Curriulum Vitae 2022 – Peter Fantke

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Degrees

2012	PhD in Technology Assessment & Environment, Stuttgart University, DE
2005	MSc in Geoecology, Potsdam University, DE

Positions

2021 –	Head of Section, Section for Quantitative Sustainability Assessment (QSA), Department of
	Environmental and Resource Engineering, Technical University of Denmark (DTU Sustain)
2021 –	Professor, QSA, DTU Management Engineering/DTU Sustain
2016 – 2021	Associate professor, QSA, DTU Management Engineering
2014 – 2016	Assistant professor, QSA, DTU Management Engineering
2012 –	Managing Director, USEtox International Center hosted at DTU
2012 – 2014	Postdoc, QSA, DTU Management Engineering

Research Areas

Development and application of quantitative methodologies for: Life cycle impact assessment (LCIA); Exposure assessment; Air pollution modelling; Chemical alternatives assessment & chemical substitution; Absolute environmental sustainability assessment for chemical pollution; Bridging digitalization with sustainable chemistry

Distinctions and awards

2020	International Society of Exposure Science "Joan M. Daisey Outstanding Young Scientist" award
2014	European Commission "Support for training & career development of researcher" Marie Curie
	Actions Career Integration Grant (CIG)
2013 – 2020	United Nations Environment Programme academic support grants
2009	German Research Foundation exchange researcher fellowship

Memberships of scientific committees, review

2021 –	Member of the OECD 'Working Party on Risk Management'
2016 —	Founding member of scientific societies 'Association for the Advancement of Alternatives
	Assessment' and 'Europe Regional Chapter of the International Society of Exposure Science'
2016 – 2020	Co-chair and evaluator of research projects and programmes for the European Research Council,
	Norwegian Research Council, Singapore Research Council
2014 —	Associate Editor/Advisory Board Member of scientific journals 'Journal of Exposure Science and
	Environmental Epidemiology' and 'Sustainable Chemistry and Pharmacy'
2014 —	Member of PhD review committees at universities in Denmark, Sweden, Germany, and Canada
2014 —	Member of 'Life Sciences Institute Sustainable Chemical Alternatives Committee'
2013 —	Co-chair and task force chair of flagship project of the 3rd phase of the UNEP/SETAC Life Cycle
	Initiative 'Global Guidance on Life Cycle Impact Assessment (LCIA) Indicators'
2013 – 2018	Initiator and chair of global 'Consensus for pesticide emission quantification' effort

Web of Science publications: 137; Citations: 3350; *h*-index: 33; Other publications: 20

Supervision of PhDs, 2017 - present

Main supervisor for 6 PhD and co-supervisor for 9 PhD

Selected grants, 2017 – present

EU HE, "Partnership on Risk Assessment", Amount granted to Dept.: 1,723,760 DKK, Project period: 2022-2029

EU H2020, "MINAGRIS Plastics & soil health", Amount granted to Dept: 2,422,180 DKK, Project period: 2021-2026

EU H2020, "Sustainable pesticide use", Amount granted to Dept: 4,346,550 DKK, Project period: 2020-2025

Swedish Foundation for Strategic Environmental Research, "SafeChem Sustainable use of chemicals", Amount granted to Dept: 1,358,500 DKK, Project period: 2020-2024

EU H2020, "Prorisk Ecotoxicity Assessment", Amount granted to Dept: 2,210,590 DKK, Project period: 2020-2024 Bayer CropScience "Global pesticide impacts", Amount granted to Dept: 1,812,920 DKK, Project period: 2020-2023 EU H2020, "Food-nutrition-security cloud", Amount granted to Dept: 1,173,940 DKK, Project period: 2019-2023

UNEP, "SAICM Chemicals in products", Amount granted to Dept: 1,976,380 DKK, Project period: 2019-2022

Other significant contributions

2021 –	Appointed member of the Novo Nordisk 'Sustainability Advisory Council'
2020 —	Leading the development of quantitative methodologies for assessing absolute environmental
	sustainabilty boundaries for chemical pollution
2019	Chapter lead author for "United Nations Environment Programme: Global Chemicals Outlook II
2017 – 2021	Councillor 'European strategy' of the International Society of Exposure Science (ISES) Europe
2014 —	Leading advancements in exposure science methodologies for pesticides and industrial chemicals
2012 –	Coordination and contribution to the scientific advancement of USEtox, the UNEP/SETAC
	scientific consensus model for human toxicity and ecotoxicity characterization

Selected publications

Fantke, P., Bruinen de Bruin, Y., Schlüter, U., Connolly, A., Bessems, J., Kephalopoulos, S., et al., 2022. The European Exposure Science Strategy 2020–2030. Envion Int 170, 107555.

Kosnik, M.B., Hauschild, M., **Fantke, P.**, 2022. Toward assessing absolute environmental sustainability of chemical pollution. Environ Sci Technol 56, 4776-4787

Fantke, P., Chiu, W.A., Aylward, L., Judson, R., Huang, L., Jang, S., et al., 2021. Exposure and toxicity characterization of chemical emissions and chemicals in products. Int J Life Cycle Assess 26, 899-915

Fantke, P., Cinquemani, C., Yaseneva, P., De Mello, J., Schwabe, H., Ebeling, B., Lapkin, A.A., 2021. Transition to sustainable chemistry through digitalisation. Chem 7, 2866-2882

Fantke, P., Huang, L., Overcash, M., Griffing, E., Jolliet, O. 2020. Life cycle based alternatives assessment (LCAA) for chemical substitution. Green Chem 22, 6008-6024

Ögmundarson, Ó., Herrgård, M.J., Förster, J., Hauschild, M.Z., **Fantke, P.**, 2020. Addressing environmental sustainability of biochemicals. Nat Sustain 3, 167-174

Fantke, P., N. Illner. 2019. Goods that are good enough: Introducing an absolute sustainability perspective for managing chemicals in consumer products. CurrOpin Green Sustain Chem 15, 91-97

Fantke, P., McKone, T.E., Tainio, M., Jolliet, O., Apte, J.S., Stylianou, et al., 2019. Global effect factors for exposure to fine particulate matter. Environ Sci Technol 53, 6855-6868

Kirchhübel, N., **Fantke**, **P.**, 2019. Getting the chemicals right: Toward characterizing toxicity and ecotoxicity impacts of inorganic substances. J Cleaner Prod 227, 554-565

Fantke, P., Jolliet, O., Apte, J.S., Hodas, N., Evans, J., et al., 2017. Characterizing aggregated exposure to primary PM: Recommended intake fractions for indoor and outdoor sources. Environ Sci Technol 51, 9089-9100