on transdisciplinary research and science policy for sustainability. She graduated in geography, botany and law at University of Basel, and received her venia docendi by the University of Bern with a habilitation thesis entitled: "Transdisciplinary and Transformative Research for Sustainable Governance of Natural Resources: Towards Intra- and Intergenerational Justice". Until 2020, she served as head of the Land Resources Cluster at the Centre for Development and Environment (CDE), University of Bern, Switzerland.

https://www.isoe.de/en/institute/team/team/person/flurina-schneider/

Dr. Alexandra Lux

Research scientist: Institute for Social-Ecological Research, Germany

Alexandra Lux has been a research scientist at ISOE since 2000, and since April 2015 she is head of the research unit Transdisciplinary Methods and Concepts. She studied economics at the Carl von Ossietzky University Oldenburg. In 2008 she received there her doctorate in the field of infrastructure development for a thesis dealing with public water supply and demographic shrinkage. Alexandra Lux has long-standing experiences in the fields of integrated water research and social-

ecological biodiversity research, which are brought together on a conceptual and theoretical in her current work on transdisciplinary integration and knowledge transfer.

https://www.isoe.de/en/institute/team/team/person/alexandra-lux/

ONLINE PARTICIPATION

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WINNERS OF THE INTER CIRCLE U. PRIZE 2022

Circle U. ICUP Ceremony – Best practice examples of interdisciplinary and transdisciplinary research in the European University Alliance Circle U.

Friday 25th November, 11:00 – 12:45

Aula Magna – Foyer Royal (1st floor) – Place Raymond Lemaire 1- Louvain-la-Neuve

ONLINE PARTICIPATION

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Manon Bajard and Ingar M. Gundersen – Vikings

Manon Bajard is a researcher in sedimentology, soil and paleoclimate at the University of Oslo. Her research focus on socio-environmental dynamics and climate changes during the Holocene. She uses lake sediments to reconstruct past climate and environmental changes to understand how societies responded to climate changes in the past.

Ingar M. Gundersen is an archaeologist from the University of Oslo, working on the vulnerability of society of the inlands of eastern Norway in the Iron Age. He wrote a PhD thesis about the "Fimbulwinter" hypothesis, analysing and interpreting archaeological records, as well as proxy modelling (radiocarbon dates) and GIS simulations of cereal growth conditions to downscale volcanoclimate-society impacts and processes to the local sites.

Manon and Ingar's ICUP-winning project, VIKINGS: Volcanic Eruptions and Their Impacts on Climate, Environment, and Viking Society aims to understand the role of volcanic eruptions and climate change in shaping the early history of Scandinavia from 500 to 1250 AD. VIKINGS combines high-resolution (sub-annual to decadal) paleoclimate and paleoenvironmental reconstructions (analysis of ice

cores, lake sediments and tree rings) with archaeological record analysis and earth system climate modelling to gain unprecedented insights into the dust veil triggered by volcanic eruptions and better understand the resulting socioenvironmental dynamics in the historical period.

Robert Arlinghaus – Towards Sustainable Fisheries

Robert Arlinghaus is a professor of integrative fisheries management at Humboldt-Universität zu Berlin and the Leibniz Institute of Freshwater Ecology and Inland Fisheries.

Together with his team, he studies fisheries, specifically recreational fisheries, from an inter- and transdisciplinary perspective focusing on the impact of fisheries on fish stocks and the feedbacks of ecological changes on fisher communities as coupled social-ecological systems. He is coordinator of the project "Towards Sustainable Fisheries", in which solutions for sustainable inland and coastal fisheries were developed in joint collaboration with local and regional stakeholders. The scientific studies proceed from an interdisciplinary perspective asking fundamental ecological and socio-economic questions about how the human-environment interaction functions. On top, the projects regularly involve stakeholder in the co-design and co-development of management solutions through joint experimentation at the scale of exploited lakes.

Barbara McGillivray – The Language of Mechanisation

Barbara McGillivray is lecturer in digital humanities and cultural computation at King's College London and Turing fellow at The Alan Turing Institute. Her research focusses on computational models of meaning and conceptual change in historical and contemporary texts and she is Co-Investigator of the Living with Machines project.

Her ICUP-winning project, "The Language of Mechanisation" realises an experiment in radically interdisciplinary and transdisciplinary collaboration at the intersection between history, computational linguistics, data science, library science and research software engineering. The project aims to leverage the potential of historical digitised records at scale, particularly the British Newspapers Archive, to analyse the impact of mechanisation on the lives of ordinary people during Britain's rapid transformation into an industrial society.

PRACTICAL INFORMATION

The conference will take place in Louvain-la-Neuve, Belgium on 24 and 25 November 2022.

Thursday 24 November

Time: 16:15 – 18:00

The Opening session will take place at: **Auditorium SOCRATE 11**, Place Cardinal Mercier 10, 1348 Louvain-la-Neuve

Friday 25 November

Time: 09:30 -17:30

Registration and the Thematic parallel sessions will take place at **Collège Thomas More**, Place Montesquieu, 2, 1348 Louvain-la-Neuve

The plenary session "Cross-disciplinary Research within Circle U. Universities" (11:15 – 12:45) will take place at **Aula Magna**, Foyer Royal, Place Raymond Lemaire 1, Louvain-la-Neuve



ENTERNING BELGIUM

Passport and travel documents

For British and Serbian citizens, if you are planning to travel to an EU country for a short-term stay (up to 90 days duration), you must meet the Schengen area rules.

Your passport must meet 2 requirements:

- less than 10 years old on the day you enter (check the 'date of issue')
- valid for at least 3 months after the day you plan to leave (check the 'expiry date')

Coronavirus

The following rules apply when you are in Belgium. Attention: do you come from a very high-risk country or zone? Then the rules below always apply, even if you stay less than 48 hours in Belgium.

The Passenger Locator Form must be filled in by everyone who, directly or indirectly, travels to Belgium from a country OUTSIDE the European Union or Schengen area that is not on the white list, by train (e.g. Eurostar), bus, boat or plane. In all other cases, you may fill in the PLF, but it is not mandatory. You can find this form here.

If you do not have EU nationality or do not have your main residence in the EU or Schengen area, you are required to have a vaccination or recovery certificate and will not need to quarantine or get tested.

You should wear a mask in the health sector (hospitals, pharamcies, etc.) and on the public transports.

Requirement may change, so please check with travel agency, your foreign affairs ministry or the website: https://www.info-coronavirus.be/en/travels.

More information? For any questions concerning access to Belgian territory, please consult the FPS Interior website.

For any questions concerning the measures applicable to arrival in Belgium, please check the website https://www.info-coronavirus.be/en/ and or contact the FPS Public Health or send an e-mail to info-coronavirus@health.fgov.be.

LOUVAIN-LA-NEUVE, NOT LOUVAIN OR LEUVEN

The main campus of UCLouvain is located in the city of Louvain-la-Neuve. Please do not make the confusion between Louvain-la-Neuve and Louvain (the translation in French of Leuven). Louvain-la-Neuve and Louvain/Leuven are two distinct cities separated by 30kms. Louvain-la-Neuve is a city located in Wallonia while Louvain/Leuven is located in Flanders where the main campus of KULeuven is located.

GETTING TO LOUVAIN-LA-NEUVE

From Brussels Airport, you should take a train to Brussels. We advice to stop at the station Brussels-North and take a train to Ottignies. You can also take a train at Brussels-Central, Brussels-Luxembourg or Brussels-Schuman. Once you arrived in Ottignies, take the urban train (same station) to Louvain-la-Neuve-Université.

- Duration from Brussels Airport to Louvain-la-Neuve-Université: around 1 hour
- Ticket price (single): 13,30€

From Brussels-South Charleroi Airport, we advice to take a TEC bus to the train station of Charleroi-South. Then, take a train to Ottignies. Once you arrived in Ottignies, take the urban train (same station) to Louvain-la-Neuve-Université.

- Duration from Brussels Airport to Louvain-la-Neuve-Université: around 1h30
- Ticket price (single): 13,20€

More information on getting to and travel in Louvain-la-Neuve: https://en.tourisme-olln.be/be-prepared/access-and-parkings/getting-to-and-travel-in-louvain-la-neuve

STAYING IN LOUVAIN-LA-NEUVE

Martin's Louvain-la-Leuve ***

- Address: rue de l'Hocaille 1, 1348 Louvain-la-Neuve
- Location: in the centre of Louvain-la-Neuve, next to venue for the General Assembly • Price: from 129€ per night
- Website: https://www.martinshotels.com/en

Ibis Styles Louvain-la-Neuve ***

- Address: Boulevard de Lauzelle 61, 1348 Louvain-la-Neuve
- Location: 1.5 kms from the centre of Louvain-la-Neuve
- Price: from 129€ per night
- Website: https://all.accor.com/fr/city/hotels-louvain-la-neuvev2373.shtml

TRAVELLING IN LOUVAIN-LA-NEUVE

Louvain-la-Neuve is a city that is mostly pedestrian, cars are not allowed in the city centre. Therefore, all travelling is by foot. The conference will take place in the center of Louvain-la-Neuve, at the Aula Magna facilites located at Place Raymond Lemaire 1.

More information: https://en.tourisme-olln.be

Organising Committee

Prof. Marthe Nyssens (UCLouvain Vice-rector "Transition et Society")

Prof. Tom Dedeurwaerdere (UCLouvain LPTransition)

Pierre Mersch (UCLouvain Louvain4 Coordinator – Research Administration)

Scientific committee

Prof. Isabelle Aujoulat (UCLouvain - Institut de Recherche Santé et Société)

Prof. Patricia Luis Alconero (UCLouvain - Institute of Mechanics, Materials and Civil Engineering)

Prof. Mathieu Berger (UCLouvain - Institut d'analyse du changement dans l'histoire et les sociétés contemporaines)

Prof. Annalisa Casini (UCLouvain - Institut de recherche en sciences psychologiques)

Prof. Tom Dedeurwaerdere (UCLouvain - Institut pour la recherche interdisciplinaire en sciences juridiques)

Prof. Florence Degavre (UCLouvain - Institut d'analyse du changement dans l'histoire et les sociétés contemporaines)

Prof. Julie Hermesse (UCLouvain - Institut d'analyse du changement dans l'histoire et les sociétés contemporaines)

Prof. Daniela Perrotti (UCLouvain - Louvain Research Institute for Landscape, Architecture and Built Environment)

Prof. Jean-Pierre Raskin (UCLouvain - Institute for Information and Communication Technologies, Electronics and Applied Mathematics)

Prof. Laurent Taskin (UCLouvain - Louvain Research Institute in Management and Organizations)

Prof. Sandy Tubeuf (UCLouvain - Institut de Recherche Santé et Société, Institute of Economic and Social Research)

Prof. Sophie Vanwambeke (UCLouvain - Earth and Life Institute)



