

Curriculum Vitae Judit Lienert, PD Dr. sc. nat.

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<http://www.eawag.ch/en/department/ess/main-focus/decision-analysis-da/>

Researcher ID: <https://orcid.org/0000-0003-1925-3895>; Web of Science: [B-1138-2013](https://orcid.org/0000-0003-1925-3895); [Google scholar](https://orcid.org/0000-0003-1925-3895)

Education / Titles / Further education

2023 Privatdozentin (PD; Venia Legendi) ETH Zürich, habilitation thesis: "Facts and values: Decision analysis for complex public environmental decision problems"

2017 Certificate of Advanced Studies FHNW (CAS) Leadership in Science. Windisch, Switzerland

2002 PhD in natural sciences (Dr. sc. nat.), Faculty of Science, University of Zürich, Switzerland. Title of thesis: "Population biology of wetland plants in fragmented landscapes"

2000 Diploma in biology, University of Zürich, Switzerland

1993 Adults high school (Eidg. Matura Typus B; Kant. Maturitätsschule f. Erwachsene, KME), Zürich, Switzerland

1988 Diploma in boat building, City & Guilds London, Internat. Boatbuilding Training Centre, IBTC, Lowestoft, UK

1986 Diploma in general nursing (Allgemeine Krankenpflege, AKP), Krankenpflegeschule Zürich, Switzerland

Academic employment / Institutional responsibilities

2013–current Group leader Decision Analysis, Dept. of Environmental Social Sciences (ESS), Eawag, Dübendorf

2022 / 2023 Sabbatical: Finnish Environment Institute (SYKE) / Univ. of Vienna, Dept. Business Decisions and Analytics

2018 Department head ad interim, Dept. of Environmental Social Sciences (ESS), Eawag

2009–2013 Group leader Decision Analysis, Dept. Systems Analysis, Integrated Assessm. & Modelling (Siam), Eawag

2010 Visiting researcher IRES (Inst. Resources, Envir. Sustain.), Univ. British Columbia (UBC), Vancouver, CA

2007–2009 Senior scientist, Departments Siam and Urban Water Management (UWM), Eawag

2001–2007 Researcher and co-project leader of the transdisciplinary project Novaquatis, Department UWM, Eawag

Research interests

- Methodologically, the main focus is on multi-criteria decision analysis (MCDA) in environmental decision problems and behavioral operational research (behavioral OR):
 - problem structuring (e.g. stakeholder analysis, creativity techniques, building objectives hierarchies)
 - elicitation of stakeholder preferences (e.g. interviews, surveys, group decision-making workshops)
 - behavioral (psychological) aspects (e.g. biases when eliciting weights from people, online elicitation)
 - dealing with uncertainty (e.g. scenario planning, sensitivity analyses, Multi-Attribute Utility Theory, MAUT)
- Simplify decision processes to increase their practicability
- Interdisciplinary approaches to integrate facts (scientific evidence) and stakeholders' subjective values
- Transdisciplinary approaches to involve stakeholders in applied projects about complex environmental decisions
- Application fields are urban water management, river management, flood risk research, sustainable agriculture

Publications

- Full list of publications: <https://www.eawag.ch/en/aboutus/portrait/organisation/staff/profile/judit-lienert/show/>
- Currently about 70 peer-reviewed scientific publications, H-index 32, 3'853 total times cited ([WOS](https://orcid.org/0000-0003-1925-3895), 25.09.2024)

Awards

- Haag, Reichert, P., Maurer, M., Lienert, J. Decision Analysis Society, [DAS, of INFORMS Student Paper Award 2020](#). Integrating uncertainty of preferences and predictions in decision models. [Jenvman 252: 109652-109652](#).
- Haag, F., Lienert, J., Schuwirth, N., Reichert, P. [OMEGA Best Paper Award 2019](#): Identifying non-additive multi-attribute value functions based on uncertain indifference statements. [OMEGA 85: 49-67](#).
- Marttunen, M., Lienert, J., Belton, V. [EURO Award for Best EJOR Paper 2019](#). Structuring Problems for Multi-Criteria Decision Analysis in practice: A literature review of method combinations. [EJOR 263: 1-17](#).
- Larsen, T.A., Lienert J. [Swiss academies award for transdisciplinary research 2008](#), td-net and Stiftung Mercator Schweiz, given to the project [Novaquatis](#).
- Lienert, J. [Semester Award](#) 1998 University of Zürich for Semester Thesis "Plant populations in fragmented habitats"

Scientific boards, committees, reviewing activities

- 2017–current: Member management board of [EURO working group on Behavioral OR](#)
- 2012–current: Member editorial board of [EURO Journal on Decision Processes](#)
- 2001–current: Reviewer for various journals, including: Ecological Indicators, Environmental Reviews, Environmental Science & Technology, EURO Journal on Decision Processes, European Journal of Operational Research, Journal of Environmental Management, Journal of Multi-Criteria Decision Analysis, Operation Research Perspectives, Risk Analysis, Urban Water Journal, Plos One, Water Policy, Water Research
- 2021–2023: Core jury member for the [EURO Award for the Best EJOR Paper](#) (EABEP)
- 2016–2023: Member advisory board Swiss Academic Society for Environmental Research and Ecology ([SAGUF](#))
- 2018–2019: Lienert, J., Linkov, I. Guest Editors of [Feature Issue on Environmental Decisions](#). EJDP 7(3-4): 151-386.
- 2015–2017: Member [working group “Einzugsgebietsmanagement”](#) (integrated catchment management) Wasser-Agenda 21

Active memberships in scientific societies

[EURO](#) (Assoc. Europ. Operational Res. Societies), [GOR](#) (Gesellsch. Operations Res.), [INFORMS](#) (Inst. for Operations Res. and Managem. Sciences), [MCDM](#) (Intern. Soc. on Multiple Criteria Decision Making), [SVOR](#) (Swiss Operations Res. Soc.)

Teaching

- 2011–current: Multi-Criteria Decision Analysis, ETH Zürich, Dept. Environm. Sciences, yearly (SS) 701-1522-00L
- 2014–current: Introduction to MCDA in: Advanced Environmental, Social and Economic Assessments, ETH Zürich, Dept. Civil, Environmental & Geomatic Engineering, Chair Ecological Systems Design, yearly (AS) 102-0317-00L

Current research projects (funding in brackets)

- 2024–current: Postdoc project on MCDA in project [BETTER](#) – Blending design and decision-making for multi-functional blue-green infrastructure (Swiss National Science Foundation, funding to Dr. Lauren Cook)
- 2023–current: PhD project; Understanding [uncertainty](#) and risk communication in environmental decisions (Eawag internal)
- 2021–current: TRAPEGO: Transformation in [pesticide governance](#) (Swiss National Science Foundation, [Sinergia](#))

Main completed research projects (funding in brackets)

- 2021–2023: MOVE-NBS: Evaluation of tools strategic planning of [blue-green infrastructure](#) (EC [Marie Skl.-Curie Action](#))
- 2018–2023: EDANAGA: Environmental decision analysis with [games](#) (Swiss Nat. Science Foundation, [Ambizione](#))
- 2018–2021: FANFAR: Operational [flood forecasting and alerts in West Africa](#) ([EU Horizon 2020](#) Research & Innovation)
- 2018–2020: [Fairness](#) in the planning of new wastewater infrastructures (Eawag internal)
- 2016–2020: Decision-making for [wastewater infrastructure transitions](#) ([Environmental Agency canton Solothurn](#))
- 2015–2019: [Value-focused planning](#) of wastewater infrastructures (Eawag discretionary funds)
- 2015–2017: [Serious games](#) as an element of Multi-Criteria Decision Analysis ([Eawag postdoctoral fellowship](#))
- 2015–2017: Improving [problem structuring](#) in Multi-Criteria Decision Analysis (Eawag internal)
- 2010–2014: SWIP: Sustainable [water infrastructure](#) planning (Nat. Res. Progr. NRP 61, [Sustainable water management](#))
- 2010–2011: Valuing adaptation to [climate change risks](#) in the water sector ([Federal Office for the Environment](#), FOEN)
- 2008–2010: How to handle [hospital wastewater](#) (Eawag discretionary funds)
- 2007–2014: A decision analysis approach to [river rehabilitation](#) (Eawag internal)
- 2001–2007: [Novaquatis](#) – A transdisciplinary research project about urine source separation as a new element in wastewater management (cross-cutting Eawag research project and many third party funds)

Supervision summary

8 postdocs, 6 PhD students (2 awards for PhD-publications F. Haag 2019/2020, Otto Jaag water protection price 2014 for PhD Lisa Scholten), 11 scientific assistants (master degree), 2 master thesis supervisions, 6 semester thesis/internships

Major scientific achievements and outreach

- Around 70 peer-reviewed papers in recognized scientific journals, some highly cited / several academic awards
- Co-editor of book: Larsen, T.A., Udert, K.M., Lienert, J. (eds.) (2013) Source Separation and Decentralization for Wastewater Management. IWA publishing, London, UK. ISBN 9781843393481, <https://doi.org/10.2166/9781780401072>
- Project PI or work package PI in 16 research projects; third party funding includes SNSF, EU Horizon 2020, FOEN
- Mentored around 33 scientific collaborators, including 8 postdocs, 6 PhD students (2 receiving awards of excellence)
- Many international conference presentations/session chair, invited talks (keynote speaker [EURO 2021](#), [ADA 2024](#), organizer EURO Working Group Behavioral OR ([EWG-BOR meeting 2018](#)); lecturer EWG-BOR [summer school 2024](#))
- Stakeholder participation in inter-/transdisciplinary projects, [Swiss academies award for transdisciplinary research 2008](#)
- Real-world outreach includes many publications in expert journals/reports for agencies, organizer of many Swiss and international stakeholder workshops, interviews (newspaper, TV), and videos (see full publication list and [homepage](#))