

BIOGRAPHICAL NOTES

Name: Stefanie Hellweg	Country: Switzerland
Candidate for which position? Secretary	ISIE member since: 2010
PLEASE GIVE YOUR REASONS FOR RUNNING FOR THIS POSITION (150 WORD LIMIT)	
Contribute more to the work of ISIE.	
DESCRIBE YOUR CURRENT PROFESSIONAL AND/OR ACADEMIC ACTIVITIES (100 WORD LIMIT)	
<p>Full Professor for Ecological Systems Design and Director of the <i>Institute of Environmental Engineering</i>, ETH Zurich (www.ifu.ethz.ch); currently supervisor of 10 Ph.D. students and 4 PostDocs; Responsible for the Major "Ecological Systems Design and Waste Management" within the Master Program of the Environmental Engineering Curriculum at ETH Zurich</p>	
LIST PREVIOUS PROFESSIONAL AND/OR ACADEMIC POSITIONS (100 WORD LIMIT)	
<p>Summer 2013: Visiting Fellow at Yale School of Forestry and Environmental Studies</p> <p>2006-2010: Associate Professor for Ecological Systems Design, <i>Institute of Environmental Engineering</i>, ETH Zurich (www.ifu.ethz.ch)</p> <p>2003-2005: Senior Research Associate at <i>Institute for Chemical- and Bioengineering</i> at ETH Zürich; within the Safety and Environmental Technology Group of Prof. Konrad Hungerbühler leader of the research group "Analysis of Chemical Life Cycles"</p> <p>2004-2005: Visiting Scientist at <i>Indoor Environment Department</i> at <i>Lawrence Berkeley National Laboratory / School of Public Health</i> at UC Berkeley, US (SNF Grant)</p> <p>2000-2001: PostDoc at <i>Laboratorium für Technische Chemie</i> at ETH Zürich</p> <p>1996: Consultant in the <i>Environmental Health and Safety Practice</i> of Arthur D. Little International, Inc. in Wiesbaden (D)</p>	
EDUCATION	
<p>1997-2001: Ph.D. studies at <i>Laboratorium für Technische Chemie</i> at ETH Zürich in Switzerland</p> <p>1990-1996: Industrial engineering studies at <i>Karlsruhe University</i> in Germany (diploma)</p> <p>1993-1994: Erasmus-exchange year at <i>Universidad de Sevilla</i> and <i>Escuela de Negocios de Andalucía</i> in Spain</p>	
PUBLICATIONS	
<ol style="list-style-type: none"> 1. Hellweg S, Mila i Canals L, Emerging approaches, challenges and opportunities in life cycle assessment, <i>Science</i> 344 (6188), 1109-1113, June 2014 2. Chaudhary, A, Hellweg, S, Including Indoor Offgassed Emissions in the Life Cycle Inventories of Wood Products, accepted by Environmental Science and Technology 3. Stamp A, Wäger PA, Hellweg S, Linking energy scenarios with metal demand modeling - the case of indium in CIGS solar cells, accepted by Resources, Conservation & Recycling 4. Rørbech J, Vadenbo C, Hellweg S, Astrup T: Impact assessment of abiotic resources in LCA: Quantitative comparison of selected characterization models, <i>Environmental Science & Technology</i>, dx.doi.org/10.1021/es5023976, 2014 5. Raptis CE, Jurasko R, Hellweg S, Investigating the relationship between toxicity and organic sum-parameters in kraft mill effluents, <i>Water Research</i> 66, 180-189, 2014 6. Vadenbo C, Hellweg S, Guillén-Gosálbez G, Multi-objective optimization of waste treatment and resource use in industrial networks – Part I Model description, <i>Resources, Conservation and Recycling</i> 89, 52-63, 2014 7. Vadenbo C, Guillén-Gosálbez G, Saner D, Hellweg S, Multi-objective optimization of waste treatment and resource use in industrial networks – Part II Case study: Environmental optimization of thermal treatment of sewage sludge in a Swiss region, <i>Resources, Conservation and Recycling</i> 89, 41-51, 2014 8. Saner D, Vadenbo C, Steubing B, Hellweg S, Regionalized LCA-based optimization of building energy supply: method and case study for a Swiss municipality", <i>Environmental Science and Technology</i> 48, 7651-7659, 2014 9. Schwab O, Bayer P, Jurasko R, Verones F, Hellweg S, Beyond the material grave: Life Cycle Impact Assessment of leaching from secondary materials in road and earth constructions, <i>Waste Management</i> 34 (10), 1884-1896, 2014 10. Boesch ME, Vadenbo C, Saner D, Huter C, Hellweg S, An LCA Model for Waste Incineration enhanced with New Technologies for Metal Recovery and Application to the Case of Switzerland, <i>Waste Management</i> 34 (2), 378-389, 2014 11. Tendall, Danielle; Hellweg, Stefanie; Pfister, Stephan; Huijbregts, Mark; Gaillard, Gérard, Impacts of River Water Consumption on Aquatic Biodiversity in Life Cycle Assessment – a proposed method, and a case study for Europe, 	

- Environmental Science & Technology 48 (6), 3236–3244, 2014
12. Walser T, Juraske R, Demou E, Hellweg S, Indoor Exposure to Toluene from Printed Matter Matters: Complementary Views from Life Cycle Assessment and Risk Assessment, Environmental Science and Technology 48 (1), 689–697, 2014
 13. Fries N, Hellweg S, LCA of Land-Based Freight Transportation: Facilitating Practical Application and Including Accidents in LCIA The International Journal of Life Cycle Assessment, International Journal of LCA 19, 546–557, 2014
 14. Caduff M, Köhler A, Huijbregts MAJ, Althaus HJ, Hellweg S, Scaling Relationships in Life Cycle Assessment: The Case of Heat Production from Biomass and Heat Pumps, Journal of Industrial Ecology 18 (3), 393–406, 2014
 15. Curran M, Hellweg S, Beck J, Is there any empirical support for biodiversity offset policy?, Ecological Applications 24 (4), 617–632, 2014
 16. Sanjuán N, Stössel F, Hellweg S, Closing data gaps for LCA of food products: estimating the energy demand of food processing, Environmental Science and Technology 48 (2), 1132–1140, 2013
 17. Verones F, Saner S, Pfister S, Baisero D, Rondinini C, Hellweg S Effects of consumptive water use on biodiversity in wetlands of international importance, Environmental Science and Technology 47 (21), 12248–12257, 2013
 18. Verones F, Pfister F, Hellweg S, Quantifying area changes of internationally important wetlands due to water consumption in LCA, Environmental Science and Technology, 47 (17), 9799–9807, 2013
 19. de Baan L, Mutel CL, Curran M, Hellweg S, Köllner T, Land Use in Life Cycle Assessment: Global Characterization Factors Based on Regional and Global Potential Species Extinction, Environmental Science and Technology, 47 (16), 9281–9290
 20. Mutel CL, de Baan L, Hellweg, S, Two-step sensitivity testing of parameterized and regionalized life cycle assessments: methodology and case study, *Environ. Sci. Technol.*, DOI: 10.1021/es3050949, 2013
 21. Burger Chakraborty L, Qureshi A, Vadenbo C, Hellweg S, Anthropogenic mercury flows in India and impacts of emission controls, Environmental Science and Technology, 2013.
 22. Saner D, Heeren N, Jäggi B, Waraich BA, Hellweg S, Housing and Mobility Demands of Individual Households and their Life Cycle Assessment, Environmental Science and Technology 47 (11), 5988–5997, 2013
 23. Amores MJ, Verones F, Raptis C, Juraske R, Pfister S, Stoessel F, Antón A, Castells F, Hellweg S, Biodiversity impacts from salinity increase in a coastal wetland, Environmental science and Technology, 2013
 24. Nuñez M, Pfister S, Antón A, Muñoz, Pere, Hellweg S; KoehlerA, Rieradevall J, Assessing the Environmental Impact of Water Consumption by Energy Crops Grown in Spain, Journal of Industrial Ecology, in press
 25. Vadenbo C, Boesch M, Hellweg S, LCA model for of the use of alternative resources in ironmaking, Journal of Industrial Ecology 17 (3), 363–374, 2013
 26. Beretta C, Stössel F, Baier U, Hellweg S, Quantifying food losses and the potential for reduction in Switzerland, Waste Management 33 (3), 2013, 764–773, 2012
 27. Walser T, Limbach LK, Brogioli R, Erismann E, Flamigni L, Hattendorf B, Juchli M, Krumeich F, Ludwig C, Prikopsky K, Rossier M, Saner D, Sigg A, Hellweg S, Günther D, Stark WJ, Persistence of engineered nanoparticles in a municipal solid waste incineration plant, Nature Nanotechnology 7, 520–524, 2012
 28. Bartl K, Verones F, Hellweg S, Life Cycle Assessment based evaluation of regional impacts from agricultural production at the Peruvian coast, Environmental Science and Technology 46, 9872–9880, 2012
 29. Caduff M, Huijbregts MAJ, Althaus HJ, Köhler A, Hellweg S, Wind Power Electricity: the bigger the turbine, the greener the electricity?, Environmental Science and Technology 46, 4725–4733, 2012
 30. Verones F, Bartl K, Pfister S, Jiménez Vilchez R, Hellweg S, Modeling the local biodiversity impacts of agricultural water use: case study of a wetland in the coastal arid area of Peru, Environmental Science and Technology, 46, 4966–4974, 2012
 31. Wernet G, Hellweg S, Hungerbühler K, A tiered approach to estimate inventory data and impacts of chemical products and mixtures, International Journal of LCA 17, 720–728, 2012
 32. Stoessel F, Juraske R, Pfister S; Hellweg S, Life Cycle Inventory and Carbon and Water FoodPrint of Fruits and Vegetables: Application to a Swiss Retailer, Environmental Science&Technology 46, 3252–3262, 2012
 33. Mutel CL, Pfister S, Hellweg S, GIS-based Regionalized Life Cycle Assessment: How big is small enough? Methodology and case study of electricity generation, Environmental Science&Technology 46(2), 1096–1103, 2012
 34. Walser T, Hellweg S, Juraske R, Luechinger NA, Wang J, Fierz M, Exposure to engineered nanoparticles: Model and measurements for accident situations in laboratories, Science of the Total Environment 2012, 420, 119–126
 35. Chiu, Y-W; Suh, S; Pfister, S; Hellweg, S; Köhler, A; Measuring ecological impact of water consumption by bioethanol using life cycle impact assessment, International Journal of Life Cycle Assessment 17, 16–24, 2012
 36. Pfister S, Bayer P, Koehler A, Hellweg S, Projected water consumption and land use in future global agriculture: Scenarios and related impacts, Science of the Total Environment 409 (20), 4206–4216, 2011
 37. Demou E, Hellweg S, Hungerbühler K, An occupational chemical priority list for future life cycle assessments, Journal of Cleaner Production 19, 1339–1346, 2011
 38. Pfister S, Bayer P, Koehler A, Hellweg S, Environmental Impacts of Water Use in Global Crop Production: Hotspots and Trade-Offs with Land Use, Environmental Science&Technology, 45 (13), 5761–5768, 2011
 39. Wernet G, Mutel, C, Hellweg S, Hungerbühler K, The environmental importance of energy use in chemical production, Journal of Industrial Ecology 15, 96–107, 2011
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 43. Bösch M, Hellweg S, Identifying improvement potentials in cement production with life cycle assessment,

Environmental Science and Technology 44 (23), 9143-9149, 2010

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45. Saner D, Jurasko R, Kübert M, Blum P, Hellweg S and Bayer P, Is it only CO₂ that matters? A life cycle perspective on shallow geothermal systems, Renewable and Sustainable Energy Reviews 14, 1798-1813, 2010
46. Huijbregts MAJ, Hellweg S, Frischknecht R, Hendriks HWM, Hungerbühler K, Hendriks AJ, Cumulative energy demand as predictor for the environmental burden of commodity production, Environmental Science and Technology 44, 2189-2196, 2010
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53. Demou E, Hellweg S, Wilson MP, Hammond SK, McKone TE, Evaluating indoor exposure modeling alternatives for LCA: A case study in the vehicle repair industry, Environmental Science and Technology 43 (15), 5804-5810, 2009
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55. Pfister S, Köhler A, Hellweg S, Assessing the environmental impacts of freshwater consumption in LCA, Environmental Science and Technology, 43, 4098 - 4104, 2009 (illustrated in a news story: <http://pubs.acs.org/doi/full/10.1021/es901078v>)
56. Hellweg S, Demou E, Bruzzi R, Meijer A, Rosenbaum RK, Huijbregts MAJ, McKone TE, Integrating Human Indoor Air Pollutant Exposure within Life Cycle Impact Assessment, Environmental Science and Technology, 43, 1670-1679, 2009
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58. Goymann M, Wittenwiler M, Hellweg S: Environmental Decision Support for the Construction of a "Green" Mountain Hut, Environmental Science and Technology 42 (11), 4060-4067, 2008
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(1), 3-9, 2005

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83. Hellweg S, Hofstetter TB, Hungerbühler K, Modeling Waste Incineration for Life Cycle Inventory Analysis in Switzerland, Environmental Modeling and Assessment, 6 (4), 219-235, 2001

PROFESSIONAL ASSOCIATIONS (I.E. BOARD MEMBERSHIPS, PROFESSIONAL SOCIETIES, ETC)

Since 2011: Member of the Swiss National Research Council (SNF)

Since 2003: Member of the Ecoinvent steering board (www.ecoinvent.ch); ecoinvent is one of the biggest process-based Life Cycle Inventory database worldwide; since 2013 president of the board of the ecoinvent association

Since 2010: Associate Editor of Journal of Industrial Ecology Associate Editor of Journal of Industrial Ecology